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RE: New Public School in Googong SSD RFI

Dear Paul,

Reference is made to the response submissions from the Department of Planning, Industry and Environment (DPIE), - Queanbeyan-Palerang Regional Council and Transport for NSW (TfNSW) with respect to SSDA submission for the new school in Googong (Reference SSD – 10326042).

Table 1 DPIE RtS Letter

Submissions		
No.	DPIE RtS Letter	Ason Response
1	Transport Impact Assessment – Categorisation of the road hierarchy	Refer to response to QPRC Submission – item 1.2.1
2	Transport Impact Assessment – Mode share target	<p>Following the meeting with Council on 24 August 2021, Council requested additional information and clarifications on walking and cycling catchments were provided. Specifically:</p> <p>- Pedestrian Generators</p> <p>In addition to the mapping prepared and included in the Preliminary School Travel Plan (Sections 2.5.1, 2.6, 2.6.3, 3.3, 4.1.4), please find below additional mapping prepared to outline the likely origin / destination of pedestrian movements, based on de-personalised data analysed.</p> <p>In particular, Table 9 (Page 31 of the Preliminary School Travel Plan) for details of the assessment against the relevant warrants, which were formulated based on the warrants as outlined in the attached TfNSW Supplement to AS1742.10 (Version 3.1, updated 16 March 2021).</p>

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		Council's concerns around mode share appears to be in relation to the trip generation rates adopted and traffic impact analysis presented. Refer to Item 1.2 response to Council's submission for further details.
3	Number and location of access points to the site	<p>The number and location of access points to site has been designed in accordance with the EFSG requirements of School Infrastructure NSW and took into consideration that students are likely to approach the school from all four frontages of the school.</p> <p>Specifically, the location and number of access gates proposed to the site are:</p> <ul style="list-style-type: none"> - Gorman Drive – one gate - Wilkins Way – three gates - McPhail Way – one gate - Aprasia Avenue – one gate <p>The number of gates and location of gates were designed in consultation with the Director of Education Leadership, taking into consideration the likely future operational requirements of the School.</p> <p>The management of school gates are subject to the development of detailed operational management arrangements which forms part of the School Travel Plan upon appointment of the School Principal, in consultation with Council and TfNSW.</p>
4	Location and design of proposed pick-up and drop-off arrangements.	Refer to response to Item 1.1 response to Council's submission for further details.
5	Provide further information in relation to how students would be coordinated at drop-off and	<p>The requirement / intended management arrangement of the Kiss & Drop is as follows:</p> <ul style="list-style-type: none"> A) Student Capacity – 700 students (ultimate). It is anticipated that in the initial term when the School commence operations, there will be around 400 students enrolled.

	<p>pick-up times, including assembly point location (and available shelter) and route to the drop-off and pick-up facility.</p>	<p>B) OSHC Capacity – 240 Students on-site. The School is seeking a doubling of the OSHC capacity, which is likely to involve external OSHC providers. This is based on experiences of the Director of Education Leadership derived from other schools that operates within the QPRC LGA.</p> <p>C) In the initial term, approximately 150 students are expected from within Googong, based on de-personalised data provided by SINSW and mapping completed and outlined in the Transport Assessment / Preliminary School Travel Plan. The 150 students are within walking and cycling catchment previously analysed and expected to be walking / cycling to the school. It is understood that the enrolment catchment is generally south of the existing enrolment catchment of the Jerrabomberra Public School, and Queanbeyan South Public School catchment.</p> <p>D) Maximum demand of Kiss & Drop at PM pick up in the initial phases of school operations are for an estimate of approximately 100 students (based on 400 students, 240 students attending the OSHC, and up to 100 students residing within Googong but getting picked up by car). In the scenario when the school reach full capacity of 700 students and on the basis that OSHC have capacity of 480 students (combined on-site and off-site arrangement), up to 150 students (approximately 68% of students not attending OSHC) are anticipated to require the Kiss & Drop.</p> <p>E) Number of children per vehicle – 1.1 children per vehicle (i.e., one in ten children have a sibling attending the school, based on de-personalised data, taking into consideration Profile ID data and number of persons per household, number of households with children, and number of households with mixed age children)</p> <p>F) Total estimated maximum demand for PM pick up – 150 students</p> <p>G) Management arrangements will be further refined with input from the School Principal post SSD, whereby roles, responsibility and the actual management arrangements will be detailed and will form part of the School Travel Plan whereby the standard condition requires further consultation with Council and TfNSW.</p> <p>Based on the total estimated maximum demand of 150 students, the 21 spaces is sufficient to cater for the Kiss and Ride on the basis of an average pick-up time of 45 seconds to 2 minutes.</p> <p>Modelling spreadsheet prepared for the pick-up arrangement was submitted to Council on 10 September 2021.</p>
6	<p>Demonstrate that appropriate drop-off and pick-up facilities are proposed to cater for the demand and would not have detrimental impacts on the</p>	<p>In addition to item 5 response above, the proposed Kiss & Drop has been modelled based on two scenarios:</p> <ol style="list-style-type: none"> 1. 5 active pick-up bays for Initial School Opening (2023, 400 students enrolled) 2. 10 active pick-up bays for Initial School Opening (2023, 400 students enrolled)

	amenity and function of surrounding streets.	<ol style="list-style-type: none"> 3. 5 active pick-up bays for Full Capacity (700 students enrolled) 4. 10 active pick-up bays for Full Capacity (700 students enrolled) <p>The modelling took into consideration the following:</p> <ol style="list-style-type: none"> 1. Traffic intensity 2. Probability of no vehicles 3. Probability of 'n' vehicles 4. Average length of queue 5. Average time spent in system 6. Average time waiting in queue 7. Average vehicles in system. <p>The analysis found that in each of the four modelled scenario, the Wilkins Way Kiss and Ride, which provide a capacity of 21 spaces can adequately accommodate the forecasted demand for the Kiss and Ride and unlikely to result in detrimental impacts on the local road network.</p> <p>The modelling spreadsheet prepared was submitted to Council on 10 September 2021.</p>
7	Demonstrate that the proposed waste storage facilities would be appropriately separated from the on-site carparking and would not interfere with pick-up and drop-off of school children.	The proposed waste storage facility has been re-designed and separate from on-site parking spaces, and do not interfere with pick-up and drop-off of school children due to being in separate locations.

8	<p>Clarify the number and location of proposed pedestrian entrances to the school and pedestrian crossings adjacent to the school.</p>	<p>The following revised number of access gates are proposed:</p> <ul style="list-style-type: none"> - Gorman Drive – one gates - Wilkins Way – three gates - McPhail Way – one gate - Aprasia Avenue – one gate <p>The increase in gate numbers along Wilkins Way is proposed in response to the design changes associated with the introduction of a Kiss and Drop along Wilkins Way, and in response to operational requirements of the School.</p> <p>Pedestrian crossings proposed at 5 locations are:</p> <ul style="list-style-type: none"> – Gorman Drive, mid-block between McPhail Way and Wilkins Way – Wilkins Way, north approach to intersection of Wilkins Way and Gorman Drive – McPhail Way, north approach to intersection of McPhail Way and Gorman Drive – Aprasia Avenue, between Hale Street and McPhail Way – McPhail Way, south approach to intersection of McPhail Way and Aprasia Avenue
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Table 2 QPRC Submission

	QPRC Submission	Ason response
1.1	<p>Council has been involved in consultation on the proposed Primary School Site since late 2020. During these discussions the issue of the of the roads around the site not complying with Council's current design specifications was raised as was the frequent safety issues within these areas. The analysis of the existing road network does not adequately consider the existing road geometry or the intersections around the adjacent shopping centre.</p> <p>Throughout consultation Council has provided data from existing schools within Queanbeyan supporting Council feedback which does not appear to have been considered in the current proposal. The submitted traffic design solutions proposed are based on newly constructed schools or suburban Sydney schools without justification linking them to the subject site. Council considers that the use of urban city data as opposed to regional local data is inappropriate in this instance. As such it is concluded that the data provided in the submission may need to be re-visited prior to a determination of this application.</p> <p>Council remains concerned that during construction and following opening, it will be the likely party that will be responsible to undertake implementation of pedestrian crossings proposed. Council's Road Safety Officer will be required to implement proposed measures included in the EIS and the current design does not appear achievable regarding ongoing management.</p> <p>Council has recommended a number of deferred commencement conditions and remains hopeful of engaging with the Department to</p>	<p>Since the receipt of Council's Submission, two further consultation meetings (24 August and 9 September 2021), submission of additional information requested by Council, and discussion with Council officer by telephone has taken place, whereby the following changes have been made to alleviate Council's concerns, being:</p> <ul style="list-style-type: none"> • A re-design of the Kiss and Ride along Wilkins Way, adopting the road cross-section of Council's Engineering Design and Construction Specifications for a 'Collector Street'. • Consultation with QCity and TfNSW are underway to determine the preferred interim bus circulation route which will inform if any further intersection modification is required at the intersection of Gorman Drive / Wilkins Way, and Aprasia Avenue / Wilkins Way. • Consolidation of pedestrian crossing locations to five locations, being: <ul style="list-style-type: none"> – Gorman Drive, mid-block between McPhail Way and Wilkins Way via the consolidation of two pedestrian crossings to a single crossing; – Wilkins Way, north approach to intersection of Wilkins Way and Gorman Drive – McPhail Way, north approach to intersection of McPhail Way and Gorman Drive – Aprasia Avenue, between Hale Street and McPhail Way – McPhail Way, south approach to intersection of McPhail Way and Aprasia Avenue

<p>achieve the best solution to achieve productive and safe outcomes for the community.</p>	<p>Additional information has been provided to Council to seek in principal support in response to Council's concerns.</p> <p>Review of the TfNSW Centre for Road Safety database was also included within the submitted Transport Assessment, which identified a total of eight crashes. Three of these crashes were recorded at the Old Cooma Road/ Googong Road intersection, which has subsequently been upgraded to a signalised intersection as part of the Old Cooma Road Upgrade Stage 2 project to improve safety for all users.</p> <p>Additionally, two crashes involved animals. Of the remaining three crashes, the locations and types of crashes are different and hence, this is no discernible pattern identified.</p> <p>NOTE: for a crash to be recorded as a statistic by the TfNSW Centre for Road Safety Database it must conform to the national guidelines for reporting, which has the following criteria:</p> <ol style="list-style-type: none"> 1. Were reported to the police 2. Occurred on a road open to the public 3. Involved at least one moving vehicle 4. Involved at least one person being killed or injured or at least one vehicle being towed away. <p>Whilst Council indicated frequent safety issues, upon the Crash Statistics review, site inspection conducted, and considering the total movement survey undertaken and reviewed during the preparation of the Transport Assessment report, it appears the local road network surrounding the school site is functioning in a safe manner, whereby there is no data outlining the details of the safety issues, the type of safety issues, the factors that would have contributed to the safety issues that specifically draw correlation between the existing road geometry to safety issues.</p> <p>It is considered that safety issues raised by Council has been adequately addressed with the introduction of the Wilkins Way Kiss and Drop, and associated widening at Wilkins Way to Council's Collector Street road cross section.</p>
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	<p>It is acknowledged that Council provided feedback predominantly from its experiences with the Jerrabomberra Public School. Review of the nearby residential areas and enrolment catchment areas found that much of the nearby residential streets had no footpath or cycling facilities to support active travel modes. The road network was also based on a more car based design, where there is a lack of permeability in the urban form to support active travel modes.</p> <p>Googong in comparison has significant levels of walking and cycling infrastructure provided as part of the residential subdivision. The road network layout takes in a grid like format that supports shorter and more direct walking and cycling connectivity within the neighbourhood.</p> <p>Traffic design solutions developed took into consideration the EFSG requirements, as well as design solutions from new schools at greenfield subdivisions with similar levels of walking and cycling infrastructure, and grid like road network, such as Denham Court Public School, Barramurra Public School, Galungara Public School, and Estella Public School.</p> <p>It is acknowledged that the level of public transport service availability is poor within Googong, however, this is comparable to the level of public transport availability at Barramurra Public School, where significant portions of the enrolment catchment do not have access to convenient public transport connections.</p> <p>In relation to future transport management arrangement, the high-level framework has been documented in the Preliminary School Travel Plan submitted. Upon appointment of the School Principal, the Preliminary School Travel Plan will be revised to a School Travel Plan, where consultation with Council and TfNSW form part of the requirement.</p> <p>Within the School Travel Plan, detailed transport operational management arrangements such as the management procedures of the Kiss and Drop, walking initiatives, and monitoring arrangements will be developed where Council's Road Safety Officer will be invited to form a Transport Working Group to ensure management measures and implementation of infrastructure</p>
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		<p>length are still performing well and do not warrant any intersection upgrade in accordance with the TfNSW Modelling Guidelines.</p> <p>NOTE: Consistent with the analysis provided within the TA, the revised SIDRA Analysis also adopts the specified trip rates to all students (excluding the percentage of students attending the OSHC facility as they arrive and depart outside of the nominated peak periods).</p>
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Road Hierarchy

- Arterial Roads
- N/A Sub-Arterial Roads
- Collector Roads
- Future Collector Roads (Googong Masterplan August 2019)

Highlighted roads are geocoded and classified as Collector Roads with Council Specifications

Subject Site
Googong Primary School (Monaro Cluster)

Development well to the south not shown

Scale: 0 to 500m

[illegible]

The above diagram is an extract from the Googong Masterplan published by the developers.

<p>widths of Wilkins Way and McPhails Way along with the Caragh/Aprasia and Gorman/Caragh intersections.</p>	<p>The roads identified as ‘Collector Roads’ may not be constructed to Council’s current Engineering Guidelines, however, these roadways functions as a Collector Road. Additionally, per the Council’s Development Design Specification D1 section D1.07 specification 6, “collector street has a residential function but also carries higher volumes of traffic collected from lower order streets” which is demonstrated in the existing traffic volumes SIDRA model shown below with both Aprasia Avenue and Gorman Drive carrying significantly higher volumes of traffic collected from lower order streets (McPhail Way and Wilkins Way).</p> <p>With the proposed change to the Kiss and Drop onto Wilkins Way, given the proposed road cross section now aligns with Council’s Engineering Design and Construction Specifications for a ‘Collector Street”, it is considered that Council’s concerns have been addressed.</p> <p>Intersection swept paths were considered to be unnecessary given the roadways and intersections has been constructed and operational for a period of time. It is further noted that in accordance with Table 5.1 of <i>Austroads Guide to Road Design Part 4: Intersections and Crossings – General</i>, it is expected that Council would have required the provision of swept path assessment whereby a Service Vehicle (8.8m) is the design vehicle for Local / Local (residential) intersections, and for Collector / Local (residential) intersections.</p> <p>In response to the comments made, swept paths of the following intersections are provided and attached to this letter:</p> <ul style="list-style-type: none"> - Aprasia Avenue / McPhail Way - Aprasia Avenue / Wilkins Way - Gorman Drive / McPhail Way - Gorman Drive / Wilkins Way
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		<p>The swept path assessment found that the Service Vehicle performing a left turn will encroach the centre line of the side road.</p> <p>However, it appears that the roadways and intersections constructed were developed on the premise of tight kerb radius to reduce the distance when a pedestrian walk across the side road and requires service vehicles performing the turning movement to slow down before performing the turn, which is in-line with intersection design principles typically seen in urban settings, whereby the tight kerb radius provides a Local Traffic Management effect of slowing turning vehicles and improve walking priority that is expected in a 'Place' based on the Movement and Place framework.</p>
1.2.2	<p>The EIS and supporting Traffic Assessment places significant emphasis on active transport. It is agreed that the pedestrian and cycle path network within Googong is of a higher standard than older suburbs with the LGA. Googong is a well marketed "active community". Higher levels of cycle path usage in Googong are evident however, its geographical location in relation to the main employment centres in the region make active transport challenging. Data was provided during the consultation meetings supporting this information which demonstrated the difference between the nominated Estella Public School and the proposed Googong School demographic. This data is summarised below:</p> <ul style="list-style-type: none"> • 96% of Googong residents travel to work by car; • Observations of the Googong Child Care Centre showed less than 5% (only 1-2 parents) dropped children off by walking during the pleasant weather of November last year; • During the height of COVID related restrictions, schools such as Jerrabomberra Public had no increase in active transport rates, rather peak drop off/pick up peak periods increased and shortened in duration due to parents dropping off/picking up closer to the "bell time"; • Council's online surveys (108 Googong residents responded) detailed that two of the primary difficulties in promoting active transport in the 	<p>It is acknowledged that the travel modes provided within the Transport Assessment and Preliminary School Travel Plan provided aspirational targets, that was formulated on the following basis:</p> <ul style="list-style-type: none"> ▪ Car based travel being 60% on the basis of acknowledging the likelihood of linked trip of families that drive to / from the ACT for work where the School form part of a linked trip ▪ Higher target for walking (25%) and cycling (5%) for residents within the Googong area ▪ Utilisation of school bus services to / from school for children that reside out of Googong <p>It is further noted that the targets are set based on forecasted population growth from within the Googong area. The Preliminary School Travel Plan form the initial assessment, which will be revised as a requirement of SSD condition. Upon appointment of the School Principal, where a more targeted approach in conjunction with regular monitoring and data collection being required as a suite of measures to achieve the set target.</p> <p>The Preliminary STP will be converted to an STP, which is an operational document intended to assist in the development of site specific measures to promote and maximise the use of sustainable travel modes, including walking, cycling, public transport and car pooling. These strategies aim to reduce the</p>

	<p>region are climatic and economic. During winter 25% of respondents said that they would not use walking/cycling due to weather considerations;</p> <ul style="list-style-type: none"> • 63% of respondents in Council's survey commute to the ACT for employment and do not utilise the pedestrian cycle paths; • 86% of respondents to Council's survey comprised either one full time parent and one part time parent or two full time working parents. 50% of respondents were two full time working parents who stated personal vehicle travel mode is the most convenient, economic and timely mode of transport. <p>Whilst Council supports and promotes active transport, the infrastructure that supports travel to the proposed school needs to have sufficient redundancy to deal with low participation in active transport to avoid failure.</p> <p>In summary, Council's view of the mode share, is that 80% vehicle usage mode would likely be a middle case not the worse case as suggested. It is concluded that the modes adopted in the Traffic Assessment are not realistic and as such concern is raised that the assessment of the locality has not been undertaken to consider the above data.</p>	<p>reliance on the use of private vehicles for travel to and from the school, supporting sustainability incentives for growth into the future, provide sustainable travel modes to support independent travel of children attending the school and potential health benefits associated with walking, scooter riding and bicycle riding.</p> <p>The standard SSDA condition requires consultation with Council, Transport for NSW as well as the future School Principal in the development of the STP, where further detailed refinements to operational measures as well as Active Transport initiatives form part of the actions that shall be implemented.</p> <p>Notwithstanding this, the traffic analysis included within the TA was conservative, adopting the specified trip rates to all students (excluding the percentage of students attending the OSHC facility as they arrive and depart outside of the nominated peak periods).</p>
<p>1.2.3</p>	<p>During consultation it was agreed that Jerrabomberra School was a similar geographical centre, with similar community however, it does not appear that this data was utilised to calculate trip generation. The use of a reduction factor on the presented data for Out of School Hours Care (OSHC) does not seem appropriate. Applying a reduction factor effectively is factoring OOSH a second time. As a result the assumptions underestimate the trip generation.</p> <p>The future Traffic Analysis appears to be primarily based on current survey data collected without consideration of the impacts on traffic when</p>	<p>As indicated within the TA that accompanied the submission and adopting a conservative approach, it has been assumed that the OSHC facilities will be at 80% capacity. Noting the start and finish hours of the OSHC program, this results in 192 students arriving outside of the school peak hours. As such, no trips associated with these 192 students have been included in the traffic analysis for the peak school periods.</p> <p>To alleviate concerns raised by Council, further analysis and justification has been prepared and detailed in Item 1.2 above.</p> <p>Further consultation with the Director of Education Leadership noted that the level of OSHC facility requirement for the school being at least 480 spaces</p>

the Wellsvale and Gorman Drives loop is opened providing access to further residential development to the south and west.

