TRAFFIX
TRAFFIC AND TRANSPORT PLANNERS

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Reference: 24.014r04v04

16 April 2025

Isaac Property Terrey Hills Pty Ltd
Suite 1.04
3 Thomas Holt Drive
Macqurie Park NSW 2113
Australia

Attention: Mr Ben Isaac, Director

Re: 40 Myoora Road, Terrey Hills
Council's Development Application No. DA2024/1362 (CNR-74738)
TfNSW Reference: SYD24/01792/03

Response to Request for Information

Dear Ben,

We refer to the subject development application in relation to the proposed restaurant located at 40 Myoora Road, Terrey Hills. TRAFFIX has been forwarded further comments from Transport for New South Wales (TfNSW) dated 5th May 2025) and comments from Northen Beaches Council dated Friday 9th May 2025 provided in **Attachment 1.**

This document should be read with reference to the following documentation prepared by TRAFFIX which accompanied the Development Application:

- Original Traffic Impact Assessment Report (TRAFFIX reference: 24.014r01v02 dated September 2024).
- Updated Traffic Impact Assessment Report (TRAFFIX reference: 24.014r01v04 dated April 2025).
- Letter to Transport for New South Wales dated 8th April 2025.

TRAFFIX has reviewed all relevant comments and has responded to each relevant comment as summarised below.

Responses to *Transport for New South Wales (TAB A - TfNSW Comments)*

1. Input Data

- ***a) The input data is based on the 1981 study into restaurants, and some of the key variables used includes:***

  i. The traffic generation used is 5 movements per 100m².

ii. Average people per car estimated is 3. This is only slightly higher than the 1981 restaurant study of 2.84, however, in this instance there is little public transport.

iii. The traffic generation rate relied upon is from this 1981 restaurant study

https://www.transport.nsw.gov.au/system/files/media/documents/2024/restaurants-1981-data-and-analysisreport.pdf

- *iv. The data from that report shows that a traffic generation rate of 70 on a Saturday is significantly lower than the peak generation of the restaurant. Using the lowest rate based on GFA, a generation of 160 per hour is more likely. Based on seating and 85% occupancy, around 197 is likely.*
- *v. A rate of 70 vehicles per hour, 35 in/35 out, assumes that people will stay for 4.8 hours. 168 cars x 3 = 505 seats (85% occupancy). If all vehicles stayed for 2 hours, the generation would be 168 per hour. At 70, this equates to 41.6% of that value. There is no detail as to how long patrons are likely to stay for.*
- *vi. In response to "Vehicle trip rates are based on Transport for New South Wales Guidelines (5 vehicle trips per 100m2 of restaurant GFA) and are not based on parking provisions", the NSW trip generate rates for a restaurant as documented in Table 5.50 of the Guide to Transport Impact Assessment, 2024 (GTIA) are for the "Evening Peak Hour". They were surveyed on a weekday evening peak hour and were not surveyed during the Saturday midday peak hour. Further, the GTIA does not provide rates for a Saturday midday peak hour. Based on this, it is considered that they are not a reasonable representation of the likely generation of the proposed development during the Saturday midday peak hour, and a comparison with a similar site or a first-principle assessment should be undertaken propose suitable traffic mitigation measures to reduce delays and improve road safety at this intersection.*

TRAFFIX Response:

1. Firstly, the Guideline rate adopts 5 trips/100m^2 as the peak generation over a one-hour period. When applied to the 1,399m^2 GFA, this results in a total of 70 trips in this one-hour peak period.

2. This rate cannot be assumed to occur every hour over the (generally) 5-hour period of the TfNSW surveys that underpin the research. However, even if this were to be assumed, the development would generate 70x5= 350 trips over this 5-hour period. This 5-hour period represents only 21% of an entire day (5/24). The daily trip generation of a restaurant based on TfNSW Guidelines is 60 trips/100m^2 which results in a total of 840 daily trips (i.e. over a 24-hour period) being 420 in, 420 out. That is, the peak one- hour trips adopted (70) equates to 8.3% of the total daily trips. Even if this rate was assumed to occur each hour over the 5-hour survey period as per the TfNSW research, it would result in 350 trips over this period, which represents 42% of the daily traffic. This demonstrates the nature of the peak as it applies this land use category.

3. In summary, the traffic generating profile (vehicle trips) over a typical weekend-day is expected to be as follows:

	TIME PERIOD							
	Prior to 10am	10-11	11-12	12-1	1-2	2-3	3pm - midnight	
	VEHICLE TRIPS/HR							**TOTAL TRIPS**
	10 (say staff/hr)	70 (35in, 35 out)	70 (35in, 35 out)	70 (35in, 35 out)	70 (35in, 35 out)	70 (35in, 35 out)	480 (35in, 35 out)	(420in, 420 out)
	Approx 5/hr						Approx 50/hr	
Total Trips	**10**	**70***	**70***	**70***	**70***	**70***	**480**	**840**

**It is acknowledged that only one hour will incur 70 daily trips, however the five- hour period recognised the fact that all hours in this peak will be close to the 70 vehicle trips per hour peak.*

4. It is considered that adoption of the TfNSW Guideline rates results in a realistic and reasonable generation profile for the development.

5. The above analysis is essentially independent of the level of parking provision. However, we note that the provision as proposed is entirely consistent with both the TfNSW Guideline rate of 15 spaces/100m^2, as well as Council's rate as also adopted from TfNSW Guidelines. It is considered that the adoption of trip rates as well as parking rates that are embodied in the TfNSW research and Guideline is valid and reflects the most rigorous assessment available. That is, it is considered appropriate to adopt both the trip rates and parking rates, to maintain any relationship that these variables may embody. This provides consistency and is appropriate.

6. Notwithstanding this, the trip rates and parking 'dwell time' comparison referenced in point v is considered flawed. In this regard, the level of parking provision (15 spaces/100m^2) could theoretically be compared to the trip rate of 5 trips/100m^2, to derive a trip rate of 0.33 (5/15) trips per parking space. This rate however has no utility. Moreover, the inherent 'dwell time' based on TfNSW Guidelines is of no particular relevance and this was not asked or answered in the TfNSW research. It is likely however that an average dwell time of 2 hours is a reasonable assumption, though this has no bearing on either the derived trip rate or parking rate. That is, all patrons staying for any length of time could theoretically give rise to the same generation of 70 veh/hr during anu single hour.

7. Conversely, the statement in the TfNSW letter that the analysis assumes a dwell time of 4.8 hours is a fundamentally irrelevant calculation with no significance. It has been derived from the incorrect assumptions that the 505 seats (85% of capacity) will give rise to 168 parked cars (505/3.0 persons per car); and that these 168 cars will ALL arrive (168 trips) and depart (168 trips) over a 2-hour period (resulting in 168 veh/hr). This bears no relationship to the daily and expected hourly distribution pattern as presented above and is irreconcilable with the TfNSW Guidelines, which do not in fact permit any assessment of even average dwell times. Indeed, the surveyed research underpinning the TfNSW Guideline did not seek to answer this question, which can only be determined from interviews or number plate surveys.

8. The assessment has indeed assumed that the TfNSW Guideline rate for weekdays is also applicable on weekend-days. This is a necessary assumption in the absence of further TfNSW research. In addition, surveys of comparable sites are only possible with owners' consent and whilst efforts have been made in this regard, no consent has been able to be made. Nevertheless, the 840 trips/day as inherently assumed (with 420 patrons excluding 20 staff trips), is considered to be an appropriate patronage level for design (and assessment) purposes.

9. It is noted that the peak trip rate for a restaurant occurs when a restaurant is operating at its busiest, whether that peak occurs on a weekday or on a weekend and is considered relevant.

Based on the above, our impact assessment report is considered to remain valid, as are the conclusions reached. In particular, this includes the practical consideration that patrons will divert to intersections where lower delays are experienced, especially those with existing traffic signal control.

2. SIDRA File

a) It appears that the through movement from Aumuna Road to the waiting bay is not giving way to the right turn volume southbound on Mona Vale Road right into Aumuna Road. The priorities in the SIDRA modelling only give way to the through movement and that has a total volume of 11 on the weekday and 3 on the Saturday. However, the volume is 28 on a weekday and 46 on a Saturday. It appears that the Applicant has not tested the right turn volume for vehicles turning into Aumuna and its impact on vehicles exiting Aumuna.

TRAFFIX Response:

1. Reference should be made to the extract in **Figure 1** below from the priority site input function in SIDRA for all scenarios showing the through movement from Aumuna Road to the waiting bay (red arrow) giving way to the right turn movement from Mona Vale Road southbound onto Aumuna Road, westbound (opposing green through arrow).

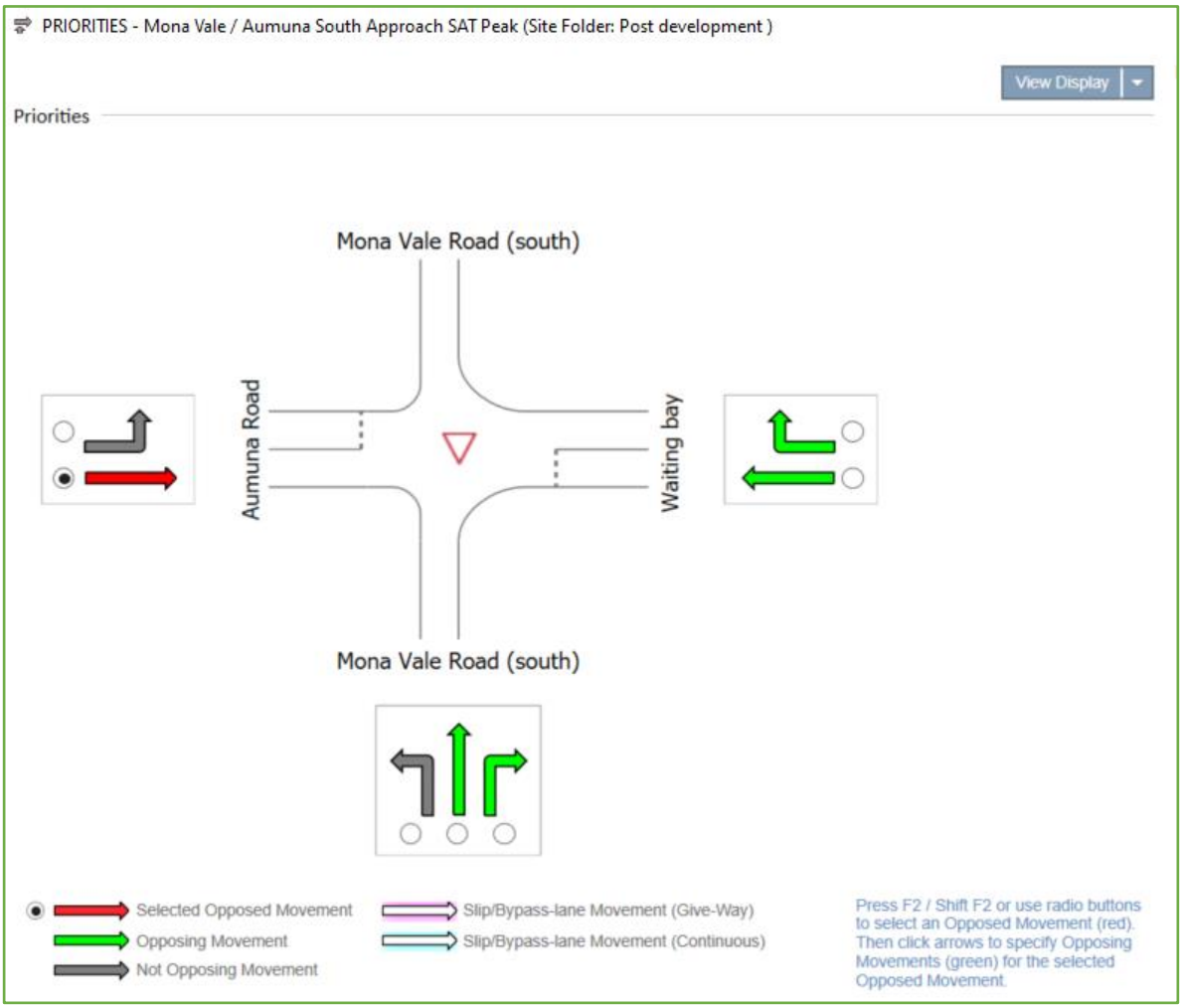


Figure 1: Intersection Priorities

2. Notwithstanding, it does appear that vehicle movements were not linked between the right turn movement from Mona Vale Road, southbound to the through-movement from the waiting bay to Aumuna Road, westbound. This has been carried over from the original model, notwithstanding multiple revisions and reviews that have been made to the model since. The model has been revised accordingly, and a summary of the updated SIDRA results is provided in **Table 1** below. Reference should also be made to the updated SIDRA modelling results presented in **Attachment 2.**

Table 1: Intersection performance (Existing + Development Scenarios with No Upgrades)

Intersection	Control Type	Scenario	Period	Degree of Saturation (DoS)	Average Delay	Level of Service
Mona Vale Road and Aumuna Road (south approach)	Give way	Existing	PM	0.398	37.9	C
			SAT	0.860	281.5	F
		Existing + Development	PM	0.398	38.0	C
			SAT	0.988	322.9	F
Mona Vale Road and Kamber Road (north approach)	Give way	Existing	PM	0.325	21.7	B
			SAT	0.379	60.2	E
		Existing + Development	PM	0.325	22.1	B
			SAT	0.381	61.4	E
Aumuna Road and Myoora Road	Roundabout	Existing	PM	0.204	8.8	A
			SAT	0.226	8.7	A
		Existing + Development	PM	0.224	8.8	A
			SAT	0.246	8.8	A

3. It can be seen in **Table 1** above that the staged intersection of Mona Vale Road and Aumuna Road (south approach) continues to perform at Level of Service F and with an average delay of 281.5 seconds during the critical Saturday lunchtime peak under the existing scenario and an average delay of 322.9 seconds during the Saturday lunchtime peak under the proposed scenario, an increase of 41.4 seconds. These delays are caused by the movement from Kamber Road westbound onto Mona Vale Road, northbound.

