Structural
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Transport and Accessibility Impact Assessment

Wee Waa High School

Prepared for School Infrastructure NSW / 5 November 2021

211022 TAAB

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Executive Summary

This Transport and Accessibility Impact Assessment (TAIA) assesses the traffic and transport impacts and design elements of the proposed Wee Waa High School development as well as the associated traffic and infrastructure improvements that will benefit the neighbouring Wee Waa Primary School. The project seeks to cater for a future permanent student capacity of 200 students with a potential to grow to a total capacity of 300 students subject to further funding and service need, as well as 61 staff also employed on the site.

The overall transport strategy for the proposed development is as follows:

- **Pedestrians**
    - Improve facilities within the catchment to increase pedestrian mode share and safety
- **Cyclists**
    - Provide facilities within the site to increase cyclist mode share.
    - Pedestrian improvements will also be able to be used by cycling students aged 16 and under.
- **Public transport**
    - Provide bus connections near to school gate.
    - Bus vehicle routes to consider the requirement to stop at the current primary school.
- **Freight & deliveries**
    - Accommodation external to on site car park and separated from pedestrians.
- **Kiss & ride**
    - Provide pick-up and drop-off site close to school gates.
    - Location to be secure such that pedestrian safety is maintained.
- **Car parking**
    - Encourage carpooling as a viable mode of transport.
    - Provision of some secured parking required on site.

This strategy has been proposed to, and discussed with, both Council and Transport for NSW during ongoing liaison. The project team has met with Council four times since March 2021 and Transport for New South Wales twice, and the transport strategy for the project has been refined during that period in response to feedback received.

Pedestrian improvements under the scope of this SSD project are focused on areas closest to the school where there is the highest density of pedestrian movements. It is noted that Narrabri Shire Council has recently completed road narrowing works on Mitchell Street to the east of the site.

Cyclist improvements include bicycle storage proposed for the equivalent of 3% of current students, with area for future provision as the school increases in enrolments. Additionally, end-of-trip facilities in the form of showers, and change areas are provided on site.

The kiss & ride zone proposals for the school will provide user safety through providing a dedicated bay on George Street. The active and public transport travel provisions will assist in reducing private vehicle volumes.

Car parking is considered the lowest priority mode in accordance with state government policy such as the Road User Space Allocation Policy (TfNSW, January 2021) and other relevant strategies and guidelines. Considering the combination of active and public transport improvements, a reduced parking demand for staff and senior students is expected to be achieved. However, due to the rural nature of the community and large travel distances required for travel, especially amongst staff, it has been requested by Narrabri Shire Council that additional car parking be provided internal to the site. The parking capacity will be 40 spaces plus

provisions for delivery/courier parking, shuttle bus parking, accessible parking, and availability for loading. These are provided via two separate carparks of 20 spaces each, accessed via George Street or Charles Street.

Following approval of this SSD project, it is anticipated that a Construction Traffic and Pedestrian Management Plan (CTPMP) and School Transport Plan (STP) would be fully developed, prior to construction and operation of the school, respectively. Preliminary versions of these documents have been provided as part of this TAIA.

These final documents and other detailed design elements can be reasonably expected to be finalised as a condition of development consent.

The subject proposal at Wee Waa High School is considered suitable on consideration of the traffic and transport elements of the site and its surrounds, and the transport strategy proposed for its management.

Contents

Revision Register

Rev	Date	Remarks	Prepared By	Reviewed By	Approved By
0	30/07/2021	Draft for comment	M. Leighton	G. Carpp	-
0.1	28/09/2021	Draft for comment	M. Leighton	G. Carpp	-
0.2	07/10/2021	Draft for comment	M. Leighton	G. Carpp	P. Yannoulatos
1	15/10/2021	For issue	M. Leighton	G. Carpp	P. Yannoulatos
1.1	29/10/2021	Revised issue	M. Leighton	G. Carpp	P. Yannoulatos
1.2	05/11/2021	Revised Issue	M. Leighton	G. Carpp	P. Yannoulatos

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TAYLOR THOMSON WHITTING (NSW) PTY LTD
in its capacity as trustee for the
TAYLOR THOMSON WHITTING NSW TRUST

1.0 Introduction

1.1 Background

Students and staff were evacuated from the current Wee Waa High School site due to ongoing health issues in late 2020. Students are currently collected within the towns primary school in an overcrowded site. A ministerial announcement made on 3 June 2021 committed to the construction of a New High School at Wee Waa on existing Department of Education owned land and adjacent Crown land as an urgent priority. The site is located on Mitchell Street/ Kamilaroi Highway and is legally described as Lot 1 DP577294, Lot 2 DP550633, and Lots 124-125 DP757125.

Taylor Thomson Whitting (TTW) has been engaged by SINSW to provide traffic engineering consultancy services for the proposed redevelopment. This Transport and Accessibility Impact Assessment (TAIA) has been prepared in support of a State Significant Development Application for the project (SSD-21854025), and is in response to the Secretary's Environmental Assessment Requirements (SEARs) for the site, which have been detailed in Section 1.3 of this report.

1.2 Scope

This report accompanies a State Significant Application which seeks consent for the construction of a new high school with a capacity of up to approximately 200 students, with the potential for up to 300 students subject to service and funding of site in a two-storey building, an Indigenous Cultural Centre, sporting fields and associated civil and utilities works. For a detailed project description refer to the EIS prepared by Ethos Urban.

A Green Travel Plan (GTP), an Operational Traffic and Access Management Plan (OTAMP), and a Construction Traffic and Pedestrian Management Plan (CTPMP) have been prepared and included within this document. These plans are considered preliminary in nature for the purpose of the SSDA and would be finalised post-approval as a condition of consent (or consolidated in the School Transport Plan).

1.3 Response to SEARs

Under application number SSD-21854025 we have been provided with the Secretary's Environmental Assessment Requirements (SEARs). These requirements were issued on the 6th of July 2021 following consultation with local stakeholders. The requirement for a Transport and Accessibility Assessment are shown in Table 1.1-1 and have been addressed in various sections of this report as referenced.

Table 1.1-1: Response to SEARs

	Key Items	Comments and References
5.0	**Transport and Accessibility** **Include and transport and accessibility impact statement, which includes, but not limited to the following:**	
5.1	**Analysis of the existing transport network to at least the existing or proposed enrolment boundary, including:**	
	▪ Road hierarchy	*Section 2.2- Road Network*
	▪ Pedestrian, cycle, and public transport infrastructure	*Section 2.4- Public Transport* *Section 2.5- Active Transport*
	▪ Details of current daily and peak hour vehicle movements based on traffic surveys and / or existing traffic studies relevant to the locality	*Section 2.10- Network Performance*
	▪ Existing transport operation for 1 hr before and after (existing or proposed) bell times such as span of service, frequency for public transport and school buses, pedestrian phasing for signals.	*Section 2.10- Network Performance*
	▪ Existing performance levels of nearby intersections utilising appropriate traffic modelling methods (such as SIDRA network modelling).	*Section 2.10- Network Performance*
5.2	**Details of the proposed development, including:**	
	▪ A map of the proposed access which identifies public roads, bus routes, footpaths and cycleways.	*Section 3.1- Overall Works* *Section 3.2- Transport Context*
	▪ Pedestrian site access and vehicular access arrangements, including for service and emergency vehicles and loading/unloading, including swept path analysis demonstrating the largest design vehicle entering and leaving the site and moving in each direction through intersections along the proposed transport routes.	*Section 3.3- Site Access*
	▪ Car and motorcycle parking, bicycle parking and end of trip facilities.	*Section 3.5- Cyclist Facilities* *Section 3.8- Car Parking*
	▪ Drop-off / pick-up zone(s) and arrival/departure bus bay(s), including consideration of designing these aspects within the site boundary.	*Section 3.6- Bus Zones* *Section 3.7- Pick Up Drop Off (PUDO)*
	▪ Pedestrian, public transport or road infrastructure improvements or safety measures.	*Section 3.4- Pedestrian Facilities* *Section 3.6- Bus Zones* *Section 3.9- Infrastructure and Safety Improvements*

5.3	**Analysis of the impacts due to the operation of the proposed development, including:**	
	▪ Proposed modal split for all users of the development including vehicle, pedestrian, bicycle riders, public transport, school buses and other sustainable transport modes.	*Section 5.0- Green Travel Plan*
	▪ Estimated total daily peak and peak hour vehicular trip generation.	*Section 4.2- Trip Generation*
	▪ A clear explanation and justification of the: o Assumed growth rate applied. o Volume and distribution of proposed trips to be generated. o Type and frequency of design vehicles accessing the site.	*Section 4.4- Future Traffic Conditions*
	▪ Details of performance nearby intersections with the additional traffic generated by the development both at the commencement of operation and in the 10-year time period (using the SIDRA network modelling).	*Section 4.4- Future Traffic Conditions*
	▪ Cumulative traffic impacts from any surrounding approved development(s).	*Section 4.4- Future Traffic Conditions*
	▪ Adequacy of pedestrian, bicycle and public transport infrastructure and operations to accommodate the development.	*Section 4.0 – Operational Impacts*
	▪ Adequacy of car and motorcycle parking and bicycle parking codes and standards.	*Section 4.0 – Operational Impacts*
	▪ Details of proposed school bus routes on travel lanes of 3.5m minimum and infrastructure (bus stops, bus layovers etc.)	*Section 3.6- Bus Zones*
	▪ Adequacy of the existing / proposed pedestrian infrastructure to enable convenient and safe access to and from the site for all users, including for emergency vehicles and service vehicles (loading/unloading).	*Section 3.4- Pedestrian Facilities*
5.4	**Measures to ameliorate and adverse traffic and transport impacts due to the development based on the above analysis, including:**	
	▪ Travel demand management programs to increase sustainable transport (such as a Green Travel Plan / School Transport Plan)	*Section 5.0- Green Travel Plan*
	▪ Arrangements for the Travel Coordinator roles	*Section 5.0- Green Travel Plan*
	▪ Governance arrangements or relationships with state and local government transport providers to update roads safety.	*Section 8.3 – Next Steps*
	▪ Infrastructure improvements or protection measures, including details of timing and method of delivery.	*Section 3.9- Infrastructure and Safety Improvements*
5.5	**A preliminary school transport plan detailing an operational traffic and access management plan for the site, pedestrian entries, the drop-off / pick-up zone(s) and bus bay(s).**	*Section 6.0- Operational Traffic and Access Management Plan*
5.6	**Analysis of the impacts of the traffic generated during construction of the proposed development, including:**	
	▪ Construction vehicle routes, types, and volumes	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
	▪ Construction program	*Section 7.0- Construction Traffic and Pedestrian Management Plan*

	▪ On-site car parking and access arrangements for construction, emergency and construction worker vehicles.	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
	▪ Cumulative impacts associated with other construction activities in the locality (if any).	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
	▪ Road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality.	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
	▪ Measure to mitigate impacts, including to ensure the safety of pedestrians and cyclists during construction.	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
5.7	**A preliminary Construction Traffic and Pedestrian Management Plan**	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
5.8	**Relevant Policies and Guidelines**	
	▪ Construction vehicle routes, types, and volumes	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
	▪ Construction program	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
	▪ On-site car parking and access arrangements for construction, emergency and construction worker vehicles.	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
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	▪ Road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality.	*Section 7.0- Construction Traffic and Pedestrian Management Plan*
	▪ Measure to mitigate impacts, including to ensure the safety of pedestrians and cyclists during construction.	*Section 7.0- Construction Traffic and Pedestrian Management Plan*

1.4 Authority Consultation

This report has been prepared following consultation between the design team and relevant stakeholders including Council, TfNSW and Wee Waa Public School. Consultation events and outcomes relevant to the design occurred as follows:

Meeting with Council 19/03/21

- Council reviewed the initial concept.
- Council requested hours not be reduced for road train vehicles on Mitchell Street.
- Council advised they were unaware of any crash issues near the adjacent school.

Meeting with Council 30/03/21

- Adjusted concept was tabled for review.
- Council requested additional car parking was to be provided.

Meeting with Council 30/04/21

- Options assessment was requested for Mitchell Street.
- Council requested consideration of roll kerbs along Mitchell Street for any narrowing works.
- Culgora Road mentioned as a potential future road train route.

Meeting with Transport 21/06/21

- Pick up and drop off location was requested to be shifted from Mitchell Street.
- Additional on site parking was requested.
- Potential for pedestrian crossing to be reviewed with projected pedestrian trips.

Meeting with Council 6/10/21

- Update was provided regarding the change to pick up and drop off, bus movements and car parking numbers.
- Endorsement was received regarding the design.

Meeting with Transport 7/10/21

- Update was provided regarding the relocation of pick up and drop off to be away from Mitchell Street.
- It was requested that separation be provided between the pick up and drop off location to prevent overflow of pick up and drop off movements into the bus layover area. It was also requested that bus layover be relocated to Charles Street to separate these movements.
- It was stated that a pedestrian crossing at Mitchell Street would not be supported on the basis of delays to through vehicle movements.
- It was requested that traffic modelling be conducted of a potential future midblock crossing to ensure no impact to the surrounding intersections.

1.5 Guidelines and References

- Guide to Traffic Generating Developments (Roads and Maritime Services 2002).
- EIS Guidelines- Road and Related Facilities (Department of Urban Affairs and Planning (DUAP), 1996).
- Cycling Aspects of Austroads Guides.
- NSW Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning, and Natural Resources (DIPNR), 2004).
- Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments (Austroads, 2020) including all supplements.
- Guide to Road Design (Austroads, 2021) and relevant TfNSW supplements, including safe intersection sight distance (SISD).
- Australian Standard (AS) 2890.3 Parking Facilities, Part 3: Bicycle parking (AS2890.3).

2.0 Existing Transport Network

2.1 Existing Site Conditions

The site of the existing Wee Waa High School is currently operating in conjunction with Wee Waa Public School and is located at 41 Cowper Street, Wee Waa NSW. The site falls under the Narrabri Shire Local Government Area (LGA).

The High School has been temporarily relocated to the Primary School site on Mitchell Street and is currently operating through the use of demountables. This method of operations is proving unsustainable for future growth of both schools and has started causing road and traffic congestion issues during peak school hours.

2.2 Road Network

The existing site servicing both the Primary School and High School is bounded to the north by Mitchell Street, to the south by Cowper Street, east by George Street, and the west by Church Street.

The proposed site of the High School redevelopment is located adjacent to the existing site and is bounded to the south by Mitchell Street, east by George Street, west by Charles Street, and north by residential properties.

Mitchell Street forms a connection between the eastern and western sections of the Kamilaroi Highway as it passes through the suburb of Wee Waa. The road is a two-lane roadway providing service both directions (one lane each). The road is subject to School zones just prior to the intersection with George Street traveling westbound and runs until after just after the Church Street Intersection. Due to it serving as an extension of the Kamilaroi Highway, the road experiences steady road train movements and thus harvester and oversize vehicles require access to Mitchell Street. These movements peak during harvest season, but otherwise are relatively evenly spread once every 10-15 minutes during morning peak.

Narrabri Shire Council has recently constructed traffic calming measures adjacent to Dangar Park on Mitchell Street to slow vehicles through this area and increase safety to students.

Cowper Street is a two-lane roadway running parallel south of Mitchell Street and services travel in both directions. Parking is limited immediately adjacent to the school on the north end during school hours to service bus and pick up services. Parking on the southern side is unrestricted 45-degree angled to the flow of traffic.

Church Street is a two-lane roadway running perpendicular to and intersecting both Mitchell Street and Cowper Street to the west of the existing site. The roadway services traffic flowing both directions and is divided along the majority of its run by planted median strips. Street parking is available on both sides at 45-degree angles to the flow of traffic south of Cowper Street, or parallel to the kerb north of Cowper Street. The street is excessively wide, reaching upwards of 20m at places and has been identified alongside Mitchell Street as a priority problem through pedestrian surveys.

George Street is a two-lane roadway running perpendicular to and intersecting both Mitchell Street and Cowper Street to the East of the existing and proposed site. The roadway services traffic flow in both directions and contains no lane division markings aside from near traffic control measures such as intersections and the school crossing. A student crossing is present, joining the school to the adjacent Dangar Park. Parking is restricted in proximity to the school crossing during morning and afternoon peak school hours but features unrestricted 45-degree angle parking in the direction of traffic flow outside these zones.

Charles Street is a two-lane roadway running perpendicular to and intersecting Mitchell Street to the west of the proposed site. The roadway services traffic flow in both directions and contains no traffic control measures or line markings north of Mitchell Street.