Googong Township is expected to grow from approximately 3500 dwellings currently to 6200 in its final state. Yet, a 2% annual growth factor has seemingly been adopted. Below is an extract from Section 2.1.1 of the same Traffic Assessment that indicates starkly different growth data;

The data indicates that the Estimated Resident Population (ERP) in 2020 was 5,677 which was an increase of approximately 16.95% from the previous year. Figure 4 presents the data from 2013 to 2020 to highlight the growth trend over seven years.

This assumption represents a shortcoming in the analysis of the traffic generation and transport performance around the school and needs to be revised.

based on local experience within the QPRC Local Government Area as per our recent meeting with Council. Specific details of OSHC and future operational measures of the school forms part of the School Travel Plan, whereby management measures are subject to on-going regular review.

Given the analysis already assume only 80% attendance at the on-site OSHC with 240 student capacity, the traffic analysis included within the TA was conservative, adopting the specified trip rates to all students (excluding the percentage of students attending the OSHC facility as they arrive and depart outside of the nominated peak periods), not the 80% as specified within the travel modes.

A compounded growth rate of 2% was previously adopted for the surveyed intersections to obtain the 2023 and 2033 base figures as per consultation meeting discussions. As there was not a higher growth rate discussed, a 2% growth rate was applied to the background traffic on the basis that development of the land releases to the north, north-east, east, south-east, south, and north-western portion of Googong being largely completed.

The future growth areas associated with land releases are largely to the south-west of the School site, whereby significant portions of the traffic travelling to / from Googong are not expected to travel past the school site to access Old Cooma Road.

A sensitivity test adopting a 5% compounded growth over 10 years has been prepared to demonstrate the traffic impacts. Adoption of a 5% compounded growth rate over 10 years equates to a linear growth rate of 61% for the 10 year period, which is above and beyond the forecasted growth in the number of households of 'Couple families with dependents' being 47.9% between 2016 to 2026, and 44.4% between 2026 to 2036.

The analysis indicated that for the 2023 year and 2033 year with a 5% compounded growth PLUS development traffic, the key intersections would operate as follows:

- Overall Primary School Trip Rates – Level of Service A for all intersections

		<ul style="list-style-type: none"> Regional Primary School Rates – Gorman Drive/ Wilkins Ways would operate at a Level of Service B in 2033, with all other intersections to continue to operate at a Level of Service A. <p>All intersections would continue to operate with ample spare capacity, with the Aprasia Avenue/ Wilkins Way intersection subject to a 95th percentile queue of 1.9 metres (during the morning school peak of the 2033 horizon year).</p> <p>Importantly, all of the degree of saturation levels are well below 1, which suggests that the network shall operate in a satisfactory manner.</p>
1.3	<p>The number of access points and pedestrian crossings along with locations of crossings adjacent to intersections are not supported. Council's position on this is echoed in feedback provided by TfNSW, extracts below;</p> <p><i>e) Assess and justify the number of access points required to and from the school. TfNSW notes that the concept site plan (Figure 2.1 in the GHD report) shows five pedestrian access points to the school. TfNSW would encourage limiting the number of access points to three (e.g. one on each frontage except McPhail Way). An initial review has indicated that as there is a pedestrian and vehicle generator on McPhail Way with the shops and car parking. An entrance on this side could cause safety concerns as well as increased congestion. TfNSW also suggests that the main entrance to the school be provided via Wilkins Way and not Gorman Drive. This is due to crossings and main entries being avoided on sub arterial roads or roads with greater than 2,000 annual average daily traffic (AADT);</i></p> <p><i>f) Reduce/consolidate the number of children's crossings. TfNSW notes that the concept/site plan provided shows 6 crossings. Any crossing provided should be strategically located to be safe and accommodate desire lines. Where possible raised zebra crossing shall be used with no crossings installed at junctions. Details are also required on how the</i></p>	<p>TfNSW in their EIS response (dated 2 July 2021), provided the following response with respect to the proposed pedestrian crossings:</p> <p><i>"a) Any new pedestrian crossing to be provided should be raised to slow vehicle speed in line with the safe systems approach (i.e. wombat crossing). The design should comply with Austroads Guide to Road Design and Guide to Traffic Management including applicable supplements.</i></p> <p><i>b) The details on the proposed pedestrian crossings shall be submitted to the Queanbeyan-Palerang Regional Council Local Traffic Committee for review and comment before the submission of a detailed design to Council as part of obtaining Section 138 approval under the Roads Act 1993."</i></p> <p>Of importance, the referral response did not raise any concerns with respect to the number of pedestrian crossing nor the number of access points to/from the school, only highlighting the need for any proposed pedestrian crossing to be submitted to the Queanbeyan-Palerang Regional Council Local Traffic Committee for review and comment.</p> <p>As per the most recent meeting with Council whereby additional mapping of de-personalised data was provided, it is anticipated that approximately 150</p>

crossings proposed meet the numerical warrants detailed in the TfNSW Supplement Austroads Guide to Traffic Management Part 6;

The rationale of having multiple entrances for the school site to promote pedestrian access, is a principle Council supports. However, in practise existing schools within the area that have two entrances have seen principals typically opt to close one entrance in favour of managing one single entrance to the school. Council encourages reconsideration of a main access on Gorman Drive. The nearby Anglican School whilst fronting Gorman Drive has their access aligned with the off-street parking and pick up/drop off area on Rosa Street. Similarly, Queanbeyan East Public School have closed their access via Yass Road and have their main access points on minor local roads like Thurralilly and Mulloon Streets.

Given the above it is Council's view that the number of access points should be minimised.

Respondents to Council's online survey added safety of supervised children's crossings would encourage active transport options along with controls to regulate speeding vehicles. It is envisaged that TfNSW will be unable to staff the number of crossings proposed.

students would be from within the Googong area, within the walking and cycling catchment when the School opens. Breakdown of direction of travel was also provided to Council.

The application plans have been revised to 5 pedestrian crossings following most recent consultation with Council. Whilst their locations do not all currently warrant formalised crossings (zebra or children's), it is envisaged that once the school is in operation the warrants will be met based on the origin / destination of students.

Importantly, the proposed crossings have been proposed to improve safety around the school for vulnerable road users. Parramatta City Council prepared a document titled *Interim Guidelines for Installing Marked Pedestrian Crossings on Local Roads within the Parramatta LGA on Streets with Speed Limits of 50km/h or less*. This study reviewed existing guidelines including relevant Australian Guidelines, Austroads Guidelines and guidelines used by other state road authorities. With respect to the Austroads guides, the following is noteworthy

"Austroads has developed the Pedestrian Facility Selection Tool which is an on-line application to provide guidance on the selection of appropriate pedestrian facilities. The application considers time separated and physical pedestrian facilities at mid-block and intersection locations. Queensland and Victorian road authorities encourage the use of the application for the selection of pedestrian crossing facilities.

This application does not have minimum numbers of pedestrians or vehicles required to justify a pedestrian crossing. Austroads advises that a pedestrian crossing (without a raised surface, median island or road narrowing) does not result in any reduction or increase in collisions in Australia (Austroads notes that further research on this matter would be beneficial and for New Zealand the figure was set at a 28% increase in accidents). However, for a pedestrian crossing that is raised the accident reduction is 80%; for a pedestrian crossing with kerb extensions it is a 35% reduction; and a pedestrian crossing with a median island provides a 15 % reduction."

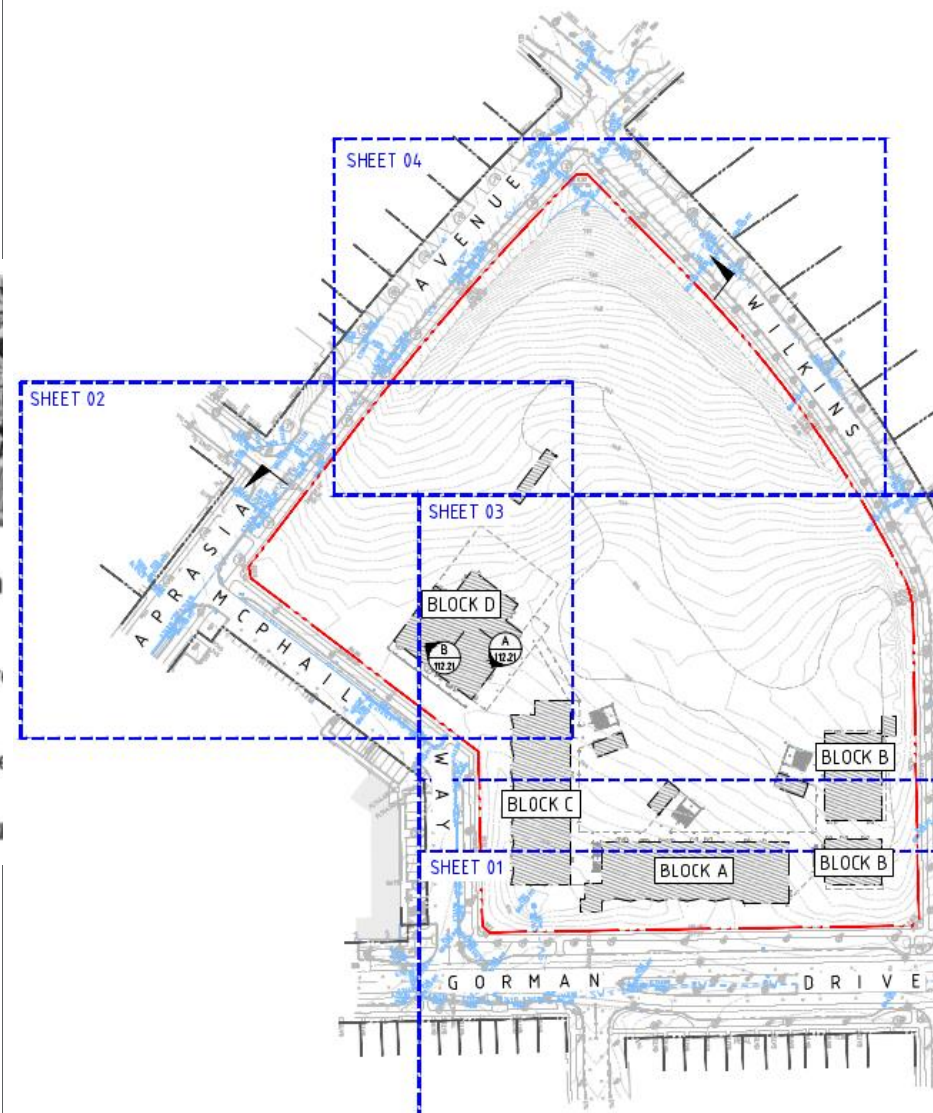
		<p>Acknowledging that TfNSW requires all proposed pedestrian crossings to be raised, the above material indicates that the accident reduction for a raised pedestrian crossing is 80%. As such, it is our recommendation that all of the proposed pedestrian crossing locations be adopted and endorsed.</p> <p>However, if any of the proposed pedestrian crossings are to be removed, we request that Council provide a diagram of which ones are to be removed.</p>
1.4	<p>Council acknowledges the current proposal requires widening of the parking bays on Aprasia Avenue. One of the dangerous traffic movements and unwanted behaviours in school zones is U-Turning. The Kiss and Drop facilities as proposed are easily navigated by residents to the east. However, residents living to west/north of Caragh Avenue and south/west of Gorman Drive do not have a clear access path to Aprasia Avenue facilities, especially if congestion with pedestrian crossings is experienced.</p> <p>Several local roads may experience unintended school zone traffic (Daniel Street, Griffiths Link and Aitken Street) but Aprasia Avenue may also experience illegal U-turning. Parents will also inevitably end up dropping off in McPhail Way as well which, if no controlled pedestrian crossing facilities are provided, will lead to pedestrian conflict issues.</p> <p>The proposal has provision for 21 drop off/pick up spaces, which appears significant though when details of the proposal are interrogated Council staff believe this number to be insufficient.</p> <p>Firstly, six of these spaces are located on Gorman Drive, which are proposed to service the Special Education Portion of the school which is likely to be a smaller student population that likely need longer times for this operation. Council staff do not consider this to be “best design practice” creating a conflict with passenger vehicles attempting to pull in and potential queuing adjacent to buses attempting to leave. Council</p>	<p>It is understood that Council is concerned with the following:</p> <ul style="list-style-type: none"> - Road safety concerns due to U-turns - Capacity of kiss and ride - Potential queuing along the local road network <p>The revised proposal now provides 21 Kiss and Ride spaces along Wilkins Way, plus 2 Accessible Spaces and 3 15-minute parking spaces along Gorman Drive.</p> <p>The total number of spaces for pick-up / set-down of children has been increased to address Council's concern. Calculations have been provided to Council for consideration and comments.</p> <p>In relation to road safety concerns associated with U-Turns, this is a matter whereby during the initial phase of school operations, there will be a need to allow for traffic management to be in place to educate parents to establish appropriate behaviours. This arrangement has been introduced at a number of school openings in 2021, and has assisted the Schools concerned into understanding the importance of establishing appropriate driver behaviour as early as practicable with support from suitably qualified traffic controllers.</p>

<p>would further suggest this area be analysed separately to the overall drop off/pick up capacity.</p> <p>Secondly, one of the fifteen spaces on Aprasia Avenue is a singular bay, located on the western side of the car park driveway, which is not practical and should be excluded as it's more likely to cause confusion than benefit.</p> <p>This leaves 14 spaces, which is approximately the same as the nearby Anglican School. Observations in March (a more favourable time of year for active transport) this year of the function of that school's drop off/pick up area indicated that the area worked relatively well during the am drop off, with 120 drop offs over a 30 minute period with queuing confined to the off street car park. While less vehicles (96) were observed during the pm pickup, significant queuing inside and out of the car park onto Rosa Street was encountered. In comparison, the 473 quoted vehicle capacity of the proposal with similar parking capacity, no queuing capacity and at least double the student population of the Anglican School seems highly inaccurate. Council staff believe the capacity of the facilities have been significantly over estimated, the basis for the calculations are not on real world observations and significant impacts to the local streets are expected as a result.</p> <p>Alternatives to the Aprasia Avenue Drop off Zone - Council's position has been for the drop off/pick up zone to be located in a single area ideally constructed as an indented bay on Wilkins Way separated from other traffic generating development. This is supported in the feedback from TfNSW;</p> <p><i>h) TfNSW suggests that Wilkins Way should be indented and should be the preferred drop and pickup for parents...</i></p> <p>As a secondary preference Council would like to see the drop off/pick up area incorporated into the proposed off-street car park off Aprasia Avenue. Section 9.2.4 of the Traffic Assessment misrepresents</p>	<p>The inclusion of a single continuous dividing line along Wilkins Way further reinforces that U-Turns are not permitted when vehicles exit the Kiss and Ride in accordance with Rule 132(2) of the <i>Road Rules 2014 (NSW)</i>.</p> <p>In relation to the Kiss and Ride, fundamentally, the concern relates to how can the number of spaces provided be sufficient to accommodate majority of the car parking demand associated with Kiss and Ride to not result in queueing along the public road network and local intersections.</p> <p>As discussed during stakeholder consultation sessions, the nearby Anglican School is a private school that draws student from a significantly larger catchment in comparison to the likely future enrolment catchment area of the subject school.</p> <p>The future Kiss and Ride along Wilkins Way will require the establishment of clear rules that are supported by School Staff and parents, with regular communication reinforcing the following:</p> <ul style="list-style-type: none"> • The Kiss & Ride will be subject to 'No Parking' restrictions, where vehicles are supposed to stop for a maximum of 2 minutes, and the driver was not supposed to be more than 3m away from the vehicle; • That families shall be assigned a number and timeslot on when their children will be discharged from the school; • Families that reside within the walking catchment will be encouraged to adopt walking and cycling modes of transport in the afternoon in particular, as pick-up in the afternoon in particular is typically where parking issues are typically experienced at schools. The focus on mode shift initially for the PM return to home trip addresses Council's concerns over cold weather experienced in early mornings and practicality of walking. Focus on active transport in the PM also aligns with the pattern of active travel mode use of other regional and metro Sydney Schools, which indicates a higher level of public transport and active travel modes in the PM period.
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	<p>Council's secondary preference by analysing an off-street drop off/pick up area separate to the proposed car park.</p> <p>Council staff do not consider Aprasia Avenue to be conducive to a safe drop off/pick up area and these alternatives present the best outcomes in terms of user safety and traffic generation.</p>	<p>The provision of on-site Kiss and Ride is against SINSW policies and design specifications for parking facilities.</p> <p>The future management arrangement and associated rules of the Kiss and Ride will be developed in consultation with the School Principal as part of the School Travel Plan process in consultation with Council and TfNSW.</p>
1.5	<p>There is an improvement on the previous plan observed however, Council strongly urges the entire Gorman Drive frontage be used for buses as opposed to a portion as proposed. The Anglican School with a significantly lower student population than proposed currently sees 3-4 buses arriving at the same time, to which Council has extended the existing bus bay to accommodate the buses from queuing on Gorman Drive. This is a common practice at many of our schools and should be expected and catered for by utilising the entire Gorman Drive frontage. It is noted initial designs had the special education needs parking indented on Wilkins Way which would allow Gorman Drive to be used for buses.</p>	<p>It is proposed that the new Primary School in Googong utilises the same school bus routes as the Anglican School therefore allowing for scheduling so that they do not arrive at the same time and thus, the proposed bus spatials are considered adequate.</p> <p>Consultation with QCity and TfNSW in relation to the future school bus route are underway, whereby information associated with the proposed bus stop was provided.</p>
1.6	<p>The following figure has been extracted from the information provided. It shows that the driveway for the proposed waste vehicle swept path is not wide enough to cater for its entry and exit. The vehicle crossing should be widened or location adjusted to prevent damage to Council infrastructure.</p>	<p>The civil design for the vehicle crossing has been revised to QPRC standards (DS5-01) to allow for access as shown without impacting on kerb and gutter.</p>



- 1.7 Access to the site via Caragh Avenue and Aprasia Avenue is not considered suitable for heavy vehicles. The site has an existing vehicle crossing on Gorman Drive and heavy vehicles should utilise this entrance. It is also noted that there is no mandate to ensure on-site parking is provided during construction. As on street parking around the site is well utilised, parking must be provided on site to avoid adverse impacts to neighbouring developments.