4. The individual through-movement from Aumuna Road to the central waiting bay at the intersection of Mona Vale Road / Aumuna Road has changed to a Level of Service D and an average delay of 56.0 seconds (existing scenario) and to a level of Service E and an average delay of 60.5 seconds (proposed scenario), an increase 4.5 seconds. This is considered minor with minimal impacts to the operation of this intersection, generally.

5. Notwithstanding, it is acknowledged that overall intersection delays are significant under both existing and development scenarios. The following remedial measure has been considered in response, subject to agreement with TfNSW:

Remedial Measure: Banning of Right-Turn and Through Movements from Aumuna Road and Kamber Road onto Mona Vale Road

6. An option which improves the performance of the intersection of Mona Vale Road / Aumuna Road / Kamber Road in relation to the existing and proposed scenarios involves the banning of right turn and through movements from Aumuna Road and Kamber Road onto Mona Vale Road in both directions. Reference should be made to the Concept Plan of the revised intersection layout presented in **Attachment 3** and to the proposed intersection layout shown in **Figure 2** below:

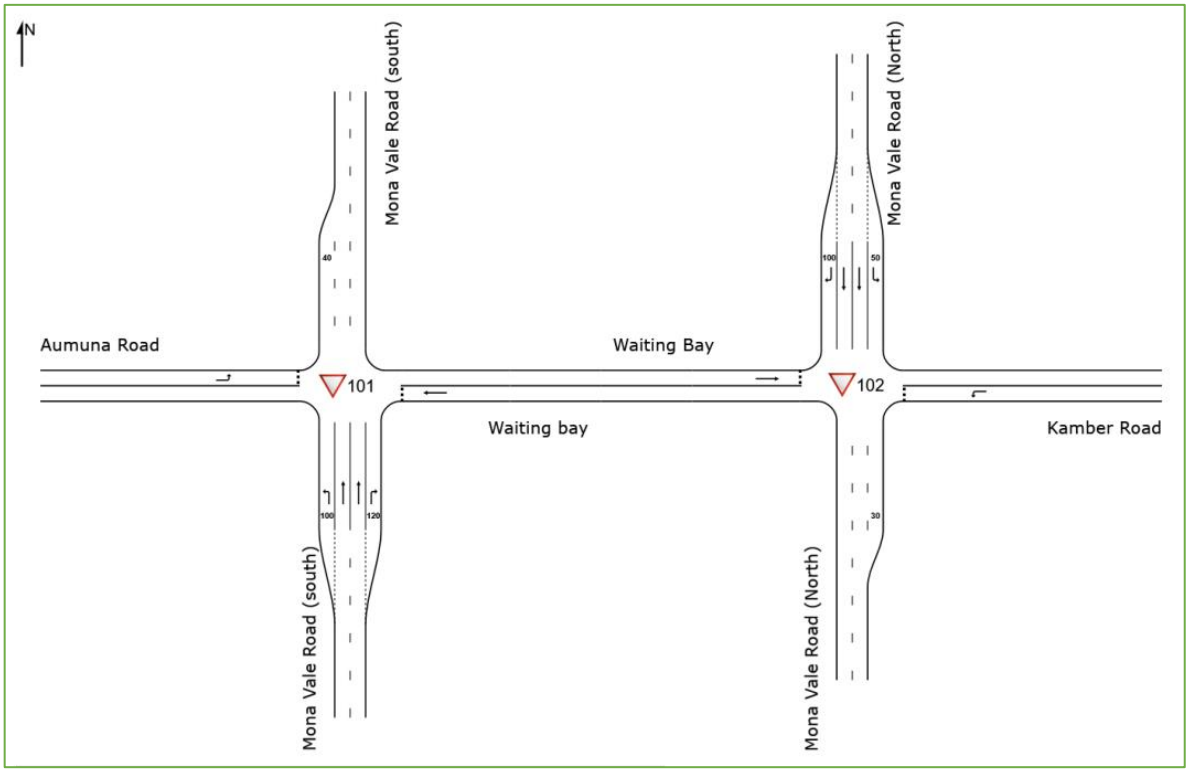


Figure 2: Proposed New Mona Vale Road / Aumuna Road / Kamber Road Intersection Layout

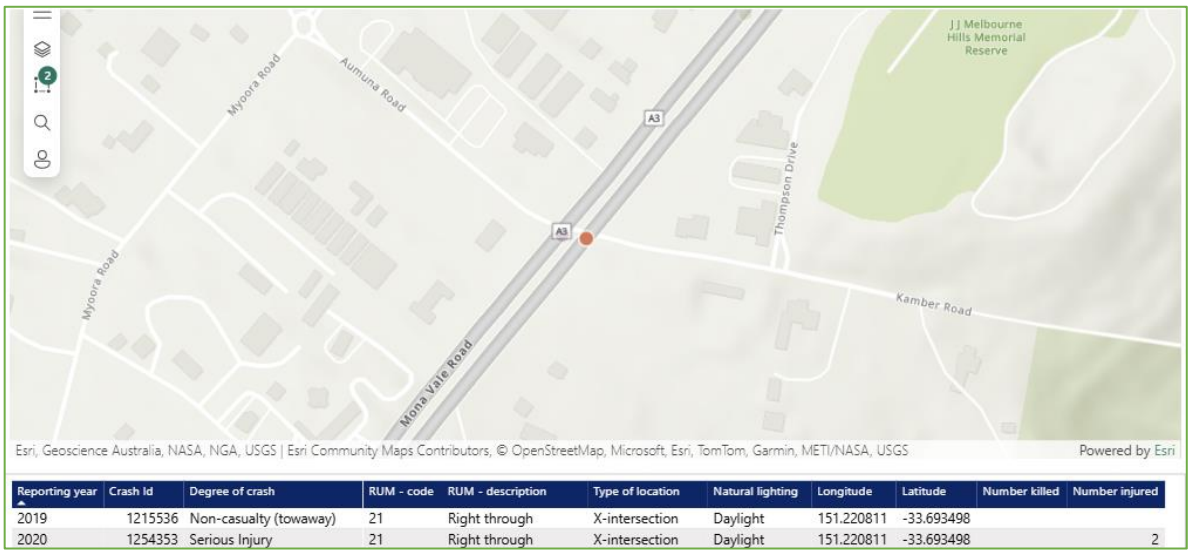
7. This option has been modelled for the proposed development scenario during the critical Saturday peak, the results of which are summarised in **Table 2** below. For clarity, the term 'Upgrades' referred to in the 'Scenario' column in **Table 2** below refers to the banning of right turn movements from Aumuna Road and Kamber Road onto Mona Vale Road.

Table 2: Intersection performance (Saturday Existing + Development Scenarios with Upgrades)

Intersection	Control Type	Scenario	Period	Degree of Saturation (DoS)	Average Delay	Level of Service
Mona Vale Road and Aumuna Road (south approach)	Give way	Existing (no upgrades)	SAT	0.860	281.5	F
		Existing + Development + Upgrades	SAT	0.852	121.2	F
Mona Vale Road and Kamber Road (north approach)	Give way	Existing (no upgrades)	SAT	0.379	60.2	E
		Existing + Development + Upgrades	SAT	0.379	16.9	B

8. It can be seen in **Table 2** above that the intersection of Mona Vale Road / Aumuna / Kamber Road continues to operate at a Level of Service F under the existing scenario and the existing + development + upgrades scenario, however the average delay is dramatically reduced from 281.5 seconds (existing scenario) to 121.2 seconds (development + upgrades scenario), a reduction of 160.3 seconds or 43% when compared with the existing scenario.

9. Notwithstanding improvements to intersection performance in terms of reduced average delay, importantly there would be significant safety benefits in banning right turn and through movements from Aumuna Road and Kamber Road onto Mona Vale Road. A review of crash data at this intersection reveals there have been two (2) reported incidents in the past five (5) years including an incident involving a serious injury at this intersection as shown in **Figure 3** below.



Reporting year	Crash Id	Degree of crash	RUM - code	RUM - description	Type of location	Natural lighting	Longitude	Latitude	Number killed	Number injured
2019	1215536	Non-casualty (towaway)	21	Right through	X-intersection	Daylight	151.220811	-33.693498		
2020	1254353	Serious Injury	21	Right through	X-intersection	Daylight	151.220811	-33.693498		2

Figure 3: TfNSW Crash Data of the Intersection of Mona Vale Road/ Aumuna Road / Kamber Road

10. Banning right-turn and through movements from Aumuna and Kamber Roads onto Mona Vale Road would significantly reduce vehicle conflict points and simplify the operation of this intersection, thereby improving safety.

11. Whilst it is acknowledged that detours would be required for vehicles turning right onto Mona Vale Road from both Aumuna and Kamber Roads, these detours are considered acceptable as discussed in more detail below and would require vehicles to cross Mona Vale Road via safer routes involving signalised intersections.

12. Drivers wishing to turn right from Kamber Road, westbound onto Mona Vale Road, northbound would be required to proceed to the intersection of Mona Vale Road / Forest Way / Myoora Road to the south, turn left onto Forest Way, turn right onto Garigal Road and use the roundabout on Garigal Road to reroute back along Garigal Road and Forrest Way to turn right onto Mona Vale Road, northbound.

13. Vehicles turning right from Aumuna Road, eastbound onto Mona Vale Road, southbound would also be required to proceed to the intersection of Mona Vale Road / Forest Way / Myoora Road.

    The above diversion routes are shown in **Figure 4** below.