2.3 School Catchment Areas

The NSW government NSW School Finder provides the following catchments for Wee Waa High School and Wee Waa Primary School

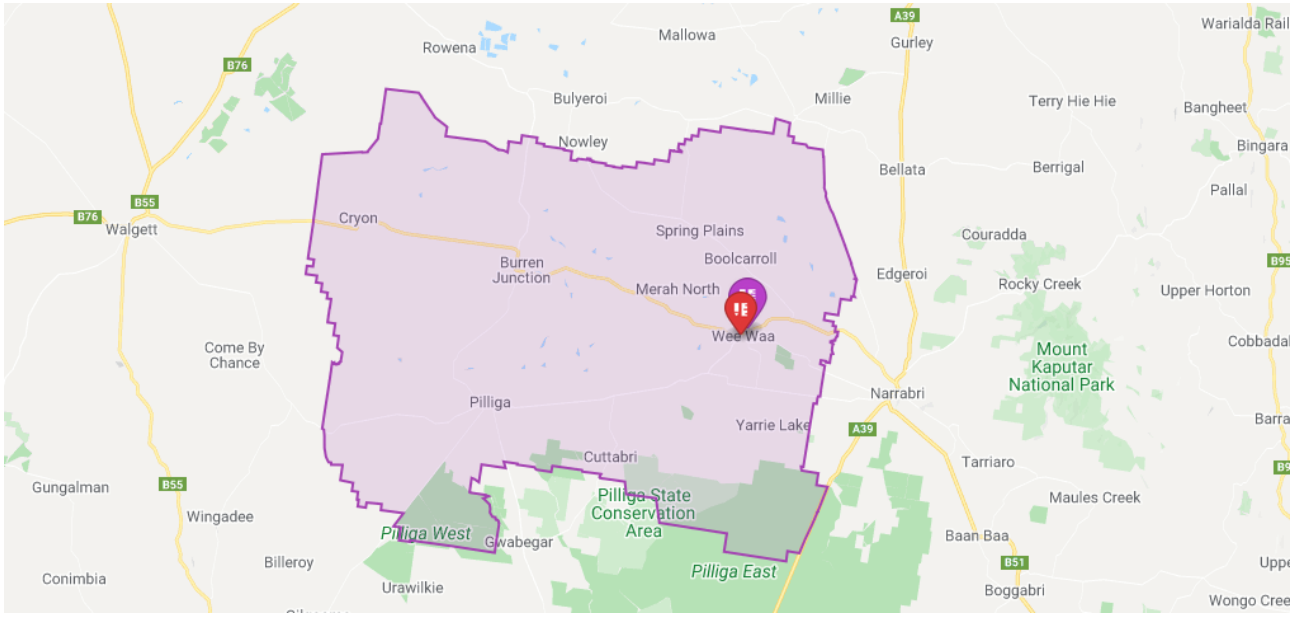


Figure 2.1- Wee Waa High School Catchment Area

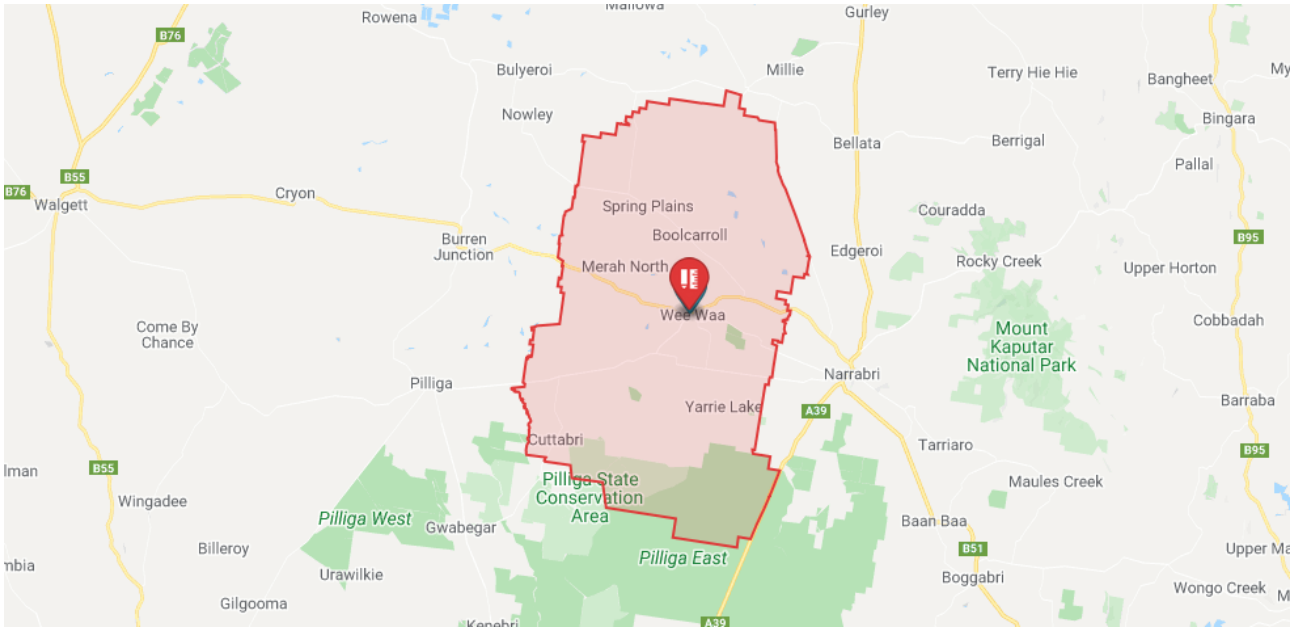


Figure 2.2- Wee Waa Primary School Catchment Area

It is acknowledged that the large catchment area of Wee Waa High School in comparison to urban schools will likely result in a heavy reliance on private vehicle travel modes. Student residences have been provided by Wee Waa High School to determine the percentage of students living within a 5-minute, 10-minute, 15-minute, 30-minute, or greater walking distance from the school. This data has been used as a guide in determining the

likelihood of students adopting to alternate travel means such as public and active transport modes and is provided in Table 2-1 below.

Due to the location of Wee Waa Public School being near to the proposed site, movement patterns of the public school have also been considered when reviewing the external transport networks.

	WWPS				WWHS			
	Notional (#)	**Notional (%)**	**Actual (#)**	**Actual (%)**	**Notional (#)**	**Notional (%)**	**Actual (#)**	**Actual (%)**
< 400m (5-minute walk)	17	15.3%	10	9.0%	25	18.1%	16	11.6%
< 800m walk (10-minute walk)	58	52.3%	49	44.1%	78	56.5%	53	38.4%
< 1200m (15-minute walk)	83	74.8%	73	65.8%	88	63.8%	86	62.3%
< 2400m in catchment	87	78.4%	84	75.7%	92	66.7%	87	63.0%
> 2400m in catchment	111	100.0%	111	100.0%	138	100.0%	138	100.0%
Total enrolments within catchment	111	100.0%	111	100.0%	138	100.0%	138	100.0%

Table 2-1- Student pedestrian travel distance between school site and place of residence.

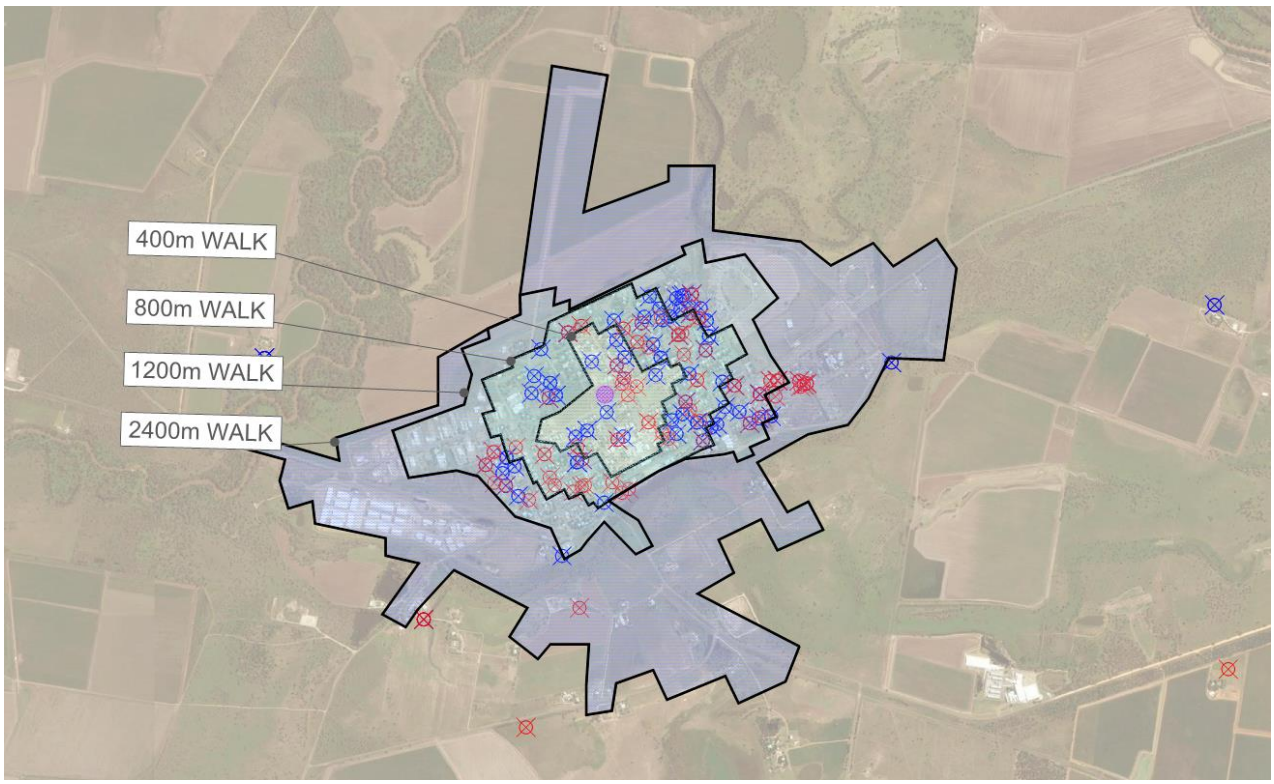


Figure 2.3- Map of student pedestrian travel distances between school site and place of residence.
Note: High School Student addresses shown in blue and Public School addresses in red.

2.4 Public Transport

At current, school bus service routes provide transport options for students traveling to Wee Waa High School and Primary School. It should be noted that these services also provide for students attending adjacent schools within Wee Waa.

A transport survey of students attending Wee Waa High School has indicated that 20% utilise existing bus services as their primary means of travel to school. Although not indicated within the Travel Mode Survey provided in Section 2.8 of this report, site observations have confirmed that a number of Primary School students also utilise these services as the primary means of travel between school and home. Bus stops are manned by teaching staff during operational hours to ensure students are entering the school after departing the bus.

Figure 2.4 - Existing location of the Primary School and High School bus stop.

2.5 Active Transport

2.5.1 Pedestrians

Pedestrian mode share surveys obtained from students show a relatively high instance of pedestrian travel with 43% of Primary School students and 15% of High School students as the primary mode of travel. In total, this relates to a demand of 93 students walking to and from site (48 to Wee Waa Primary School and 45 to Wee Waa High School). As demonstrated in Figure 2.5 below, a significant number of journeys require crossing Mitchell Street. These findings are summarised in Table 2-2.

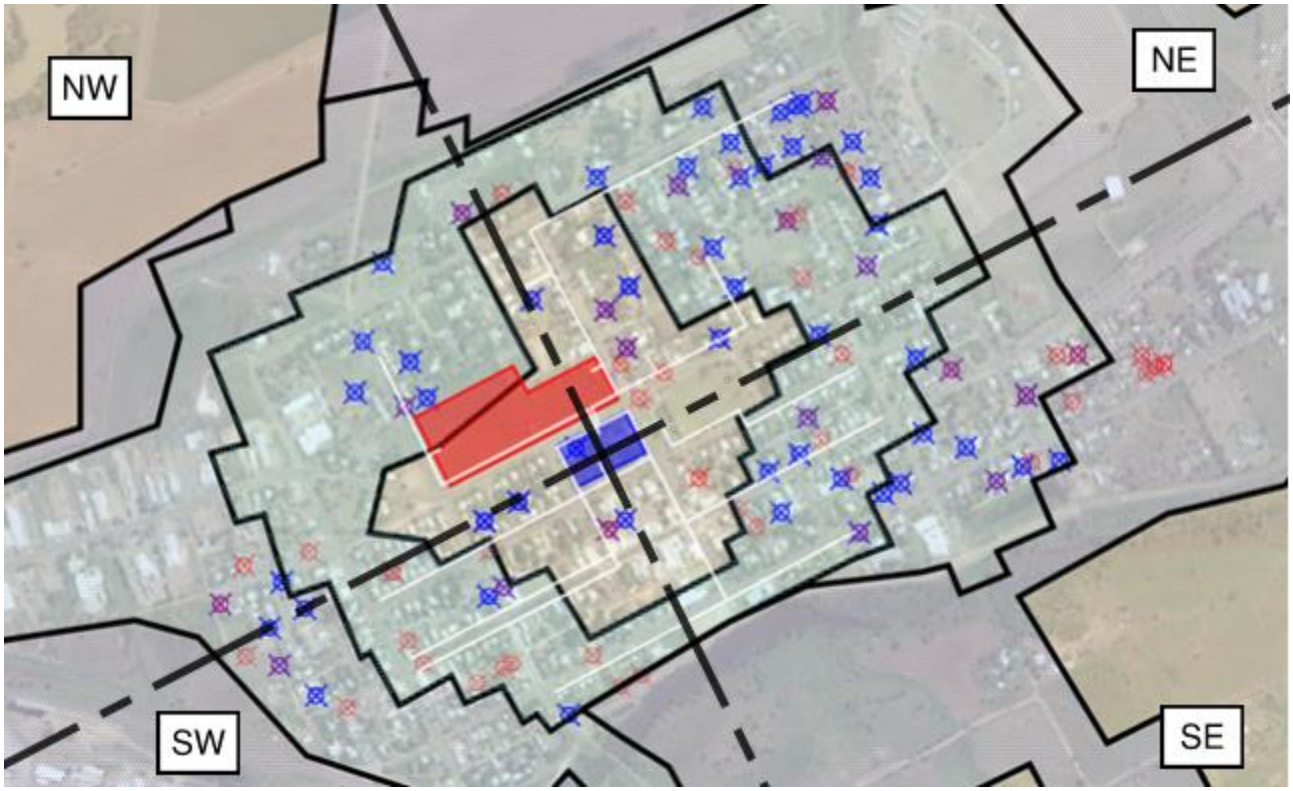


Figure 2.5 - Direction of student residence from school site

	Number of Students		
Direction of Travel	**WWPS**	**WWHS**	**Total**
North West	5%	11%	8%
North East	30%	38%	34%
South West	33%	28%	30.5%
South East	32%	23%	27.5%

Table 2-2- Summary of travel direction requirements for High School and Primary School students.

At current operation, pedestrian travel is negatively impacted by a lack of infrastructure within the site vicinity. Of the feedback provided by the Travel Mode Survey, a lack of pedestrian access and safety along Mitchell Street is of particular note. The major issues from a pedestrian perspective includes the lack of pedestrian footpaths north of Mitchell Street and the surrounding road network, as well as no safe crossing point for pedestrian use.

Pedestrian risk is furthered when considering the age and size of students requiring crossing of Mitchell Street to attend the school site.

Figure 2.6 - Existing pedestrian footpath infrastructure surrounding site.

Narrabri Shire Council have recently completed kerb blistering on Mitchell Street in mid-2021 adjacent to Dangar Park which is intended to provide traffic calming near to the current Public School and also to provide a shorter distance to cross for pedestrians.

2.5.2 Cyclists

Cyclist infrastructure in and around the site area are minimal. Roadways do not contain designated cycling lanes for cyclist use which results in safety concerns, especially along Mitchell Street where high movements of Road Train Vehicles are common. However, as cyclists aged 16 and under are permitted use of pedestrian lanes for travel, it is expected that the majority of students cycling to and from site are utilising these safer routes as their primary route of travel.

2.6 Car Parking

Current operation of the site housing both the Primary and High School has all staff parking located on the street. An existing carpark is located on site capable of housing 12 parking spots, however this is temporarily unavailable due to demountable classrooms located within the site while both the High School and Public School are co-located. Private transport serves as the primary mode of travel for most staff (94%) with a vehicle occupancy of 1.6 people per car, suggesting carpooling or travel sharing is also a common mode of transport. Site observations indicate that the current demand for car parking is 60 across both the primary and high school.

Figure 2.7 - Existing car parking provisions.

2.7 Pick-up and Drop-off (Kiss and Ride)

In current operation, both the High School and Primary School share the same pick-up and drop-off area as both are located within the same site area. Pick-up and drop-off services form the bulk of travel demands amongst Primary School students (57%) as well as making up a large population of High School students (45%). Surveys amongst Staff indicate that 6% are dropped off and picked up from work as part of their primary mode of transport.

Figure 2.8- Existing PUDO zone provisions

2.8 Travel Mode Survey

The findings presented in this section are the result of a travel survey provided by TTW that was distributed to students, parents/carers of students, and staff of both Wee Waa Primary School as well as Wee Waa High School in March 2021. The statistics from this survey are assumed to be reflective of the current travel habits of staff and students and may be applied to the expected future school population.

Due to the rural nature of the Wee Waa community combined with the age demographic of study subjects, it is expected that the majority of traffic developments will focus on pedestrian, bus, cyclist, private vehicle and carpooling services.

Travel Mode	Mode Share (%)
Private Vehicle	20%
PUDO	45%
Public Transport	20%
Cycling	0%
Pedestrian	15%

Table 2-3- Student travel Mode Share.

2.8.1 Summary of High School Survey

Development of the site will focus on the construction and implementation of a new High School campus to better increase the expected demands of future growth with the Wee Waa community. As the primary demographic benefiting from this development, it is important to consider the existing travel modes and needs of current Wee Waa High School students to aid in the implementation of a system best suited for current travel demands as well as an estimate as to future student requirements.