	<p>Due to the majority of the school buildings are situated fronting Gorman Drive as shown above, once construction progresses to the structural phase access via Gorman Drive would be impractical. McPhail Way access would interfere with shopping centre traffic and Wilkins Way is a residential local road.</p> <p>The site access point is located in a location which forms the future staff car park, whereby site access as well as on-site contractor parking can be created at the north-western corner of the site.</p> <p>Details of the site access, staging of works, on-site contractor parking will be detailed in a Construction Traffic and Pedestrian Management plan which is a standard SSD condition requirement and required to be developed in consultation with Council and TfNSW. .</p>
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Table 3 TfNSW Submission

No.	TfNSW Submission	Ason Response
1	<p>School Zone</p> <p>a) A school zone that complies with current TfNSW requirements is required to be implemented within the adjoining road network (e.g. Aprasia Avenue, McPhail Way, Gorman Drive and Wilkins Way). The developer/landowner shall provide details on the school zone and the associated speed zone reductions (e.g. location of required signage, pavement marking, etc) to TfNSW for approval at least 12 weeks prior to occupation of the site. The developer/landowner should liaise with the TfNSW Community Partnering South East Tablelands Precinct</p>	<p>A school zone shall be implemented as per the requirements, submitted to TfNSW for approval at least 12 weeks prior to occupation of the site.</p>

	<p>Team regarding the above (Vanessa Wilson, Senior Manager Community and Place Partner – 4253 2618).</p> <p>b) Installation of all required/approved school zone signage, speed management signage and pavement markings is to be undertaken at the developers/landowners expense and are to be in place prior to occupation/use of the development as a school.</p> <p>Note:- Section 138 approval under the Roads Act 1993 will be required before commencing works in the adjoining roads.</p> <p>c) Following installation of school zone signage, speed management signage and associated pavement markings, as required by condition 2 above, the developer/landowner must arrange an inspection with TfNSW for formal approval/handover of assets. The handover of assets must occur prior to the commencement of occupation of the development.</p> <p>d) The approved school zone shall be maintained in accordance with approvals issued by TfNSW for the life of the development.</p>	
2	<p>Ongoing Waste Storage</p> <p>a) The ongoing waste storage area/pad as nominated in the Operational Waste Management Plan prepared by EcCell Environmental Management Version 1 dated 7/06/21 shall be located so it does not impact upon the number of car spaces available within the developments onsite car parking area (i.e. currently shown as being car spaces 12 and 13 within the 60 space car park being provided to service the development). TfNSW notes that the architectural plan with reference Project GOOG-SSDA-001 Revision D dated 09/06/2020 shows a different car parking layout where there is no conflict between the ongoing waste storage area/pad and the developments on site car parking spaces.</p>	<p>The architectural plans have been revised so that the waste pad location does not impact on the number of car spaces available.</p>

3	<p>Bus Bay</p> <p>a) The indented bus bay (i.e. Gorman Drive) shall comply with Austroads Guide to Road Design (2021) Part 3: Geometric Design (refer to Figure 4.63).</p> <p>b) Before finalising the indented bus bay design contact shall be made with the TfNSW Rural and Regional Contracts team (Tanya Jennison, Commercial Manager Southern Region – 4253 2683) to discuss the number of buses required to service the site and the suitability of the indented bus bay (e.g. its length to cater for the required/determined number of buses).</p>	<p>The bus bay along Gorman Drive are to be updated to comply with Austroads Guide to Road Design (2021) Part 3: Geometric Design (figure 4.63).</p>
4	<p>Pedestrian Crossings</p> <p>a) Any new pedestrian crossing to be provided should be raised to slow vehicle speed in line with the safe systems approach (i.e. wombat crossing). The design should comply with Austroads Guide to Road Design and Guide to Traffic Management including applicable supplements.</p> <p>b) The details on the proposed pedestrian crossings shall be submitted to the Queanbeyan-Palerang Regional Council Local Traffic Committee for review and comment before the submission of a detailed design to Council as part of obtaining Section 138 approval under the Roads Act 1993.</p>	<p>All new pedestrian crossing shall be provided as raised crossings (wombat crossings) and designed in accordance with the Austroads Guide to Road Design and Guide to Traffic Management, including applicable supplements.</p>
5	<p>School Travel Plan</p>	<p>The STP shall be finalised in consultation with the appointed School Principal, Council and TfNSW and submitted as a Final to both agencies.</p>

	<p>a) Prior to occupation/use of the development as a school, the NSW Department of Education shall:</p> <ul style="list-style-type: none"> i) Finalise the Travel Plan in consultation with Council and TfNSW (at development.sco@transport.nsw.gov.au); and ii) Submit a copy of the final Travel Plan to TfNSW and Council. <p>Note: Transport for NSW has developed a Travel Plan Toolkit designed for the person or group responsible for developing and implementing a Travel Plan. This toolkit provides the steps, templates and resources for developing a comprehensive Travel Plan and may be accessed at: https://www.mysydney.nsw.gov.au/travelchoices/tdm.</p> <p>b) Every 6 months the operation of the travel plan shall be reviewed with the travel plan being updated annually. As part of updating the travel plan consultation should be had with Council, TfNSW and the school community/parents.</p>	Reviews shall be conducted as required.
6	<p>Bus Service Implementation</p> <p>a) Before the commencement of construction the NSW Department of Education shall contact the TfNSW Rural and Regional Contracts team (Tanya Jennison, Commercial Manager Southern Region – 4253 2683) and provide the required information to enable the school to be registered on the School Student Transport Scheme (SSTS) portal which will allow students to enrol for a bus pass.</p> <p>b) A minimum of 8 months before the occupation/use of the development as a school, the NSW Department of Education shall contact the TfNSW Rural and Regional Contracts team (Tanya Jennison, Commercial Manager Southern Region – 4253 2683) to enable discussions with bus operators. This is required to ascertain whether TfNSW can vary existing school bus routes under a Bus Service Alteration Request (BSAR) with existing buses or determine if a new service is required</p>	Noted – will be completed as requested.

For any queries regarding this correspondence, please contact Wendy Zheng or the undersigned on (02) 9083 6601.

Yours sincerely,



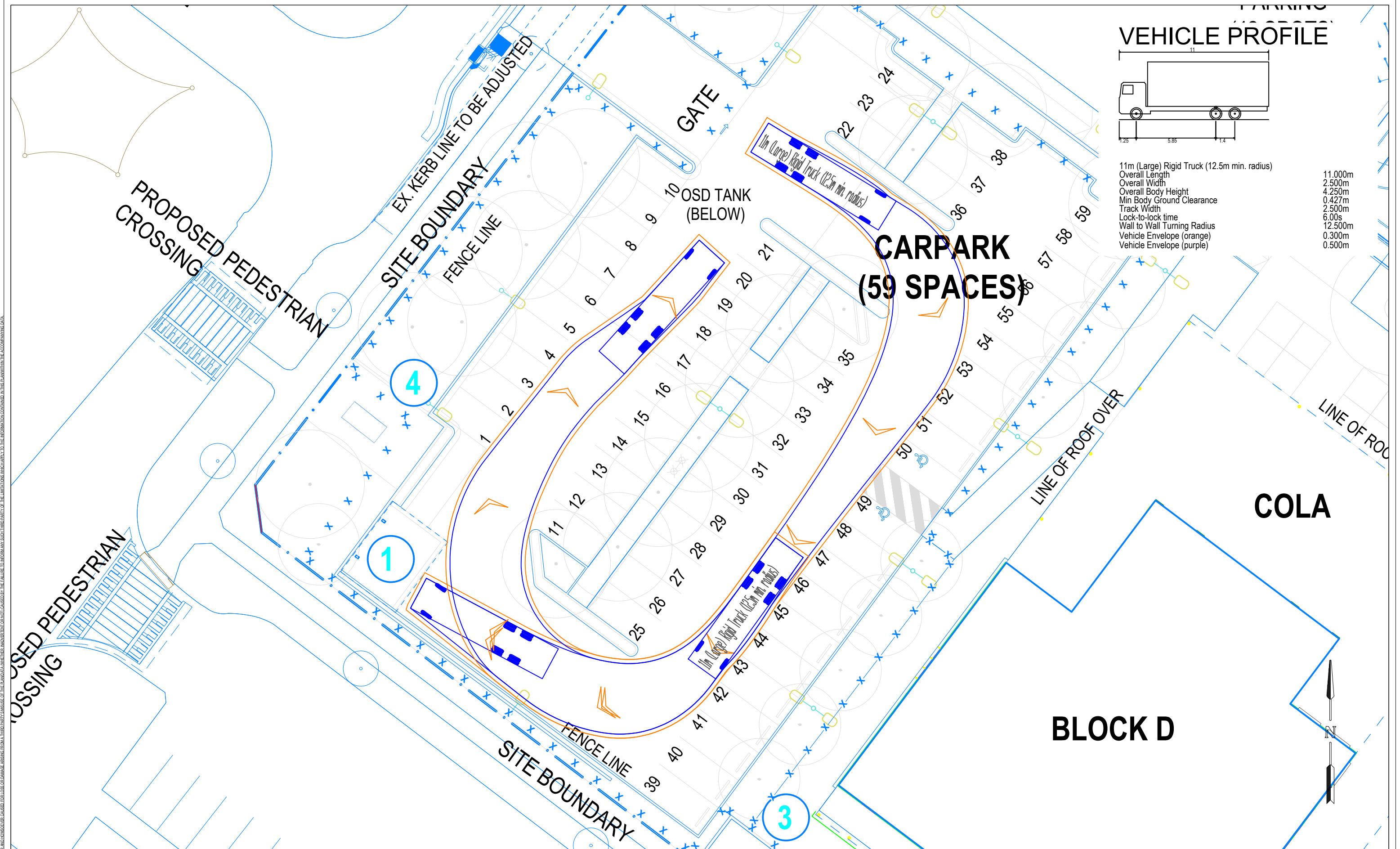
Dora Choi

Principal Lead – Traffic Management & Operations

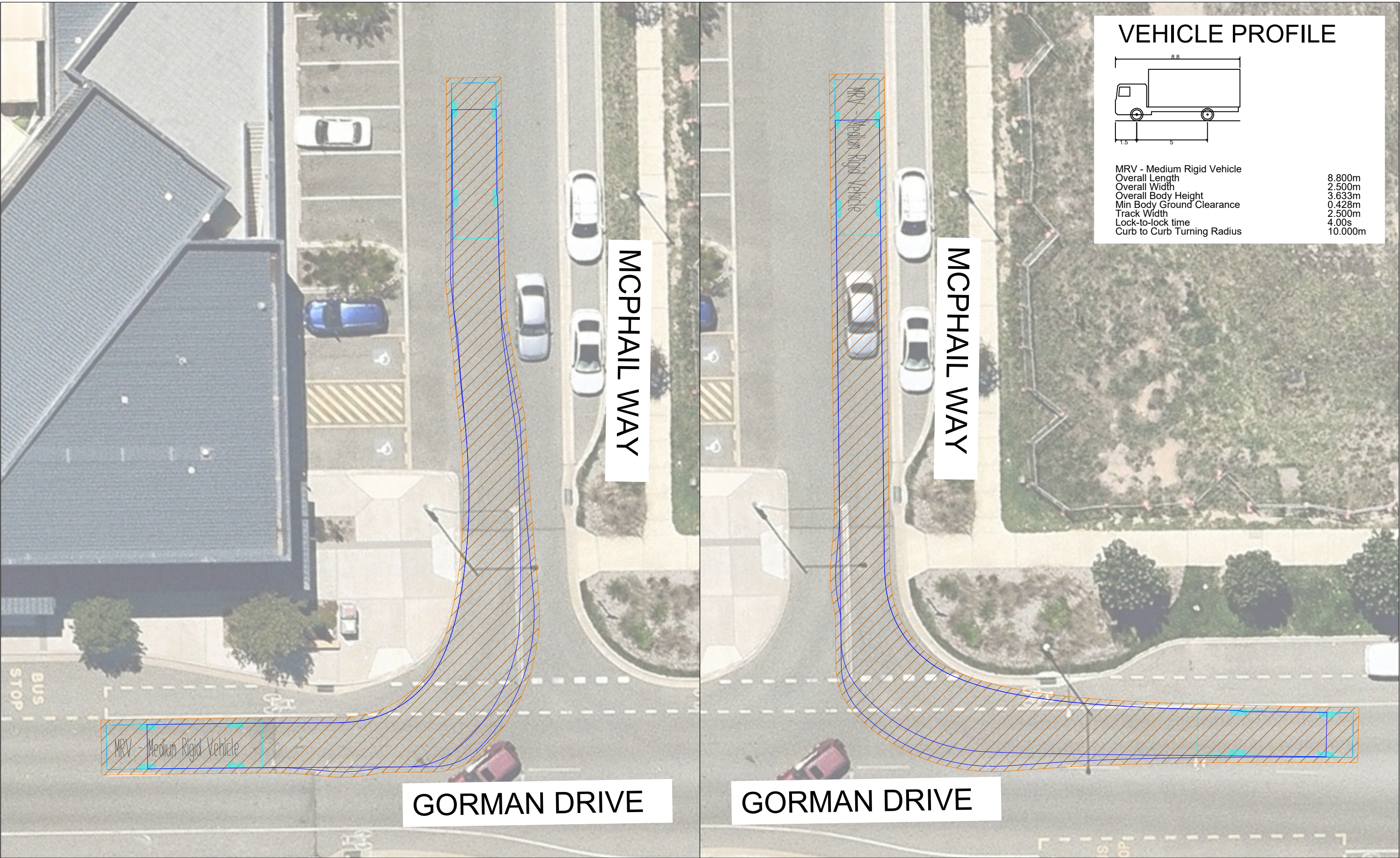
E dora.choi@asongroup.com.au

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Appendix A – Swept Path Assessment



<div>GENERAL NOTES</div> <div>This drawing is provided for information purposes only and should not be used for construction. Base Plan prepared by Pedavoli Architecture, received 21.09.2021. Aprasia Avenue has a posted speed limit of 50km/hr. Swept path assessments completed at 10 km/h and clearance as shown.</div>	DESIGNED Wendy Zheng	PAPER SIZE A3	CLIENT HANSEN YUNCKEN	DOCUMENT INFORMATION		<div>asongroup</div> <div>Suite 17.02, Level 17, 1 Castlereagh St Sydney NSW 2000 info@asongroup.com.au</div>
	APPROVED BY X.XXXX	DATE 23.09.2021	PROJECT 1566	WASTE PAD ACCESS AND CIRCULATION		
	SCALE 1:250	<div>02.55</div>	PROJECT GOOGONG PUBLIC SCHOOL	SWEPT PATH ASSESSMENT		
				FILE NAME AG1566-09-v5.dwg	SHEET AG01	



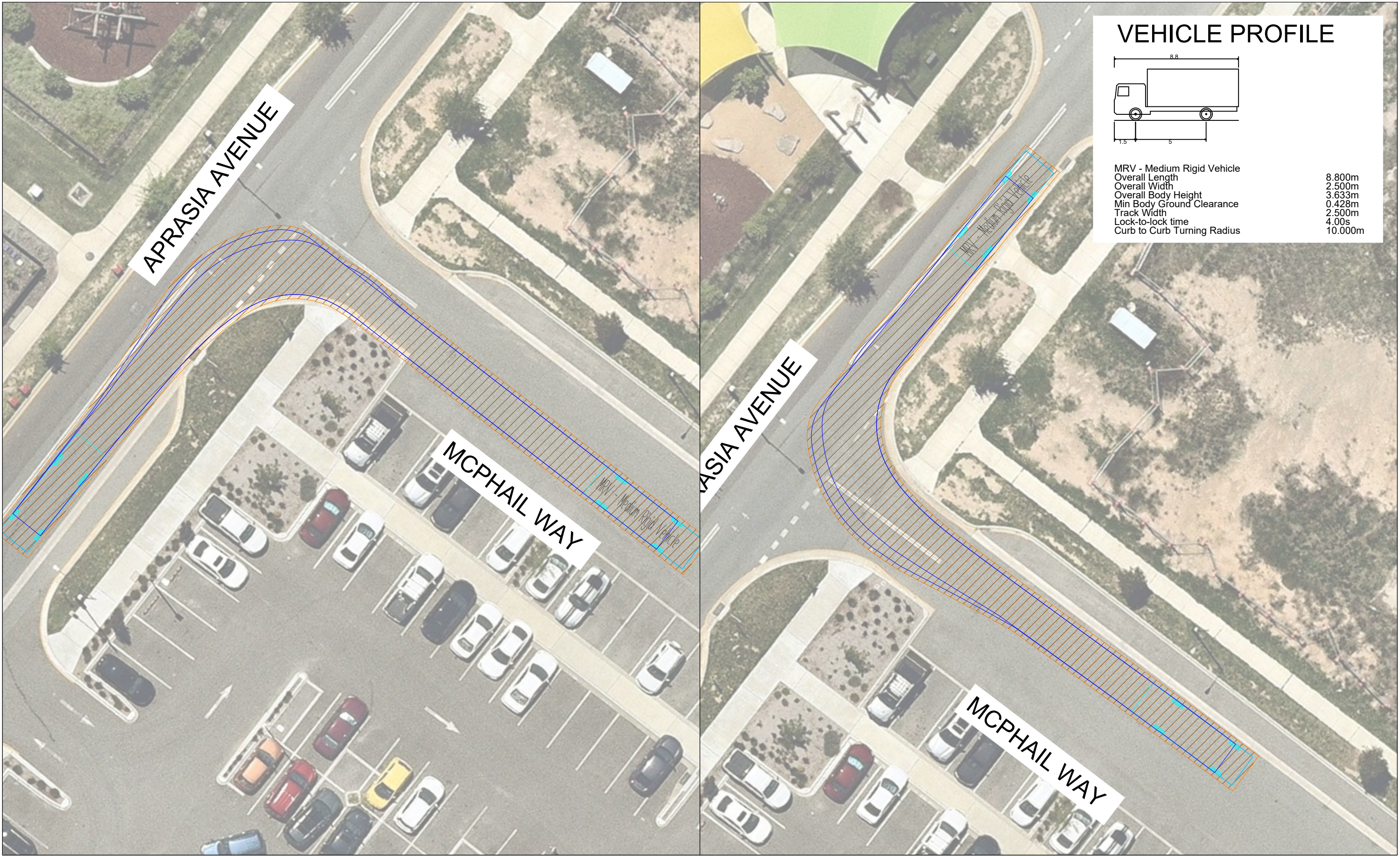
Notes:
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Note that the swept path assessment was undertaken at 5km/hr with 500mm clearances on
Aerial photograph obtained from Nearmap taken 07.02.2021

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File name: AG1566-10-v1.dwg
Client:
HANSEN YUCKEN

Project:
1566
GOOGONG PUBLIC SCHOOL
Drawing Title:
FRONTAGE ROAD INTERSECTIONS
SWEEP PATH ASSESSMENT

Date:
3-Aug-21
Scale @ A3:
1:200
Drawing Number:
AG01

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Aerial photograph obtained from Nearmap taken 07.02.2021