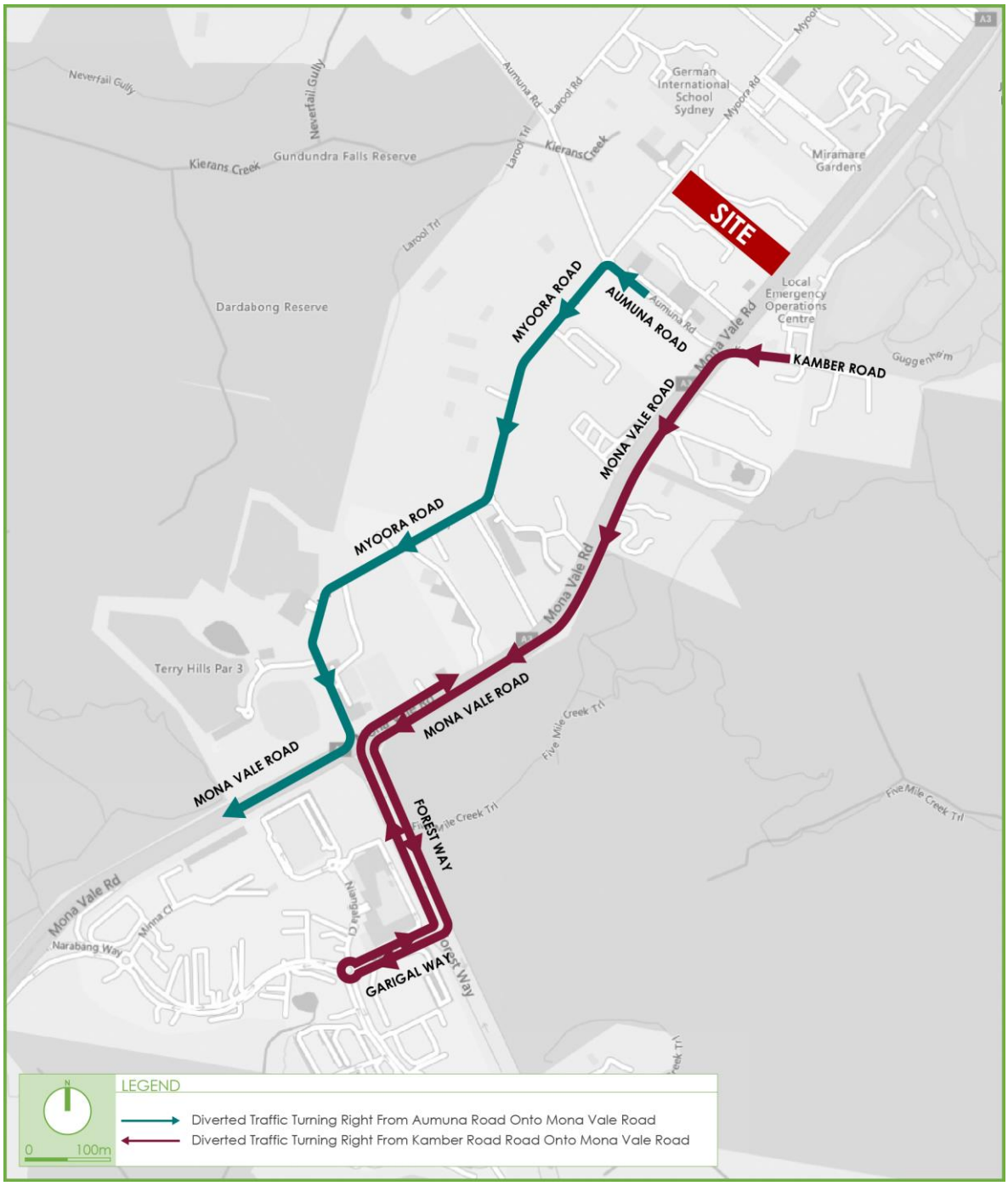


Figure 4: Diversion Routes

14. To assess the traffic impacts of the proposed diversions to the local road network, the intersection of Mona Vale Road / Myoora Road / Forest Way to the south was identified as the key intersection impacted by the proposed traffic diversions. This intersection was surveyed and modelled during the critical Saturday peak which was identified as the day with the highest traffic volumes in order to assess based on a worst case scenario. Traffic count surveys were undertaken on Saturday 6th

April 2024 between 10:00am-2:00pm. These survey results are presented in **Attachment 4** for reference.

15. To assess impacts to the key intersection of Mona Vale Road / Myoora Road / Forest Way caused by the proposed diversions, the development + traffic currently turning right from Aumuna Road, eastbound onto Mona Vale Road, southbound (55 vehicles) was diverted to the intersection of Mona Vale Road / Myoora Road / Forest Way to the south. Existing vehicles turning right from Kamber Road, westbound onto Mona Vale Road, northbound (2 vehicles) were also added to this intersection as shown in **Figure 5** below.

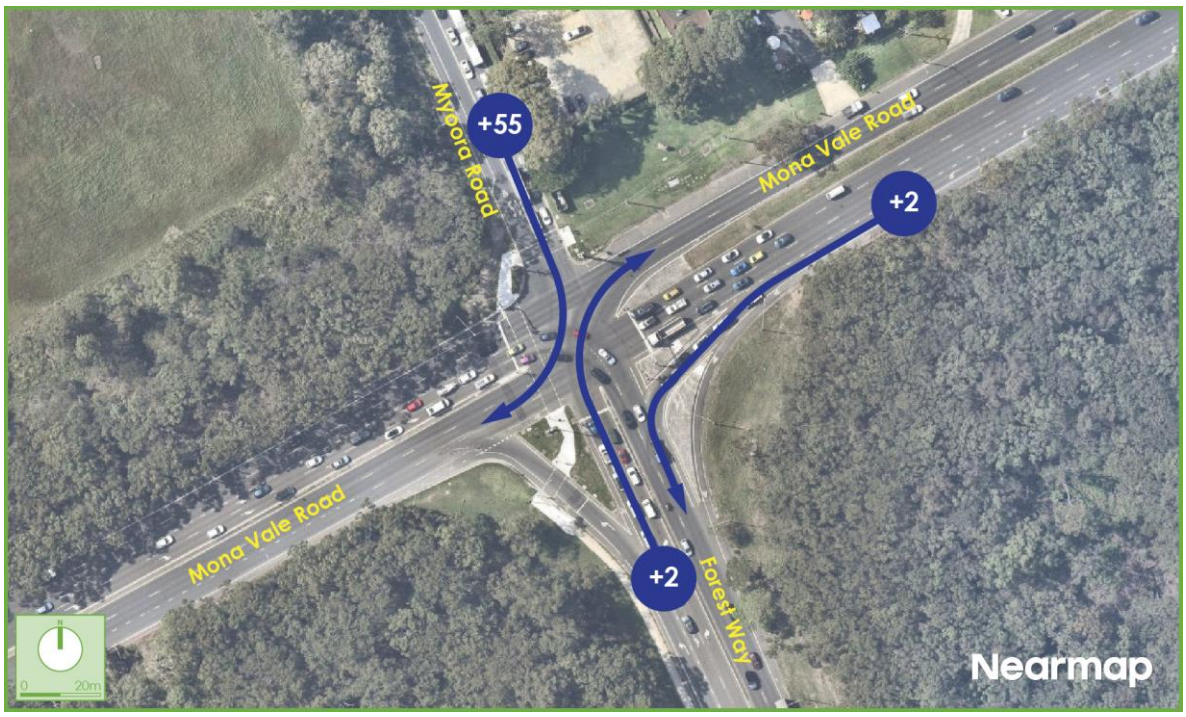


Figure 5: Mona Vale Road / Forest Way / Aumuna Road Additional Traffic Volumes

16. SIDRA intersection modelling was undertaken of the intersection of Mona Vale Road / Myoora Road / Forest Way in order to assess traffic impacts associated with the proposed diversions. Modelling results are shown in **Table 3** below and reference should also be made to the detailed modelling results presented in **Attachment 2.**

Table 3: Mona Vale Road / Myoora Road / Forest Way Intersection performance – Saturday Peak

Intersection	Control Type	Scenario	Period	Degree of Saturation (DoS)	Average Delay	Level of Service
Mona Vale Road / Myoora Road / Forest Way	Signalised	Existing (no diversions)	SAT	0.990	60.3	E
		Existing + Development (with divisions)	SAT	1.023	70.2	E

17. It can be seen in **Table 3** above that the intersection of Mona Vale Road / Myoora Road / Forest Way operates at a Level of Service E with an average delay of 60.3 seconds under the existing scenario and at a Level of Service E with an average delay of 70.2 seconds under the proposed scenario with no change to the overall level of service (LoS E) and an increase of +9.9 seconds in the proposed scenario including development + diversionary effects. It can be seen the performance of the intersection under the proposed scenario is comparable with the performance of the existing scenario and is considered acceptable.

3. *Mitigation Measures*

a) ***No transport or traffic amelioration measures are proposed by the Applicant at the intersection of Mona Vale Road (a classified road) and Aumuna Road to reduce the impact of the DA in terms of improving road safety and network efficiency outcomes that benefit the development's operations, the traffic it will generate and future road users. Should works be proposed, a strategic design will be required (refer to the TfNSW letter dated 12 November 2024 for additional details).***

TRAFFIX Response:

Reference should be made to the mitigation measures discussed in response to Item 2 above. A Concept Plan showing the revised intersection layout of Mona Vale Road / Aumuna Road / Kamber Road as discussed above is provided in **Attachment 3** for reference. Prior to proceeding with an extensive strategic design exercise which would need to be prepared by a Civil Engineer and agreed upon between TfNSW and Council, it first needs to be established whether TfNSW would support the mitigation measures proposed above in principle.

TfNSW Response Summary

In summary, the traffic generation methodology adopted is considered accurate and appropriate for the reasons discussed. It is concluded that impacts caused by the subject development to the operation of Mona Vale Road / Aumuna Road / Kamber Road are considered minor and the relatively poor performance of this intersection is a characteristic inherent with the existing intersection design and high traffic volumes which is not caused by the subject development or any other proposed development in the locality. Notwithstanding, every effort has been considered to improve the

operation of this intersection with a view to improving its safety and efficiency, a benefit to not only patrons of the subject development, but to the wider public generally that would also benefit from a safer and more efficient intersection.

Conclusion

Having considered all comments, continued support is given to the subject development on traffic engineering, planning and safety grounds with or without the proposed upgrades to the intersection of Mona Vale Road / Aumuna Road and Kamber Road, as discussed. However, should any issues require further clarification, TRAFFIX requests the opportunity to provide a response prior to any determination being made.

Yours faithfully,

Traffix

Justin Pindar
Director

Encl: *Attachment 1: TfNSW Correspondence*
Attachment 2: Updated SIDRA Modelling Results
Attachment 3: Mona Vale Road / Aumuna Road / Kamber Road Intersection Concept Design
Attachment 4: Mona Vale Road / Myoora Road / Forest Way Survey Results

ATTACHMENT 1

TfNSW Correspondence

Transport for NSW

5 May 2025

TfNSW Reference: SYD24-01792/03
Council's Reference: DA2024/1362 (CNR-74738)

Mr Scott Phillips
Chief Executive Officer
PO Box 82
MANLY NSW 1655

HOSPITALITY VENUE (AMENDED DESIGN)
40 MYOORA ROAD, TERREY HILLS

Dear Mr Phillips,

Reference is made to Council's correspondence, concerning the abovementioned Development Application (**DA**) which was referred to Transport for NSW (**TfNSW**) for comment under Section 2.122 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

TfNSW has reviewed the updated traffic report (prepared by TRAFFIX with reference 24.01 4r01 v05, dated April 2025), the supporting SIDRA data and amended plans for the application and advises that TfNSW **does not support** the DA in its current form. TfNSW is of the view that the updated traffic report and SIDDRA data do not address the comments provided to Council and the Applicant as contained in the TfNSW submission dated 12th November 2024 and as discussed at the meeting held on 19 March 2025. Detailed comments on the amended documentation are provided in **TAB A**.

The main issues are:

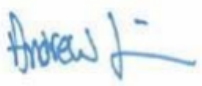
a) The traffic generation on a Saturday midday is based on the *TfNSW Guide to Transport Impact Assessment* restaurant rate for a weekday afternoon peak hour, which is not considered applicable to this development, and no justification has been provided for its use (refer to **TAB A**).

b) The SIDRA modelling does not appear to have modelled the impact of right turns into Aumuna Road on vehicles existing Aumuna Road (refer to **TAB A**).

Following receipt of updated information addressing the concerns in **TAB A**, TfNSW will review the material and respond accordingly.

For more information, please contact Jim Tsirimiagos, Land Use Planner, on 0412 376 198, or by email at development.sydney@transport.nsw.gov.au.

Yours sincerely,



Andrew Lissenden
A/Senior Land Use Planner - Eastern
Land Use, Network & Place Planning
Transport Planning I Planning, Integration and Passenger

Level 4, 4 Parramatta Square, 12 Darcy Street
PO Box 973 Parramatta CBD NSW 2124

W transport.nsw.gov.au

TAB A – TfNSW Comments

1. Input Data

a) The input data is based on the 1981 study into restaurants, and some of the key variables used includes:

i. The traffic generation used is 5 movements per 100m2.

ii. Average people per car estimated is 3. This is only slightly higher than the 1981 restaurant study of 2.84, however, in this instance there is little public transport.

iii. The traffic generation rate relied upon is from this 1981 restaurant study https://www.transport.nsw.gov.au/system/files/media/documents/2024/restaurants-1981-data-and-analysis-report.pdf

iv. The data from that report shows that a traffic generation rate of 70 on a Saturday is significantly lower than the peak generation of the restaurant. Using the lowest rate based on GFA, a generation of 160 per hour is more likely. Based on seating and 85% occupancy, around 197 is likely.