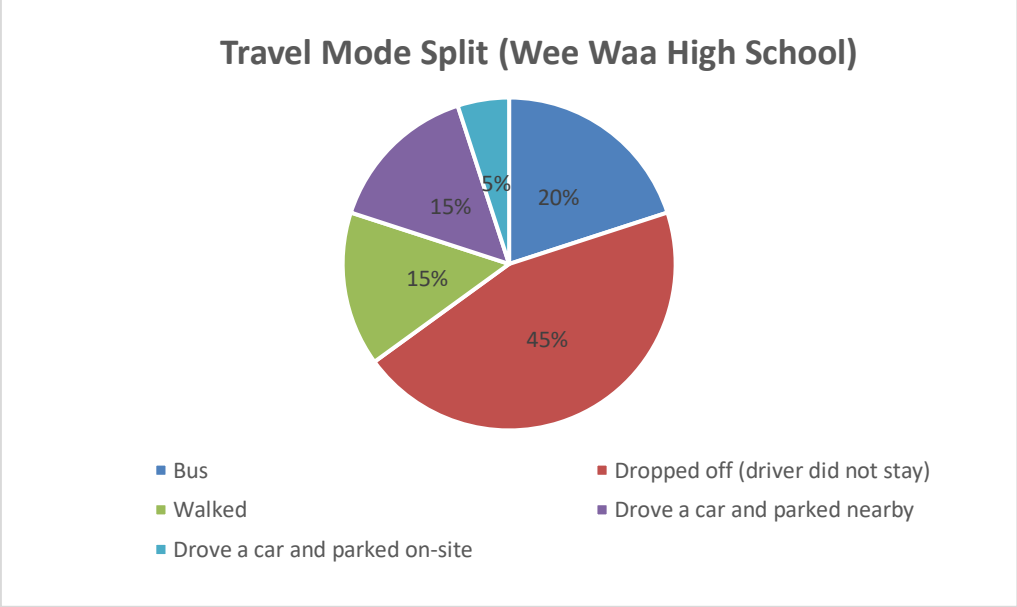


***Figure 2.9*- Travel Mode Split for High School students.**

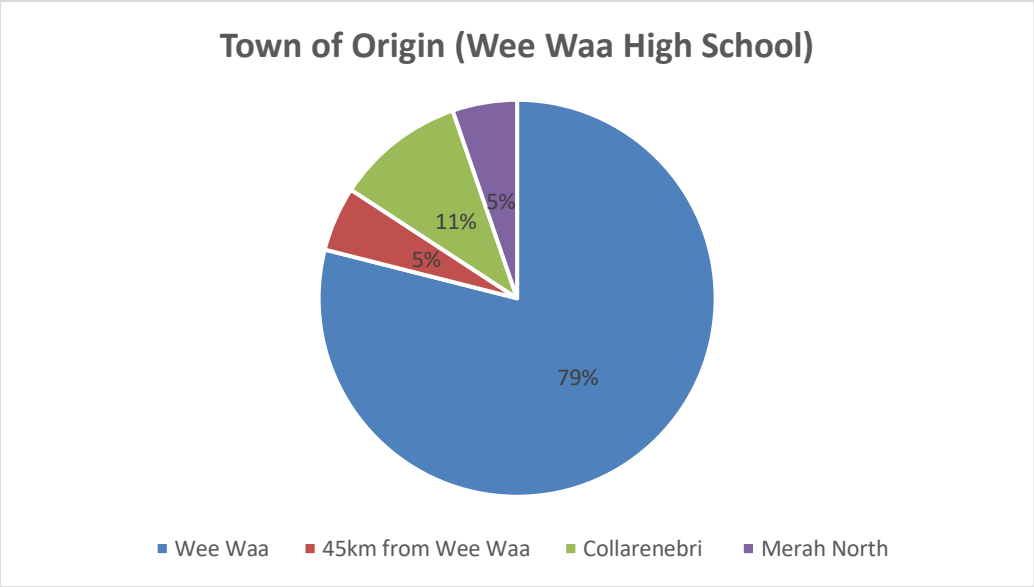


***Figure 2.10*- Town of origin for High School students**

Figure 2.9 outlines the travel mode split between Wee Waa High School students. Travel via car is the most common method of transport with 65% of High School students utilising it as their primary means of travel. Of note are the relatively high number of students driving themselves to school and either parking on-site or within site proximity. This suggests that private travel forms a pivotal form of transport once the option becomes available for students on their P1 and P2 licences.

Walking (15%) and travel via bus (20%) also form viable methods of travel for students living locally within Wee Waa, but as outlined in Section 2.3 of this report, this may be hampered by the distances and limited infrastructure available.

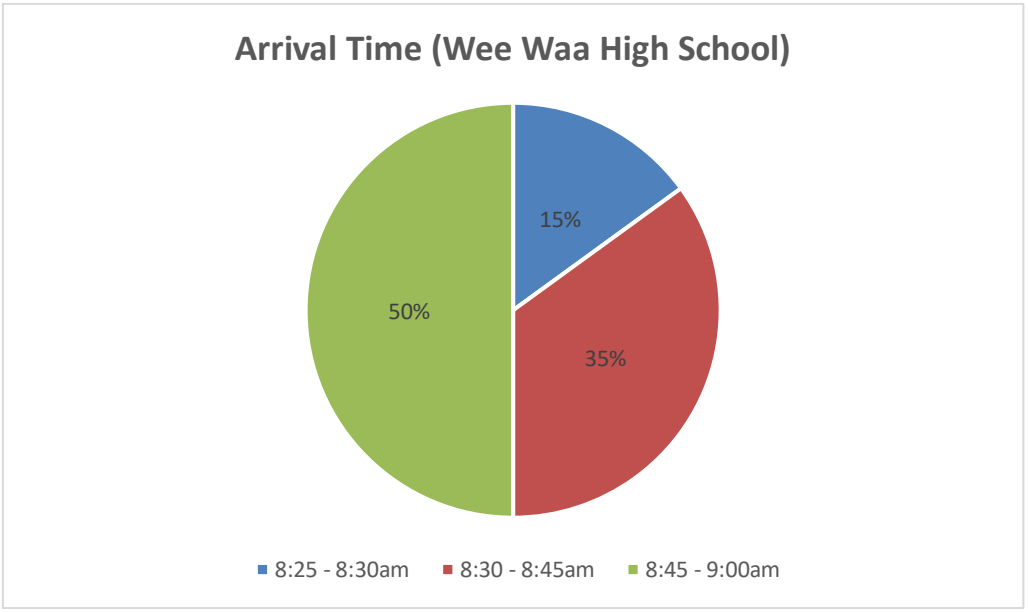


***Figure 2.11*- Arrival time of High School students to existing site.**

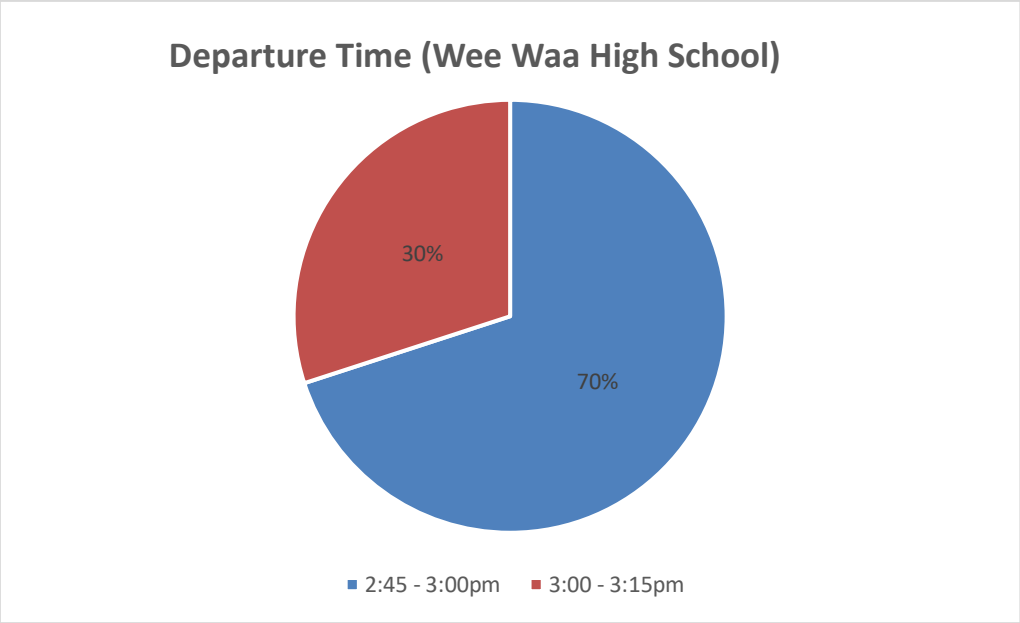


***Figure 2.12*- Departure time of High School students from existing site.**

Arrival and departure times of students align with the expected values of peak school hours, with all recorded students arriving between 8:25am to 9:00am and leaving site between 2:45pm to 3:15pm.

2.8.2 Summary of School Staff Study

As another demographic impacted by the proposed development works, staff responses and feedback to the Travel Mode Survey should also be considered and factored into final design and project construction. These responses are demonstrated in Figure 2.13 through Figure 2.15.

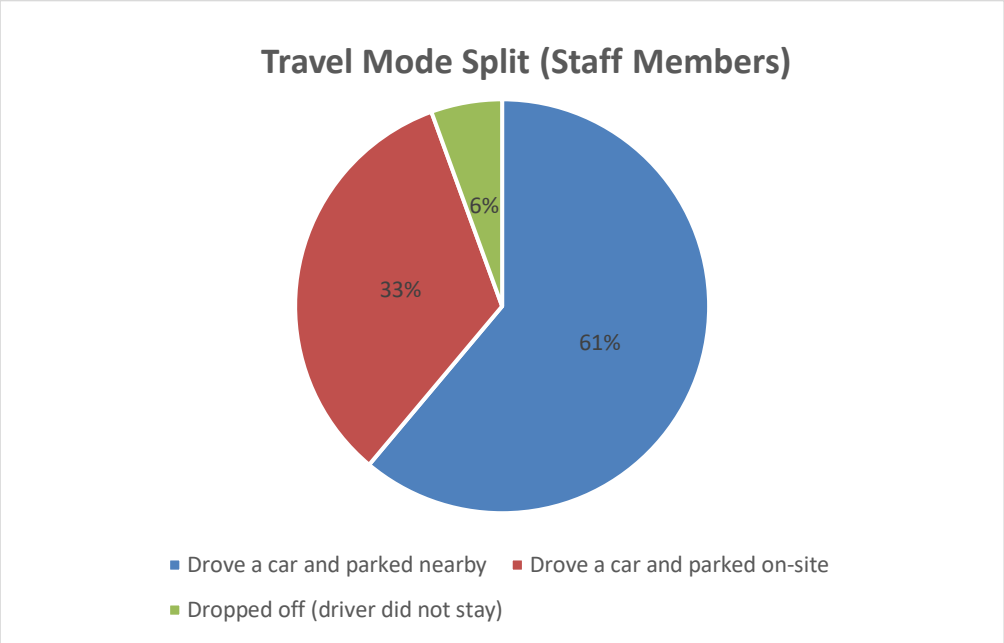


***Figure 2.13*- Travel Mode Split for High School and Primary School Staff.**

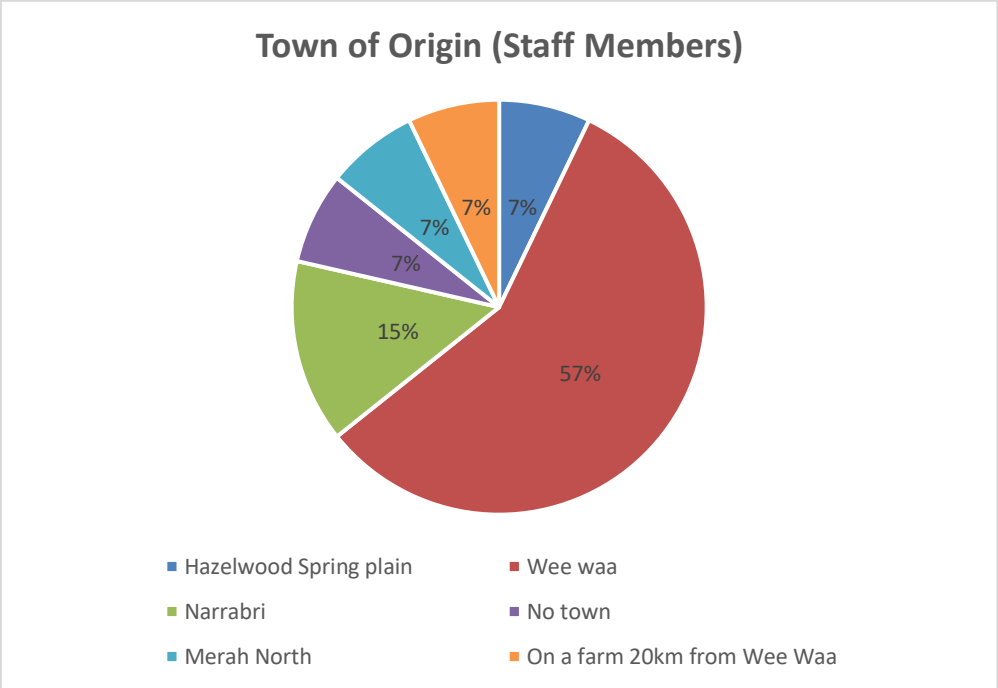


***Figure 2.14*- Town of origin for Staff Members.**

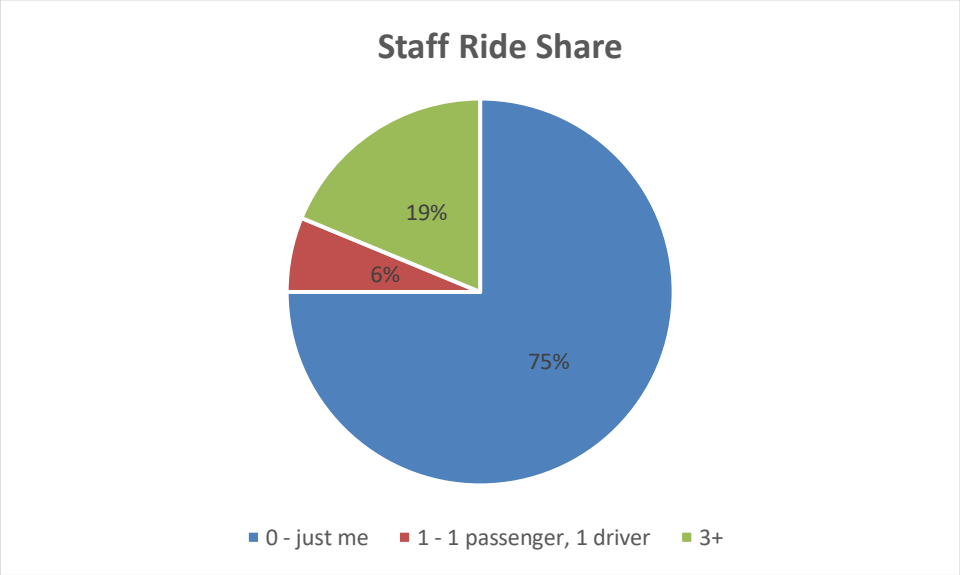


***Figure 2.15*- Staff ride share for staff members utilising private transport.**

Staff travel is dominated by private vehicle use, with no other modes of transport expressed through the survey. This reliance on private travel is likely influenced by travel distance and time. Figure 2.14 indicates that many staff may travel intertown for work, with several of the cited suburbs well beyond the student school catchments. It is expected the large travel distance and time severely limits the more sustainable travel options available to these staff. It is therefore expected that traffic improvements be implemented locally to allow those living in and around Wee Waa greater options in accessibility when attempting to select ulterior travel modes.

2.8.3 Sustainable Transport Encouragement Measures

All respondent types (staff, student, parent / carer) were asked to select design and operational measures that may influence them to change their primary travel mode between school and home in the future. These responses are shown in Figure 2.16 through Figure 2.18 below.

When asked about the possibility of a transition to active transport, over half of those surveyed reported unfeasibility due to travel distance. It is therefore expected that the majority of pedestrian and cyclist services be focused within the immediate vicinity of the site.

Discussions with the school should also be performed as a means of notifying those students living within close proximity of one-another with the possibility of forming travel groups, either for social or practical purposes.

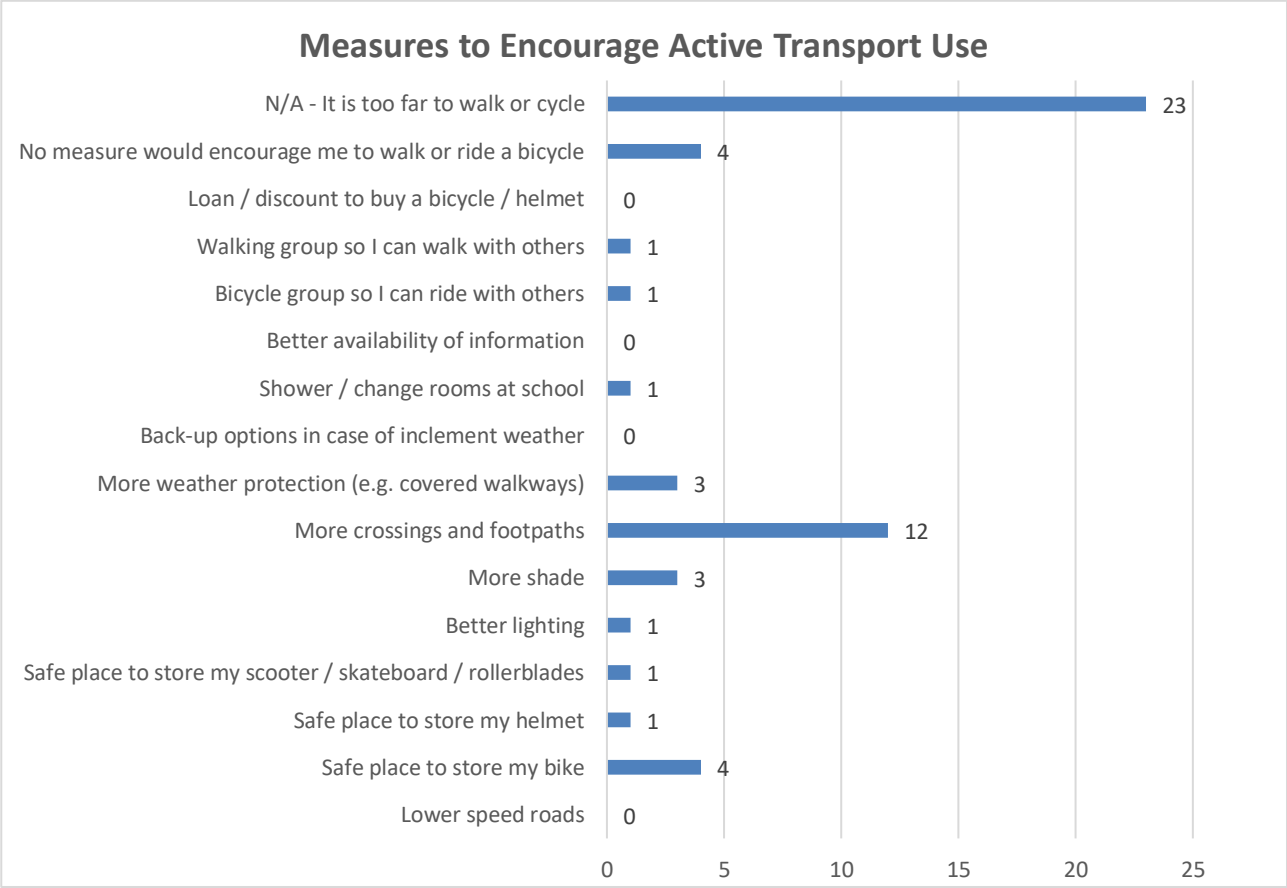


***Figure 2.16*- Measures to encourage shift to active transport modes.**

When asked about the transition to public transport travel modes, the majority of those surveyed suggested that no measure would change their current travel mode. Survey feedback suggests that the viability of existing public transport in the area is hampered by three criteria: service frequency, service price, and proximity to services.