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Client:
HANSEN YUCKEN

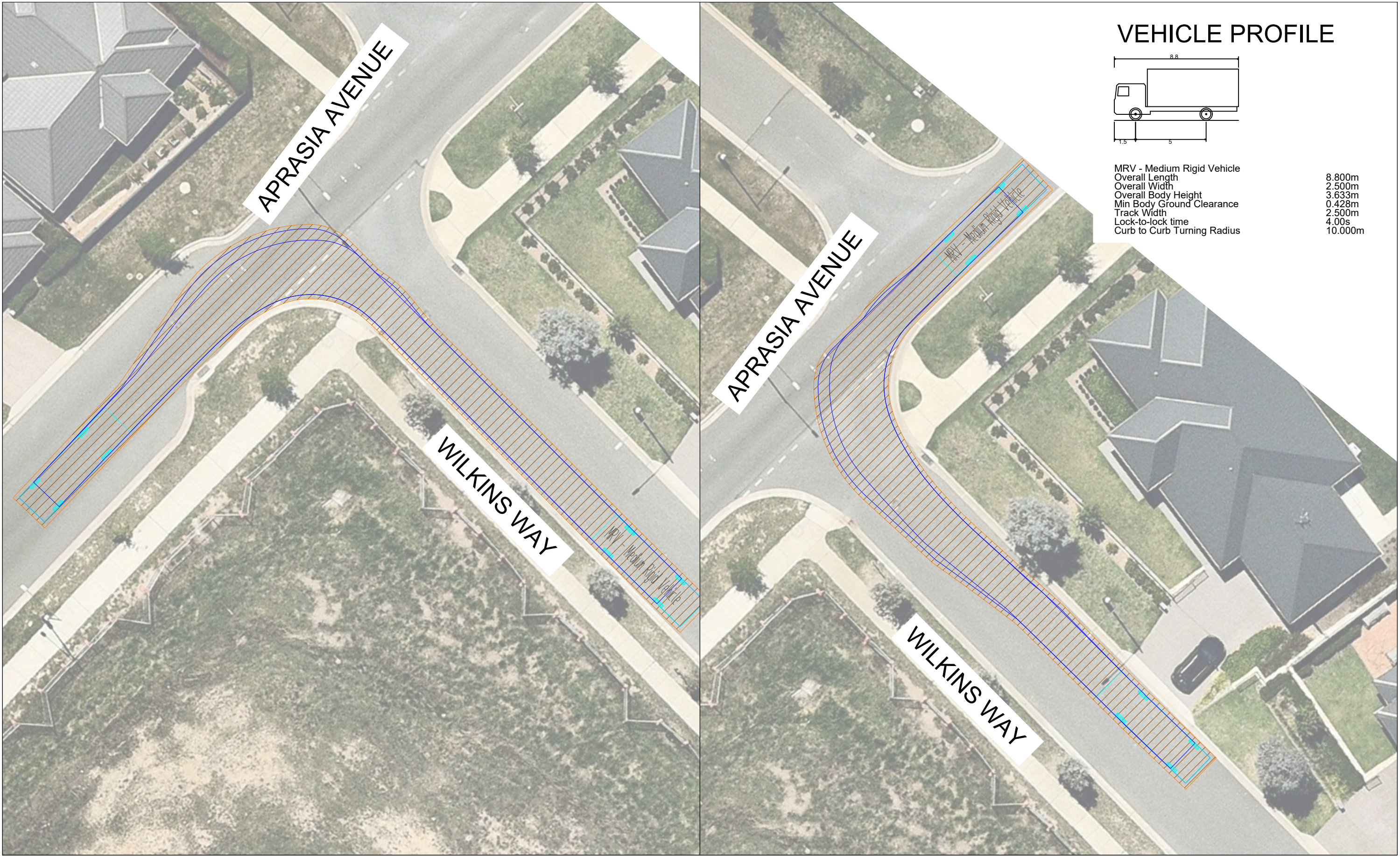
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GOOGONG PUBLIC SCHOOL

Drawing Title:
FRONTAGE ROAD INTERSECTIONS
SWEEP PATH ASSESSMENT

Date:
3-Aug-21

Scale @ A3:
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Drawing Number:
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Notes:

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File name: AG1566-10-v1.dwg

Client:

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Project:

1566

GOOGONG PUBLIC SCHOOL

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FRONTAGE ROAD INTERSECTIONS

SWEPT PATH ASSESSMENT

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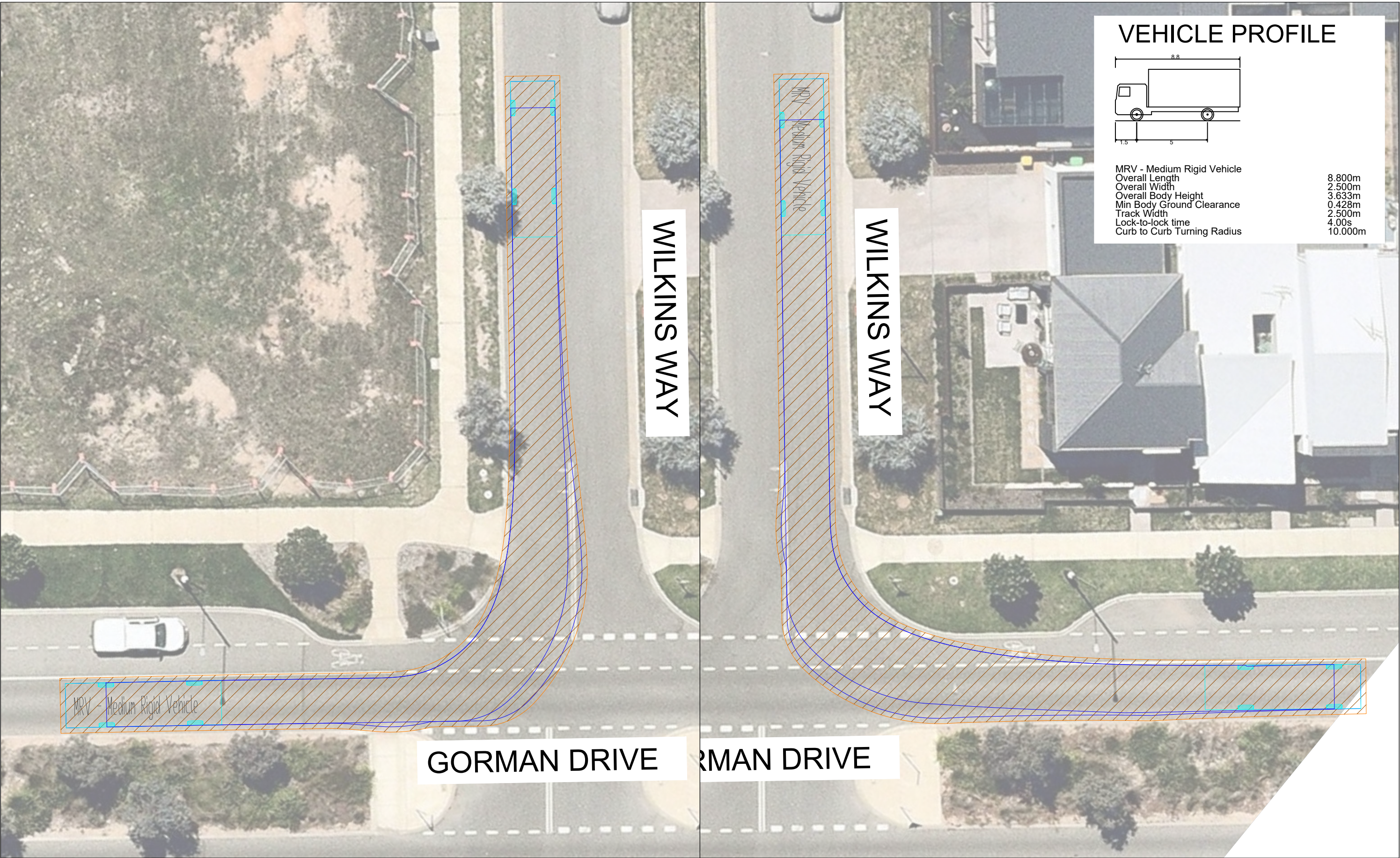
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Client:
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Project:
1566
GOOGONG PUBLIC SCHOOL
Drawing Title:
FRONTAGE ROAD INTERSECTIONS
SWEEP PATH ASSESSMENT

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Drawing Number:
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Appendix B – SIDRA Analysis Summary

Without Development Traffic

The SIDRA Intersection modelling results for the 2023 Open Year with 2% growth compounded from 2021 (traffic survey data) are presented in **Table 4**. The full suite of SIDRA output data is provided in **Appendix A**.

Table 4: Intersection Performance 2023 Open Year (2% growth)

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	3.8	0.2	0.017	LOS A
		PM	3.6	0.1	0.01	LOS A
Gorman Drive / Wilkins Way	Priority	AM	4.4	0.2	0.023	LOS A
		PM	3.9	0.2	0.02	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	4.1	0.1	0.006	LOS A
		PM	3.7	0	0.004	LOS A
Aprasia Avenue / McPhail Way	Priority	AM	6.2	0.3	0.025	LOS A
		PM	4.8	0.1	0.008	LOS A

The SIDRA Intersection modelling results for the 2033 Horizon Year with 2% growth compounded are presented in **Table 5**.

Table 5: Intersection Performance 2033 Future Horizon Year (2% growth)

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	3.9	0.2	0.021	LOS A
		PM	3.6	0.1	0.012	LOS A
Gorman Drive / Wilkins Way	Priority	AM	4.7	0.3	0.028	LOS A
		PM	4.1	0.2	0.024	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	4.3	0.1	0.009	LOS A
		PM	3.7	0.1	0.005	LOS A
Aprasia Avenue / McPhail Way	Priority	AM	7	0.4	0.034	LOS A
		PM	5.1	0.1	0.011	LOS A

With Development Traffic

The SIDRA Intersection modelling results for the 2023 Open Year with 2% growth compounded and the addition of Development Traffic (detailed in Section 8.2) are presented in **Table 6**.

Table 6: Intersection Performance 2023 Open Year (2% growth) PLUS Development Traffic

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	4.1	0.2	0.019	LOS A
		PM	3.7	0.1	0.01	LOS A
Gorman Drive / Wilkins Way	Priority	AM	4.3	0.3	0.035	LOS A
		PM	3.9	0.3	0.026	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	4	0.7	0.062	LOS A
		PM	3.6	0.4	0.038	LOS A
Aprasia Avenue / McPhail Way	Priority	AM	7	0.3	0.027	LOS A
		PM	5.2	0.1	0.009	LOS A

The SIDRA Intersection modelling results for the 2033 Open Year with 2% growth compounded and the addition of Development Traffic (detailed in Section 8.2) are presented in **Table 7**.

Table 7: Intersection Performance 2033 Future Year (2% growth) PLUS Development Traffic

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	4.2	0.2	0.023	LOS A
		PM	3.8	0.1	0.013	LOS A
Gorman Drive / Wilkins Way	Priority	AM	4.5	0.4	0.041	LOS A
		PM	4	0.3	0.032	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	4.1	0.7	0.067	LOS A
		PM	3.6	0.4	0.04	LOS A
Aprasia Avenue / McPhail Way	Priority	AM	7.9	0.4	0.039	LOS A
		PM	5.5	0.1	0.012	LOS A

Without Development Traffic - Sensitivity Analysis

Council have raised concerns with the adopted rates, and as such, additional sensitivity analysis has been conducted to understand the potential impacts on the surrounding intersections. The following rates, which have been taken from the *Roads and Maritime Services (now TfNSW) Trip Generation Surveys, Schools* (Schools Trip Generation Report) report prepared by GTA, have been used in the sensitivity analysis:

Sensitivity Analysis 1 (Overall Primary School Rates)

- AM School Peak 0.88 Trips / Student
- PM School Peak: 0.71 Trips / Student

Sensitivity Analysis 2 (Regional Primary School Rates)

- AM School Peak 1.23 Trips / Student
- PM School Peak: 1.01 Trips / Student

The following additional sensitivity scenarios were analysed:

Without Development Traffic

- 2023 (Open Year) with 5% compound growth
- 2033 (Future Horizon) with 5% compound growth

With Development Traffic

- 2023 (Open Year) with 5% compound growth PLUS Development Traffic (Overall Primary School Trip Rates)
- 2033 (Future Horizon) with 5% compound growth PLUS Development Traffic (Overall Primary School Trip Rates)
- 2023 (Open Year) with 5% compound growth PLUS Development Traffic (Regional Primary School Trip Rates)
- 2033 (Future Horizon) with 5% compound growth PLUS Development Traffic (Regional Primary School Trip Rates)

Table 8: Base Case - Intersection Performance 2023 Open Year (5% growth)

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
	Priority	AM	4.8	0.3	0.148	LOS A

Gorman Drive / McPhail Way		PM	4.1	0.2	0.072	LOS A
Gorman Drive / Wilkins Way	Priority	AM	7.0	0.3	0.138	LOS A
		PM	6.3	0.1	0.063	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	4.2	0.1	0.079	LOS A
		PM	4.2	0.0	0.029	LOS A
Aprasia Avenue / McPhail Way	Priority	AM	3.9	0.3	0.077	LOS A
		PM	3.7	0.1	0.028	LOS A

Table 9: Base Case - Intersection Performance 2033 Future Horizon Year (5% growth)

Intersection	Control Type	Period	Intersection Delay (s)	95th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	6.1	0.6	0.245	LOS A
		PM	4.7	0.4	0.117	LOS A
Gorman Drive / Wilkins Way	Priority	AM	11.0	0.7	0.224	LOS A
		PM	8.7	0.2	0.104	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	4.7	0.1	0.129	LOS A
		PM	4.5	0.1	0.047	LOS A

Aprasia Avenue / McPhail Way	Priority	AM	4.2	0.5	0.126	LOS A
		PM	3.7	0.2	0.047	LOS A

With Development Traffic – Sensitivity Analysis

Sensitivity Analysis 1 – Overall Primary School Trip Generation Rates

Table 10: Intersection Performance 2023 Open Year (5% growth) PLUS Development Traffic - Overall

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	5.5	0.4	0.161	LOS A
		PM	4.6	0.4	0.124	LOS A
Gorman Drive / Wilkins Way	Priority	AM	8.8	0.8	0.165	LOS A
		PM	7.0	0.9	0.138	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	4.6	1.2	0.101	LOS A
		PM	4.3	1.0	0.082	LOS A
Aprasia Avenue / McPhail Way	Priority	AM	4.5	0.4	0.184	LOS A
		PM	4.1	0.1	0.121	LOS A

Table 11: Intersection Performance 2033 Future Year (5% growth) PLUS Development Traffic - Overall

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	7.0	0.8	0.256	LOS A
		PM	5.2	0.6	0.169	LOS A
Gorman Drive / Wilkins Way	Priority	AM	14.0	1.4	0.253	LOS A
		PM	9.4	1.3	0.177	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	5.2	1.3	0.157	LOS A
		PM	4.5	1.0	0.088	LOS A
Aprasia Avenue / McPhail Way	Priority	AM	5.0	0.7	0.233	LOS A
		PM	4.2	0.2	0.137	LOS A

Sensitivity Analysis 2 – Regional Primary School Trip Generation Rates

Table 12: Intersection Performance 2023 Open Year (5% growth) PLUS Development Traffic – Regional

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	5.8	0.5	0.165	LOS A
		PM	4.8	0.5	0.146	LOS A

Gorman Drive / Wilkins Way	Priority	AM	9.7	1.3	0.179	LOS A
		PM	7.7	1.3	0.168	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	4.7	1.7	0.141	LOS A
		PM	4.4	1.4	0.117	LOS A
Aprasia Avenue / McPhail Way	Priority	AM	4.8	0.4	0.227	LOS A
		PM	4.4	0.1	0.160	LOS A

Table 13: Intersection Performance 2033 Future Year (5% growth) PLUS Development Traffic - Regional

Intersection	Control Type	Period	Intersection Delay (s)	95 th Queue (m)	Degree of Saturation	Level of Service
Gorman Drive / McPhail Way	Priority	AM	7.5	0.8	0.262	LOS A
		PM	5.4	0.7	0.191	LOS A
Gorman Drive / Wilkins Way	Priority	AM	15.5	1.8	0.268	LOS B
		PM	10.4	1.7	0.208	LOS A
Aprasia Avenue / Wilkins Way	Priority	AM	5.4	1.9	0.160	LOS A
		PM	4.7	1.5	0.124	LOS A
	Priority	AM	5.2	0.7	0.276	LOS A

Aprasia Avenue / McPhail Way		PM	4.5	0.2	0.177	LOS A
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The analysis indicated that for the 2023 year and 2033 year with a 5% compounded growth PLUS development traffic, the key intersections would operate as follows:

- Overall Primary School Trip Rates – Level of Service A for all intersections
- Regional Primary School Rates – Gorman Drive/ Wilkins Ways would operate at a Level of Service B in 2033, with all other intersections to continue to operate at a Level of Service A.

All intersections would continue to operate with ample spare capacity, with the Aprasia Avenue/ Wilkins Way intersection subject to a 95th percentile queue of 1.9 metres (during the morning school peak of the 2033 horizon year).

Importantly, all of the degree of saturation levels are well below 1, which suggests that the network shall operate in a satisfactory manner.

Appendix C – SIDRA Analysis Movement

MOVEMENT SUMMARY

▼ Site: i4 [2023 PM Base - Aprasia Avenue x McPhail Way (Site Folder: 2023 PM Base)]

■ Network: N101 [2023 PM Base (Network Folder: General)]

Aprasia Avenue x McPhail Way
 Site Category: Base Year
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: McPhail Way														
1	L2	13	0.0	13	0.0	0.010	3.5	LOS A	0.0	0.1	0.11	0.44	0.11	34.7
3	R2	4	0.0	4	0.0	0.010	3.7	LOS A	0.0	0.1	0.11	0.44	0.11	31.5
Approach		17	0.0	17	0.0	0.010	3.6	LOS A	0.0	0.1	0.11	0.44	0.11	34.1
East: Aprasia Avenue (Est Approach)														
4	L2	3	0.0	3	0.0	0.027	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	39.5
5	T1	48	0.0	48	0.0	0.027	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.7
Approach		52	0.0	52	0.0	0.027	0.2	NA	0.0	0.0	0.00	0.03	0.00	39.6
West: Aprasia Avenue (Wst Approach)														
11	T1	49	0.0	49	0.0	0.028	0.0	LOS A	0.0	0.1	0.04	0.06	0.04	37.6
12	R2	7	0.0	7	0.0	0.028	3.6	LOS A	0.0	0.1	0.04	0.06	0.04	37.6
Approach		57	0.0	57	0.0	0.028	0.5	NA	0.0	0.1	0.04	0.06	0.04	37.6
All Vehicles		125	0.0	125	0.0	0.028	0.8	NA	0.0	0.1	0.03	0.10	0.03	38.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: i4 [2023 AM Base - Aprasia Avenue x McPhail Way (Site Folder: 2023 AM Base)]

Network: N101 [2023 AM Base (Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: McPhail Way														
1	L2	20	5.3	20	5.3	0.019	3.8	LOS A	0.0	0.2	0.21	0.46	0.21	34.1
3	R2	8	0.0	8	0.0	0.019	3.8	LOS A	0.0	0.2	0.21	0.46	0.21	30.9
Approach		28	3.7	28	3.7	0.019	3.8	LOS A	0.0	0.2	0.21	0.46	0.21	33.4
East: Aprasia Avenue (Est Approach)														
4	L2	15	0.0	15	0.0	0.077	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.1
5	T1	134	0.8	134	0.8	0.077	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.4
Approach		148	0.7	148	0.7	0.077	0.3	NA	0.0	0.0	0.00	0.05	0.00	39.4
West: Aprasia Avenue (Wst Approach)														
11	T1	40	7.9	40	7.9	0.031	0.2	LOS A	0.0	0.3	0.17	0.16	0.17	33.4
12	R2	20	0.0	20	0.0	0.031	3.9	LOS A	0.0	0.3	0.17	0.16	0.17	33.4
Approach		60	5.3	60	5.3	0.031	1.4	NA	0.0	0.3	0.17	0.16	0.17	33.4
All Vehicles		237	2.2	237	2.2	0.077	1.0	NA	0.0	0.3	0.07	0.13	0.07	37.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i1 [2023 AM Base - Gorman Drive x McPhail Way (Site Folder: 2023 AM Base)]

Network: N101 [2023 AM Base (Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	[Veh. veh			Dist] m					
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	273	3.1	273	3.1	0.148	0.0	LOS A	0.0	0.3	0.03	0.03	0.03	39.8
6	R2	16	0.0	16	0.0	0.148	3.9	LOS A	0.0	0.3	0.03	0.03	0.03	39.1
Approach		288	2.9	288	2.9	0.148	0.2	NA	0.0	0.3	0.03	0.03	0.03	39.8
NorthEast: McPhail Way														
7	L2	6	0.0	6	0.0	0.025	3.4	LOS A	0.0	0.3	0.00	0.48	0.00	30.5
9	R2	22	4.8	22	4.8	0.025	4.8	LOS A	0.0	0.3	0.00	0.48	0.00	37.0
Approach		28	3.7	28	3.7	0.025	4.5	LOS A	0.0	0.3	0.00	0.48	0.00	36.5
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	25	0.0	25	0.0	0.061	3.4	LOS A	0.0	0.0	0.00	0.11	0.00	39.3
11	T1	86	11.0	86	11.0	0.061	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	39.3
Approach		112	8.5	112	8.5	0.061	0.8	NA	0.0	0.0	0.00	0.11	0.00	39.3
All Vehicles		428	4.4	428	4.4	0.148	0.7	NA	0.0	0.3	0.02	0.08	0.02	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i3 [2023 AM Base - Aprasia Avenue x Wilkins Way (Site Folder: 2023 AM Base)]