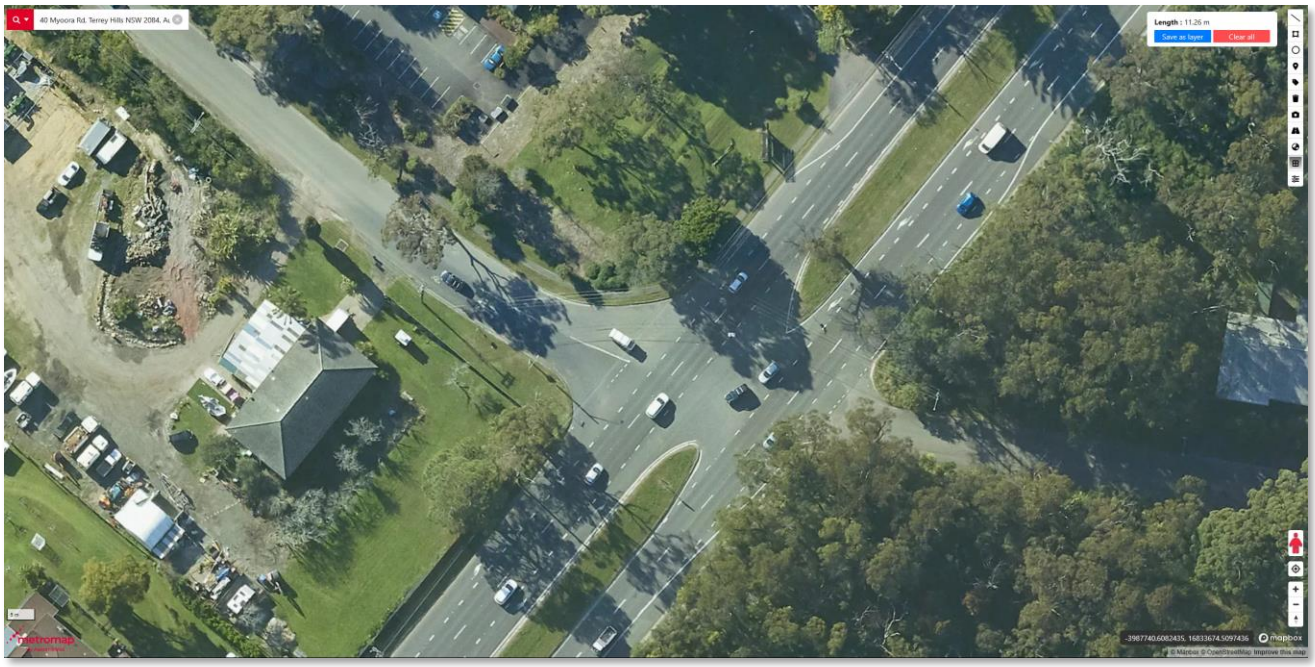
v. A rate of 70 vehicles per hour, 35 in/35 out, assumes that people will stay for 4.8 hours. 168 cars x 3 = 505 seats (85% occupancy). If all vehicles stayed for 2 hours, the generation would be 168 per hour. At 70, this equates to 41.6% of that value. There is no detail as to how long patrons are likely to stay for.

vi. In response to *"Vehicle trip rates are based on Transport for New South Wales Guidelines (5 vehicle trips per 100m2 of restaurant GFA) and are not based on parking provisions"*, the NSW trip generate rates for a restaurant as documented in Table 5.50 of the *Guide to Transport Impact Assessment, 2024* (**GTIA**) are for the "Evening Peak Hour". They were surveyed on a weekday evening peak hour and were not surveyed during the Saturday midday peak hour. Further, the GTIA does not provide rates for a Saturday midday peak hour. Based on this, it is considered that they are not a reasonable representation of the likely generation of the proposed development during the Saturday midday peak hour, and a comparison with a similar site or a first-principle assessment should be undertaken.

2. SIDRA File

a) It appears that the through movement from Aumuna Road to the waiting bay is not giving way to the right turn volume southbound on Mona Vale Road right into Aumuna Road. The priorities in the SIDRA modelling only give way to the through movement and that has a total volume of 11 on the weekday and 3 on the Saturday. However, the volume is 28 on a weekday and 46 on a Saturday. It appears that the Applicant has not tested the right turn volume for vehicles turning into Aumuna and its impact on vehicles exiting Aumuna.

b) The image below shows that vehicles turning right into Aumuna Road could impact vehicles exiting Aumuma Road (two vehicles queued would block the exit). This intersection is very wide, so driver behaviour may adapt to the wide intersection and be a little different to normal.



3. Mitigation Measures

a) No transport or traffic amelioration measures are proposed by the Applicant at the intersection of Mona Vale Road (a classified road) and Aumuna Road to reduce the impact of the DA in terms of improving road safety and network efficiency outcomes that benefit the development's operations, the traffic it will generate and future road users. Should works be proposed, a strategic design will be required (refer to the TfNSW letter dated 12 November 2024 for additional details).

ATTACHMENT 2

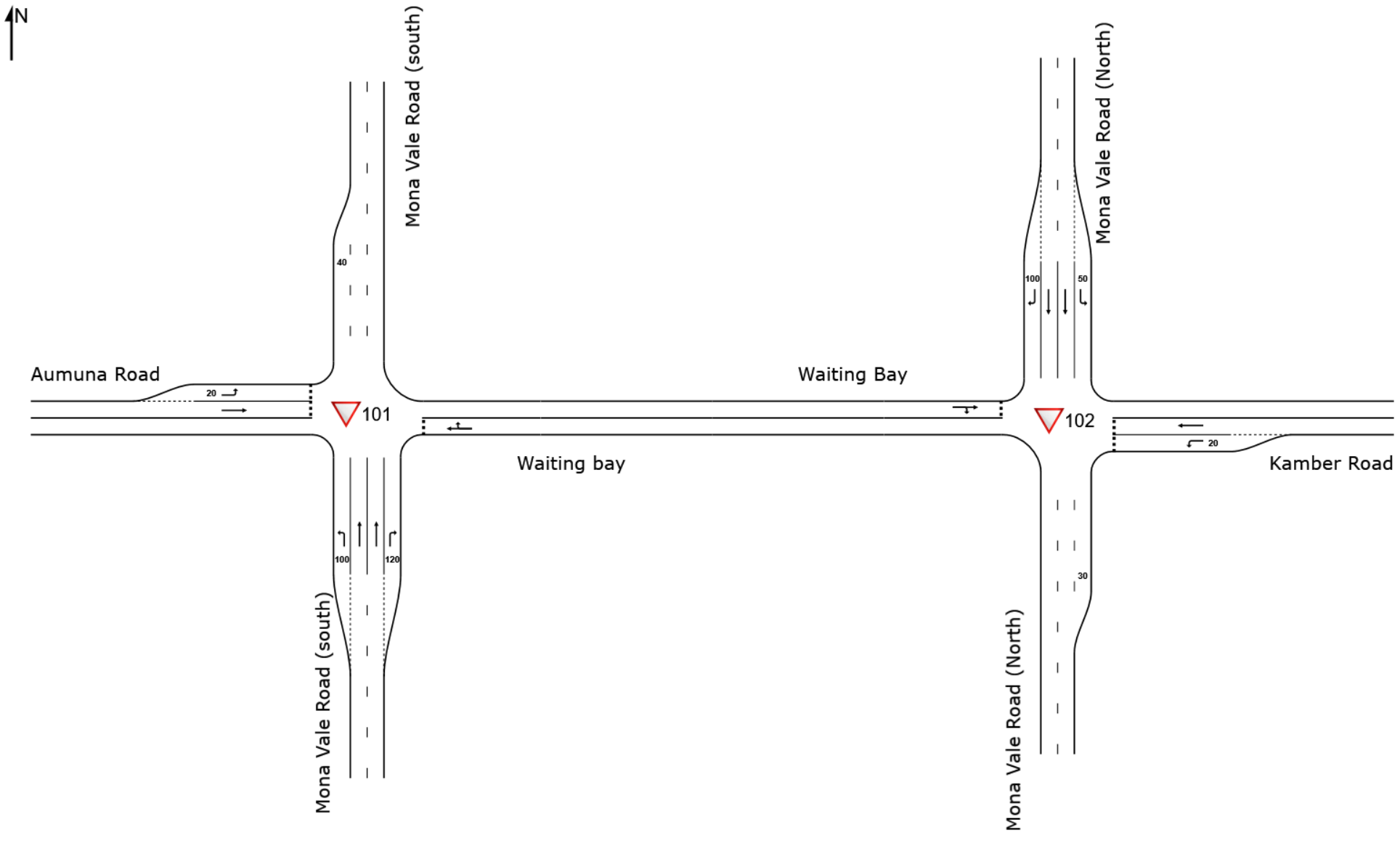
Updated SIDRA Modelling Results

NETWORK LAYOUT

Network: N103 [Mona Vale Road PM (Network Folder: Existing)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽101	NA	Mona Vale / Aumuna South Approach PM Peak - Existing
▽102	NA	Mona Vale / Kamber North Approach PM Peak - Existing

Organisation: TRAFFIX PTY LTD | Licence: NETWORK / 1PC | Created: Friday, 9 May 2025 10:02:07 AM
Project: T:\Synergy\Projects\24\24.014\Modelling\24.014m01v05.sip9