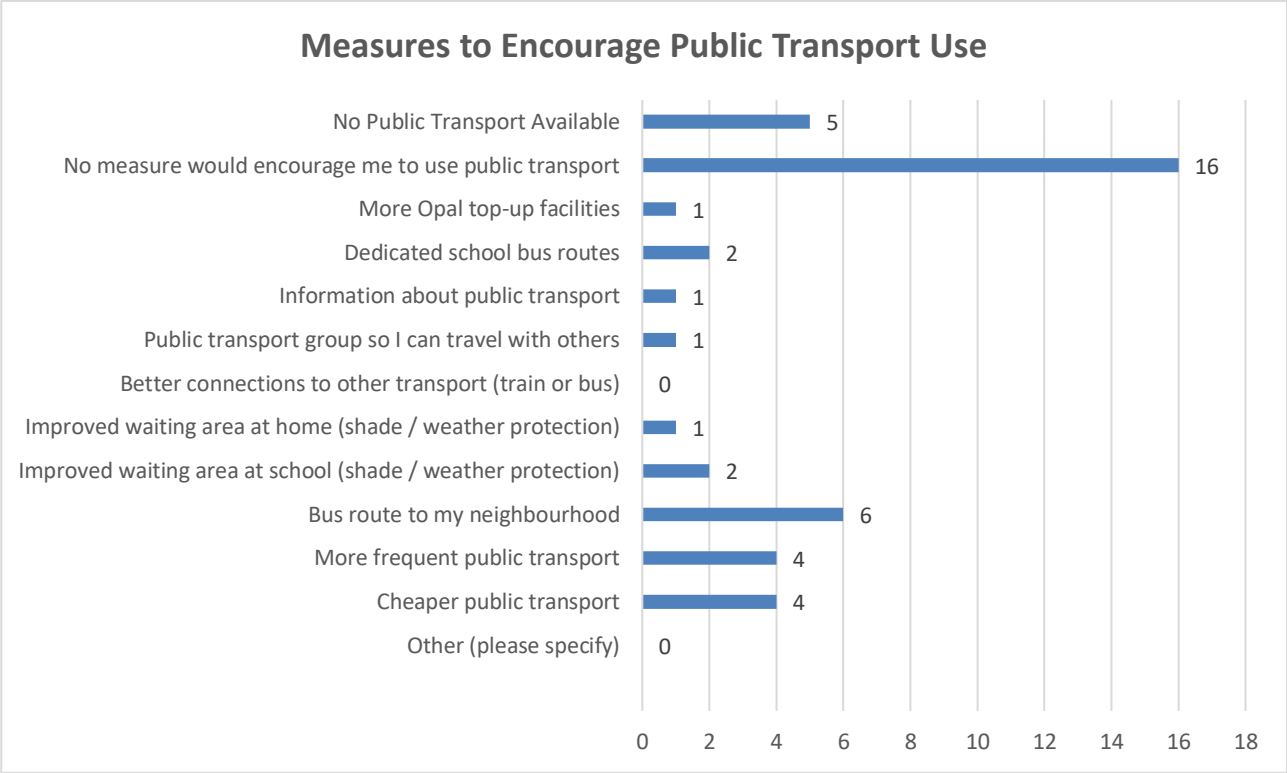


Figure 2.17- Measures to encourage shift to public transport modes.

When asked about the possibility of switching to carpooling services, fifteen responses indicated that no implementation would cause a change in travel mode, four of the survey subjects indicated they already participate in carpooling, whilst six do not travel by car. Feedback also indicates that the majority of viable implementations be social improvements, such as aid in finding carpool drivers, sharing responsibility, and knowing the driver on a personal level. Only three of the subjects cited infrastructure solutions such as secure parking and certainty in finding car space as improvements they would like to see implemented. Other reasons cited for a lack of interest in adopting car pooling as a primary means of transport includes the age of students, distance from others, and childcare arrangements.

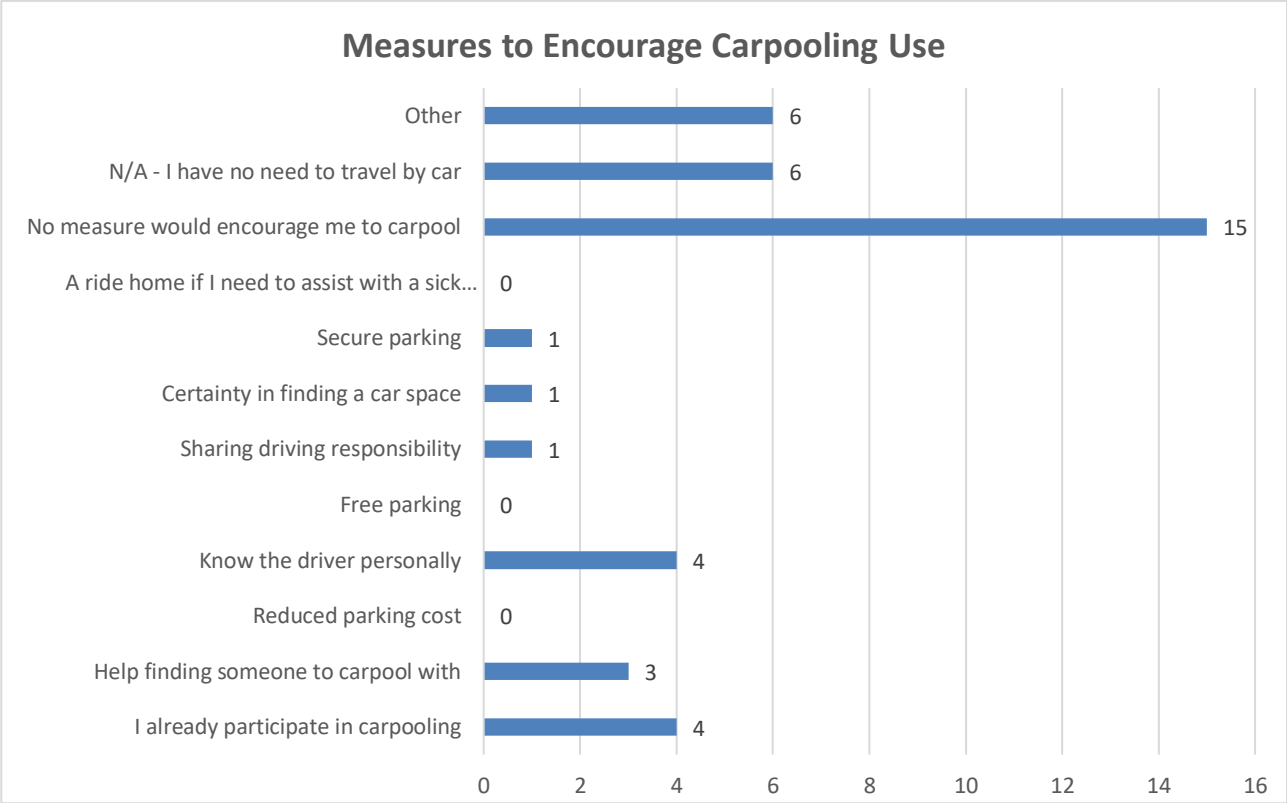


Figure 2.18- Measures to encourage shift to carpooling transport mode.

2.8.4 Survey Feedback

Staff, students, and parents were provided a section at the end of the report for specific feedback they wanted communicated with those working on the development of site. Whilst most either left this section blank or responded with no comment, several highlights were made to the detrimental impact Mitchell Road has to current transport operations around the site. This was mainly expressed as a need for safe parking along Mitchell Street, as well as the need for safe crossing infrastructure for those pedestrians and cyclists attempting to cross Mitchell Street from the site.

2.9 Journey to Work Data

The 2016 Method of Travel to Work (MTW) data provides an estimate to the employee travel modes within and between Travel Zones (TZ). The site falls within the Narrabri Region.

An assessment of travel mode share is shown in Table 2-4 below. 'Mode15' categorisation of travel modes (as listed in the left column) is used for a clearer and simpler assessment of key travel modes through allocation a primary mode when multiple modes have been used in one trip.

A summary of key mode categories is also provided in Table 2-5.

Travel Mode (MTW Mode 15)	Mode Share (%)
Train	0.00%
Bus	0.89%
Car (as Driver)	80.17%
Car (as Passenger)	4.26%
Truck	3.81%
Motorbike / Scooter	0.19%
Bicycle	0.25%
Walked Only	8.71%
Other Mode	1.72%
Total	100.00%

Table 2-4: Method of Travel to Work Data
Source: MTW Table 15

Mode Summary	Mode Share (%)
Private Vehicle (car, truck, motorbike)	88.43%
Public Transport (train, bus)	0.89%
Active Transport (bicycle, walking)	8.96%
Total	100.00%

Table 2-5: Journey to Work Summary

2.10 Network Performance

Existing network performance under current operations have been examined through SIDRA modelling in Section 4.0 of this report and have been found to run at a Level of Service A.

2.11 Road Safety

Through discussions with Council no previous crash history was identified in the immediate vicinity of the site, this is supported by Transport for New South Wales crash data.

Mitchell Street has been identified as the primary safety concern through a survey conducted amongst staff, students, and parents. Schools zones are present along Mitchell Street between George Street and Church Street, reducing traffic speeds to 40 kilometres per hour in proximity to the school site during peak times.

3.0 Proposed Development

3.1 Overall Works

The SSD Application seeks consent for the construction of a new two-stream high school with a capacity of 200 students, with the potential to grow to 300 students subject to further funding and service need. Specifically the SSD Application seeks approval for the following development:

- Site preparation and earthworks as required.
- Construction of the following:
    - A new two-storey school building arranged in a U-shape courtyard typology, including teaching spaces, library/admin, staff facilities, and a multi-purpose gymnasium/hall.
    - A Covered Outdoor Learning Area (COLA).
    - One grass sport field with a perimeter running track and asphalt playing courts.
    - A standalone single-storey Agricultural and Environment Centre building.
    - A standalone single-storey Indigenous Cultural Centre building.
    - Internal vehicular access from George Street running east-west through the site.
    - Two at-grade car parking areas with a total of 40 parking spaces.
- Augmentations to the road network as required to ensure road safety, including a dedicated drop off/pickup area and bus bay along George Street.
- Removal of trees as required and retention where possible.
- Installation of landscaping, additional tree planting and fencing to integrate with the design of the new school.
- Installation of signage and public art.
- Installation and augmentation of associated services infrastructure to service the new school.

The site development will also be in conjunction with several traffic infrastructure and student amenity upgrades to the surrounding road systems as well as Wee Waa Primary School. These are outlined below.

- Introduction of traffic control measures and pedestrian infrastructure along Mitchell Street to ensure student safety during pedestrian travel to and from the school sites.
- Implementation of new school bus infrastructure including a bus bay.

The changes to student and staff capacities of both Wee Waa High School (WWHS) as well as the impacts to Wee Waa Primary School (WWPS) are outlined in Table 3-1 below. It is noted that the School will continue to operate at approximately 150 students and 50 staff on opening however the site has been future proofed for an additional 50 students, extending to an additional 150 students granted further funding and service need.

WWHS	Existing (permanent)	Future Capacity	Increase (permanent)
Students	150	300	150
Staff	50	61*	11*

Table 3-1- Expected student and staff population growth.
** Increase in staff nominal based on potential student population growth.*

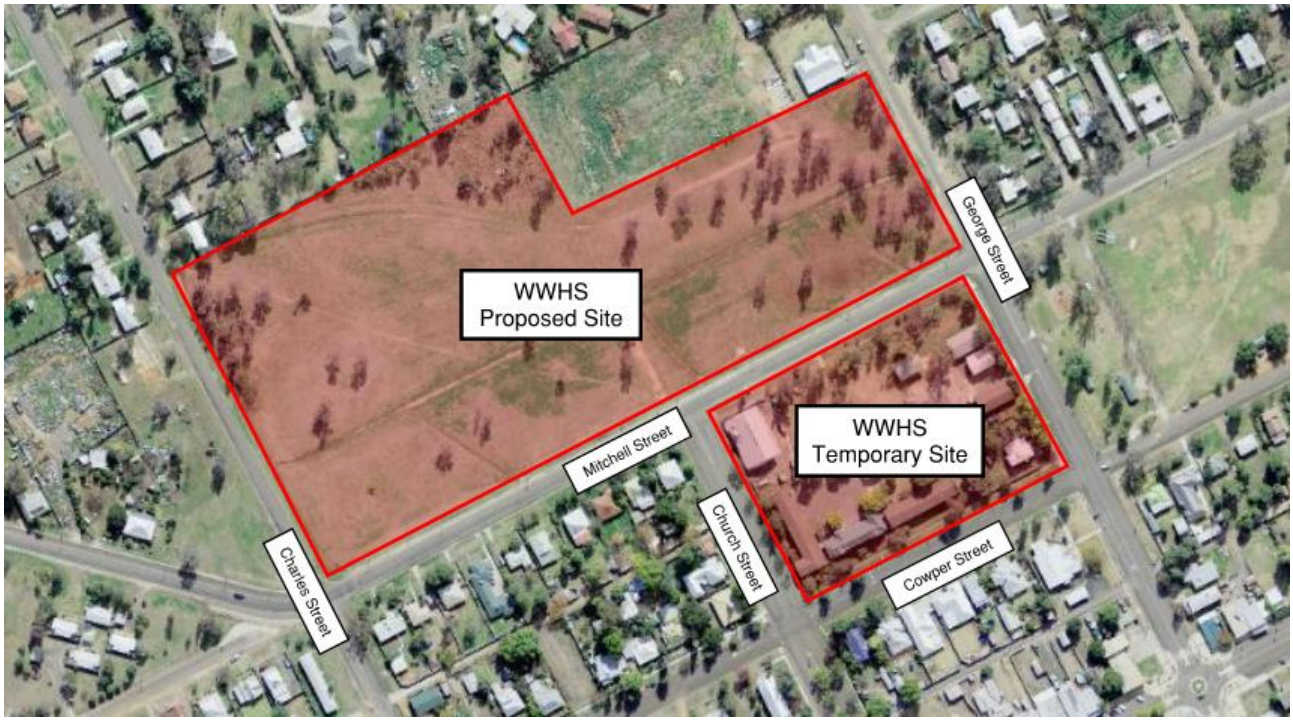


***Figure 3.1*- Proposed location of redevelopment site.**

***Figure 3.2*- SHAC Wee Waa High School overall site plan.**

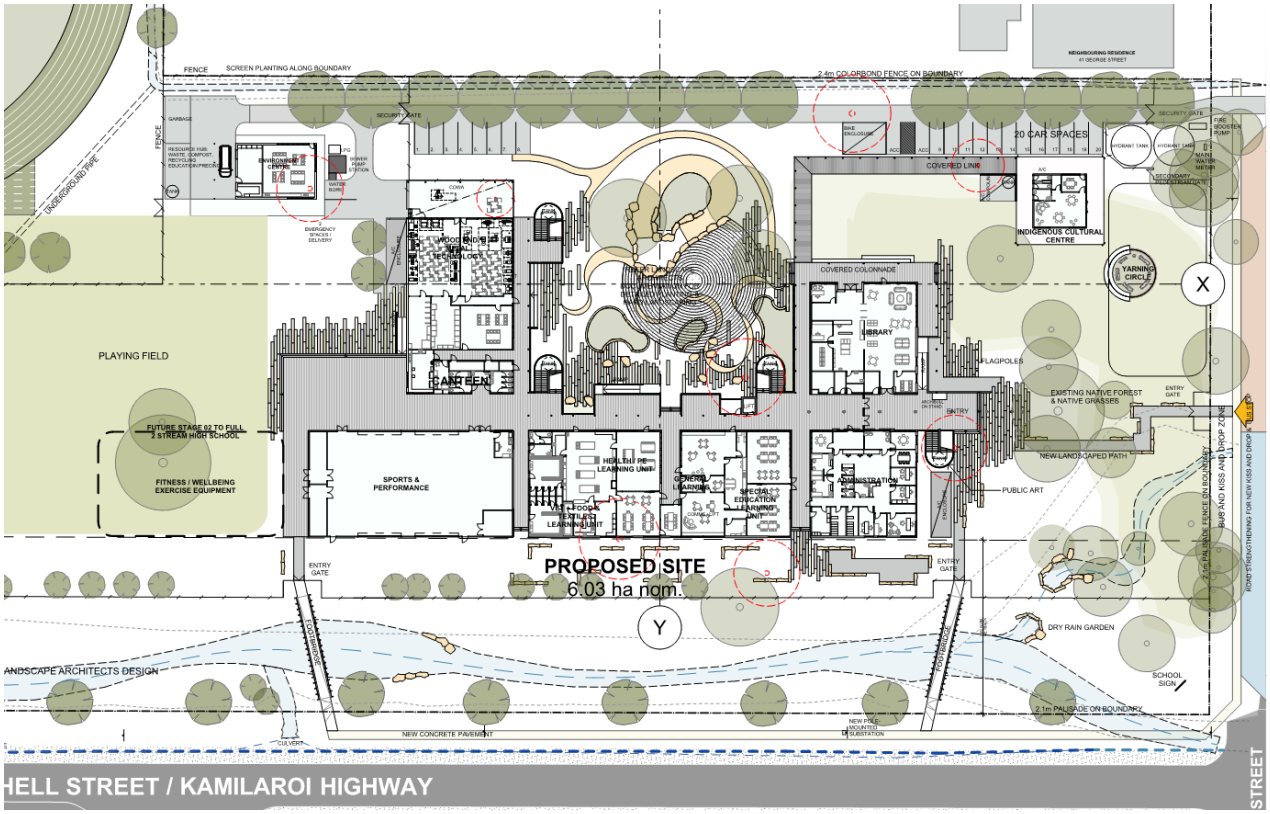


***Figure 3.3*- SHAC layout for school buildings and classrooms.**

3.2 Transport Context

The transport strategy proposed has been developed in accordance with the hierarchy described in the Road User Space Allocation Policy, developed by Transport for NSW (TfNSW), as follows (from highest priority to lowest priority):

- Pedestrian (including equitable access to people of all disability)
- Cycling (including larger legal micro-mobility devices and systems)
- Public Transport
- Freight services and deliveries.
- Point to point transport
- General traffic and on-street parking for private motorised vehicles.