Network: N101 [2023 AM Base (Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total HV veh/h	%				[Veh. veh	Dist] m				
South: Wilkins Way														
1	L2	1	0.0	1	0.0	0.007	3.8	LOS A	0.0	0.1	0.24	0.49	0.24	34.2
3	R2	7	0.0	7	0.0	0.007	4.2	LOS A	0.0	0.1	0.24	0.49	0.24	37.4
Approach		8	0.0	8	0.0	0.007	4.2	LOS A	0.0	0.1	0.24	0.49	0.24	37.2
East: Aprasia Avenue (Est Approach)														
4	L2	8	0.0	8	0.0	0.079	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	39.8
5	T1	140	0.0	140	0.0	0.079	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.8
Approach		148	0.0	148	0.0	0.079	0.2	NA	0.0	0.0	0.00	0.03	0.00	39.8
West: Aprasia Avenue (Wst Approach)														
11	T1	38	5.6	38	5.6	0.022	0.0	LOS A	0.0	0.0	0.03	0.03	0.03	39.8
12	R2	2	0.0	2	0.0	0.022	4.0	LOS A	0.0	0.0	0.03	0.03	0.03	39.2
Approach		40	5.3	40	5.3	0.022	0.2	NA	0.0	0.0	0.03	0.03	0.03	39.8
All Vehicles		197	1.1	197	1.1	0.079	0.4	NA	0.0	0.1	0.02	0.05	0.02	39.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i2 [2023 AM Base - Gorman Drive x Wilkins Way (Site Folder: 2023 AM Base)]

Network: N101 [2023 AM Base (Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.138	3.6	LOS A	0.0	0.0	0.00	0.00	0.00	40.1
5	T1	262	3.6	262	3.6	0.138	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
6	R2	1	0.0	1	0.0	0.138	3.9	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		264	3.6	264	3.6	0.138	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthEast: Wilkins Way														
7	L2	2	0.0	2	0.0	0.027	3.4	LOS A	0.0	0.3	0.01	0.47	0.01	36.9
8	T1	1	0.0	1	0.0	0.027	5.1	LOS A	0.0	0.3	0.01	0.47	0.01	37.0
9	R2	14	0.0	14	0.0	0.027	7.0	LOS A	0.0	0.3	0.01	0.47	0.01	32.2
Approach		17	0.0	17	0.0	0.027	6.4	LOS A	0.0	0.3	0.01	0.47	0.01	33.8
NorthWest: Gorman Drive (NW Approach)														
10	L2	9	0.0	9	0.0	0.050	3.5	LOS A	0.0	0.0	0.01	0.05	0.01	38.6
11	T1	82	10.3	82	10.3	0.050	0.0	LOS A	0.0	0.0	0.01	0.05	0.01	39.7
12	R2	1	0.0	1	0.0	0.050	4.6	LOS A	0.0	0.0	0.01	0.05	0.01	39.5
Approach		93	9.1	93	9.1	0.050	0.4	NA	0.0	0.0	0.01	0.05	0.01	39.6
SouthWest: Helen Circuit														
1	L2	11	0.0	11	0.0	0.011	3.4	LOS A	0.0	0.1	0.00	0.45	0.00	36.9
2	T1	1	0.0	1	0.0	0.011	5.1	LOS A	0.0	0.1	0.00	0.45	0.00	36.9
3	R2	1	0.0	1	0.0	0.011	6.8	LOS A	0.0	0.1	0.00	0.45	0.00	38.3
Approach		13	0.0	13	0.0	0.011	3.8	LOS A	0.0	0.1	0.00	0.45	0.00	37.1
All Vehicles		386	4.6	386	4.6	0.138	0.5	NA	0.0	0.3	0.01	0.05	0.01	39.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: i1 [2023 PM Base - Gorman Drive x McPhail Way (Site Folder: 2023 PM Base)]

Network: N101 [2023 PM Base (Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	[Veh. veh			Dist] m					
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	99	9.6	99	9.6	0.056	0.0	LOS A	0.0	0.1	0.03	0.03	0.03	39.8
6	R2	6	0.0	6	0.0	0.056	3.9	LOS A	0.0	0.1	0.03	0.03	0.03	38.9
Approach		105	9.0	105	9.0	0.056	0.3	NA	0.0	0.1	0.03	0.03	0.03	39.7
NorthEast: McPhail Way														
7	L2	7	14.3	7	14.3	0.021	3.5	LOS A	0.0	0.2	0.00	0.48	0.00	31.3
9	R2	20	0.0	20	0.0	0.021	4.1	LOS A	0.0	0.2	0.00	0.48	0.00	37.3
Approach		27	3.8	27	3.8	0.021	4.0	LOS A	0.0	0.2	0.00	0.48	0.00	36.8
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	20	0.0	20	0.0	0.072	3.4	LOS A	0.0	0.0	0.00	0.07	0.00	39.5
11	T1	116	4.5	116	4.5	0.072	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	39.5
Approach		136	3.9	136	3.9	0.072	0.5	NA	0.0	0.0	0.00	0.07	0.00	39.5
All Vehicles		268	5.9	268	5.9	0.072	0.8	NA	0.0	0.2	0.01	0.09	0.01	39.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i3 [2023 PM Base - Aprasia Avenue x Wilkins Way (Site Folder: 2023 PM Base)]

Network: N101 [2023 PM Base (Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Wilkins Way														
1	L2	3	0.0	3	0.0	0.004	3.5	LOS A	0.0	0.0	0.12	0.45	0.12	34.8
3	R2	2	0.0	2	0.0	0.004	3.9	LOS A	0.0	0.0	0.12	0.45	0.12	37.6
Approach		5	0.0	5	0.0	0.004	3.7	LOS A	0.0	0.0	0.12	0.45	0.12	36.6
East: Aprasia Avenue (Est Approach)														
4	L2	3	0.0	3	0.0	0.025	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	39.8
5	T1	44	0.0	44	0.0	0.025	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.8
Approach		47	0.0	47	0.0	0.025	0.2	NA	0.0	0.0	0.00	0.03	0.00	39.8
West: Aprasia Avenue (Wst Approach)														
11	T1	52	0.0	52	0.0	0.029	0.0	LOS A	0.0	0.0	0.01	0.02	0.01	39.9
12	R2	2	50.0	2	50.0	0.029	4.2	LOS A	0.0	0.0	0.01	0.02	0.01	39.7
Approach		54	2.0	54	2.0	0.029	0.2	NA	0.0	0.0	0.01	0.02	0.01	39.9
All Vehicles		106	1.0	106	1.0	0.029	0.4	NA	0.0	0.0	0.01	0.05	0.01	39.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i2 [2023 PM Base - Gorman Drive x Wilkins Way (Site Folder: 2023 PM Base)]

Network: N101 [2023 PM Base (Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.058	3.7	LOS A	0.0	0.0	0.01	0.01	0.01	40.1
5	T1	104	10.1	104	10.1	0.058	0.0	LOS A	0.0	0.0	0.01	0.01	0.01	39.9
6	R2	1	0.0	1	0.0	0.058	4.0	LOS A	0.0	0.0	0.01	0.01	0.01	39.9
Approach		106	9.9	106	9.9	0.058	0.1	NA	0.0	0.0	0.01	0.01	0.01	39.9
NorthEast: Wilkins Way														
7	L2	2	0.0	2	0.0	0.008	3.4	LOS A	0.0	0.1	0.00	0.45	0.00	37.7
8	T1	1	0.0	1	0.0	0.008	3.9	LOS A	0.0	0.1	0.00	0.45	0.00	37.8
9	R2	3	33.3	3	33.3	0.008	6.3	LOS A	0.0	0.1	0.00	0.45	0.00	33.9
Approach		6	16.7	6	16.7	0.008	4.9	LOS A	0.0	0.1	0.00	0.45	0.00	36.6
NorthWest: Gorman Drive (NW Approach)														
10	L2	2	0.0	2	0.0	0.063	3.6	LOS A	0.0	0.0	0.01	0.01	0.01	39.6
11	T1	117	5.4	117	5.4	0.063	0.0	LOS A	0.0	0.0	0.01	0.01	0.01	39.9
12	R2	1	0.0	1	0.0	0.063	3.9	LOS A	0.0	0.0	0.01	0.01	0.01	39.8
Approach		120	5.3	120	5.3	0.063	0.1	NA	0.0	0.0	0.01	0.01	0.01	39.9
SouthWest: Helen Circuit														
1	L2	1	0.0	1	0.0	0.004	3.4	LOS A	0.0	0.0	0.00	0.43	0.00	36.7
2	T1	1	0.0	1	0.0	0.004	3.9	LOS A	0.0	0.0	0.00	0.43	0.00	36.7
3	R2	1	0.0	1	0.0	0.004	5.3	LOS A	0.0	0.0	0.00	0.43	0.00	38.1
Approach		3	0.0	3	0.0	0.004	4.2	LOS A	0.0	0.0	0.00	0.43	0.00	37.4
All Vehicles		236	7.6	236	7.6	0.063	0.3	NA	0.0	0.1	0.01	0.03	0.01	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 **Site: i4 [2033 AM Base - Aprasia Avenue x McPhail Way (Site Folder: 2033 AM Base)]**
 **Network: N101 [2033 AM Base (Network Folder: General)]**

Aprasia Avenue x McPhail Way
 Site Category: Base Year
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: McPhail Way														
1	L2	33	6.5	33	6.5	0.033	4.2	LOS A	0.0	0.3	0.28	0.49	0.28	33.8
3	R2	14	0.0	14	0.0	0.033	3.9	LOS A	0.0	0.3	0.28	0.49	0.28	30.4
Approach		46	4.5	46	4.5	0.033	4.1	LOS A	0.0	0.3	0.28	0.49	0.28	33.0
East: Aprasia Avenue (Est Approach)														
4	L2	24	0.0	24	0.0	0.126	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.1
5	T1	218	1.0	218	1.0	0.126	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.4
Approach		242	0.9	242	0.9	0.126	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.4
West: Aprasia Avenue (Wst Approach)														
11	T1	65	8.1	65	8.1	0.051	0.3	LOS A	0.1	0.5	0.23	0.17	0.23	32.7
12	R2	33	0.0	33	0.0	0.051	4.1	LOS A	0.1	0.5	0.23	0.17	0.23	32.7
Approach		98	5.4	98	5.4	0.051	1.6	NA	0.1	0.5	0.23	0.17	0.23	32.7
All Vehicles		386	2.5	386	2.5	0.126	1.1	NA	0.1	0.5	0.09	0.13	0.09	37.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i1 [2033 AM Base - Gorman Drive x McPhail Way (Site Folder: 2033 AM Base)]

Network: N101 [2033 AM Base (Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	445	3.3	445	3.3	0.245	0.1	LOS A	0.1	0.6	0.05	0.03	0.05	39.7
6	R2	26	0.0	26	0.0	0.245	4.3	LOS A	0.1	0.6	0.05	0.03	0.05	38.9
Approach		472	3.1	472	3.1	0.245	0.3	NA	0.1	0.6	0.05	0.03	0.05	39.7
NorthEast: McPhail Way														
7	L2	9	0.0	9	0.0	0.050	3.4	LOS A	0.1	0.5	0.00	0.48	0.00	28.9
9	R2	36	5.9	36	5.9	0.050	6.1	LOS A	0.1	0.5	0.00	0.48	0.00	36.4
Approach		45	4.7	45	4.7	0.050	5.5	LOS A	0.1	0.5	0.00	0.48	0.00	35.9
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	42	0.0	42	0.0	0.101	3.4	LOS A	0.0	0.0	0.00	0.11	0.00	39.2
11	T1	141	11.9	141	11.9	0.101	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	39.2
Approach		183	9.2	183	9.2	0.101	0.8	NA	0.0	0.0	0.00	0.11	0.00	39.2
All Vehicles		700	4.8	700	4.8	0.245	0.8	NA	0.1	0.6	0.03	0.08	0.03	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i3 [2033 AM Base - Aprasia Avenue x Wilkins Way (Site Folder: 2033 AM Base)]

Network: N101 [2033 AM Base (Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Wilkins Way														
1	L2	2	0.0	2	0.0	0.013	4.1	LOS A	0.0	0.1	0.32	0.53	0.32	33.9
3	R2	12	0.0	12	0.0	0.013	4.7	LOS A	0.0	0.1	0.32	0.53	0.32	37.2
Approach		14	0.0	14	0.0	0.013	4.6	LOS A	0.0	0.1	0.32	0.53	0.32	37.0
East: Aprasia Avenue (Est Approach)														
4	L2	15	0.0	15	0.0	0.129	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	39.8
5	T1	228	0.0	228	0.0	0.129	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.8
Approach		243	0.0	243	0.0	0.129	0.2	NA	0.0	0.0	0.00	0.03	0.00	39.8
West: Aprasia Avenue (Wst Approach)														
11	T1	63	6.7	63	6.7	0.038	0.1	LOS A	0.0	0.1	0.05	0.03	0.05	39.7
12	R2	4	0.0	4	0.0	0.038	4.4	LOS A	0.0	0.1	0.05	0.03	0.05	38.9
Approach		67	6.3	67	6.3	0.038	0.3	NA	0.0	0.1	0.05	0.03	0.05	39.7
All Vehicles		324	1.3	324	1.3	0.129	0.5	NA	0.0	0.1	0.02	0.05	0.02	39.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i2 [2033 AM Base - Gorman Drive x Wilkins Way (Site Folder: 2033 AM Base)]

Network: N101 [2033 AM Base (Network Folder: General)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.224	3.8	LOS A	0.0	0.0	0.00	0.00	0.00	40.1
5	T1	426	3.5	426	3.5	0.224	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
6	R2	1	0.0	1	0.0	0.224	4.3	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		428	3.4	428	3.4	0.224	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthEast: Wilkins Way														
7	L2	4	0.0	4	0.0	0.067	3.4	LOS A	0.1	0.7	0.01	0.48	0.01	35.3
8	T1	1	0.0	1	0.0	0.067	8.3	LOS A	0.1	0.7	0.01	0.48	0.01	35.5
9	R2	23	0.0	23	0.0	0.067	11.0	LOS A	0.1	0.7	0.01	0.48	0.01	29.1
Approach		28	0.0	28	0.0	0.067	9.8	LOS A	0.1	0.7	0.01	0.48	0.01	31.2
NorthWest: Gorman Drive (NW Approach)														
10	L2	15	0.0	15	0.0	0.084	3.8	LOS A	0.0	0.1	0.03	0.05	0.03	38.5
11	T1	135	10.9	135	10.9	0.084	0.1	LOS A	0.0	0.1	0.03	0.05	0.03	39.6
12	R2	2	0.0	2	0.0	0.084	5.7	LOS A	0.0	0.1	0.03	0.05	0.03	39.5
Approach		152	9.7	152	9.7	0.084	0.5	NA	0.0	0.1	0.03	0.05	0.03	39.6
SouthWest: Helen Circuit														
1	L2	17	0.0	17	0.0	0.018	3.4	LOS A	0.0	0.2	0.00	0.45	0.00	36.8
2	T1	1	0.0	1	0.0	0.018	8.2	LOS A	0.0	0.2	0.00	0.45	0.00	36.8
3	R2	1	0.0	1	0.0	0.018	10.5	LOS A	0.0	0.2	0.00	0.45	0.00	38.2
Approach		19	0.0	19	0.0	0.018	4.1	LOS A	0.0	0.2	0.00	0.45	0.00	36.9
All Vehicles		627	4.7	627	4.7	0.224	0.7	NA	0.1	0.7	0.01	0.05	0.01	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i4 [2033 PM Base - Aprasia Avenue x McPhail Way (Site Folder: 2033 PM Base)]

Network: N101 [2033 PM Base (Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: McPhail Way														
1	L2	21	0.0	21	0.0	0.018	3.6	LOS A	0.0	0.2	0.15	0.45	0.15	34.5
3	R2	7	0.0	7	0.0	0.018	3.7	LOS A	0.0	0.2	0.15	0.45	0.15	31.2
Approach		28	0.0	28	0.0	0.018	3.6	LOS A	0.0	0.2	0.15	0.45	0.15	33.8
East: Aprasia Avenue (Est Approach)														
4	L2	5	0.0	5	0.0	0.044	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	39.5
5	T1	79	0.0	79	0.0	0.044	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.6
Approach		84	0.0	84	0.0	0.044	0.2	NA	0.0	0.0	0.00	0.03	0.00	39.6
West: Aprasia Avenue (Wst Approach)														
11	T1	81	0.0	81	0.0	0.047	0.0	LOS A	0.0	0.2	0.05	0.06	0.05	37.5
12	R2	12	0.0	12	0.0	0.047	3.7	LOS A	0.0	0.2	0.05	0.06	0.05	37.5
Approach		93	0.0	93	0.0	0.047	0.5	NA	0.0	0.2	0.05	0.06	0.05	37.5
All Vehicles		205	0.0	205	0.0	0.047	0.8	NA	0.0	0.2	0.04	0.10	0.04	38.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i1 [2033 PM Base - Gorman Drive x McPhail Way (Site Folder: 2033 PM Base)]

Network: N101 [2033 PM Base (Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	[Veh. veh			Dist m					
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	161	10.5	161	10.5	0.092	0.1	LOS A	0.0	0.2	0.04	0.03	0.04	39.7
6	R2	9	0.0	9	0.0	0.092	4.3	LOS A	0.0	0.2	0.04	0.03	0.04	38.9
Approach		171	9.9	171	9.9	0.092	0.3	NA	0.0	0.2	0.04	0.03	0.04	39.7
NorthEast: McPhail Way														
7	L2	12	18.2	12	18.2	0.038	3.5	LOS A	0.1	0.4	0.00	0.48	0.00	30.7
9	R2	33	0.0	33	0.0	0.038	4.7	LOS A	0.1	0.4	0.00	0.48	0.00	37.1
Approach		44	4.8	44	4.8	0.038	4.4	LOS A	0.1	0.4	0.00	0.48	0.00	36.5
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	33	0.0	33	0.0	0.117	3.4	LOS A	0.0	0.0	0.00	0.07	0.00	39.5
11	T1	188	5.0	188	5.0	0.117	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	39.5
Approach		221	4.3	221	4.3	0.117	0.5	NA	0.0	0.0	0.00	0.07	0.00	39.5
All Vehicles		436	6.5	436	6.5	0.117	0.8	NA	0.1	0.4	0.02	0.09	0.02	39.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 **Site: i3 [2033 PM Base - Aprasia Avenue x Wilkins Way (Site Folder: 2033 PM Base)]**
 **Network: N101 [2033 PM Base (Network Folder: General)]**

Aprasia Avenue x Wilkins Way
 Site Category: Base Year
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wilkins Way														
1	L2	5	0.0	5	0.0	0.007	3.6	LOS A	0.0	0.1	0.16	0.46	0.16	34.6
3	R2	4	0.0	4	0.0	0.007	4.1	LOS A	0.0	0.1	0.16	0.46	0.16	37.5
Approach		9	0.0	9	0.0	0.007	3.8	LOS A	0.0	0.1	0.16	0.46	0.16	36.6
East: Aprasia Avenue (Est Approach)														
4	L2	5	0.0	5	0.0	0.041	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	39.8
5	T1	72	0.0	72	0.0	0.041	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.8
Approach		77	0.0	77	0.0	0.041	0.2	NA	0.0	0.0	0.00	0.03	0.00	39.8
West: Aprasia Avenue (Wst Approach)														
11	T1	83	0.0	83	0.0	0.047	0.0	LOS A	0.0	0.1	0.02	0.02	0.02	39.9
12	R2	3	66.7	3	66.7	0.047	4.5	LOS A	0.0	0.1	0.02	0.02	0.02	39.7
Approach		86	2.4	86	2.4	0.047	0.2	NA	0.0	0.1	0.02	0.02	0.02	39.9
All Vehicles		173	1.2	173	1.2	0.047	0.4	NA	0.0	0.1	0.02	0.05	0.02	39.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model (5 percent).sip9