MOVEMENT SUMMARY

Site: 101 [Mona Vale / Aumuna South Approach PM Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N103 [Mona Vale Road PM (Network Folder: Existing)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Mona Vale Road (south)															
1	L2	All MCs	82	6.4	82	6.4	0.046	7.1	LOS A	0.0	0.0	0.00	0.63	0.00	67.3
2	T1	All MCs	1531	2.1	1531	2.1	0.398	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
3	R2	All MCs	7	0.0	7	0.0	0.004	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1620	2.3	1620	2.3	0.398	0.6	NA	0.0	0.0	0.00	0.04	0.00	79.1
East: Waiting bay															
5	T1	All MCs	31	13.8	31	13.8	0.296	36.2	LOS C	0.8	6.4	0.93	1.05	1.05	22.3
6	R2	All MCs	4	0.0	4	0.0	0.296	33.5	LOS C	0.8	6.4	0.93	1.05	1.05	39.0
Approach			35	12.1	35	12.1	0.296	35.9	LOS C	0.8	6.4	0.93	1.05	1.05	24.6
West: Aumuna Road															
10	L2	All MCs	49	2.1	49	2.1	0.038	5.0	LOS A	0.0	0.0	0.00	0.53	0.00	60.0
11	T1	All MCs	40	5.3	40	5.3	0.274	37.3	LOS C	0.8	6.1	0.92	1.01	1.03	25.0
Approach			89	3.5	89	3.5	0.274	19.4	LOS B	0.8	6.1	0.41	0.74	0.46	46.1
All Vehicles			1744	2.5	1744	2.5	0.398	2.2	NA	0.8	6.4	0.04	0.09	0.04	76.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Mona Vale / Kamber North Approach PM Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N103 [Mona Vale Road PM (Network Folder: Existing)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Kamber Road															
4	L2	All MCs	6	0.0	6	0.0	0.005	4.7	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
5	T1	All MCs	4	0.0	4	0.0	0.016	21.3	LOS B	0.1	0.4	0.82	0.93	0.82	31.8
Approach			11	0.0	11	0.0	0.016	11.3	LOS A	0.1	0.4	0.33	0.69	0.33	51.7
North: Mona Vale Road (North)															
7	L2	All MCs	7	0.0	7	0.0	0.004	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	69.0
8	T1	All MCs	1236	3.7	1236	3.7	0.325	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
9	R2	All MCs	24	17.4	24	17.4	0.015	8.6	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1267	4.0	1267	4.0	0.325	0.3	NA	0.0	0.0	0.00	0.02	0.00	79.6
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.228	14.6	LOS B	0.7	5.2	0.87	0.95	0.95	27.6
12	R2	All MCs	40	5.3	40	5.3	0.228	21.7	LOS B	0.7	5.2	0.87	0.95	0.95	46.3
Approach			41	5.1	41	5.1	0.228	21.5	LOS B	0.7	5.2	0.87	0.95	0.95	45.9
All Vehicles			1319	4.0	1319	4.0	0.325	1.1	NA	0.7	5.2	0.03	0.05	0.03	78.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Mona Vale / Aumuna South Approach SAT Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [Mona Vale Road SAT (Network Folder: Existing)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Mona Vale Road (south)															
1	L2	All MCs	54	2.0	54	2.0	0.029	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	68.5
2	T1	All MCs	1876	1.5	1876	1.5	0.486	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	79.5
3	R2	All MCs	5	0.0	5	0.0	0.003	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1935	1.5	1935	1.5	0.486	0.5	NA	0.0	0.0	0.00	0.02	0.00	79.3
East: Waiting bay															
5	T1	All MCs	45	14.0	45	14.0	0.860	125.9	LOS F	2.5	20.2	0.99	1.86	1.86	10.4
6	R2	All MCs	2	50.0	2	50.0	0.860	281.5	LOS F	2.5	20.2	0.99	1.86	1.86	18.4
Approach			47	15.6	47	15.6	0.860	132.8	LOS F	2.5	20.2	0.99	1.86	1.86	10.8
West: Aumuna Road															
10	L2	All MCs	40	7.9	40	7.9	0.031	5.5	LOS A	0.0	0.0	0.00	0.53	0.00	59.5
11	T1	All MCs	48	0.0	48	0.0	0.454	56.0	LOS D	1.5	10.6	0.96	1.05	1.17	20.0
Approach			88	3.6	88	3.6	0.454	33.2	LOS C	1.5	10.6	0.53	0.81	0.64	37.7
All Vehicles			2071	1.9	2071	1.9	0.860	4.9	NA	2.5	20.2	0.05	0.10	0.07	74.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Mona Vale / Kamber North Approach SAT Peak - Existing (Site Folder: Existing)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [Mona Vale Road SAT (Network Folder: Existing)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Kamber Road															
4	L2	All MCs	7	0.0	7	0.0	0.006	4.8	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
5	T1	All MCs	2	50.0	2	50.0	0.046	60.2	LOS E	0.1	0.7	0.93	0.98	0.93	19.2
Approach			9	11.1	9	11.1	0.046	17.2	LOS B	0.1	0.7	0.21	0.63	0.21	50.6
North: Mona Vale Road (North)															
7	L2	All MCs	5	20.0	5	20.0	0.003	7.3	LOS A	0.0	0.0	0.00	0.63	0.00	64.2
8	T1	All MCs	1464	1.7	1464	1.7	0.379	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
9	R2	All MCs	44	14.3	44	14.3	0.039	8.5	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1514	2.1	1514	2.1	0.379	0.4	NA	0.0	0.0	0.00	0.03	0.00	79.4
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.335	23.1	LOS B	1.1	7.9	0.92	1.08	1.08	24.7
12	R2	All MCs	48	0.0	48	0.0	0.335	29.7	LOS C	1.1	7.9	0.92	1.08	1.08	42.5
Approach			49	0.0	49	0.0	0.335	29.5	LOS C	1.1	7.9	0.92	1.08	1.08	42.2
All Vehicles			1573	2.1	1573	2.1	0.379	1.5	NA	1.1	7.9	0.03	0.06	0.04	78.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Mona Vale / Aumuna South Approach PM Peak (Site Folder: Post development - No Upgrades)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [Mona Vale Rd PM (Network Folder: Post development - right turn no upgrades)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Mona Vale Road (south)															
1	L2	All MCs	88	6.0	88	6.0	0.050	7.1	LOS A	0.0	0.0	0.00	0.63	0.00	67.5
2	T1	All MCs	1531	2.1	1531	2.1	0.398	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
3	R2	All MCs	7	0.0	7	0.0	0.004	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1626	2.3	1626	2.3	0.398	0.6	NA	0.0	0.0	0.00	0.04	0.00	79.1
East: Waiting bay															
5	T1	All MCs	35	12.1	35	12.1	0.323	35.9	LOS C	0.9	7.1	0.93	1.08	1.08	22.4
6	R2	All MCs	4	0.0	4	0.0	0.323	34.8	LOS C	0.9	7.1	0.93	1.08	1.08	39.0
Approach			39	10.8	39	10.8	0.323	35.7	LOS C	0.9	7.1	0.93	1.08	1.08	24.4
West: Aumuna Road															
10	L2	All MCs	56	1.9	56	1.9	0.042	5.0	LOS A	0.0	0.0	0.00	0.53	0.00	60.0
11	T1	All MCs	46	4.5	46	4.5	0.313	38.0	LOS C	1.0	7.2	0.92	1.02	1.06	24.8
Approach			102	3.1	102	3.1	0.313	19.9	LOS B	1.0	7.2	0.42	0.75	0.48	45.7
All Vehicles			1767	2.5	1767	2.5	0.398	2.5	NA	1.0	7.2	0.04	0.10	0.05	76.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Mona Vale / Kamber North Approach PM Peak (Site Folder: Post development - No Upgrades)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [Mona Vale Rd PM (Network Folder: Post development - right turn no upgrades)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Kamber Road															
4	L2	All MCs	6	0.0	6	0.0	0.005	4.7	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
5	T1	All MCs	4	0.0	4	0.0	0.016	21.5	LOS B	0.1	0.4	0.82	0.93	0.82	31.7
Approach			11	0.0	11	0.0	0.016	11.4	LOS A	0.1	0.4	0.33	0.69	0.33	51.6
North: Mona Vale Road (North)															
7	L2	All MCs	7	0.0	7	0.0	0.004	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	69.0
8	T1	All MCs	1236	3.7	1236	3.7	0.325	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
9	R2	All MCs	31	13.8	31	13.8	0.018	8.5	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1274	4.0	1274	4.0	0.325	0.4	NA	0.0	0.0	0.00	0.02	0.00	79.5
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.260	15.3	LOS B	0.8	6.1	0.88	0.98	0.98	27.4
12	R2	All MCs	46	4.5	46	4.5	0.260	22.1	LOS B	0.8	6.1	0.88	0.98	0.98	46.1
Approach			47	4.4	47	4.4	0.260	22.0	LOS B	0.8	6.1	0.88	0.98	0.98	45.8
All Vehicles			1332	4.0	1332	4.0	0.325	1.2	NA	0.8	6.1	0.03	0.06	0.04	78.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Mona Vale / Aumuna South Approach SAT Peak (Site Folder: Post development - No Upgrades)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [Mona Vale Rd SAT (Network Folder: Post development - right turn no upgrades)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Mona Vale Road (south)															
1	L2	All MCs	60	1.8	60	1.8	0.033	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	68.5
2	T1	All MCs	1876	1.5	1876	1.5	0.486	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	79.5
3	R2	All MCs	5	0.0	5	0.0	0.003	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1941	1.5	1941	1.5	0.486	0.5	NA	0.0	0.0	0.00	0.02	0.00	79.2
East: Waiting bay															
5	T1	All MCs	53	14.0	53	14.0	0.988	171.0	LOS F	3.1	24.9	1.00	2.66	2.66	8.4
6	R2	All MCs	2	50.0	2	50.0	0.988	322.9	LOS F	3.1	24.9	1.00	2.66	2.66	15.1
Approach			55	15.4	55	15.4	0.988	176.9	LOS F	3.1	24.9	1.00	2.66	2.66	8.7
West: Aumuna Road															
10	L2	All MCs	46	6.8	46	6.8	0.036	5.5	LOS A	0.0	0.0	0.00	0.53	0.00	59.6
11	T1	All MCs	55	0.0	55	0.0	0.532	60.5	LOS E	1.8	12.5	0.97	1.06	1.24	19.0
Approach			101	3.1	101	3.1	0.532	35.3	LOS C	1.8	12.5	0.52	0.82	0.67	37.0
All Vehicles			2097	2.0	2097	2.0	0.988	6.8	NA	3.1	24.9	0.05	0.13	0.10	72.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Mona Vale / Kamber North Approach SAT Peak (Site Folder: Post development - No Upgrades)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [Mona Vale Rd SAT (Network Folder: Post development - right turn no upgrades)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Kamber Road															
4	L2	All MCs	7	0.0	7	0.0	0.006	4.8	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
5	T1	All MCs	2	50.0	2	50.0	0.064	61.4	LOS E	0.1	0.7	0.93	0.99	0.93	19.0
Approach			9	11.1	9	11.1	0.064	17.4	LOS B	0.1	0.7	0.21	0.63	0.21	50.5
North: Mona Vale Road (North)															
7	L2	All MCs	5	20.0	5	20.0	0.003	7.3	LOS A	0.0	0.0	0.00	0.63	0.00	64.2
8	T1	All MCs	1464	1.7	1464	1.7	0.379	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
9	R2	All MCs	51	12.5	51	12.5	0.030	8.4	LOS A	0.9	7.1	0.00	0.78	0.00	67.8
Approach			1520	2.1	1520	2.1	0.379	0.5	NA	0.9	7.1	0.00	0.03	0.00	79.4
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.381	24.5	LOS B	1.3	9.2	0.93	1.12	1.12	24.2
12	R2	All MCs	55	0.0	55	0.0	0.381	31.2	LOS C	1.3	9.2	0.93	1.12	1.12	41.8
Approach			56	0.0	56	0.0	0.381	31.1	LOS C	1.3	9.2	0.93	1.12	1.12	41.5
All Vehicles			1585	2.1	1585	2.1	0.381	1.6	NA	1.3	9.2	0.03	0.07	0.04	77.9

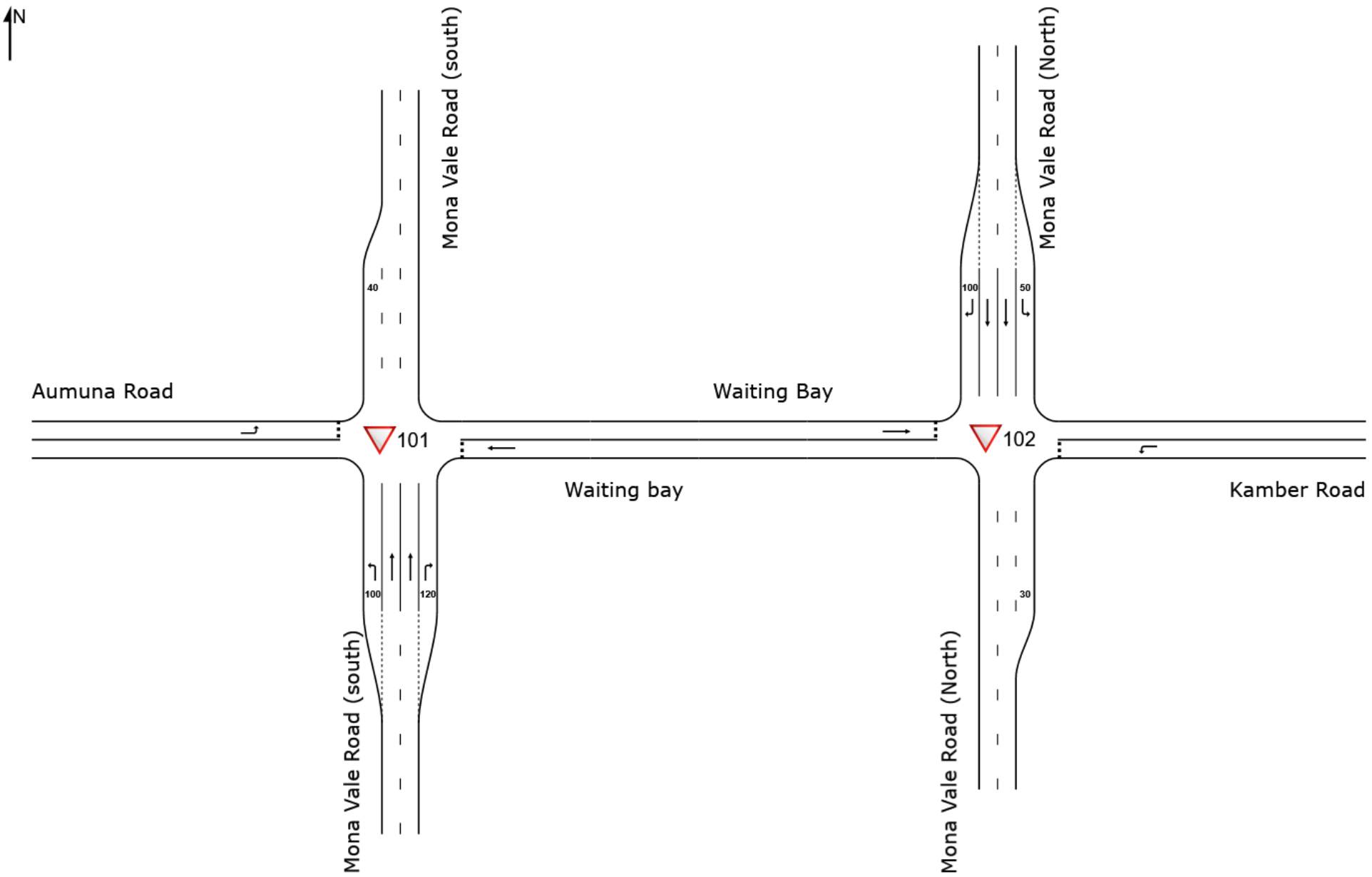
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [Mona Vale Road SAT Peak (Network Folder: Post development - Ban right turn from Kamber Road & Right Turn From Aumuna Rd)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽101	NA	Mona Vale / Aumuna South Approach SAT Peak
▽102	NA	Mona Vale / Kamber North Approach SAT Peak