Pedestrian footpaths are present in the local area south of Mitchell Street. However, access between pedestrian infrastructure is limited when meeting road infrastructure. No pedestrian crossings are located in the site vicinity, with the exception of a school crossing that is unmanned on George Street adjacent to the Primary School site. Pedestrian access across Mitchell Street is extremely hazardous to user safety on account of high traffic volume and vehicle user type.

The south of the existing Primary School site contains a designated bus zone on Cowper Street that operates between 8:30-9:00am and 2:30-4:00pm. This is to be retained to continue service for Wee Waa Primary School and an additional bus zone and associated infrastructure is proposed for implementation on George Street north of Mitchell Street to provide direct access the entrance of the proposed Wee Waa High School site.

The existing carpark located within Wee Waa Primary School is to be reopened to allow staff members access to on-site parking options, as well as the proposal for an additional 40 on site staff parking to be implemented within the Wee Waa High School Development. The plans also include 2 reserved spaces for emergency and service vehicles. These developments are intended as a response to alleviate the need for parking along Mitchell Street that may leave users at risk of accidents.

Implementation of a kiss & ride (pick-up and drop-off) area is also proposed in response to the relocation of the High School.

3.3 Site Access

3.3.1 Car Park Access

Primary vehicular access to site will be located on George Street due to both proximity to site as well as to enable safe use for vehicle users as they are removed from the traffic volumes and heavy vehicle movements associated with Mitchell Street. Additional parking is also to be provided to the west of site accessed from Charles Street. This parking will be accessed via a vehicular bridge over the flood channel.

3.3.2 Pedestrian Access

Pedestrian access to site will be through the primary gate located along George Street to the site's east. This is to align with the relocation of bus services and pick-up and drop-off zones to George Street. Two additional points of entry are located south of site bordering Mitchell Street and will consist of footbridges accessing site. Footpaths will be implemented along Mitchell Street. A pedestrian crossing is proposed with kerb blistering that connects these access points with the existing pedestrian network south of Mitchell Street. This crossing will align with the entry gate to the existing primary school as well as the eastern pedestrian footbridge accessing the proposed high school site.

3.3.3 Emergency Vehicle Access

Emergency vehicle (e.g. police, fire, ambulance) access will be located at the vehicular entry point along

George Street. Emergency protocols for the school would include on-site staff assisting with emergency access. Any vehicles located in and around the on-site carpark or access route should be cleared, and any planned vehicle movements should be temporarily suspended.

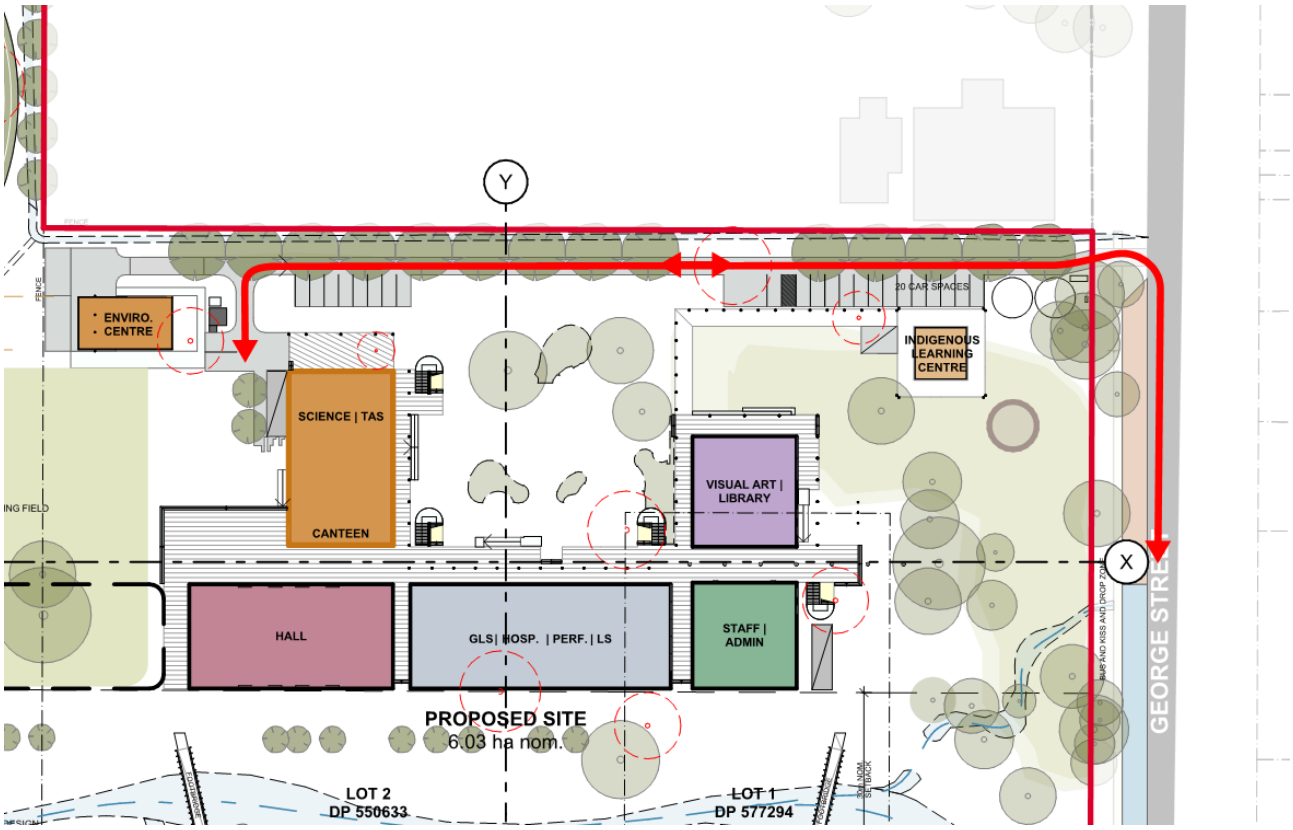


Figure 3.4- Emergency vehicle access route

3.3.4 Service and Loading Vehicle Access

Service and loading vehicles will also utilise the vehicle access point connection to George Street. Waste facilities on site are to be located to the north west of Building F. The largest anticipated vehicle is a medium rigid vehicle used to refill gas facilities on site and for waste collection.

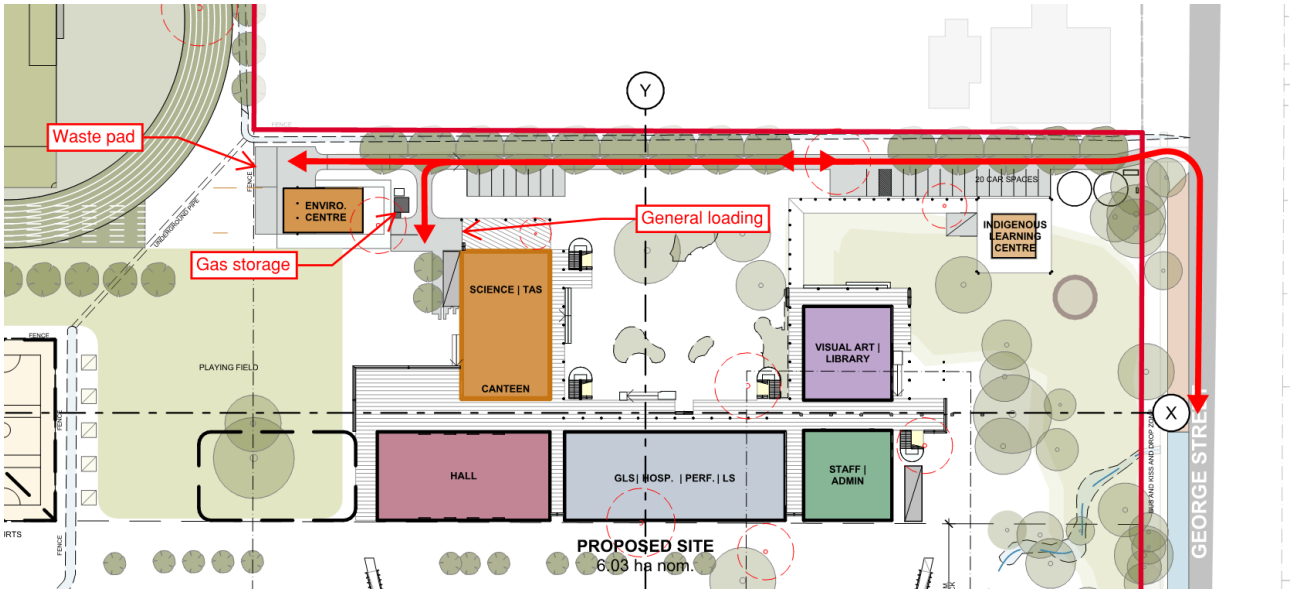


Figure 3.5- Service vehicle and loading route

3.4 Pedestrian Facilities

Following feedback from local students, staff and guardians, significant pedestrian infrastructure developments are to be introduced to promote user compatibility and safety. Primarily, additional pedestrian walkways are to be implemented to the north of Mitchell Street and around the proposed development site. Kerb blistering and the provision of a pedestrian crossing that aligns with the existing gate of the primary school as well as the proposed pedestrian footbridge is proposed as part of the development. This will allow safe passage for those pedestrians walking alongside and crossing Mitchell Street as they journey to and from the school site.

3.4.1 Options Considered

Following review of student addresses to both Wee Waa Public School (WWPS) and the proposed High School (WWHS), options were prepared to provide safe crossing of Mitchell Street by students. It was determined that the preference for student safety would be the provision of a raised pedestrian crossing along Mitchell Street that would connect to both gates at WWPS and WWHS and traffic calming measures such as raised surface treatments and kerb blistering to narrow the road environment. Considering students within the walking catchment, a potential of 153 students could require crossing of Mitchell Street to access either WWPS or WWHS.

The potential for a pedestrian crossing was discussed with both Narrabri Shire Council and Transport for New South Wales as part of the consultation for the project. TfNSW was unsupportive of its installation due to Mitchell Street being a road train route and the potential delays a crossing may impose on vehicles through Mitchell Street. Any modification to the road surface in terms raising a crossing surface or provision of a textured treatment was also rejected on the grounds of its impact to heavy vehicle movements through the roadway.

As requested by TfNSW, traffic modelling of the potential future pedestrian crossing has been conducted in Section 4.5 to review the impact this would have on vehicle travel times.

3.4.2 Proposal

An on grade pedestrian crossing is proposed with kerb blistering across Mitchell Street to allow for safe pedestrian access between the High School and Primary School sites. This crossing would be aligned with the existing primary school access gate as well as the eastern pedestrian footbridge as part of the high school development. Alignment of these two key pedestrian access points will promote use of this device as the pedestrian desire line will be aligned with the proposed crossing facility. This reduces the instance of users

electing to ignore the crossing device in favour of shortening their path of travel by cutting across Mitchell Street outside of this proposed zone.

It is noted that during school hours, the primary school pedestrian gate is locked with limited access. This will prevent school students from unexpectedly crossing Mitchell Street.

The installation of a pedestrian crossing is considered appropriate for the following reasons:

- The significant pedestrian desire line that currently exists across Mitchell Street and that will also experience increased demand once the high school is in operation.
- The projected demands on the crossing are likely to meet pedestrian crossing warrants once the high school is in operation.
- Vulnerable users will be required to cross Mitchell Street to access both the primary and high school, as well as the town centre further south of Mitchell Street. Currently there is no safe crossing facility within Wee Waa connecting the north and south of the town. This facility will provide for the general public as well as the school site.
- Narrabri Shire Council is currently undertaking road upgrades of Culgoora Road to provide an alternate road train route that will reduce road train movements on Mitchell Street.
- The recently completed kerb blistering treatment on Mitchell Street to the east of the site will assist in slowing vehicles through the proposed pedestrian crossing.

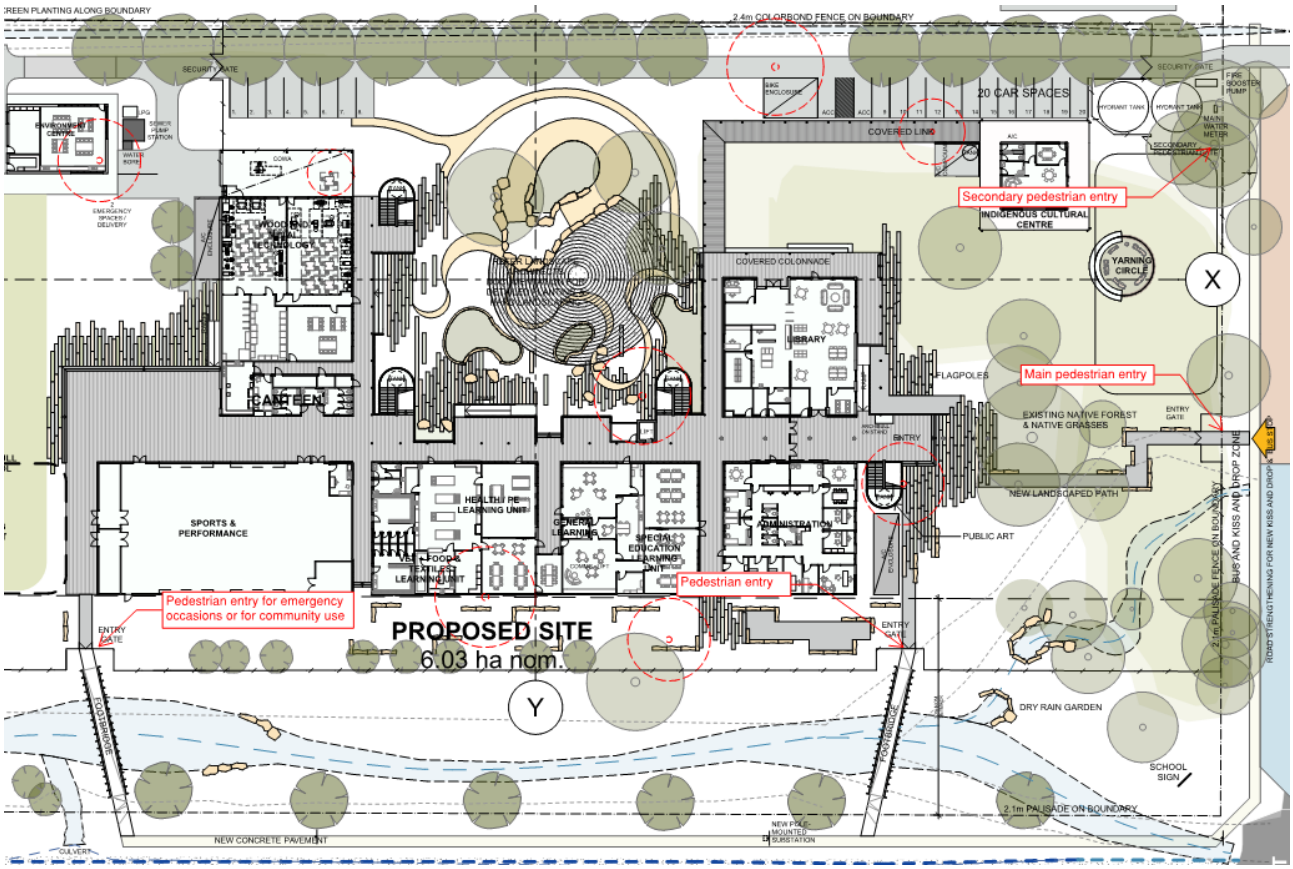


***Figure 3.6*- Pedestrian infrastructure and points of entry to site.**

3.5 Cyclist Facilities

It is recommended that secure cyclist facilities are provided on site to allow for the safe storage of vehicles and

equipment during school hours. Provisions for bicycle storage are located to the north of site in a bicycle enclosure with capacity for 12 bicycles. This is in line with surrounding school areas and represents the minimal number of students who have expressed interest in cycling as a primary mode of travel. Should the use of cycling increase as an active transport mode, additional provisions for bicycle racks may be provided on hard paving where appropriate.

End of trip facilities are located to the east of building B. As most students between Wee Waa High School and Wee Waa Primary School are aged under 16 years old, it is expected that they will also benefit from the pedestrian facilities provided in Section 3.4 above.