MOVEMENT SUMMARY

Site: i2 [2033 PM Base - Gorman Drive x Wilkins Way (Site Folder: 2033 PM Base)]

Network: N101 [2033 PM Base (Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
SouthEast: Gorman Drive (SE Approach)														
4	L2	2	0.0	2	0.0	0.094	3.7	LOS A	0.0	0.0	0.01	0.01	0.01	40.1
5	T1	169	9.9	169	9.9	0.094	0.0	LOS A	0.0	0.0	0.01	0.01	0.01	39.9
6	R2	1	0.0	1	0.0	0.094	4.3	LOS A	0.0	0.0	0.01	0.01	0.01	39.9
Approach		173	9.8	173	9.8	0.094	0.1	NA	0.0	0.0	0.01	0.01	0.01	39.9
NorthEast: Wilkins Way														
7	L2	4	0.0	4	0.0	0.019	3.4	LOS A	0.0	0.2	0.00	0.46	0.00	36.9
8	T1	1	0.0	1	0.0	0.019	5.2	LOS A	0.0	0.2	0.00	0.46	0.00	37.1
9	R2	6	33.3	6	33.3	0.019	8.7	LOS A	0.0	0.2	0.00	0.46	0.00	32.3
Approach		12	18.2	12	18.2	0.019	6.5	LOS A	0.0	0.2	0.00	0.46	0.00	35.4
NorthWest: Gorman Drive (NW Approach)														
10	L2	4	0.0	4	0.0	0.104	3.6	LOS A	0.0	0.0	0.01	0.01	0.01	39.6
11	T1	191	6.1	191	6.1	0.104	0.0	LOS A	0.0	0.0	0.01	0.01	0.01	39.9
12	R2	1	0.0	1	0.0	0.104	4.3	LOS A	0.0	0.0	0.01	0.01	0.01	39.8
Approach		196	5.9	196	5.9	0.104	0.1	NA	0.0	0.0	0.01	0.01	0.01	39.9
SouthWest: Helen Circuit														
1	L2	1	0.0	1	0.0	0.004	3.4	LOS A	0.0	0.0	0.00	0.43	0.00	36.0
2	T1	1	0.0	1	0.0	0.004	5.2	LOS A	0.0	0.0	0.00	0.43	0.00	36.0
3	R2	1	0.0	1	0.0	0.004	6.9	LOS A	0.0	0.0	0.00	0.43	0.00	37.8
Approach		3	0.0	3	0.0	0.004	5.2	LOS A	0.0	0.0	0.00	0.43	0.00	36.9
All Vehicles		383	8.0	383	8.0	0.104	0.3	NA	0.0	0.2	0.01	0.03	0.01	39.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\P1566m01v03 - Googong School SIDRA Model (5 percent).sip9

MOVEMENT SUMMARY

Site: i4 [2023 AM Base - Aprasia Avenue x McPhail Way + DT
(Site Folder: 2023 AM Base + Development Traffic)]

Network: N101 [2023 AM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: McPhail Way														
1	L2	20	5.3	20	5.3	0.022	4.5	LOS A	0.0	0.2	0.34	0.51	0.34	33.5
3	R2	8	0.0	8	0.0	0.022	4.0	LOS A	0.0	0.2	0.34	0.51	0.34	30.0
Approach		28	3.7	28	3.7	0.022	4.4	LOS A	0.0	0.2	0.34	0.51	0.34	32.7
East: Aprasia Avenue (Est Approach)														
4	L2	37	0.0	37	0.0	0.184	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.1
5	T1	318	0.3	318	0.3	0.184	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.4
Approach		355	0.3	355	0.3	0.184	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.4
West: Aprasia Avenue (Wst Approach)														
11	T1	81	3.9	81	3.9	0.054	0.3	LOS A	0.1	0.4	0.19	0.10	0.19	34.7
12	R2	20	0.0	20	0.0	0.054	4.5	LOS A	0.1	0.4	0.19	0.10	0.19	34.7
Approach		101	3.1	101	3.1	0.054	1.1	NA	0.1	0.4	0.19	0.10	0.19	34.7
All Vehicles		484	1.1	484	1.1	0.184	0.8	NA	0.1	0.4	0.06	0.09	0.06	38.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: i1 [2023 AM Base - Gorman Drive x McPhail Way + DT
(Site Folder: 2023 AM Base + Development Traffic)]

■ Network: N101 [2023 AM
Base + Development Traffic
(Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	294	3.2	294	3.2	0.161	0.1	LOS A	0.1	0.4	0.05	0.03	0.05	39.7
6	R2	16	0.0	16	0.0	0.161	4.4	LOS A	0.1	0.4	0.05	0.03	0.05	38.9
Approach		309	3.1	309	3.1	0.161	0.3	NA	0.1	0.4	0.05	0.03	0.05	39.7
NorthEast: McPhail Way														
7	L2	27	0.0	27	0.0	0.044	3.4	LOS A	0.1	0.4	0.00	0.47	0.00	30.8
9	R2	22	4.8	22	4.8	0.044	5.5	LOS A	0.1	0.4	0.00	0.47	0.00	37.1
Approach		49	2.1	49	2.1	0.044	4.3	LOS A	0.1	0.4	0.00	0.47	0.00	35.4
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	25	0.0	25	0.0	0.129	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.6
11	T1	218	4.8	218	4.8	0.129	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.6
Approach		243	4.3	243	4.3	0.129	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.6
All Vehicles		602	3.5	602	3.5	0.161	0.7	NA	0.1	0.4	0.02	0.07	0.02	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: i3 [2023 AM Base - Aprasia Avenue x Wilkins Way + DT
(Site Folder: 2023 AM Base + Development Traffic)]

■ Network: N101 [2023 AM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Wilkins Way														
1	L2	132	0.0	132	0.0	0.101	4.0	LOS A	0.2	1.2	0.28	0.48	0.28	34.1
3	R2	7	0.0	7	0.0	0.101	4.6	LOS A	0.2	1.2	0.28	0.48	0.28	37.3
Approach		139	0.0	139	0.0	0.101	4.0	LOS A	0.2	1.2	0.28	0.48	0.28	34.5
East: Aprasia Avenue (Est Approach)														
4	L2	9	0.0	9	0.0	0.101	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	39.8
5	T1	181	0.0	181	0.0	0.101	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.8
Approach		191	0.0	191	0.0	0.101	0.2	NA	0.0	0.0	0.00	0.02	0.00	39.8
West: Aprasia Avenue (Wst Approach)														
11	T1	38	5.6	38	5.6	0.035	0.3	LOS A	0.1	0.4	0.21	0.19	0.21	38.6
12	R2	22	0.0	22	0.0	0.035	4.2	LOS A	0.1	0.4	0.21	0.19	0.21	35.2
Approach		60	3.5	60	3.5	0.035	1.7	NA	0.1	0.4	0.21	0.19	0.21	38.1
All Vehicles		389	0.5	389	0.5	0.101	1.8	NA	0.2	1.2	0.13	0.21	0.13	38.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: i2 [2023 AM Base - Gorman Drive x Wilkins Way + DT
(Site Folder: 2023 AM Base + Development Traffic)]

■ Network: N101 [2023 AM
Base + Development Traffic
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.165	4.5	LOS A	0.1	0.8	0.10	0.06	0.10	39.8
5	T1	262	3.6	262	3.6	0.165	0.2	LOS A	0.1	0.8	0.09	0.06	0.09	39.3
6	R2	32	0.0	32	0.0	0.165	4.6	LOS A	0.1	0.8	0.10	0.06	0.10	39.3
Approach		295	3.2	295	3.2	0.165	0.7	NA	0.1	0.8	0.10	0.06	0.10	39.3
NorthEast: Wilkins Way														
7	L2	2	0.0	2	0.0	0.074	3.4	LOS A	0.1	0.8	0.02	0.48	0.02	35.9
8	T1	1	0.0	1	0.0	0.074	6.6	LOS A	0.1	0.8	0.02	0.48	0.02	36.1
9	R2	34	0.0	34	0.0	0.074	8.8	LOS A	0.1	0.8	0.02	0.48	0.02	30.3
Approach		37	0.0	37	0.0	0.074	8.4	LOS A	0.1	0.8	0.02	0.48	0.02	31.3
NorthWest: Gorman Drive (NW Approach)														
10	L2	108	0.0	108	0.0	0.121	3.4	LOS A	0.0	0.0	0.01	0.23	0.01	35.4
11	T1	115	8.3	115	8.3	0.121	0.0	LOS A	0.0	0.0	0.01	0.22	0.01	38.8
12	R2	1	0.0	1	0.0	0.121	4.8	LOS A	0.0	0.0	0.01	0.23	0.01	38.7
Approach		224	4.2	224	4.2	0.121	1.7	NA	0.0	0.0	0.01	0.22	0.01	38.2
SouthWest: Helen Circuit														
1	L2	11	0.0	11	0.0	0.012	3.4	LOS A	0.0	0.1	0.00	0.45	0.00	36.8
2	T1	1	0.0	1	0.0	0.012	7.0	LOS A	0.0	0.1	0.00	0.45	0.00	36.8
3	R2	1	0.0	1	0.0	0.012	7.6	LOS A	0.0	0.1	0.00	0.45	0.00	38.2
Approach		13	0.0	13	0.0	0.012	4.1	LOS A	0.0	0.1	0.00	0.45	0.00	37.0
All Vehicles		568	3.3	568	3.3	0.165	1.6	NA	0.1	0.8	0.05	0.16	0.05	38.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: i4 [2023 PM Base - Aprasia Avenue x McPhail Way + DT
(Site Folder: 2023 PM Base + Development Traffic)]

■ Network: N101 [2023 PM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: McPhail Way														
1	L2	13	0.0	13	0.0	0.012	4.0	LOS A	0.0	0.1	0.27	0.47	0.27	33.9
3	R2	4	0.0	4	0.0	0.012	3.9	LOS A	0.0	0.1	0.27	0.47	0.27	30.5
Approach		17	0.0	17	0.0	0.012	4.0	LOS A	0.0	0.1	0.27	0.47	0.27	33.2
East: Aprasia Avenue (Est Approach)														
4	L2	23	0.0	23	0.0	0.121	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.1
5	T1	209	0.0	209	0.0	0.121	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.4
Approach		233	0.0	233	0.0	0.121	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.4
West: Aprasia Avenue (Wst Approach)														
11	T1	136	0.0	136	0.0	0.073	0.0	LOS A	0.0	0.1	0.04	0.03	0.04	38.6
12	R2	7	0.0	7	0.0	0.073	4.1	LOS A	0.0	0.1	0.04	0.03	0.04	38.6
Approach		143	0.0	143	0.0	0.073	0.3	NA	0.0	0.1	0.04	0.03	0.04	38.6
All Vehicles		393	0.0	393	0.0	0.121	0.5	NA	0.0	0.1	0.03	0.06	0.03	38.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i1 [2023 PM Base - Gorman Drive x McPhail Way + DT
(Site Folder: 2023 PM Base + Development Traffic)]

Network: N101 [2023 PM
Base + Development Traffic
(Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	124	8.5	124	8.5	0.069	0.1	LOS A	0.0	0.1	0.04	0.02	0.04	39.8
6	R2	6	0.0	6	0.0	0.069	4.3	LOS A	0.0	0.1	0.04	0.02	0.04	39.0
Approach		131	8.1	131	8.1	0.069	0.3	NA	0.0	0.1	0.04	0.02	0.04	39.8
NorthEast: McPhail Way														
7	L2	27	3.8	27	3.8	0.038	3.4	LOS A	0.1	0.4	0.00	0.47	0.00	31.5
9	R2	20	0.0	20	0.0	0.038	4.6	LOS A	0.1	0.4	0.00	0.47	0.00	37.4
Approach		47	2.2	47	2.2	0.038	3.9	LOS A	0.1	0.4	0.00	0.47	0.00	35.7
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	20	0.0	20	0.0	0.124	3.4	LOS A	0.0	0.0	0.00	0.04	0.00	39.7
11	T1	217	2.9	217	2.9	0.124	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	39.7
Approach		237	2.7	237	2.7	0.124	0.3	NA	0.0	0.0	0.00	0.04	0.00	39.7
All Vehicles		415	4.3	415	4.3	0.124	0.7	NA	0.1	0.4	0.01	0.08	0.01	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Overall Rates 5 Percent).sip9

MOVEMENT SUMMARY

▼ Site: i3 [2023 PM Base - Aprasia Avenue x Wilkins Way + DT
(Site Folder: 2023 PM Base + Development Traffic)]

■ Network: N101 [2023 PM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Wilkins Way														
1	L2	123	0.0	123	0.0	0.082	3.6	LOS A	0.1	1.0	0.17	0.44	0.17	34.6
3	R2	2	0.0	2	0.0	0.082	4.3	LOS A	0.1	1.0	0.17	0.44	0.17	37.6
Approach		125	0.0	125	0.0	0.082	3.7	LOS A	0.1	1.0	0.17	0.44	0.17	34.8
East: Aprasia Avenue (Est Approach)														
4	L2	3	0.0	3	0.0	0.045	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
5	T1	81	0.0	81	0.0	0.045	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
Approach		84	0.0	84	0.0	0.045	0.1	NA	0.0	0.0	0.00	0.02	0.00	39.9
West: Aprasia Avenue (Wst Approach)														
11	T1	52	0.0	52	0.0	0.056	0.2	LOS A	0.1	0.7	0.16	0.23	0.16	38.6
12	R2	46	2.3	46	2.3	0.056	3.9	LOS A	0.1	0.7	0.16	0.23	0.16	35.0
Approach		98	1.1	98	1.1	0.056	1.9	NA	0.1	0.7	0.16	0.23	0.16	37.8
All Vehicles		307	0.3	307	0.3	0.082	2.1	NA	0.1	1.0	0.12	0.26	0.12	37.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: i2 [2023 PM Base - Gorman Drive x Wilkins Way + DT
(Site Folder: 2023 PM Base + Development Traffic)]

■ Network: N101 [2023 PM
Base + Development Traffic
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.078	4.5	LOS A	0.1	0.6	0.15	0.10	0.15	39.6
5	T1	104	10.1	104	10.1	0.078	0.3	LOS A	0.1	0.6	0.15	0.10	0.15	38.9
6	R2	23	0.0	23	0.0	0.078	4.6	LOS A	0.1	0.6	0.15	0.10	0.15	38.9
Approach		128	8.2	128	8.2	0.078	1.1	NA	0.1	0.6	0.15	0.10	0.15	38.9
NorthEast: Wilkins Way														
7	L2	2	0.0	2	0.0	0.086	3.4	LOS A	0.1	0.9	0.03	0.49	0.03	36.7
8	T1	1	0.0	1	0.0	0.086	5.1	LOS A	0.1	0.9	0.03	0.49	0.03	36.8
9	R2	48	2.2	48	2.2	0.086	7.0	LOS A	0.1	0.9	0.03	0.49	0.03	31.8
Approach		52	2.0	52	2.0	0.086	6.8	LOS A	0.1	0.9	0.03	0.49	0.03	32.5
NorthWest: Gorman Drive (NW Approach)														
10	L2	100	0.0	100	0.0	0.138	3.4	LOS A	0.0	0.0	0.00	0.18	0.00	36.3
11	T1	158	4.7	158	4.7	0.138	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	39.1
12	R2	1	0.0	1	0.0	0.138	4.0	LOS A	0.0	0.0	0.00	0.18	0.00	38.9
Approach		259	2.8	259	2.8	0.138	1.3	NA	0.0	0.0	0.00	0.18	0.00	38.7
SouthWest: Helen Circuit														
1	L2	1	0.0	1	0.0	0.004	3.4	LOS A	0.0	0.0	0.00	0.43	0.00	36.2
2	T1	1	0.0	1	0.0	0.004	5.3	LOS A	0.0	0.0	0.00	0.43	0.00	36.2
3	R2	1	0.0	1	0.0	0.004	6.0	LOS A	0.0	0.0	0.00	0.43	0.00	37.9
Approach		3	0.0	3	0.0	0.004	4.9	LOS A	0.0	0.0	0.00	0.43	0.00	37.0
All Vehicles		442	4.3	442	4.3	0.138	1.9	NA	0.1	0.9	0.05	0.19	0.05	38.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i4 [2033 AM Base - Aprasia Avenue x McPhail Way + DT
(Site Folder: 2033 AM Base + Development Traffic)]

Network: N101 [2033 AM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: McPhail Way														
1	L2	33	6.5	33	6.5	0.039	5.0	LOS A	0.1	0.4	0.40	0.56	0.40	33.2
3	R2	14	0.0	14	0.0	0.039	4.2	LOS A	0.1	0.4	0.40	0.56	0.40	29.7
Approach		46	4.5	46	4.5	0.039	4.7	LOS A	0.1	0.4	0.40	0.56	0.40	32.4
East: Aprasia Avenue (Est Approach)														
4	L2	46	0.0	46	0.0	0.233	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.1
5	T1	402	0.5	402	0.5	0.233	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.4
Approach		448	0.5	448	0.5	0.233	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.3
West: Aprasia Avenue (Wst Approach)														
11	T1	106	5.0	106	5.0	0.076	0.5	LOS A	0.1	0.7	0.26	0.13	0.26	33.5
12	R2	33	0.0	33	0.0	0.076	4.8	LOS A	0.1	0.7	0.26	0.13	0.26	33.5
Approach		139	3.8	139	3.8	0.076	1.5	NA	0.1	0.7	0.26	0.13	0.26	33.5
All Vehicles		634	1.5	634	1.5	0.233	0.9	NA	0.1	0.7	0.09	0.10	0.09	38.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i1 [2033 AM Base - Gorman Drive x McPhail Way + DT
(Site Folder: 2033 AM Base + Development Traffic)]

Network: N101 [2033 AM
Base + Development Traffic
(Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	464	3.2	464	3.2	0.256	0.1	LOS A	0.1	0.8	0.06	0.03	0.06	39.7
6	R2	26	0.0	26	0.0	0.256	5.0	LOS A	0.1	0.8	0.06	0.03	0.06	38.7
Approach		491	3.0	491	3.0	0.256	0.4	NA	0.1	0.8	0.06	0.03	0.06	39.7
NorthEast: McPhail Way														
7	L2	32	0.0	32	0.0	0.074	3.4	LOS A	0.1	0.7	0.00	0.47	0.00	29.2
9	R2	36	5.9	36	5.9	0.074	7.0	LOS A	0.1	0.7	0.00	0.47	0.00	36.5
Approach		67	3.1	67	3.1	0.074	5.3	LOS A	0.1	0.7	0.00	0.47	0.00	35.0
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	42	0.0	42	0.0	0.168	3.5	LOS A	0.0	0.0	0.00	0.06	0.00	39.5
11	T1	272	6.2	272	6.2	0.168	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	39.5
Approach		314	5.4	314	5.4	0.168	0.5	NA	0.0	0.0	0.00	0.06	0.00	39.5
All Vehicles		872	3.9	872	3.9	0.256	0.8	NA	0.1	0.8	0.04	0.07	0.04	39.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i3 [2033 AM Base - Aprasia Avenue x Wilkins Way + DT
(Site Folder: 2033 AM Base + Development Traffic)]