MOVEMENT SUMMARY

Site: 101 [Mona Vale / Aumuna South Approach SAT Peak (Site Folder: Post development - Left Turn Only from Kamber Road and ban right turn from Aumuna Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [Mona Vale Road SAT Peak (Network Folder: Post development - Ban right turn from Kamber Road & Right Turn From Aumuna Rd)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Mona Vale Road (south)															
1	L2	All MCs	60	1.8	60	1.8	0.033	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	68.5
2	T1	All MCs	1876	1.5	1876	1.5	0.486	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	79.5
3	R2	All MCs	5	0.0	5	0.0	0.003	8.1	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1941	1.5	1941	1.5	0.486	0.5	NA	0.0	0.0	0.00	0.02	0.00	79.2
East: Waiting bay															
5	T1	All MCs	53	14.0	53	14.0	0.852	121.2	LOS F	2.6	20.6	0.99	1.88	1.88	11.1
Approach			53	14.0	53	14.0	0.852	121.2	LOS F	2.6	20.6	0.99	1.88	1.88	11.1
West: Aumuna Road															
10	L2	All MCs	46	6.8	46	6.8	0.036	5.5	LOS A	0.0	0.0	0.00	0.53	0.00	59.6
Approach			46	6.8	46	6.8	0.036	5.5	LOS A	0.0	0.0	0.00	0.53	0.00	59.6
All Vehicles			2040	2.0	2040	2.0	0.852	3.7	NA	2.6	20.6	0.03	0.08	0.05	75.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Mona Vale / Kamber North Approach SAT Peak (Site Folder: Post development - Left Turn Only from Kamber Road and ban right turn from Aumuna Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [Mona Vale Road SAT Peak (Network Folder: Post development - Ban right turn from Kamber Road & Right Turn From Aumuna Rd)]

New Site
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Kamber Road															
4	L2	All MCs	9	0.0	9	0.0	0.007	4.8	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
Approach			9	0.0	9	0.0	0.007	4.8	LOS A	0.0	0.0	0.00	0.53	0.00	60.2
North: Mona Vale Road (North)															
7	L2	All MCs	5	20.0	5	20.0	0.003	7.3	LOS A	0.0	0.0	0.00	0.63	0.00	64.2
8	T1	All MCs	1464	1.7	1464	1.7	0.379	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	79.7
9	R2	All MCs	51	12.5	51	12.5	0.045	8.5	LOS A	0.0	0.0	0.00	0.78	0.00	67.8
Approach			1520	2.1	1520	2.1	0.379	0.5	NA	0.0	0.0	0.00	0.03	0.00	79.4
West: Waiting Bay															
11	T1	All MCs	1	0.0	1	0.0	0.005	16.9	LOS B	0.0	0.1	0.87	0.78	0.87	28.9
Approach			1	0.0	1	0.0	0.005	16.9	LOS B	0.0	0.1	0.87	0.78	0.87	28.9
All Vehicles			1531	2.1	1531	2.1	0.379	0.5	NA	0.0	0.1	0.00	0.03	0.00	79.3

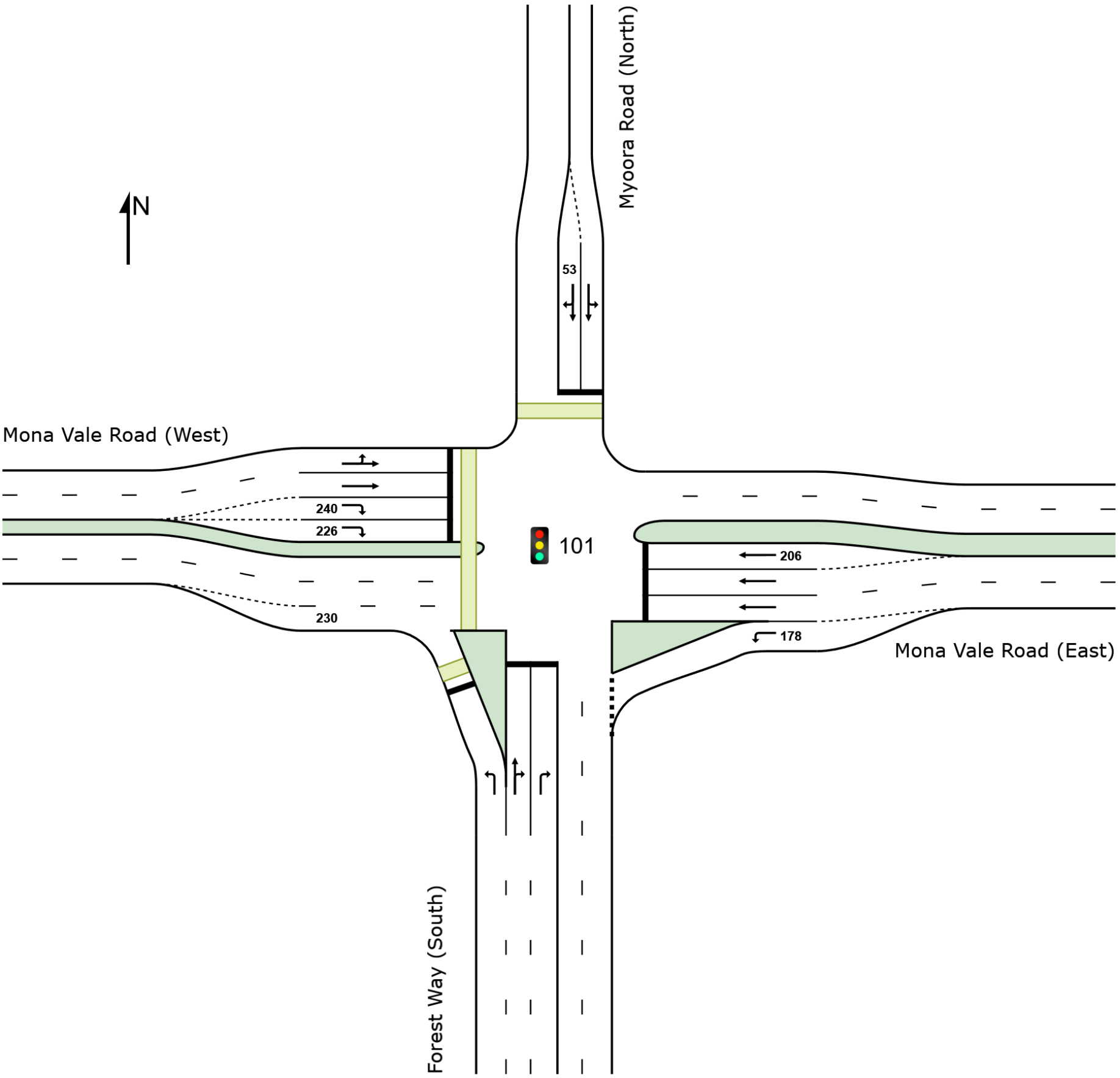
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: 101 [Site 101 - Forest Way / Mona Vale Road / Myoora Road Saturday AM Peak (Site Folder: 2024 Base)]

Intersectio: Forest Way / Mona Vale Road / Myoora Road
Period: Friday PM Peak
Sceanrio: Existing
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: TRAFFIX PTY LTD | Licence: NETWORK / 1PC | Created: Friday, 16 May 2025 9:59:52 AM
Project: T:\Synergy\Projects\24\24.014\Modelling\Detour Model\24.014m02v01 40 Myoora Road, Terrey Hills - SIDRA Modelling.sip9

MOVEMENT SUMMARY

Site: 101 [Site 101 - Forest Way / Mona Vale Road / Myoora Road Saturday AM Peak (Site Folder: 2024 Base)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Intersectio: Forest Way / Mona Vale Road / Myoora Road
Period: Friday PM Peak
Sceanrio: Existing
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Forest Way (South)															
1	L2	All MCs	774	2.9	774	2.9	0.911	36.6	LOS C	26.2	187.8	1.00	0.97	1.20	40.3
2	T1	All MCs	143	4.4	143	4.4	* 0.986	82.3	LOS F	28.0	201.1	1.00	1.21	1.59	23.5
3	R2	All MCs	662	2.1	662	2.1	0.986	86.1	LOS F	28.1	201.1	1.00	1.17	1.59	25.0
Approach			1579	2.7	1579	2.7	0.986	61.5	LOS E	28.1	201.1	1.00	1.07	1.40	30.5
East: Mona Vale Road (East)															
4	L2	All MCs	597	2.5	597	2.5	0.641	20.8	LOS B	18.2	130.1	0.76	0.83	0.76	49.4
5	T1	All MCs	877	2.9	877	2.9	* 0.945	66.7	LOS E	18.0	129.3	1.00	1.10	1.48	32.9
Approach			1474	2.7	1474	2.7	0.945	48.1	LOS D	18.2	130.1	0.90	0.99	1.19	37.7
North: Myoora Road (North)															
7	L2	All MCs	65	1.6	65	1.6	0.935	68.7	LOS E	15.9	113.3	1.00	1.17	1.47	28.4
8	T1	All MCs	284	2.2	284	2.2	* 0.935	64.2	LOS E	15.9	113.3	1.00	1.17	1.47	26.6
9	R2	All MCs	168	3.1	168	3.1	0.935	68.9	LOS E	15.5	111.4	1.00	1.17	1.48	27.9
Approach			518	2.4	518	2.4	0.935	66.3	LOS E	15.9	113.3	1.00	1.17	1.48	27.3
West: Mona Vale Road (West)															
10	L2	All MCs	88	0.0	88	0.0	0.152	24.2	LOS B	3.5	25.9	0.62	0.68	0.62	43.8
11	T1	All MCs	156	17.6	156	17.6	0.152	17.3	LOS B	3.5	27.5	0.62	0.55	0.62	57.0
12	R2	All MCs	818	2.6	818	2.6	* 0.990	88.1	LOS F	29.0	207.7	1.00	1.14	1.61	24.4
Approach			1062	4.6	1062	4.6	0.990	72.4	LOS F	29.0	207.7	0.91	1.02	1.38	28.2
All Vehicles			4633	3.1	4633	3.1	0.990	60.3	LOS E	29.0	207.7	0.95	1.05	1.34	31.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Forest Way (South)												
P1B	Slip/Bypass	50	53	19.4	LOS B	0.1	0.1	0.88	0.88	173.2	200.0	1.15
North: Myoora Road (North)												
P3	Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
West: Mona Vale Road (West)												
P4	Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
All Pedestrians		150	158	36.0	LOS D	0.1	0.1	0.92	0.92	189.8	200.0	1.05