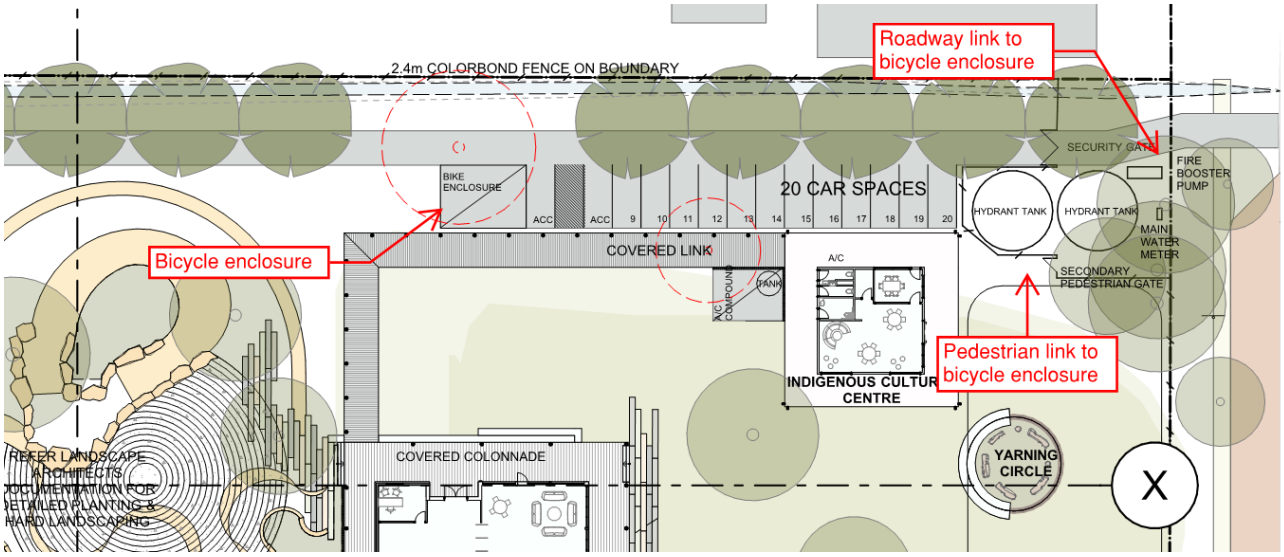


Figure 3.7- Bicycle facilities

3.6 Bus Zones

Based on site inspection, two buses were required to queue at any one time. Future requirements are unlikely to change based on the current occupancy of these buses.

Through consultation with the users, it was requested that direct access from the bus stop be provided into the school as close as possible to the main entry as staff currently monitor students boarding and alighting to ensure they safely enter the school grounds.

3.6.1 Options Considered

Multiple options were considered regarding the potential bus stop to service the Wee Waa High School site. These included use of the George Street frontage of the site, use of the existing bus stop at Wee Waa Public School, provision of a bus stop opposite Dangar Park, or use of the Charles Street frontage of the site.

3.6.2 Proposal

Due to requirements for staff to monitor students entering and exiting the site and the need for access near to the administration building, bus stop location is proposed adjacent to the site on George Street. Works include road widening of George Street, allowing for a kerb layover that will service both public transport as well as PUDO movements. Bus zones are to service the school only and therefore will only be in operation during peak school morning and afternoon hours.

The bus layover area has provision for both buses as well as draw in length and draw out length for both vehicles.

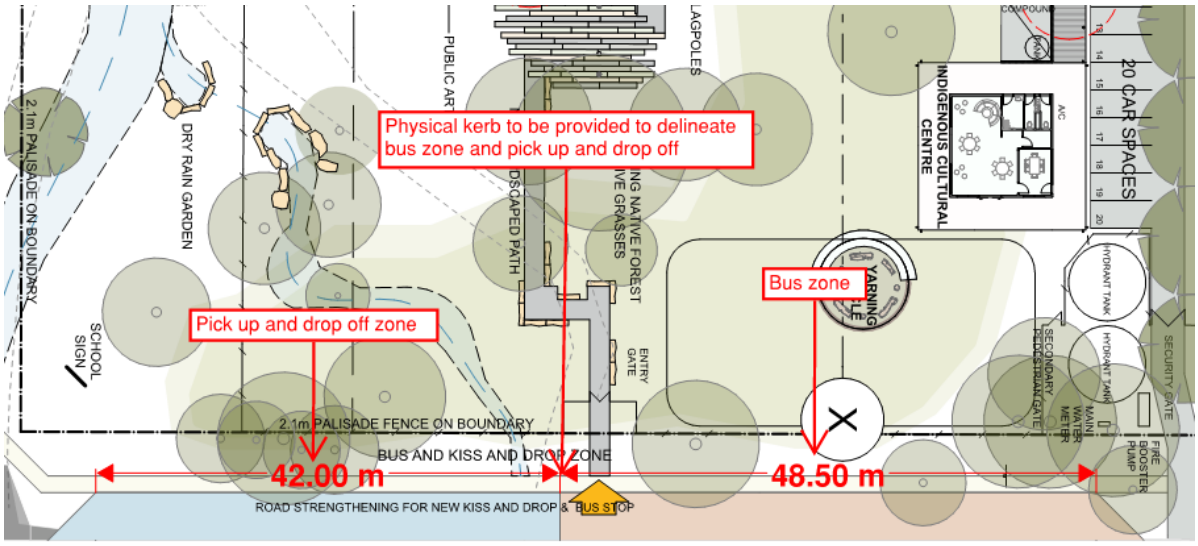


Figure 3.8- Bus and PUDO zones

3.6.3 Transport to Agricultural Plot

Due to site requirements, the existing agricultural plot on the previous high school site will remain and be utilised by the school. Transport to this location will occur through the use of the school's mini-bus, of which will be parked on site near the loading area. Students will be shuttled to the location of the agricultural plot when required for study.

3.7 Pick-up and Drop-Off (PUDO)

The Travel Mode Survey identified that 45% of high school students are picked up and dropped off. Allowing for the full future capacity of the school, this would result in 135 students being required to use the PUDO location.

Based on survey of other school sites, there is typically a 15 minutes peak period where between 20% to 50% of students are picked up and dropped off. Applying a conservative rate of 50% of students during this peak period would result in a demand of 68 vehicles.

Applying a turnover rate of 90 seconds, 10 cycles of vehicles would be possible within the 15 minute peak period, therefore at any one time 7 vehicles would be required to be accommodated within the pick up and drop off area.

3.7.1 Options Considered

A number of locations were considered for pick up and drop off with considerations to the requirement for access to be safe and secure to the main entry of the school. Locations that were considered included along Mitchell Street, on George Street adjacent to Dangar Park, utilisation of the existing pick up and drop off for Wee Waa Public School, and adjacent to the development site on George Street.

The preferred option from a site usability point of view was along Mitchell Street as this provides clear access to the main entry and also is the most convenient option for users. Through consultation with Transport for New South Wales, this proposal was rejected and it was requested that PUDO movements be relocated away from Mitchell Street.

3.7.2 Proposal

To maintain access near to the main entry, the pick up and drop off zone is to be provided along George Street

and will consist of road widening to allow for parents to pull into a bay and not impede traffic flows along George Street. This zone is to be shared with school bus services and therefore signage is to be implemented to distinguish between the two zones.

The proposed zone allows for a queueing of 7 vehicles which is sufficient for the full development of the school. Refer to Figure 3.8 for the location of this zone.

3.8 Car Parking

Development of the site will include the implementation of 40 parking spaces provided on site. This will operate in conjunction with the reopening of the on-site carpark located in Wee Waa Primary school with a service capacity of 10 spaces. Parking within site is to be divided into two carparks each consisting of 20 spaces and will be reserved for staff or employee parking only, to be conveyed through signage. Primary access will be via George Street. Additional parking is to be accessed via Charles Street by a vehicular bridge. Current travel modes indicate that the majority of staff will continue travel via personal vehicle due to large distances and time between home and work.

The provision of 40 spaces is considered appropriate due to on site observations regarding parking requirements, the proposed number of teachers to be accommodated on site and the current vehicle usage and carpooling patterns among staff.

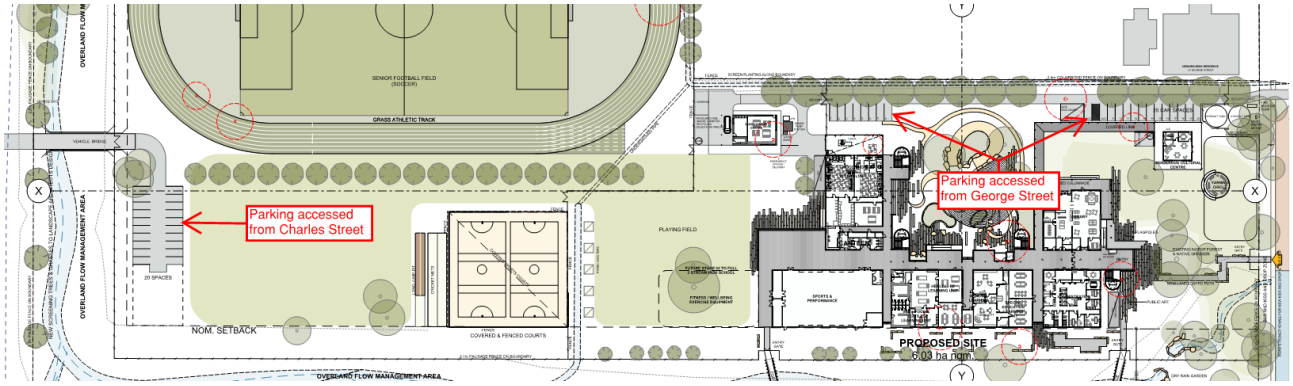


***Figure 3.9*- Location of the two on-site carparks in relation to site.**

3.8.1 Community Use and Special Events

Some community use of the School hall and sports field is anticipated to occur. During these events on site parking will be available for visitors with potential for overflow to occur to the south of the Charles Street car park if required. Should additional parking be required, Charles Street contains additional on street parking immediately adjacent to the school suitable for approximately 28 vehicles should it be required.

Community use and special events are expected to occur outside of school peak hours such that traffic and parking impacts will not be compounded.

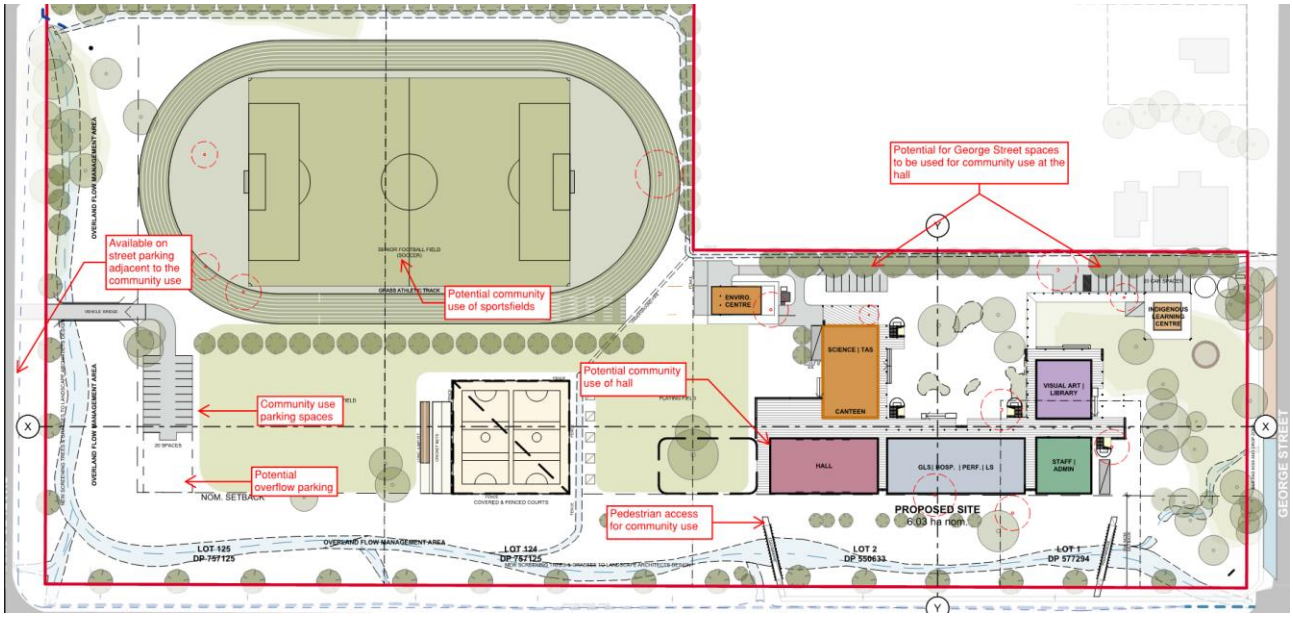


Figure 3.10- Community use facilities

3.9 Infrastructure and Safety Improvements

The extent of proposed infrastructure works involves the implementation of a pedestrian walkway north of Mitchell Street and extending through George Street, linking the three pedestrian access points and the PUDO and school bus zone. This path is to be connected with the existing pedestrian network adjacent to the Primary School Site through kerb blistering along Mitchell Street and aligning with the primary school entry and high school pedestrian foot bridge along Mitchell Street. This is to enable pedestrians to safely travel between the two school sites.

An entry point has been provided via George Street to allow for the safe entry of students utilising school bus and PUDO infrastructure.

4.0 Operational Impacts

4.1 Travel Mode

This section contains details and an evaluation concerning the impacts that the development of Wee Waa High School will impose to the surrounding road network along Mitchell Street. Traffic counts have been performed at the Charles Street and Mitchell Street intersection, as well as the George Street and Mitchell Street intersection to provide an indication of the current operation of these pre-development.

4.2 Trip Generation

4.2.1 Site-Specific Assessment

Whilst the survey of traffic counts identifies the traffic volumes and peak times of the Charles Street and Mitchell Street, and George Street and Mitchell Street intersection, it does not account for user destination or additional traffic generated through the intersection with Church Street between sites. As the percentage of users accessing site through these intersections is unknown, the following assumptions have been adopted as conservative measures:

i. Although Wee Waa High School is operating from the Primary School Site and likely influencing the current recorded traffic counts, an additional 150 vehicles have been added to the surrounding road network as a result of this development. This slightly exceeds 65% of current high school students and 94% of teachers utilising private transport modes as reported in the Travel Mode Survey.
ii. The home address of each High School student has been recorded and assigned a direction of either north-west, north-east, south-west, or south-east of site. It has been assumed that users living west of site are to use the Charles Street- Mitchell Street intersection, whilst those to the east of site would use the George Street- Mitchell Street intersection.
iii. As turning operations at the intersections are likely to impose the greatest impact to traffic operations at these intersections, the additional trips generated from the development from point (i) are to all involve turning off or onto Mitchell Street from either Charles Street or George Street.
iv. Between 2011 and 2016, the suburb of Wee Waa saw a decrease in population of 9 people, going from 2,089 to 2,080. A cumulative growth rate of 1% has been applied for the ten year projection to account for potential future growth.

Ultimately these assumptions are conservative for the proposed traffic modelling of the site and therefore assume a worst-case scenario for the future operation of the site.

4.2.2 Background Traffic

To provide an accurate understanding of future traffic conditions, modelling is to be undertaken for the year 2031 assuming 10 years of traffic growth beyond the recorded 2021 conditions.

Traffic surveys have obtained traffic counts at the two intersections bordering site along Mitchell Street, those being George Street- Mitchell Street, and Charles Street- Mitchell Street. Peak periods have been determined as the 1-hour period where the maximum traffic flow was recorded. These results align with school operation hours and are therefore an effective measure of the road operational impact of the Wee Waa High School development. These results are provided in **Table 4-1** below.

Approach	George Street South			Mitchell Street East			George Street North			Mitchell Street West			Total
Time Period	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	
8:15 to 9:15	33	1	34	78	13	91	38	1	39	59	7	66	230
14:45 to 15:45	43	4	37	54	11	35	19	0	19	82	23	105	235

Approach	Charles Street South			Mitchell Street East			Charles Street North			Kamilaroi Highway West			Total
Time Period	**Light**	**Heavy**	**Total**	**Light**	**Heavy**	**Total**	**Light**	**Heavy**	**Total**	**Light**	**Heavy**	**Total**	
8:15 to 9:15	22	1	23	80	13	93	15	0	15	77	8	85	216
14:45 to 15:45	16	0	16	60	14	74	12	0	12	62	25	87	189

Table 4-1- Peak vehicle turning volumes

The Australian Bureau of Statistics has not provided a growth rate for Wee Waa between the 2011 and 2016 census surveys, although the total population has dropped by 9 people, suggesting growth in the next 10 years is to be minimal. Regardless, a total growth of 1% per year has been assigned to allow for the possibility of future growth up to the year 2031.

4.2.3 Additional Trips

As detailed in Section 4.2.1, an additional 150 trips are to be generated due to development of the site. This assumption is conservative as the current Wee Waa High School is operational adjacent to the south of site and serviced by these same two intersections, it is assumed that students and staff contribute to the existing travel counts.

4.3 Trip Distribution

4.3.1 Background Traffic

As part of the traffic count performed on the Charles Street- Mitchell Street intersection and George Street- Mitchell Street intersection, direction of traffic flow was recorded to determine the key routes through these zones. As expected, the majority of travel occurs through the intersections travelling along Mitchell Street either westbound or eastbound, with several vehicles also travelling from Mitchell Street turning onto either Charles Street or George Street.

4.3.2 Generated Traffic

Student home addresses have been obtained to determine the distance and direction of travel to access the proposed development. These have been assigned as either north-west, north-east, south-west, or south-east of the development site and cover the 150 students attending Wee Waa High School. It has been assumed for the purpose of this model that students traveling from the west are to utilise the Charles Street- Mitchell Street intersection, whilst those travelling from the east are to utilise the George Street- Mitchell Street intersection. To further the conservative assumption the proposal site will have to the future road network operation, these trips are assumed to be turning from the minor roadway onto Mitchell Street and so will exercise the maximum traffic disruption.

A summary of the generated traffic counts is provided in Table 4-2 below.

Direction from Proposal	Total Generated Trips	Percentage from Survey
Total High School Population	150	100%
NW	17	11%
SW	57	38%
NE	42	28%
SE	35	23%

Table 4-2- Direction of generated trips for SIDRA modelling.

4.4 Future Traffic Conditions

An assessment of the impacts that the anticipated development traffic would have on the surrounding road network can be made by comparing intersections prior to and following the development of the site in 10-year time period.