Network: N101 [2033 AM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Wilkins Way														
1	L2	133	0.0	133	0.0	0.116	4.3	LOS A	0.2	1.3	0.36	0.53	0.36	33.8
3	R2	12	0.0	12	0.0	0.116	5.2	LOS A	0.2	1.3	0.36	0.53	0.36	37.2
Approach		144	0.0	144	0.0	0.116	4.4	LOS A	0.2	1.3	0.36	0.53	0.36	34.4
East: Aprasia Avenue (Est Approach)														
4	L2	26	0.0	26	0.0	0.157	3.5	LOS A	0.0	0.0	0.00	0.04	0.00	39.7
5	T1	269	0.0	269	0.0	0.157	0.1	LOS A	0.0	0.0	0.00	0.04	0.00	39.7
Approach		296	0.0	296	0.0	0.157	0.4	NA	0.0	0.0	0.00	0.04	0.00	39.7
West: Aprasia Avenue (Wst Approach)														
11	T1	63	6.7	63	6.7	0.052	0.4	LOS A	0.1	0.5	0.22	0.15	0.22	38.8
12	R2	23	0.0	23	0.0	0.052	4.6	LOS A	0.1	0.5	0.22	0.15	0.22	35.8
Approach		86	4.9	86	4.9	0.052	1.5	NA	0.1	0.5	0.22	0.15	0.22	38.5
All Vehicles		526	0.8	526	0.8	0.157	1.7	NA	0.2	1.3	0.13	0.19	0.13	38.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i2 [2033 AM Base - Gorman Drive x Wilkins Way + DT
(Site Folder: 2033 AM Base + Development Traffic)]

Network: N101 [2033 AM
Base + Development Traffic
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.253	5.0	LOS A	0.1	1.0	0.08	0.04	0.08	39.9
5	T1	426	3.5	426	3.5	0.253	0.2	LOS A	0.1	1.0	0.08	0.04	0.08	39.5
6	R2	32	0.0	32	0.0	0.253	5.1	LOS A	0.1	1.0	0.08	0.04	0.08	39.5
Approach		459	3.2	459	3.2	0.253	0.5	NA	0.1	1.0	0.08	0.04	0.08	39.5
NorthEast: Wilkins Way														
7	L2	4	0.0	4	0.0	0.142	3.4	LOS A	0.2	1.4	0.02	0.48	0.02	34.0
8	T1	1	0.0	1	0.0	0.142	10.5	LOS A	0.2	1.4	0.02	0.48	0.02	34.1
9	R2	42	0.0	42	0.0	0.142	14.0	LOS A	0.2	1.4	0.02	0.48	0.02	26.8
Approach		47	0.0	47	0.0	0.142	12.9	LOS A	0.2	1.4	0.02	0.48	0.02	28.3
NorthWest: Gorman Drive (NW Approach)														
10	L2	114	0.0	114	0.0	0.153	3.5	LOS A	0.0	0.1	0.02	0.19	0.02	35.9
11	T1	166	8.9	166	8.9	0.153	0.0	LOS A	0.0	0.1	0.02	0.19	0.02	39.0
12	R2	2	0.0	2	0.0	0.153	6.0	LOS A	0.0	0.1	0.02	0.19	0.02	38.8
Approach		282	5.2	282	5.2	0.153	1.5	NA	0.0	0.1	0.02	0.19	0.02	38.5
SouthWest: Helen Circuit														
1	L2	17	0.0	17	0.0	0.019	3.4	LOS A	0.0	0.2	0.00	0.45	0.00	36.6
2	T1	1	0.0	1	0.0	0.019	11.1	LOS A	0.0	0.2	0.00	0.45	0.00	36.6
3	R2	1	0.0	1	0.0	0.019	11.8	LOS A	0.0	0.2	0.00	0.45	0.00	38.1
Approach		19	0.0	19	0.0	0.019	4.3	LOS A	0.0	0.2	0.00	0.45	0.00	36.8
All Vehicles		807	3.7	807	3.7	0.253	1.7	NA	0.2	1.4	0.05	0.13	0.05	38.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\P1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Overall Rates 5 Percent).sip9

MOVEMENT SUMMARY

Site: i4 [2033 PM Base - Aprasia Avenue x McPhail Way + DT
(Site Folder: 2033 PM Base + Development Traffic)]

Network: N101 [2033 PM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: McPhail Way														
1	L2	21	0.0	21	0.0	0.020	4.1	LOS A	0.0	0.2	0.29	0.49	0.29	33.8
3	R2	7	0.0	7	0.0	0.020	4.0	LOS A	0.0	0.2	0.29	0.49	0.29	30.3
Approach		28	0.0	28	0.0	0.020	4.1	LOS A	0.0	0.2	0.29	0.49	0.29	33.1
East: Aprasia Avenue (Est Approach)														
4	L2	25	0.0	25	0.0	0.137	3.4	LOS A	0.0	0.0	0.00	0.04	0.00	39.2
5	T1	240	0.0	240	0.0	0.137	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	39.4
Approach		265	0.0	265	0.0	0.137	0.3	NA	0.0	0.0	0.00	0.04	0.00	39.4
West: Aprasia Avenue (Wst Approach)														
11	T1	167	0.0	167	0.0	0.091	0.1	LOS A	0.0	0.2	0.06	0.03	0.06	38.2
12	R2	12	0.0	12	0.0	0.091	4.2	LOS A	0.0	0.2	0.06	0.03	0.06	38.2
Approach		179	0.0	179	0.0	0.091	0.3	NA	0.0	0.2	0.06	0.03	0.06	38.2
All Vehicles		473	0.0	473	0.0	0.137	0.6	NA	0.0	0.2	0.04	0.07	0.04	38.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\P1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Overall Rates 5 Percent).sip9

MOVEMENT SUMMARY

Site: i1 [2033 PM Base - Gorman Drive x McPhail Way + DT
(Site Folder: 2033 PM Base + Development Traffic)]

Network: N101 [2033 PM
Base + Development Traffic
(Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	186	9.0	186	9.0	0.105	0.1	LOS A	0.0	0.2	0.05	0.02	0.05	39.7
6	R2	9	0.0	9	0.0	0.105	4.7	LOS A	0.0	0.2	0.05	0.02	0.05	38.9
Approach		196	8.6	196	8.6	0.105	0.3	NA	0.0	0.2	0.05	0.02	0.05	39.7
NorthEast: McPhail Way														
7	L2	32	6.7	32	6.7	0.057	3.4	LOS A	0.1	0.6	0.00	0.47	0.00	30.7
9	R2	33	0.0	33	0.0	0.057	5.2	LOS A	0.1	0.6	0.00	0.47	0.00	37.1
Approach		64	3.3	64	3.3	0.057	4.3	LOS A	0.1	0.6	0.00	0.47	0.00	35.7
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	33	0.0	33	0.0	0.169	3.5	LOS A	0.0	0.0	0.00	0.05	0.00	39.6
11	T1	288	3.3	288	3.3	0.169	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	39.6
Approach		321	3.0	321	3.0	0.169	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.6
All Vehicles		581	4.9	581	4.9	0.169	0.8	NA	0.1	0.6	0.02	0.09	0.02	39.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Overall Rates 5 Percent).sip9

MOVEMENT SUMMARY

Site: i3 [2033 PM Base - Aprasia Avenue x Wilkins Way + DT
(Site Folder: 2033 PM Base + Development Traffic)]

Network: N101 [2033 PM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: Wilkins Way														
1	L2	125	0.0	125	0.0	0.088	3.7	LOS A	0.1	1.0	0.21	0.45	0.21	34.5
3	R2	4	0.0	4	0.0	0.088	4.5	LOS A	0.1	1.0	0.21	0.45	0.21	37.5
Approach		129	0.0	129	0.0	0.088	3.8	LOS A	0.1	1.0	0.21	0.45	0.21	34.7
East: Aprasia Avenue (Est Approach)														
4	L2	5	0.0	5	0.0	0.060	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	39.8
5	T1	108	0.0	108	0.0	0.060	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.8
Approach		114	0.0	114	0.0	0.060	0.2	NA	0.0	0.0	0.00	0.02	0.00	39.8
West: Aprasia Avenue (Wst Approach)														
11	T1	83	0.0	83	0.0	0.075	0.2	LOS A	0.1	0.8	0.16	0.18	0.16	38.8
12	R2	47	4.4	47	4.4	0.075	4.0	LOS A	0.1	0.8	0.16	0.18	0.16	35.7
Approach		131	1.6	131	1.6	0.075	1.6	NA	0.1	0.8	0.16	0.18	0.16	38.4
All Vehicles		374	0.6	374	0.6	0.088	1.9	NA	0.1	1.0	0.13	0.23	0.13	37.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Overall Rates 5 Percent).sip9

MOVEMENT SUMMARY

▼ Site: i2 [2033 PM Base - Gorman Drive x Wilkins Way + DT
(Site Folder: 2033 PM Base + Development Traffic)]

■ Network: N101 [2033 PM
Base + Development Traffic
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
SouthEast: Gorman Drive (SE Approach)														
4	L2	2	0.0	2	0.0	0.116	5.0	LOS A	0.1	0.7	0.13	0.07	0.13	39.7
5	T1	169	9.9	169	9.9	0.116	0.3	LOS A	0.1	0.7	0.13	0.07	0.13	39.1
6	R2	23	0.0	23	0.0	0.116	5.1	LOS A	0.1	0.7	0.13	0.07	0.13	39.1
Approach		195	8.6	195	8.6	0.116	1.0	NA	0.1	0.7	0.13	0.07	0.13	39.1
NorthEast: Wilkins Way														
7	L2	4	0.0	4	0.0	0.117	3.4	LOS A	0.2	1.3	0.02	0.48	0.02	35.7
8	T1	1	0.0	1	0.0	0.117	6.9	LOS A	0.2	1.3	0.02	0.48	0.02	35.9
9	R2	51	4.2	51	4.2	0.117	9.4	LOS A	0.2	1.3	0.02	0.48	0.02	29.9
Approach		56	3.8	56	3.8	0.117	8.9	LOS A	0.2	1.3	0.02	0.48	0.02	31.1
NorthWest: Gorman Drive (NW Approach)														
10	L2	101	0.0	101	0.0	0.177	3.4	LOS A	0.0	0.0	0.00	0.14	0.00	37.0
11	T1	231	5.0	231	5.0	0.177	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	39.3
12	R2	1	0.0	1	0.0	0.177	4.4	LOS A	0.0	0.0	0.00	0.14	0.00	39.1
Approach		333	3.5	333	3.5	0.177	1.1	NA	0.0	0.0	0.00	0.14	0.00	39.0
SouthWest: Helen Circuit														
1	L2	1	0.0	1	0.0	0.005	3.4	LOS A	0.0	0.0	0.00	0.43	0.00	35.4
2	T1	1	0.0	1	0.0	0.005	7.1	LOS A	0.0	0.0	0.00	0.43	0.00	35.4
3	R2	1	0.0	1	0.0	0.005	7.7	LOS A	0.0	0.0	0.00	0.43	0.00	37.4
Approach		3	0.0	3	0.0	0.005	6.1	LOS A	0.0	0.0	0.00	0.43	0.00	36.4
All Vehicles		586	5.2	586	5.2	0.177	1.8	NA	0.2	1.3	0.05	0.15	0.05	38.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\P1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Overall Rates 5 Percent).sip9

MOVEMENT SUMMARY

Site: i4 [2023 AM Base - Aprasia Avenue x McPhail Way + DT
(Site Folder: 2023 AM Base + Development Traffic)]

Network: N101 [2023 AM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: McPhail Way														
1	L2	20	5.3	20	5.3	0.024	4.8	LOS A	0.0	0.2	0.38	0.54	0.38	33.3
3	R2	8	0.0	8	0.0	0.024	4.1	LOS A	0.0	0.2	0.38	0.54	0.38	29.7
Approach		28	3.7	28	3.7	0.024	4.6	LOS A	0.0	0.2	0.38	0.54	0.38	32.5
East: Aprasia Avenue (Est Approach)														
4	L2	46	0.0	46	0.0	0.227	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.0
5	T1	391	0.3	391	0.3	0.227	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.3
Approach		437	0.2	437	0.2	0.227	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.3
West: Aprasia Avenue (Wst Approach)														
11	T1	98	3.2	98	3.2	0.063	0.3	LOS A	0.1	0.4	0.19	0.09	0.19	35.1
12	R2	20	0.0	20	0.0	0.063	4.8	LOS A	0.1	0.4	0.19	0.09	0.19	35.1
Approach		118	2.7	118	2.7	0.063	1.1	NA	0.1	0.4	0.19	0.09	0.19	35.1
All Vehicles		583	0.9	583	0.9	0.227	0.7	NA	0.1	0.4	0.06	0.08	0.06	38.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

Site: i1 [2023 AM Base - Gorman Drive x McPhail Way + DT
(Site Folder: 2023 AM Base + Development Traffic)]

Network: N101 [2023 AM
Base + Development Traffic
(Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	301	3.1	301	3.1	0.165	0.1	LOS A	0.1	0.4	0.05	0.03	0.05	39.7
6	R2	16	0.0	16	0.0	0.165	4.7	LOS A	0.1	0.4	0.05	0.03	0.05	38.9
Approach		317	3.0	317	3.0	0.165	0.3	NA	0.1	0.4	0.05	0.03	0.05	39.7
NorthEast: McPhail Way														
7	L2	37	0.0	37	0.0	0.052	3.4	LOS A	0.1	0.5	0.00	0.47	0.00	30.8
9	R2	22	4.8	22	4.8	0.052	5.8	LOS A	0.1	0.5	0.00	0.47	0.00	37.1
Approach		59	1.8	59	1.8	0.052	4.3	LOS A	0.1	0.5	0.00	0.47	0.00	35.1
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	25	0.0	25	0.0	0.156	3.5	LOS A	0.0	0.0	0.00	0.04	0.00	39.7
11	T1	271	3.9	271	3.9	0.156	0.1	LOS A	0.0	0.0	0.00	0.04	0.00	39.7
Approach		296	3.6	296	3.6	0.156	0.3	NA	0.0	0.0	0.00	0.04	0.00	39.7
All Vehicles		672	3.1	672	3.1	0.165	0.7	NA	0.1	0.5	0.02	0.07	0.02	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

▼ Site: i3 [2023 AM Base - Aprasia Avenue x Wilkins Way + DT
(Site Folder: 2023 AM Base + Development Traffic)]

■ Network: N101 [2023 AM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: Wilkins Way														
1	L2	184	0.0	184	0.0	0.141	4.1	LOS A	0.2	1.7	0.30	0.50	0.30	34.0
3	R2	7	0.0	7	0.0	0.141	4.7	LOS A	0.2	1.7	0.30	0.50	0.30	37.3
Approach		192	0.0	192	0.0	0.141	4.1	LOS A	0.2	1.7	0.30	0.50	0.30	34.3
East: Aprasia Avenue (Est Approach)														
4	L2	9	0.0	9	0.0	0.110	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	39.8
5	T1	198	0.0	198	0.0	0.110	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.8
Approach		207	0.0	207	0.0	0.110	0.2	NA	0.0	0.0	0.00	0.02	0.00	39.8
West: Aprasia Avenue (Wst Approach)														
11	T1	38	5.6	38	5.6	0.041	0.4	LOS A	0.1	0.5	0.25	0.23	0.25	38.4
12	R2	29	0.0	29	0.0	0.041	4.3	LOS A	0.1	0.5	0.25	0.23	0.25	34.4
Approach		67	3.1	67	3.1	0.041	2.1	NA	0.1	0.5	0.25	0.23	0.25	37.7
All Vehicles		466	0.5	466	0.5	0.141	2.1	NA	0.2	1.7	0.16	0.25	0.16	37.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

Site: i2 [2023 AM Base - Gorman Drive x Wilkins Way + DT
(Site Folder: 2023 AM Base + Development Traffic)]

Network: N101 [2023 AM
Base + Development Traffic
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.179	4.8	LOS A	0.2	1.3	0.15	0.08	0.15	39.7
5	T1	262	3.6	262	3.6	0.179	0.3	LOS A	0.2	1.3	0.15	0.08	0.15	39.1
6	R2	44	0.0	44	0.0	0.179	4.9	LOS A	0.2	1.3	0.15	0.08	0.15	39.1
Approach		307	3.1	307	3.1	0.179	1.0	NA	0.2	1.3	0.15	0.08	0.15	39.1
NorthEast: Wilkins Way														
7	L2	2	0.0	2	0.0	0.098	3.4	LOS A	0.1	1.0	0.03	0.49	0.03	35.5
8	T1	1	0.0	1	0.0	0.098	7.3	LOS A	0.1	1.0	0.03	0.49	0.03	35.7
9	R2	41	0.0	41	0.0	0.098	9.7	LOS A	0.1	1.0	0.03	0.49	0.03	29.5
Approach		44	0.0	44	0.0	0.098	9.3	LOS A	0.1	1.0	0.03	0.49	0.03	30.4
NorthWest: Gorman Drive (NW Approach)														
10	L2	147	0.0	147	0.0	0.151	3.4	LOS A	0.0	0.0	0.01	0.24	0.01	35.2
11	T1	133	7.1	133	7.1	0.151	0.0	LOS A	0.0	0.0	0.01	0.24	0.01	38.8
12	R2	1	0.0	1	0.0	0.151	4.8	LOS A	0.0	0.0	0.01	0.24	0.01	38.6
Approach		281	3.4	281	3.4	0.151	1.8	NA	0.0	0.0	0.01	0.24	0.01	38.0
SouthWest: Helen Circuit														
1	L2	11	0.0	11	0.0	0.012	3.4	LOS A	0.0	0.1	0.00	0.45	0.00	36.7
2	T1	1	0.0	1	0.0	0.012	7.9	LOS A	0.0	0.1	0.00	0.45	0.00	36.7
3	R2	1	0.0	1	0.0	0.012	8.1	LOS A	0.0	0.1	0.00	0.45	0.00	38.2
Approach		13	0.0	13	0.0	0.012	4.2	LOS A	0.0	0.1	0.00	0.45	0.00	36.9
All Vehicles		645	2.9	645	2.9	0.179	2.0	NA	0.2	1.3	0.07	0.19	0.07	38.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\P1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

Site: i4 [2023 PM Base - Aprasia Avenue x McPhail Way + DT
(Site Folder: 2023 PM Base + Development Traffic)]

Network: N101 [2023 PM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: McPhail Way														
1	L2	13	0.0	13	0.0	0.012	4.3	LOS A	0.0	0.1	0.32	0.49	0.32	33.6
3	R2	4	0.0	4	0.0	0.012	4.0	LOS A	0.0	0.1	0.32	0.49	0.32	30.2
Approach		17	0.0	17	0.0	0.012	4.2	LOS A	0.0	0.1	0.32	0.49	0.32	33.0
East: Aprasia Avenue (Est Approach)														
4	L2	32	0.0	32	0.0	0.160	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.1
5	T1	278	0.0	278	0.0	0.160	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.4
Approach		309	0.0	309	0.0	0.160	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.4
West: Aprasia Avenue (Wst Approach)														
11	T1	166	0.0	166	0.0	0.089	0.1	LOS A	0.0	0.1	0.04	0.02	0.04	38.7
12	R2	7	0.0	7	0.0	0.089	4.4	LOS A	0.0	0.1	0.04	0.02	0.04	38.7
Approach		174	0.0	174	0.0	0.089	0.2	NA	0.0	0.1	0.04	0.02	0.04	38.7
All Vehicles		500	0.0	500	0.0	0.160	0.4	NA	0.0	0.1	0.03	0.05	0.03	39.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i1 [2023 PM Base - Gorman Drive x McPhail Way + DT
(Site Folder: 2023 PM Base + Development Traffic)]