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [Site 101 - Forest Way / Mona Vale Road / Myoora Road Saturday AM Peak + Diversions (Site Folder: 2024 Base)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Intersectio: Forest Way / Mona Vale Road / Myoora Road
Period: Friday PM Peak
Sceanrio: Existing
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Forest Way (South)															
1	L2	All MCs	774	2.9	774	2.9	0.911	36.6	LOS C	26.2	188.0	1.00	0.97	1.20	40.3
2	T1	All MCs	143	4.4	143	4.4	* 0.989	83.4	LOS F	28.3	203.1	1.00	1.21	1.60	23.3
3	R2	All MCs	664	2.1	664	2.1	0.989	87.3	LOS F	28.4	203.1	1.00	1.17	1.60	24.8
Approach			1581	2.7	1581	2.7	0.989	62.1	LOS E	28.4	203.1	1.00	1.08	1.40	30.3
East: Mona Vale Road (East)															
4	L2	All MCs	599	2.5	599	2.5	0.665	21.6	LOS B	19.0	135.8	0.79	0.84	0.79	48.8
5	T1	All MCs	877	2.9	877	2.9	* 1.007	91.6	LOS F	21.2	151.8	1.00	1.22	1.74	26.9
Approach			1476	2.7	1476	2.7	1.007	63.2	LOS E	21.2	151.8	0.91	1.06	1.35	32.4
North: Myoora Road (North)															
7	L2	All MCs	65	1.6	65	1.6	1.023	107.9	LOS F	22.0	156.9	1.00	1.42	1.82	22.2
8	T1	All MCs	284	2.2	284	2.2	* 1.023	103.4	LOS F	22.0	156.9	1.00	1.41	1.83	20.6
9	R2	All MCs	226	2.3	226	2.3	1.023	108.1	LOS F	21.7	155.0	1.00	1.38	1.83	21.8
Approach			576	2.2	576	2.2	1.023	105.7	LOS F	22.0	156.9	1.00	1.40	1.83	20.9
West: Mona Vale Road (West)															
10	L2	All MCs	88	0.0	88	0.0	0.155	24.9	LOS B	3.6	26.4	0.63	0.68	0.63	43.5
11	T1	All MCs	156	17.6	156	17.6	0.155	17.9	LOS B	3.6	28.0	0.63	0.56	0.63	56.5
12	R2	All MCs	818	2.6	818	2.6	* 0.990	88.1	LOS F	29.0	207.7	1.00	1.14	1.61	24.4
Approach			1062	4.6	1062	4.6	0.990	72.6	LOS F	29.0	207.7	0.92	1.02	1.38	28.1
All Vehicles			4695	3.0	4695	3.0	1.023	70.2	LOS E	29.0	207.7	0.95	1.10	1.44	28.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

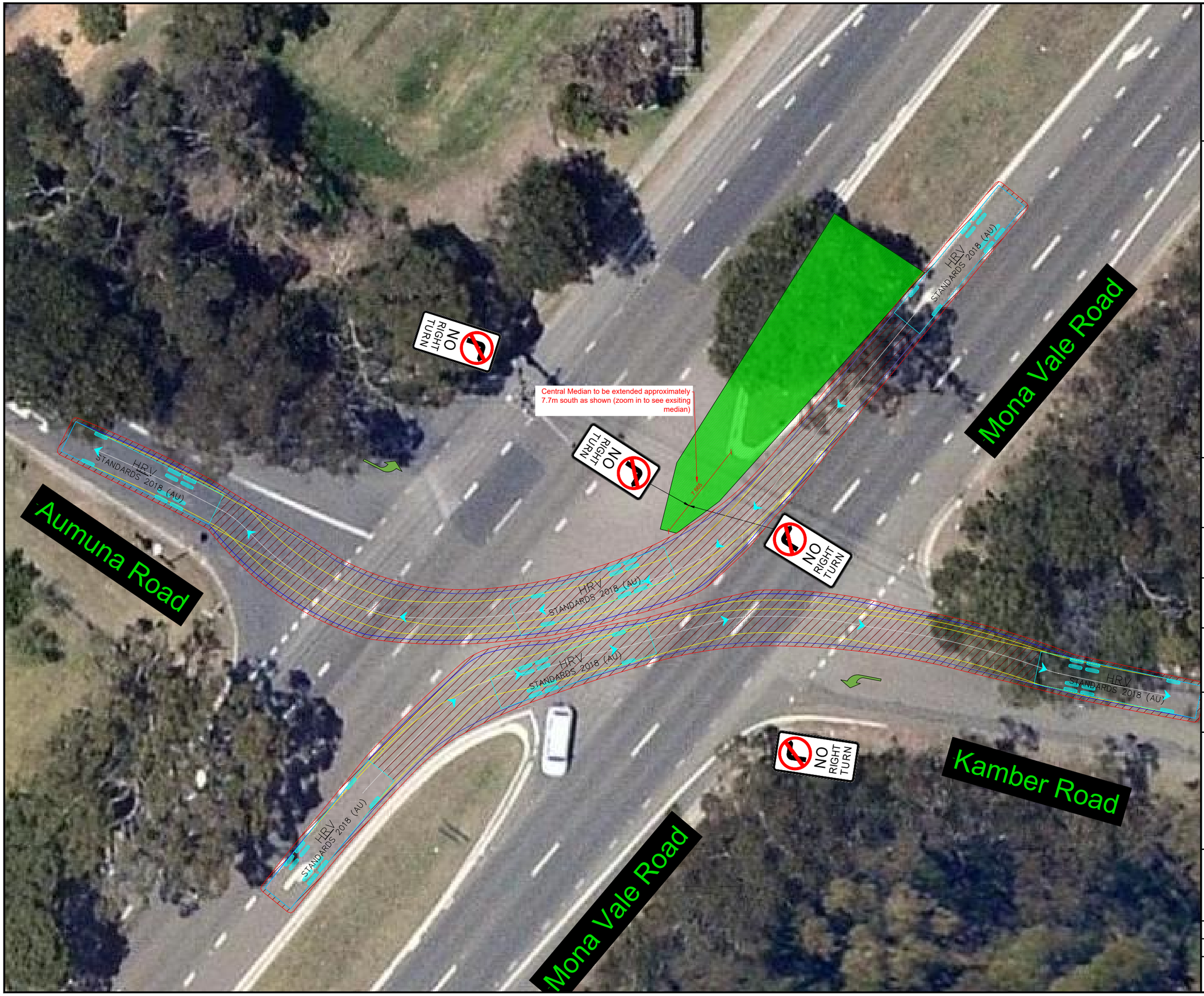
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Forest Way (South)												
P1B	Slip/Bypass	50	53	19.4	LOS B	0.1	0.1	0.88	0.88	173.3	200.0	1.15
North: Myoora Road (North)												
P3	Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
West: Mona Vale Road (West)												
P4	Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
All Pedestrians		150	158	36.0	LOS D	0.1	0.1	0.92	0.92	189.8	200.0	1.05

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Organisation: TRAFFIX PTY LTD | Licence: NETWORK / 1PC | Processed: Friday, 16 May 2025 10:00:14 AM
Project: T:\Synergy\Projects\24\24.014\Modelling\Detour Model\24.014m02v01 40 Myoora Road, Terrey Hills - SIDRA Modelling.sip9

ATTACHMENT 3

Mona Vale Road / Aumuna Road / Kamber Road Intersection Concept Design



Notes:

This drawing is prepared for information purposes only. It is not to be used for construction.

TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards *(AS/NZS 2890.1:2004 Parking facilities - Off-street car parking,* and/or *AS2890.2:2002 Parking facilities - Off-street commercial vehicle facilities*). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

Rev.	Revision Note	By.	Date

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect

H&E Architects

Client

Scale / Plan Orientation

0 4 8 12 16m

1:400 @ A3

Project Description

40 Myoora Road, Terry Hills

Drawing Prepared By

TRAFFIX
TRAFFIC AND TRANSPORT PLANNERS

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Drawing Title

Concept Plan
Proposed Central Median Extension, Signage & Line Marking Plan Banning Right Turns from Aumuna Road and Kamber Road onto Mona Vale Road.
Swept Path Analysis - 2 x 12.5m HRV's Passing

Drawn:	Checked:	Date:
JP	JP	15-05-25

24.014d08v01 TRAFFIX - Amended Intersection Layout.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
24.014	RFI	TX.01	A

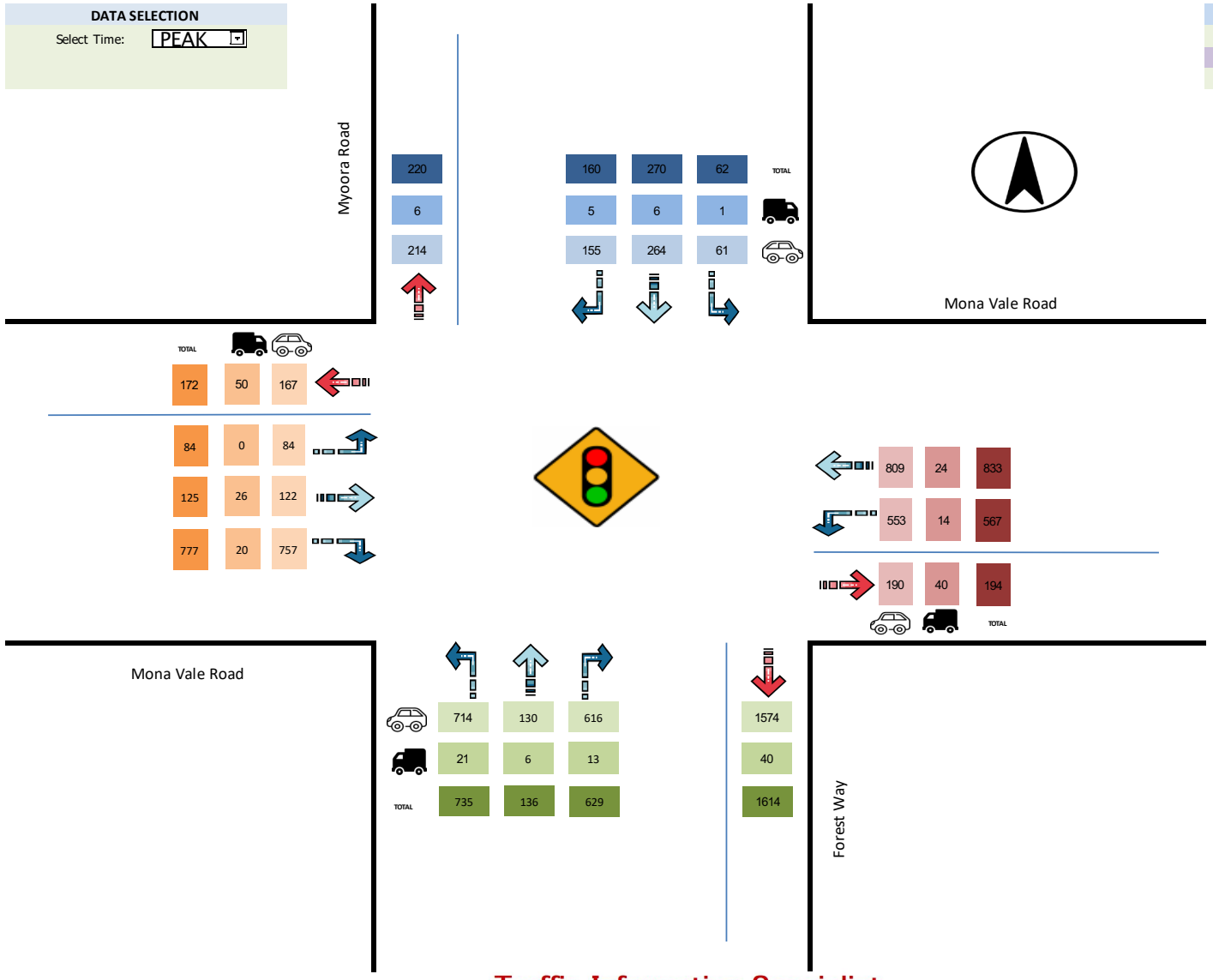
ATTACHMENT 4

Mona Vale Road / Myoora Road / Forest Way Survey Results

Location	**Myoora Road**		**Duration**	**10:00** - **14:00**	
	Mona Vale Road			-	
	Forest Way			-	
	Mona Vale Road		**Date**	**Saturday 23 November 2024**	
Suburb	**TERRY HILLS**		**Weather**	-	

DATA SELECTION	
Select Time:	PEAK

TIME RANGE		
PEAK	-	**MIDDAY**
PEAK		
11:15	-	**12:15**



Traffic Information Specialist

ABN: 42 613 389 923

Email info@tistraffic.com.au

Location	**Myoora Road**	**Duration**	**10:00**	**-**	**14:00**
	Mona Vale Road			**-**	
	Forest Way			**-**	
	Mona Vale Road	**Date**	**Saturday 23 November 2024**		
Suburb	**TERRY HILLS**	**Weather**	**-**		