4.4.1 Existing Conditions with Development

Performance of the Charles Street- Mitchell Street intersection and the George Street- Mitchell Street intersection at their existing operation plus additional traffic generated from the development have been modelled using SIDRA. The results are shown in Table 4-3.

Intersection	Peak Period	Avg Delay (sec)	DoS	LOS	95% Queue Length (m)
Charles Street & Mitchell Street	**AM**	1.6	0.053	A	0.5
	PM	1.8	0.043	A	0.6
George Street & Mitchell Street	**AM**	2.5	0.053	A	1.2
	PM	2.3	0.062	A	1.1

Table 4-3- Existing conditions with development.

4.4.2 Future Conditions without Development

Performance of the Charles Street- Mitchell Street intersection and the George Street- Mitchell Street intersection with 10-year background traffic growth only has been assessed using SIDRA. The results are shown in Table 4-4.

Intersection	Peak Period	Avg Delay (sec)	DoS	LOS	95% Queue Length (m)
Charles Street & Mitchell Street	**AM**	1.7	0.058	A	0.6
	PM	1.9	0.047	A	0.7
George Street & Mitchell Street	**AM**	2.7	0.056	A	1.0
	PM	2.5	0.056	A	1.1

Table 4-4- Future conditions without development.

4.4.3 Future Conditions with Development

Performance of the Charles Street- Mitchell Street intersection and the George Street- Mitchell Street intersection with 10-year background traffic growth in addition to extra traffic generated from the development has been assessed using SIDRA. The results are shown in Table 4-5.

Intersection	Peak Period	Avg Delay (sec)	DoS	LOS	95% Queue Length (m)
Charles Street & Mitchell Street	**AM**	2.2	0.065	A	1.7
	PM	2.8	0.079	A	1.3
George Street & Mitchell Street	**AM**	3.2	0.099	A	2.5
	PM	3.3	0.118	A	2.9

Table 4-5- Future conditions with development.

Modelling results in **Table 4-5** show that in the 10-year time period, the surrounding road network with the development volume will continue to operate at an appropriate level of service.

4.4.4 Ultimate Student Capacity

There is provision for the School to accommodate up to an additional 150 students as future proofing, it is noted that this is provided to cater for a longer term than the 10-year modelling period. Given the conservative modelling conducted by adding vehicle volumes although the current student population is travelling to an adjacent site, and the high performance of the existing intersections, the future provision of up to 300 students can be assumed to be accommodated on the surrounding road network.

4.5 Pedestrians

Pedestrian counts were performed in addition to traffic counts at the Mitchell Street- George Street and Mitchell Street- Charles Street intersections to determine the appropriate pedestrian infrastructure to develop across Mitchell Street. It was found that pedestrian movements along Mitchell Street were common, although pedestrian movements crossing Mitchell Street were uncommon. It was determined that pedestrian movements were heavily associated with existing infrastructure as few pedestrians walked along Mitchell Street to the north, opting instead to utilise pedestrian footpaths south of Mitchell Street before crossing when necessary.

It may therefore be assumed that once the appropriate infrastructure is developed north of Mitchell Street that pedestrian crossings are likely to become more frequent. This effect is to be compounded following the development of the High School site and the anticipated movements of staff and students between the High School and Primary School sites.

It is anticipated that with 150 students at the high school and the current occupation of the primary school, 90 to 100 students will be walking to either the high school or primary school which is likely to exceed warrants required for a marked pedestrian crossing.

A network SIDRA model was developed to determine the potential impact of a pedestrian crossing at Mitchell Street. It was found that the intersection of George Street and Mitchell Street would continue to perform at a high Level of Service A.

5.0 Green Travel Plan

A Green Travel Plan is a way to sustainably manage the transport needs of staff, students, volunteers and visitors to a development. The aim of the Plan is to reduce the environmental impact of travel to and from Wee Waa High School. This includes encouraging alternate travel methods such as active transport, public transport and car-pooling, while reducing dependence on private vehicles. This Plan contains travel plan objectives for the development, the proposed design features that contribute to meeting these objectives, and management strategies intended to fulfil the outlined objectives.

This preliminary Green Travel Plan has been prepared to support the development and future operation of the school, and to satisfy conditions of the SEARs issued by the Department of Planning, requiring the provision of a Green Travel Plan and strategies to improve infrastructure.

The Plan provides a review of existing facilities and travel habits and offers estimations and targets for future sustainable travel use. Details of the site's sustainable travel objectives are outlines in this section and includes specific programs, design features and actions proposed to help achieve these goals. These objectives vary across any Green Travel Plan but may include aims to:

- Reduce traffic congestion
- Implement student safety measures
- Support healthy and active users
- Provide sustainable travel education
- Increase public transport usage
- Reduce emissions
- Optimise site layout
- Find cost efficiencies
- Reduce journey times
- Improve site accessibility

The four most important and relevant objectives for this development are to implement student safety measures, optimise site layout, improve site accessibility, and increase active transport usage. Details of these goals are outlined in Section 5.1.

5.1 Travel Plan Objectives

5.1.1 Implement Student Safety Measures

The safety of students attending site is of critical importance and measures to increase sustainable transport usage will aid in achieving a high level of safety. By reducing traffic volumes along the network surrounding the school, especially those traversing Mitchell Street, the safety of students walking and cycling to and from the site is maintained.

To encourage students and parents to select active transport modes, student safety must be a main focus of travel management measures. This can be achieved through the mitigation measures and design features outlined in the previous sections. If safety measures such as these are present and operational, students are more likely to participate in a sustainable transport option. Education and training courses on the topic of road safety are additional factors in implementing student safety and are further discussed in Section 5.1.4. Providing students with the information and skills required to safely travel to school using active and public transport improves their overall safety and therefore the desirability of that mode of travel.

5.1.2 Optimisation of Site Layout

A critical component of the design and development of a school consists of outdoor recreation and play areas. These features may include sports fields, paved space or covered outdoor learning areas (COLAs). The provision of car parking on a school site can significantly reduce the availability of outdoor recreational areas, and so minimising the number of car parking spaces is beneficial. Underground or undercroft car parking can be an alternative to reduce this impact, but the associated costs may reduce available funds for other facilities. The application of this Green Travel Plan and the provision of no through site link will ensure that other facilities which are critical to the function of the school and the development of its students can be achieved with sufficient funds and available space.

5.1.3 Improve Site Accessibility

Pedestrian access to site will be available along George Street and Mitchell Street. Pedestrian pathways are to be implemented to allow access between these three entry points and will connect to the existing infrastructure south of Mitchell Street through blistering provided across Mitchell Street.

School bus and PUDO zones are provided along George Street adjacent to site to allow ease of entry for students utilising these travel modes. Personal vehicle access is also provided along George Street as well as additional provisions provided via Charles Street. Due to the proximity to site, it is anticipated that the George Street carpark will be preferred for private vehicle use. It is therefore recommended that use of these spaces be reserved for carpooling services to encourage this mode of transport.

5.1.4 Increase Active and Public Transport Usage.

Increasing the public transport usage of staff and students is an important factor in producing a sustainable transport plan. Encouraging the use of public transport services is highly effective in reducing congestion issues, alleviating parking constraints and increasing pedestrian safety. Achieving this objective will result in decreasing any local traffic congestion by reducing the number of students being driven by their parents. Furthermore, by reducing the number of vehicle movements, less on-site parking spaces are required, and the likelihood of pedestrian crashes also decreases, thereby creating a safe and low risk environment.

5.2 Mode Share Targets

Mode share targets have been identified separately for students and staff due to the identified variable travel requirements between the two categories. The targets have been generated in accordance with the recent travel mode survey conducted at Wee Waa High School, as well as the relevant JTW Usual Residence and Place of Work Data.

5.2.1 Student Mode Share

Students mode share targets are shown in Table 5-1.

Travel Mode	Wee Waa High School Travel Survey	Mode Share Targets
Car	20%	10%
PUDO	45%	40%
Bus	20%	25%
Bicycle	0%	5%
Walk	15%	20%

Table 5-1- Student mode share

5.2.2 Staff Mode Share

Several assumptions have been made to capture the unique requirements for commuting teaching staff. These include a need to transport and carry teaching equipment to and from the workplace which is difficult to execute utilising public transport modes. Additionally, it is recognised that from the Travel Mode Survey outlined in Section 2.8 that several members of staff are required to travel large distances and time between the school site and home. Review of the JTW data and the travel mode survey data from this perspective has led to the estimates in Table 5-2.

Travel Mode	Wee Waa Staff Travel Survey	Mode Share Targets
Car	94%	90%
Carpooling	6%	10%

Table 5-2- Staff mode share

5.3 Design Features

As outlined above, the main objectives of this Green Travel Plan are to:

- Implement student safety measures
- Optimise the site layout
- Improve site accessibility
- Increase public transport usage

To achieve these objectives, several strategies relating to proposed design features and ongoing management techniques are advised. The following section outlines the development's proposed design features that will contribute to the fulfilment of these objectives.

5.3.1 Bus Facilities

A designated bus bay is to be implemented east of site along George Street. This is located immediately adjacent to the primary pedestrian entry gate to site. The proximity to site combined with additional safety of the bay will encourage additional students to adopt public transport as a primary travel mode. There is also potential for bus services to be directed to students who have expressed interest in utilising bus travel modes.

5.3.2 Bicycle Facilities

Cyclist improvements including bicycle storage has been proposed for the equivalent of 3% of current students, with area for future provision as the school increases in enrolments.

5.3.3 End of Trip Facilities

Showers and change rooms are provided within Building B located to the south of site.

5.3.4 Safe Active Transport Routes

Additional pedestrian infrastructure has been provided in the form of pedestrian walkways connecting the primary pedestrian access points to site with the external pedestrian walkway network. This is to link with the existing infrastructure south of Mitchell Street via kerb blistering across Mitchell Street, allowing safe pedestrian access between the two schools.

It is also noted that Narrabri Shire Council has future plans to relocate road train vehicles from Mitchell Street which will increase safety for active transport modes in the area.

5.3.5 Pick-up and Drop-off Zones (PUDO)

PUDO zones are located adjacent to the site's east along George Street. These operate within the same bay as the school buses and are to be separated via the use of signage during peak school hours and a proposed kerb extension separating the two uses. The PUDO zone is located adjacent to a primary pedestrian access point to site and it is hoped that this encourages the use of carpooling as opposed to personal vehicular transport modes.

5.4 Management Strategies

This section contains details about various initiatives and strategies that have been proposed to assist in the success of the Green Travel Plan's objectives. Five strategies are outlined in the following section of this Green Travel Plan and they are as follows:

- Information campaigns
- Active transport
- Public transport
- Car parking management
- Green Travel Plan management

Actions to encourage and inform users of the use and benefits of active and public transport, as well as carpooling, will aid in reducing vehicular volumes accessing site and therefore the surrounding road network. This will assist in achieving the outlined objectives of combating vehicle safety associated with Mitchell Street, implementing student safety and optimisation of the site layout. By ensuring staff and students are provided with information required for the continual management of these sustainable strategies, the Green Travel Plan objectives can be accomplished.

Each strategy contains relevant actions required to fulfil the overall objectives of this Plan. These actions can be used as a checklist to assess the progress and effectiveness of the school's sustainable transport initiatives and management procedures. Regular reviewing may also bring attention to any deficiencies in the development's progression or opportunities for improvement.

5.4.1 Strategy 1: Information Campaigns

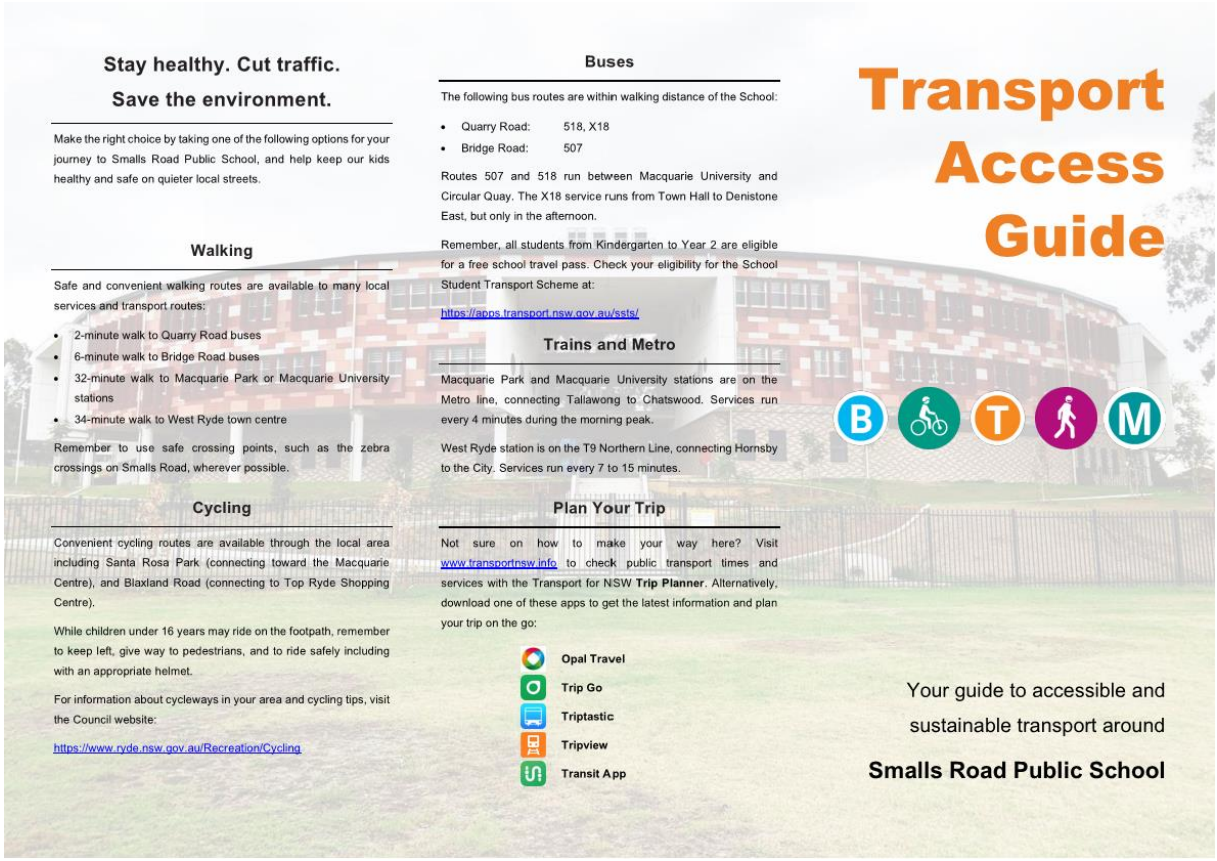
Action 1: Transport Access Guide

The aim of a Transport Access Guide is to present staff and students with information about the available safe and sustainable transport options in the Wee Waa local area. This action involves presenting this information in a simple and understandable manner, such as though an educational brochure. Staff and students are more likely to change their travel behaviour after being made aware of the public and active transport options and how to safely and easily utilise these alternatives.

Recommendations for the brochure content includes a summary of bus routes servicing the development as well as how to access these from the site. It should also include information about end-of-trip facilities and safe routes to surrounding neighbourhoods for staff and students able to participate in active transport.

Transport Access Guides can be distributed to staff, students and parents and can be developed in-house or by an external consultant. The brochure should also be accessible online through the school's website for ease of access for both users and visitors to site.

An example of a Transport Access Guide is provided in Figure 5.1. This guide was developed by TTW for Smalls Road Public School and gives an example of the type of content and advice to include in a Transport Access Guide for an educational development.



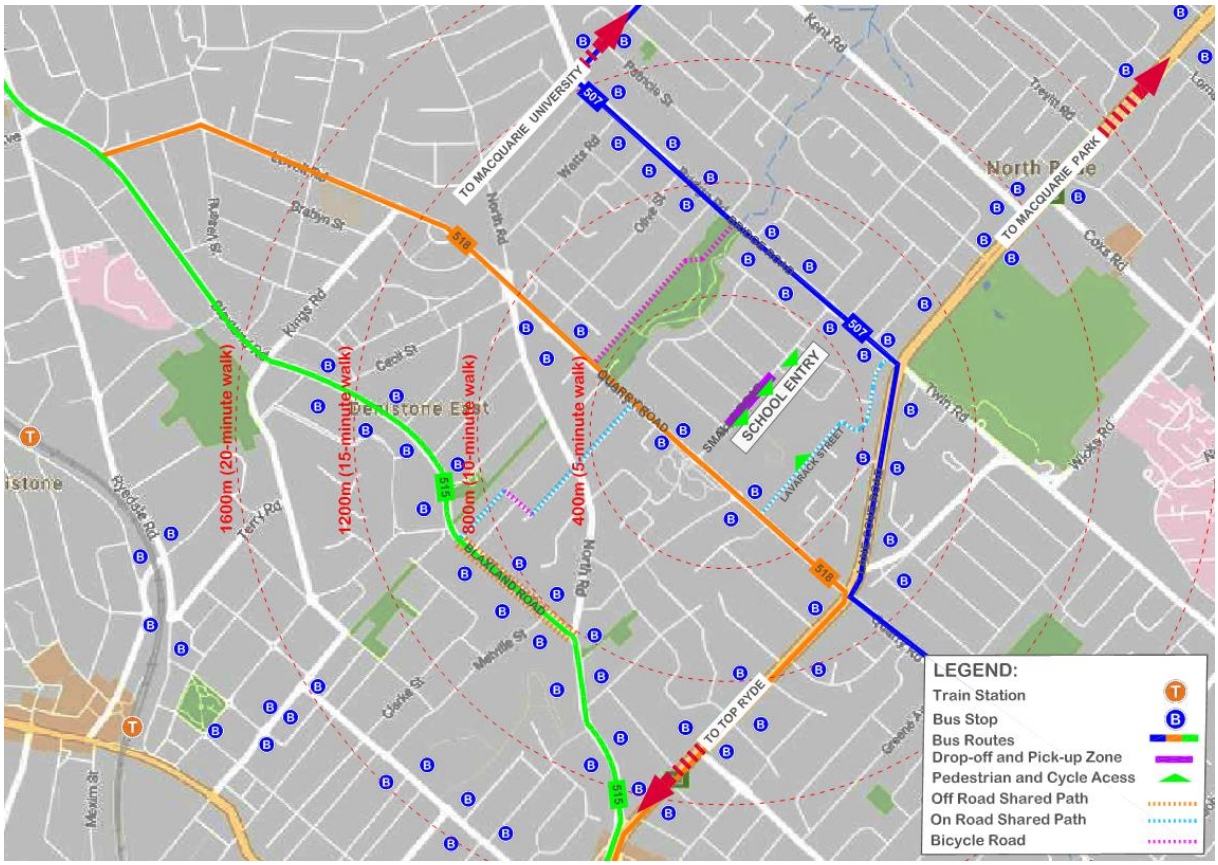


***Figure 5.1*- Example Transport Access Guide.**

Action 2: Induction Information for New Travellers

To ensure new travellers have information regarding all their travel options, a Transport Access Guide should be provided. This brochure can easily be included as part of an induction or orientation package. This is especially important for travellers new to the area and who may be completely unfamiliar with the transport options especially distances of travel to the school.