Network: N101 [2023 PM
Base + Development Traffic
(Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	129	8.1	129	8.1	0.072	0.1	LOS A	0.0	0.1	0.04	0.02	0.04	39.8
6	R2	6	0.0	6	0.0	0.072	4.5	LOS A	0.0	0.1	0.04	0.02	0.04	39.0
Approach		136	7.8	136	7.8	0.072	0.3	NA	0.0	0.1	0.04	0.02	0.04	39.8
NorthEast: McPhail Way														
7	L2	36	2.9	36	2.9	0.045	3.4	LOS A	0.1	0.5	0.00	0.46	0.00	31.5
9	R2	20	0.0	20	0.0	0.045	4.8	LOS A	0.1	0.5	0.00	0.46	0.00	37.4
Approach		56	1.9	56	1.9	0.045	3.9	LOS A	0.1	0.5	0.00	0.46	0.00	35.4
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	20	0.0	20	0.0	0.146	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	39.7
11	T1	259	2.4	259	2.4	0.146	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.7
Approach		279	2.3	279	2.3	0.146	0.3	NA	0.0	0.0	0.00	0.03	0.00	39.7
All Vehicles		471	3.8	471	3.8	0.146	0.7	NA	0.1	0.5	0.01	0.08	0.01	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: i3 [2023 PM Base - Aprasia Avenue x Wilkins Way + DT
(Site Folder: 2023 PM Base + Development Traffic)]

■ Network: N101 [2023 PM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Wilkins Way														
1	L2	174	0.0	174	0.0	0.117	3.7	LOS A	0.2	1.4	0.20	0.45	0.20	34.5
3	R2	2	0.0	2	0.0	0.117	4.4	LOS A	0.2	1.4	0.20	0.45	0.20	37.5
Approach		176	0.0	176	0.0	0.117	3.7	LOS A	0.2	1.4	0.20	0.45	0.20	34.6
East: Aprasia Avenue (Est Approach)														
4	L2	3	0.0	3	0.0	0.052	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
5	T1	95	0.0	95	0.0	0.052	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
Approach		98	0.0	98	0.0	0.052	0.1	NA	0.0	0.0	0.00	0.02	0.00	39.9
West: Aprasia Avenue (Wst Approach)														
11	T1	52	0.0	52	0.0	0.064	0.2	LOS A	0.1	0.8	0.18	0.26	0.18	38.4
12	R2	59	1.8	59	1.8	0.064	3.9	LOS A	0.1	0.8	0.18	0.26	0.18	34.4
Approach		111	1.0	111	1.0	0.064	2.2	NA	0.1	0.8	0.18	0.26	0.18	37.4
All Vehicles		384	0.3	384	0.3	0.117	2.4	NA	0.2	1.4	0.14	0.29	0.14	37.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: i2 [2023 PM Base - Gorman Drive x Wilkins Way + DT
(Site Folder: 2023 PM Base + Development Traffic)]

■ Network: N101 [2023 PM
Base + Development Traffic
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.088	4.9	LOS A	0.1	0.9	0.22	0.13	0.22	39.4
5	T1	104	10.1	104	10.1	0.088	0.6	LOS A	0.1	0.9	0.22	0.13	0.22	38.5
6	R2	33	0.0	33	0.0	0.088	5.0	LOS A	0.1	0.9	0.22	0.13	0.22	38.5
Approach		138	7.6	138	7.6	0.088	1.7	NA	0.1	0.9	0.22	0.13	0.22	38.5
NorthEast: Wilkins Way														
7	L2	2	0.0	2	0.0	0.116	3.4	LOS A	0.2	1.3	0.04	0.49	0.04	36.3
8	T1	1	0.0	1	0.0	0.116	5.7	LOS A	0.2	1.3	0.04	0.49	0.04	36.5
9	R2	61	1.7	61	1.7	0.116	7.7	LOS A	0.2	1.3	0.04	0.49	0.04	31.1
Approach		64	1.6	64	1.6	0.116	7.5	LOS A	0.2	1.3	0.04	0.49	0.04	31.7
NorthWest: Gorman Drive (NW Approach)														
10	L2	141	0.0	141	0.0	0.168	3.4	LOS A	0.0	0.0	0.00	0.21	0.00	35.9
11	T1	175	4.2	175	4.2	0.168	0.0	LOS A	0.0	0.0	0.00	0.21	0.00	39.0
12	R2	1	0.0	1	0.0	0.168	4.0	LOS A	0.0	0.0	0.00	0.21	0.00	38.8
Approach		317	2.3	317	2.3	0.168	1.5	NA	0.0	0.0	0.00	0.21	0.00	38.4
SouthWest: Helen Circuit														
1	L2	1	0.0	1	0.0	0.004	3.4	LOS A	0.0	0.0	0.00	0.43	0.00	35.9
2	T1	1	0.0	1	0.0	0.004	6.1	LOS A	0.0	0.0	0.00	0.43	0.00	35.9
3	R2	1	0.0	1	0.0	0.004	6.3	LOS A	0.0	0.0	0.00	0.43	0.00	37.7
Approach		3	0.0	3	0.0	0.004	5.3	LOS A	0.0	0.0	0.00	0.43	0.00	36.8
All Vehicles		522	3.6	522	3.6	0.168	2.3	NA	0.2	1.3	0.06	0.22	0.06	37.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i4 [2033 AM Base - Aprasia Avenue x McPhail Way + DT
(Site Folder: 2033 AM Base + Development Traffic)]

Network: N101 [2033 AM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: McPhail Way														
1	L2	33	6.5	33	6.5	0.043	5.4	LOS A	0.1	0.4	0.43	0.60	0.43	33.0
3	R2	14	0.0	14	0.0	0.043	4.3	LOS A	0.1	0.4	0.43	0.60	0.43	29.4
Approach		46	4.5	46	4.5	0.043	5.1	LOS A	0.1	0.4	0.43	0.60	0.43	32.2
East: Aprasia Avenue (Est Approach)														
4	L2	56	0.0	56	0.0	0.276	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.0
5	T1	475	0.4	475	0.4	0.276	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.3
Approach		531	0.4	531	0.4	0.276	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.3
West: Aprasia Avenue (Wst Approach)														
11	T1	123	4.3	123	4.3	0.087	0.6	LOS A	0.1	0.7	0.26	0.12	0.26	33.7
12	R2	33	0.0	33	0.0	0.087	5.2	LOS A	0.1	0.7	0.26	0.12	0.26	33.7
Approach		156	3.4	156	3.4	0.087	1.5	NA	0.1	0.7	0.26	0.12	0.26	33.7
All Vehicles		733	1.3	733	1.3	0.276	0.9	NA	0.1	0.7	0.08	0.10	0.08	38.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i1 [2033 AM Base - Gorman Drive x McPhail Way + DT
(Site Folder: 2033 AM Base + Development Traffic)]

Network: N101 [2033 AM
Base + Development Traffic
(Network Folder: General)]

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	473	3.1	473	3.1	0.262	0.2	LOS A	0.1	0.8	0.07	0.03	0.07	39.7
6	R2	26	0.0	26	0.0	0.262	5.3	LOS A	0.1	0.8	0.07	0.03	0.07	38.7
Approach		499	3.0	499	3.0	0.262	0.4	NA	0.1	0.8	0.07	0.03	0.07	39.7
NorthEast: McPhail Way														
7	L2	40	0.0	40	0.0	0.083	3.4	LOS A	0.1	0.8	0.00	0.47	0.00	29.2
9	R2	36	5.9	36	5.9	0.083	7.5	LOS A	0.1	0.8	0.00	0.47	0.00	36.5
Approach		76	2.8	76	2.8	0.083	5.3	LOS A	0.1	0.8	0.00	0.47	0.00	34.7
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	42	0.0	42	0.0	0.195	3.5	LOS A	0.0	0.0	0.00	0.05	0.00	39.6
11	T1	324	5.2	324	5.2	0.195	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	39.6
Approach		366	4.6	366	4.6	0.195	0.5	NA	0.0	0.0	0.00	0.05	0.00	39.6
All Vehicles		941	3.6	941	3.6	0.262	0.8	NA	0.1	0.8	0.04	0.07	0.04	39.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

**Site: i3 [2033 AM Base - Aprasia Avenue x Wilkins Way + DT
(Site Folder: 2033 AM Base + Development Traffic)]**

**Network: N101 [2033 AM
Base + Development Traffic
(Network Folder: General)]**

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Wilkins Way														
1	L2	184	0.0	184	0.0	0.159	4.5	LOS A	0.3	1.9	0.38	0.55	0.38	33.7
3	R2	12	0.0	12	0.0	0.159	5.4	LOS A	0.3	1.9	0.38	0.55	0.38	37.1
Approach		196	0.0	196	0.0	0.159	4.5	LOS A	0.3	1.9	0.38	0.55	0.38	34.2
East: Aprasia Avenue (Est Approach)														
4	L2	15	0.0	15	0.0	0.160	3.5	LOS A	0.0	0.0	0.00	0.02	0.00	39.8
5	T1	286	0.0	286	0.0	0.160	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	39.8
Approach		301	0.0	301	0.0	0.160	0.2	NA	0.0	0.0	0.00	0.02	0.00	39.8
West: Aprasia Avenue (Wst Approach)														
11	T1	63	6.7	63	6.7	0.058	0.5	LOS A	0.1	0.6	0.26	0.18	0.26	38.6
12	R2	32	0.0	32	0.0	0.058	4.6	LOS A	0.1	0.6	0.26	0.18	0.26	35.0
Approach		95	4.4	95	4.4	0.058	1.9	NA	0.1	0.6	0.26	0.18	0.26	38.1
All Vehicles		592	0.7	592	0.7	0.160	1.9	NA	0.3	1.9	0.17	0.22	0.17	38.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

▼ Site: i2 [2033 AM Base - Gorman Drive x Wilkins Way + DT
(Site Folder: 2033 AM Base + Development Traffic)]

■ Network: N101 [2033 AM
Base + Development Traffic
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SE Approach)														
4	L2	1	0.0	1	0.0	0.268	5.5	LOS A	0.2	1.5	0.12	0.05	0.12	39.8
5	T1	426	3.5	426	3.5	0.268	0.3	LOS A	0.2	1.5	0.12	0.05	0.12	39.3
6	R2	44	0.0	44	0.0	0.268	5.6	LOS A	0.2	1.5	0.12	0.05	0.12	39.3
Approach		472	3.1	472	3.1	0.268	0.8	NA	0.2	1.5	0.12	0.05	0.12	39.3
NorthEast: Wilkins Way														
7	L2	4	0.0	4	0.0	0.186	3.4	LOS A	0.3	1.8	0.03	0.49	0.03	33.4
8	T1	1	0.0	1	0.0	0.186	11.7	LOS A	0.3	1.8	0.03	0.49	0.03	33.5
9	R2	51	0.0	51	0.0	0.186	15.5	LOS B	0.3	1.8	0.03	0.49	0.03	25.8
Approach		56	0.0	56	0.0	0.186	14.5	LOS B	0.3	1.8	0.03	0.49	0.03	27.1
NorthWest: Gorman Drive (NW Approach)														
10	L2	154	0.0	154	0.0	0.184	3.5	LOS A	0.0	0.1	0.01	0.21	0.01	35.6
11	T1	184	8.0	184	8.0	0.184	0.0	LOS A	0.0	0.1	0.01	0.21	0.01	38.9
12	R2	2	0.0	2	0.0	0.184	6.1	LOS A	0.0	0.1	0.01	0.21	0.01	38.7
Approach		340	4.3	340	4.3	0.184	1.6	NA	0.0	0.1	0.01	0.21	0.01	38.3
SouthWest: Helen Circuit														
1	L2	17	0.0	17	0.0	0.019	3.4	LOS A	0.0	0.2	0.00	0.45	0.00	36.5
2	T1	1	0.0	1	0.0	0.019	12.6	LOS A	0.0	0.2	0.00	0.45	0.00	36.5
3	R2	1	0.0	1	0.0	0.019	12.5	LOS A	0.0	0.2	0.00	0.45	0.00	38.1
Approach		19	0.0	19	0.0	0.019	4.4	LOS A	0.0	0.2	0.00	0.45	0.00	36.7
All Vehicles		886	3.3	886	3.3	0.268	2.1	NA	0.3	1.8	0.07	0.15	0.07	38.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\P1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

Site: i4 [2033 PM Base - Aprasia Avenue x McPhail Way + DT
(Site Folder: 2033 PM Base + Development Traffic)]

Network: N101 [2033 PM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x McPhail Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: McPhail Way														
1	L2	21	0.0	21	0.0	0.022	4.4	LOS A	0.0	0.2	0.34	0.51	0.34	33.5
3	R2	7	0.0	7	0.0	0.022	4.1	LOS A	0.0	0.2	0.34	0.51	0.34	30.0
Approach		28	0.0	28	0.0	0.022	4.3	LOS A	0.0	0.2	0.34	0.51	0.34	32.8
East: Aprasia Avenue (Est Approach)														
4	L2	34	0.0	34	0.0	0.177	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	39.1
5	T1	308	0.0	308	0.0	0.177	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.4
Approach		342	0.0	342	0.0	0.177	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.4
West: Aprasia Avenue (Wst Approach)														
11	T1	198	0.0	198	0.0	0.107	0.1	LOS A	0.0	0.2	0.06	0.03	0.06	38.3
12	R2	12	0.0	12	0.0	0.107	4.5	LOS A	0.0	0.2	0.06	0.03	0.06	38.3
Approach		209	0.0	209	0.0	0.107	0.3	NA	0.0	0.2	0.06	0.03	0.06	38.3
All Vehicles		580	0.0	580	0.0	0.177	0.5	NA	0.0	0.2	0.04	0.06	0.04	38.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

**Site: i1 [2033 PM Base - Gorman Drive x McPhail Way + DT
(Site Folder: 2033 PM Base + Development Traffic)]**

**Network: N101 [2033 PM
Base + Development Traffic
(Network Folder: General)]**

Gorman Drive x McPhail Way
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SthEst Approach)														
5	T1	192	8.8	192	8.8	0.108	0.1	LOS A	0.0	0.3	0.05	0.02	0.05	39.7
6	R2	9	0.0	9	0.0	0.108	4.9	LOS A	0.0	0.3	0.05	0.02	0.05	38.9
Approach		201	8.4	201	8.4	0.108	0.3	NA	0.0	0.3	0.05	0.02	0.05	39.7
NorthEast: McPhail Way														
7	L2	40	5.3	40	5.3	0.064	3.4	LOS A	0.1	0.7	0.00	0.47	0.00	30.8
9	R2	33	0.0	33	0.0	0.064	5.4	LOS A	0.1	0.7	0.00	0.47	0.00	37.1
Approach		73	2.9	73	2.9	0.064	4.3	LOS A	0.1	0.7	0.00	0.47	0.00	35.4
NorthWest: Gorman Drive (NthWst Approach)														
10	L2	33	0.0	33	0.0	0.191	3.5	LOS A	0.0	0.0	0.00	0.04	0.00	39.7
11	T1	331	2.9	331	2.9	0.191	0.1	LOS A	0.0	0.0	0.00	0.04	0.00	39.7
Approach		363	2.6	363	2.6	0.191	0.4	NA	0.0	0.0	0.00	0.04	0.00	39.7
All Vehicles		637	4.5	637	4.5	0.191	0.8	NA	0.1	0.7	0.02	0.08	0.02	39.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: C:\Users\Tanya Chen\Ason Group\Ason Group Team Site - 1566\Projects\Modelling\IP1566m01v03 - Googong School SIDRA Model PLUS Development Traffic (Regional Rates 5 percent).sip9

MOVEMENT SUMMARY

Site: i3 [2033 PM Base - Aprasia Avenue x Wilkins Way + DT
(Site Folder: 2033 PM Base + Development Traffic)]

Network: N101 [2033 PM
Base + Development Traffic
(Network Folder: General)]

Aprasia Avenue x Wilkins Way
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Wilkins Way														
1	L2	177	0.0	177	0.0	0.124	3.8	LOS A	0.2	1.5	0.23	0.46	0.23	34.4
3	R2	4	0.0	4	0.0	0.124	4.7	LOS A	0.2	1.5	0.23	0.46	0.23	37.4
Approach		181	0.0	181	0.0	0.124	3.8	LOS A	0.2	1.5	0.23	0.46	0.23	34.6
East: Aprasia Avenue (Est Approach)														
4	L2	5	0.0	5	0.0	0.068	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
5	T1	123	0.0	123	0.0	0.068	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
Approach		128	0.0	128	0.0	0.068	0.2	NA	0.0	0.0	0.00	0.02	0.00	39.9
West: Aprasia Avenue (Wst Approach)														
11	T1	83	0.0	83	0.0	0.083	0.3	LOS A	0.1	1.0	0.19	0.21	0.19	38.6
12	R2	60	3.5	60	3.5	0.083	4.1	LOS A	0.1	1.0	0.19	0.21	0.19	35.1
Approach		143	1.5	143	1.5	0.083	1.9	NA	0.1	1.0	0.19	0.21	0.19	38.0
All Vehicles		453	0.5	453	0.5	0.124	2.2	NA	0.2	1.5	0.15	0.26	0.15	37.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: i2 [2033 PM Base - Gorman Drive x Wilkins Way + DT
(Site Folder: 2033 PM Base + Development Traffic)]

Network: N101 [2033 PM
Base + Development Traffic
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
SouthEast: Gorman Drive (SE Approach)														
4	L2	2	0.0	2	0.0	0.127	5.4	LOS A	0.1	1.1	0.19	0.09	0.19	39.5
5	T1	169	9.9	169	9.9	0.127	0.6	LOS A	0.1	1.1	0.19	0.09	0.19	38.8
6	R2	33	0.0	33	0.0	0.127	5.5	LOS A	0.1	1.1	0.19	0.09	0.19	38.8
Approach		204	8.2	204	8.2	0.127	1.4	NA	0.1	1.1	0.19	0.09	0.19	38.8
NorthEast: Wilkins Way														
7	L2	4	0.0	4	0.0	0.158	3.4	LOS A	0.2	1.7	0.02	0.49	0.02	35.3
8	T1	1	0.0	1	0.0	0.158	7.7	LOS A	0.2	1.7	0.02	0.49	0.02	35.4
9	R2	64	3.3	64	3.3	0.158	10.4	LOS A	0.2	1.7	0.02	0.49	0.02	29.1
Approach		69	3.0	69	3.0	0.158	9.9	LOS A	0.2	1.7	0.02	0.49	0.02	30.1
NorthWest: Gorman Drive (NW Approach)														
10	L2	142	0.0	142	0.0	0.208	3.4	LOS A	0.0	0.0	0.00	0.17	0.00	36.5
11	T1	247	4.7	247	4.7	0.208	0.0	LOS A	0.0	0.0	0.00	0.17	0.00	39.1
12	R2	1	0.0	1	0.0	0.208	4.4	LOS A	0.0	0.0	0.00	0.17	0.00	39.0
Approach		391	3.0	391	3.0	0.208	1.3	NA	0.0	0.0	0.00	0.17	0.00	38.8
SouthWest: Helen Circuit														
1	L2	1	0.0	1	0.0	0.005	3.4	LOS A	0.0	0.1	0.00	0.43	0.00	35.1
2	T1	1	0.0	1	0.0	0.005	8.1	LOS A	0.0	0.1	0.00	0.43	0.00	35.1
3	R2	1	0.0	1	0.0	0.005	8.1	LOS A	0.0	0.1	0.00	0.43	0.00	37.2
Approach		3	0.0	3	0.0	0.005	6.5	LOS A	0.0	0.1	0.00	0.43	0.00	36.1
All Vehicles		667	4.6	667	4.6	0.208	2.2	NA	0.2	1.7	0.06	0.18	0.06	38.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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