All Vehicles Time Per 15 Mins			**NORTHWEST** *Myoora Road*									**NORTHEAST** *Mona Vale Road*										**TOTAL**	
			L			T			R			L			T			R					
			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	TOTAL
10:00	-	**10:15**	7	1	**8**	60	1	**61**	42	1	**43**	**112**	127	3	**130**	218	6	**224**				**354**	1153	31	**1184**
10:15	-	**10:30**	11	1	**12**	73	2	**75**	37	1	**38**	**125**	125	4	**129**	211	6	**217**				**346**	1237	32	**1269**
10:30	-	**10:45**	8	0	**8**	63	1	**64**	33	2	**35**	**107**	125	4	**129**	189	3	**192**				**321**	1228	30	**1258**
10:45	-	**11:00**	6	1	**7**	52	1	**53**	32	1	**33**	**93**	117	3	**120**	228	7	**235**				**355**	1289	34	**1323**
11:00	-	**11:15**	14	2	**16**	53	0	**53**	41	1	**42**	**111**	103	5	**108**	209	8	**217**				**325**	1223	37	**1260**
11:15	-	**11:30**	14	1	**15**	59	3	**62**	41	3	**44**	**121**	141	3	**144**	210	5	**215**				**359**	1293	38	**1331**
11:30	-	**11:45**	12	0	**12**	60	1	**61**	30	2	**32**	**105**	122	1	**123**	205	3	**208**				**331**	1349	32	**1381**
11:45	-	**12:00**	16	0	**16**	76	1	**77**	40	0	**40**	**133**	152	7	**159**	186	6	**192**				**351**	1388	30	**1418**
12:00	-	**12:15**	19	0	**19**	69	1	**70**	44	0	**44**	**133**	138	3	**141**	208	10	**218**				**359**	1338	36	**1374**
12:15	-	**12:30**	10	1	**11**	47	2	**49**	31	2	**33**	**93**	96	3	**99**	188	6	**194**				**293**	1210	33	**1243**
12:30	-	**12:45**	16	2	**18**	44	1	**45**	33	3	**36**	**99**	130	2	**132**	210	2	**212**				**344**	1216	34	**1250**
12:45	-	**13:00**	17	1	**18**	39	1	**40**	33	1	**34**	**92**	138	1	**139**	218	3	**221**				**360**	1289	27	**1316**
13:00	-	**13:15**	14	0	**14**	65	1	**66**	27	2	**29**	**109**	147	5	**152**	227	4	**231**				**383**	1293	29	**1322**
13:15	-	**13:30**	14	1	**15**	42	3	**45**	38	2	**40**	**100**	108	3	**111**	210	3	**213**				**324**	1210	30	**1240**
13:30	-	**13:45**	8	0	**8**	46	1	**47**	24	1	**25**	**80**	117	6	**123**	241	7	**248**				**371**	1277	29	**1306**
13:45	-	**14:00**	16	0	**16**	42	2	**44**	25	1	**26**	**86**	109	5	**114**	212	3	**215**				**329**	1153	21	**1174**
Period End			**202**	**11**	**213**	**890**	**22**	**912**	**551**	**23**	**574**	**1699**	**1995**	**58**	**2053**	**3370**	**82**	**3452**				**5505**	**20146**	**503**	**20649**

All Vehicles Time Per 15 Mins			**SOUTHEAST** *Forest Way*									**SOUTHWEST** *Mona Vale Road*										**TOTAL**	
			L			T			R			L			T			R					
			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	TOTAL
10:00	-	**10:15**	144	8	**152**	31	2	**33**	102	3	**105**	**290**	23	0	**23**	245	4	**249**	154	2	**156**	**428**	1153	31	**1184**
10:15	-	**10:30**	176	5	**181**	31	1	**32**	132	7	**139**	**352**	24	0	**24**	257	4	**261**	160	1	**161**	**446**	1237	32	**1269**
10:30	-	**10:45**	149	5	**154**	26	3	**29**	153	3	**156**	**339**	17	0	**17**	287	7	**294**	178	2	**180**	**491**	1228	30	**1258**
10:45	-	**11:00**	186	9	**195**	35	1	**36**	156	4	**160**	**391**	12	1	**13**	285	2	**287**	180	4	**184**	**484**	1289	34	**1323**
11:00	-	**11:15**	158	5	**163**	27	3	**30**	169	4	**173**	**366**	20	0	**20**	277	5	**282**	152	4	**156**	**458**	1223	37	**1260**
11:15	-	**11:30**	164	3	**167**	31	1	**32**	133	3	**136**	**335**	23	0	**23**	285	10	**295**	192	6	**198**	**516**	1293	38	**1331**
11:30	-	**11:45**	165	7	**172**	49	2	**51**	170	3	**173**	**396**	18	0	**18**	331	6	**337**	187	7	**194**	**549**	1349	32	**1381**
11:45	-	**12:00**	205	5	**210**	32	1	**33**	172	3	**175**	**418**	26	0	**26**	304	3	**307**	179	4	**183**	**516**	1388	30	**1418**
12:00	-	**12:15**	180	6	**186**	18	2	**20**	141	4	**145**	**351**	17	0	**17**	305	7	**312**	199	3	**202**	**531**	1338	36	**1374**
12:15	-	**12:30**	166	5	**171**	35	0	**35**	135	4	**139**	**345**	16	0	**16**	301	5	**306**	185	5	**190**	**512**	1210	33	**1243**
12:30	-	**12:45**	152	7	**159**	28	2	**30**	147	6	**153**	**342**	13	0	**13**	281	3	**284**	162	6	**168**	**465**	1216	34	**1250**
12:45	-	**13:00**	120	1	**121**	29	5	**34**	155	7	**162**	**317**	25	1	**26**	330	6	**336**	185	0	**185**	**547**	1289	27	**1316**
13:00	-	**13:15**	174	5	**179**	30	3	**33**	149	4	**153**	**365**	17	0	**17**	290	2	**292**	153	3	**156**	**465**	1293	29	**1322**
13:15	-	**13:30**	176	1	**177**	21	3	**24**	139	6	**145**	**346**	10	0	**10**	255	4	**259**	197	4	**201**	**470**	1210	30	**1240**
13:30	-	**13:45**	164	4	**168**	33	3	**36**	159	4	**163**	**367**	20	0	**20**	291	2	**293**	174	1	**175**	**488**	1277	29	**1306**
13:45	-	**14:00**	171	1	**172**	40	0	**40**	136	0	**136**	**348**	11	0	**11**	229	6	**235**	162	3	**165**	**411**	1153	21	**1174**
Period End			**2650**	**77**	**2727**	**496**	**32**	**528**	**2348**	**65**	**2413**	**5668**	**292**	**2**	**294**	**4553**	**76**	**4629**	**2799**	**55**	**2854**	**7777**	**20146**	**503**	**20649**

Location	Myoora Road	**Duration**	10:00	-	14:00
	Mona Vale Road			-	
	Forest Way			-	
	Mona Vale Road	**Date**	Saturday 23 November 2024		
Suburb	TERRY HILLS	**Weather**	-		

All Vehicles Time Per Hour			NORTHWEST *Myoora Road*										NORTHEAST *Mona Vale Road*										TOTAL		
			L			T			R				L			T			R						
			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	TOTAL
10:00	-	**11:00**	32	3	**35**	248	5	**253**	144	5	**149**	**437**	494	14	**508**	846	22	**868**				**1376**	4907	127	**5034**
10:15	-	**11:15**	39	4	**43**	241	4	**245**	143	5	**148**	**436**	470	16	**486**	837	24	**861**				**1347**	4977	133	**5110**
10:30	-	**11:30**	42	4	**46**	227	5	**232**	147	7	**154**	**432**	486	15	**501**	836	23	**859**				**1360**	5033	139	**5172**
10:45	-	**11:45**	46	4	**50**	224	5	**229**	144	7	**151**	**430**	483	12	**495**	852	23	**875**				**1370**	5154	141	**5295**
11:00	-	**12:00**	56	3	**59**	248	5	**253**	152	6	**158**	**470**	518	16	**534**	810	22	**832**				**1366**	5253	137	**5390**
11:15	-	**12:15**	61	1	**62**	264	6	**270**	155	5	**160**	**492**	553	14	**567**	809	24	**833**				**1400**	5368	136	**5504**
11:30	-	**12:30**	57	1	**58**	252	5	**257**	145	4	**149**	**464**	508	14	**522**	787	25	**812**				**1334**	5285	131	**5416**
11:45	-	**12:45**	61	3	**64**	236	5	**241**	148	5	**153**	**458**	516	15	**531**	792	24	**816**				**1347**	5152	133	**5285**
12:00	-	**13:00**	62	4	**66**	199	5	**204**	141	6	**147**	**417**	502	9	**511**	824	21	**845**				**1356**	5053	130	**5183**
12:15	-	**13:15**	57	4	**61**	195	5	**200**	124	8	**132**	**393**	511	11	**522**	843	15	**858**				**1380**	5008	123	**5131**
12:30	-	**13:30**	61	4	**65**	190	6	**196**	131	8	**139**	**400**	523	11	**534**	865	12	**877**				**1411**	5008	120	**5128**
12:45	-	**13:45**	53	2	**55**	192	6	**198**	122	6	**128**	**381**	510	15	**525**	896	17	**913**				**1438**	5069	115	**5184**
13:00	-	**14:00**	52	1	**53**	195	7	**202**	114	6	**120**	**375**	481	19	**500**	890	17	**907**				**1407**	4933	109	**5042**
Period End																									

All Vehicles Time Per Hour			SOUTHEAST *Forest Way*										SOUTHWEST *Mona Vale Road*										TOTAL		
			L			T			R				L			T			R						
			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	TOTAL
10:00	-	**11:00**	655	27	**682**	123	7	**130**	543	17	**560**	**1372**	76	1	**77**	1074	17	**1091**	672	9	**681**	**1849**	4907	127	**5034**
10:15	-	**11:15**	669	24	**693**	119	8	**127**	610	18	**628**	**1448**	73	1	**74**	1106	18	**1124**	670	11	**681**	**1879**	4977	133	**5110**
10:30	-	**11:30**	657	22	**679**	119	8	**127**	611	14	**625**	**1431**	72	1	**73**	1134	24	**1158**	702	16	**718**	**1949**	5033	139	**5172**
10:45	-	**11:45**	673	24	**697**	142	7	**149**	628	14	**642**	**1488**	73	1	**74**	1178	23	**1201**	711	21	**732**	**2007**	5154	141	**5295**
11:00	-	**12:00**	692	20	**712**	139	7	**146**	644	13	**657**	**1515**	87	0	**87**	1197	24	**1221**	710	21	**731**	**2039**	5253	137	**5390**
11:15	-	**12:15**	714	21	**735**	130	6	**136**	616	13	**629**	**1500**	84	0	**84**	1225	26	**1251**	757	20	**777**	**2112**	5368	136	**5504**
11:30	-	**12:30**	716	23	**739**	134	5	**139**	618	14	**632**	**1510**	77	0	**77**	1241	21	**1262**	750	19	**769**	**2108**	5285	131	**5416**
11:45	-	**12:45**	703	23	**726**	113	5	**118**	595	17	**612**	**1456**	72	0	**72**	1191	18	**1209**	725	18	**743**	**2024**	5152	133	**5285**
12:00	-	**13:00**	618	19	**637**	110	9	**119**	578	21	**599**	**1355**	71	1	**72**	1217	21	**1238**	731	14	**745**	**2055**	5053	130	**5183**
12:15	-	**13:15**	612	18	**630**	122	10	**132**	586	21	**607**	**1369**	71	1	**72**	1202	16	**1218**	685	14	**699**	**1989**	5008	123	**5131**
12:30	-	**13:30**	622	14	**636**	108	13	**121**	590	23	**613**	**1370**	65	1	**66**	1156	15	**1171**	697	13	**710**	**1947**	5008	120	**5128**
12:45	-	**13:45**	634	11	**645**	113	14	**127**	602	21	**623**	**1395**	72	1	**73**	1166	14	**1180**	709	8	**717**	**1970**	5069	115	**5184**
13:00	-	**14:00**	685	11	**696**	124	9	**133**	583	14	**597**	**1426**	58	0	**58**	1065	14	**1079**	686	11	**697**	**1834**	4933	109	**5042**
Period End																									