By emphasising the benefits of active transport through a brochure, sustainable travel alternatives are more likely to be selected. Information provided directly to users and eliminating the need to seek out information independently increases the likelihood for engagement with sustainable options.

Induction information should also include details about on-site facilities, such as bicycle storage areas for staff and students, as well as any end of trip facilities.

Action 3: Periodic Reminders

The changing nature of transport means regular updating and conveying of new information is required to ensure travellers have the most accurate and recent information. Through regular and periodic communication, the information will reach a wider audience and have a more significant impact.

One method to enable periodic information sharing is to include a sustainable travel section within a school newsletter. The recommended content to be included would consist of details about new travel initiatives, mode share progress updates, upcoming events or changes, as well as reminding travellers about the importance of sustainable travel. It should also allow for feedback or questions regarding any travel-related concerns.

5.4.2 Strategy 2: Active Transport

Action 4: 'Walk Safely to School Day' and Health Events

Various organisations and groups develop programs and events to encourage active transport. For example, Bicycle Network coordinates a Ride2Work and Ride2School Day each year. These events provide a good opportunity for organisations to encourage staff and students to participate in cycling. Additionally, these initiatives create awareness and are useful for influencing the school community's travel behaviours. The school should investigate avenues to promote this event to those students living locally within Wee Waa, noting that 63% of students are located within 2.4 kilometres of the proposed school. An additional suggestion is to introduce incentives such as competitions or rewards. These are not required to be extravagant and may be as simple as a free breakfast.

Bicycle training workshops can also be a component of these programs to enable users to become familiar with bicycle maintenance, recommended cycling routes and general bicycle and road safety. Rideability is an example of a cycling education service that delivers workshops in schools with an emphasis on road safety and cycling skills. This would be of additional benefit due to the age of the students and the likelihood of bicycle use outside of the context of travel to and from site, such as exercise or entertainment.

Other health events encouraging active transport include Bike Week, Walk Safely to School Day and Health and Wellness Fairs. These initiatives expose staff and students to the many benefits of choosing active transport.

Notifying students of those currently utilising active transport may also increase the number of users due to the desire for increased social interactions amongst friendship and year groups.

Annually hosting these events provides the community with a continual reminder and is therefore more likely to influence their behaviour.

5.4.3 Strategy 3: Car Parking Management

Action 5: Staff Pairing

A strategy to encourage staff to carpool involves a pairing system that notifies staff members of other staff who live in nearby areas or along their travel route. It is accepted that this method of car parking management is unlikely to be as effective as in an urban setting due to the large distances many staff travel to and from work, many originating from outside of the suburb of Wee Waa. However, it would still remain beneficial and allow staff the option should carpooling become an available option.

Initiating this system might involve a meeting to provide an opportunity for staff members to discuss carpooling options, including coordination of staff by region or place of residence.

Action 6: Priority Parking

Staff committed to carpooling should be allocated priority parking spaces in a desirable area of the staff car park, such as those accessed via George Street. Having a designated parking space ensures that users will be able to park on-site. This may act as an incentive for others to investigate carpooling opportunities. Priority spaces could also come with other benefits such as a prime location with good accessibility as a further encouragement.

5.4.4 Strategy 4: Green Travel Plan Management

Action 7: Regular Reviews of the Green Travel Plan

The Green Travel Plan and other associated documentation including the Transport Access Guide should be regularly reviewed and updated as required. It is recommended that an annual review would be an appropriate schedule. The review should include an updated travel mode survey, consultation with staff, students and visitors, and adjustments to initiatives and targets.

Action 8: Staff Responsibility

To ensure the ongoing review of this Plan is carried out as expected, responsibility of this task should be allocated to a specific staff member.

6.0 Operational Traffic and Access Management Plan

An Operational Transport and Access Management Plan (OTAMP) is a way to identify, and plan for, the regular transport and access requirements of a site. The aim of the document is to provide a clear plan of management for vehicle and pedestrian movements and develop strategies (if required) to assure smooth traffic flow and safe movement within and around a site. This OTAMP provides an overview of the facilities and connectivity of the site and the surrounding road network. A summary of the anticipated transport demands, and the associated vehicles are included.

This preliminary OTAMP has been prepared to support the future operation of Wee Waa High School. This Plan also satisfies the SEARs condition requesting the development of an OTAMP.

This document is preliminary in nature and is intended to be dynamic and respond to the future operation of the site. It is anticipated that this preliminary OTAMP will be developed into a more comprehensive and final OTAMP prior to commencement of operations of the new development. This document may also form a reference point for further development of new operational plans in the future.

6.1 School Operations

The school operates Monday to Friday during the school term, each day begins at 8:30am and ends at 3:10pm.

6.2 Transport Demands

6.2.1 Emergency Vehicles

Emergency vehicles are the highest priority vehicle types requiring access to the school. The vehicular access located along George Street is the nominated emergency vehicle access point, meaning emergency vehicles share access with private vehicles, service and delivery vehicles. Though the School is generally a low speed environment, high speed emergency movements may be required, and efficient management of the site operation is necessary to control the overall vehicle movement and ensure safety. The George Street access should be managed so that this entry is always accessible and clear from obstructions.

The expected demand for emergency vehicles is low, as school students are generally not classified as vulnerable users. Attending school has a relatively low associated risk, therefore producing a low demand for emergency vehicles.

6.2.2 Active Transport

Active transport modes include walking and cycling and other non-motorised means of transport.

For the purposes of this Plan, active transport also considers pedestrian movements to and from vehicles parked within internal car parks, vehicles at the pick-up and drop-off area, and external bus stops. These movements result in some level of conflict and crossover and therefore require safe management. For this reason, active transport is a higher priority mode than all other non-emergency movements.

6.2.3 School Buses

The travel demands for students and staff travelling to school via bus are expected to increase as the school population increases. The management and operation of the school bus stops will require modification according to the changing demands.

Based on inspections carried out on site, it is anticipated that a maximum of 2 buses are required to queue at any one time. It is not expected that future growth will exceed this demand.

6.2.4 Pick-up and Drop-off

Pick-up and drop-off facilities are expected to attract high volumes of private vehicles during the peak school hours. These demands will occur for short periods of time in the morning and afternoon. As a result, it is anticipated and accepted that some congestion may occur. If left unattended, this may present a potential risk to pedestrian and vehicle driver safety. These demands will therefore need to be carefully managed.

6.2.5 Car Parking

Travel by car for the purposes of car parking is considered a low-priority transport mode. While the demand volumes for car parking are anticipated to be high, the safety and sustainability of private vehicle travel result in this being a low priority mode. Nevertheless, to ensure operation of the site it is critical to manage the car parking in an efficient way, for example to allow staff to access the facility in a timely manner.

6.2.6 Service and Loading

Service and loading functions are a key component of the operation of the school. However, given the importance of other travel mode types, particularly the risk of other movements becoming unsafe or congested, service vehicles are considered the lowest priority transport type for the school site. Medium rigid vehicles are the largest expected vehicle used for services or deliveries. Waste collection vehicles are to share access to site with private and emergency vehicles via George Street and will therefore likely require service outside of school hours to reduce the likelihood of traffic congestion through site.

6.3 Management Strategies

6.3.1 Car Park Regulation

The provided off-street staff car park is only accessible via the gate on George Street. The parking modules can be accessed from this point via the parking aisles.

This car park is for the exclusive use of staff members. As George Street is also the primary entry point for emergency and service vehicles to site, it is advised that physical regulations to entry such as boom gates are not to be placed at the carpark entrance. Instead it is advised that signage be implemented to convey that the carpark is for staff parking only and should not be accessed by staff or students.

6.3.2 Pedestrian Facilities

The main pedestrian facility requiring management includes the pedestrian crossing on Mitchell Street, as well as the existing crossing from the primary school on George Street. This may include stationing a staff member at the main pedestrian entry to assist with maintaining traffic flows and ensuring student safety during peak school hours.

6.3.3 Bus Operations

Careful management of the bus facilities at the site is required to ensure student safety and promote the successful operation of the bus system. It is recommended that staff members take on the responsibility of controlling and monitoring the bus stop operations at George Street.

It is recommended that a staff member is stationed at the bus zone in the morning and afternoon period to ensure the safety of students and to encourage smooth operation. Currently one staff member performs this task during current operation. This is anticipated to increase over time and as the school population grows, and regular reviewing should be undertaken according to the recommendations contained in Section 6.3.12. A suggestion for the bus bay staff duties are as follows:

- Monitoring student behaviour and discouraging unsafe conduct such as running and jaywalking

- Assisting students in locating the correct bus
- Ensuring an orderly loading and unloading of students from the bus
- Completing a post-trip check to ensure all students have exited the bus
- Assisting students in forming an orderly queue while waiting for the bus arrival

It is advised that staff members wear a high-visibility vest so students or bus staff can easily locate a staff member if they need assistance. This is also important for staff safety so that they can be easily visible to drivers and other road users.

George Street Bus Bay
The George Street bus bay will operate as the primary bus stop servicing the High School site and will service school buses only. This bay has capacity for up to two buses at any one time, and careful organisation and signage is likely important for the smooth operation of this facility with the pick-up and drop-off zone. Suggestions for bus bay management techniques are provided in Table 6-1.

Option	Description
1	Allocate zones along the bus bay for different bus numbers so that students can easily locate the appropriate bus. Students would wait in this zone until the bus arrives.
2	Organise students into queues according to their desired bus number within the school site. This allows for students to be removed from the main roadway to encourage student safety. A staff member would then lead the queue of students to the relevant bus at the appropriate time.

Table 6-1- Recommended guide to bus operations.

6.3.4 Pick-up and Drop-off

Activities relating to pick-up and drop-off can produce significant safety concerns and impacts on the local traffic conditions. Accordingly, PUDO zones require deliberate management to ensure user safety and maintain an acceptable traffic flow. Table 6-2 outlines a number of techniques that may be implemented in isolation or in conjunction with one another.

Technique	Description
Staff team to be stationed in zone	• Stationing a team of staff in the PUDO zone is likely to encourage sensible user behaviours. Any unsafe student behaviour or reckless driver behaviour can be reported to the school principal for further investigation. • Staff members can assist drivers in locating spare parking spaces • Staff members can encourage drivers to pull up to the space furthest along the zone to maximise capacity.
Parking restrictions during peak hour	• The on-street parking is generally unrestricted in the surrounding network. To ensure the PUDO zone remains for the exclusive use of Wee Waa High School and Primary School parents and carers, a parking restriction during the morning and afternoon peak hours may be implemented. • The school should discuss parking restriction options with the relevant authorities including Narrabri Shire Council.

Table 6-2- Recommended guide to PUDO zone operations.

6.3.5 Delivery Scheduling

Wherever practical, all deliveries should be scheduled at least 15 minutes apart to avoid any conflicts and allow a buffer for unexpected delays. Additionally, deliveries are recommended to be scheduled outside of school hours either before 8:00am or after 3:20pm. Other considerations for the scheduling of deliveries include:

- Personnel to be available to marshal vehicles through the site for access to the main loading areas (to manage conflict and movements through pedestrian areas)
- Nominated external personnel (if available) to be recorded and provided with induction information if necessary (refer to Section 6.3.7 for further information)
- Relevant staff in departments or classrooms adjacent to loading areas to be advised of any scheduled activities which may be noisy or disruptive to classes.
- Once deliveries are completed, a record of deliveries is to be kept for at least four years after the deliveries occurred, to assist with future planning or any incidents which may occur.
- Vehicle size to be determined, and necessary traffic control measures to be considered if necessary and planned for within the scheduling system.
- Vehicle requirements (e.g. reversing alarms) are to be made clear to contractors.

To schedule a delivery, contact details for the site manager are:

- Name:
    - *To be advised by the School for inclusion in post-approval documentation.*
- Role:
    - *To be advised by the School for inclusion in post-approval documentation.*
- Phone:
    - *To be advised by the School for inclusion in post-approval documentation.*
- Email:
    - *To be advised by the School for inclusion in post-approval documentation.*

6.3.6 Service and Loading

Delivery and service vehicles will enter the site in a forward direction via the George Street access. On completion of unloading or servicing activities, the truck should exit the site from the same access in a forward motion.

All delivery and service trucks are advised to be fitted with reversing alarms and cameras to assist truck drivers in performing reverse manoeuvres and avoiding any conflict with other vehicles and pedestrians. Given that deliveries are generally occurring outside of school hours, there is a minimal chance for any such conflict to occur. However, as a minimum safety requirement delivery and service vehicles should be fitted with the above recommended safety features.

6.3.7 School Communications

Safe and efficient management of the site will require all users to have a thorough understanding of operations and their responsibilities. Two key parts of this will be staff communications and student/parent communications (for pick-up and drop-off activity). Communication strategies may include:

- Staff reminders / staff intranet information
- All regular contractors and delivery personnel to be advised of management strategies and requirements

- Staff road safety training seminars
- Student and parent newsletters
- Transport details on school website
- Direct advice to students/parents as required (e.g. responding to unsafe activities during pick-up times)
- Classroom education or extra-curricular transport safety activities (e.g. Learn to Ride), particularly for younger students

6.3.8 Incident Recording System

It is recommended that the school should keep and maintain an on-site traffic incident record. This record would contain a description of the incident, including contact details and what actions were taken by the school in response to the incident. It is advised that records of incidents be kept for at least four years following the incident occurrence.

The school should be able to provide the traffic incident register to the Council on request.

6.3.9 Complaints Management

It is recommended that the school should keep and maintain a record of all complaints made in relation to any transport or access issues in a complaint register. Suggestions for what the record may include are:

- The date and time of the complaint
- The method by which the complaint was made (e.g. phone or email)
- Any personal details provided by the complainant
- The nature of the complaint
- Any action taken by the school in relation to the complaint including any follow-up communication

It is advised that records of the complaint be kept for at least four years after the complaint was made. The school should be able to provide a copy of the complaints register to Council on request.

6.3.10 Signage and Wayfinding

Students, staff and visitors benefit from comprehensible signage and intuitive pathways to their destinations. It is recommended for the school to implement signage and wayfinding systems. There are several methods for the design and management of these systems including the following suggestions:

- Building colour assignments
- Exterior signage visible from street-level at major entrances
- Wall signage
- Directional signposts
- A wayfinding-specific website
- Printed maps and directions available from the school reception
- Pedestrian footpath and crossing signs

6.3.11 Data Collection

Data collection is required for the ongoing management and reviewing of this Plan. These investigations are intended to evaluate whether a particular operation, facility or management system is still successfully

functioning and meeting demands. Table 6-3 contains suggestions for the data collection context and the types of data to be collected.

Context	Data to be collected
PUDO Zone	• Number of users (morning, afternoon and overall) • Set down times • Arrival and departure times • Number of students exiting/entering vehicles • Number of any non-formal pick-up and drop-off occurrences as well as the time and location • Observational assessments (e.g. queuing, illegal stopping, safety concerns)
Car Parking	• Number of daily vacant and occupied spaces • Number of passengers per vehicle • Arrival and departure times
Pedestrian Facilities	• Number of pedestrians entering through gates • Arrival and departure times through school gates • Number of pedestrians using pedestrian crossings • Number of pedestrians jaywalking as well as the time and location
Cyclist Facilities	• Number of daily vacant and occupied bicycle parking spaces • Number of cyclists entering through each site access point • Number of end-of-trip facility users

Table 6-3- Data collection recommendations.

6.3.12 OTAMP Management

Once the OTAMP is finalised, it is to be maintained by the school and shall be distributed to all the concerned logistic personnel and managers. The school is also responsible for distributing appropriate information to staff and contractors as necessary. A copy of the OTAMP is always to be held on-site and available for review.

This OTAMP should be reviewed regularly and updated as required. It is recommended that an initial review should take place following six months of operation. This review should include detailed observations of the transport operations of the site and adjustments to procedures where necessary.

Following this initial review, a review every two years would likely be an appropriate schedule. To ensure that the ongoing review of this OTAMP is carried out as expected, responsibility for this task should be allocated to a specific staff member or school principal.

6.3.13 Green Travel Plan Management

Best management of the site will occur when there is as little vehicle movement as possible. Therefore, a critical element of transport management for the site will be implementation of the Green Travel Plan. Management procedures for the GTP may include:

- Nominated staff member to be responsible for reviews and implementation
- GTP to be regularly updated to ensure latest advice is correct
- GTP to be distributed to new staff and new students

6.3.14 External Authorities

If external authorities are required to be contacted (such as for enquiries, suggestions, or local traffic issues), the School should liaise with the City of Parramatta Council.
Contact details for Council's nominated representative are:

- Name:
    - *To be advised by Council for inclusion in post-approval documentation.*
- Role:
    - *To be advised by Council for inclusion in post-approval documentation.*
- Phone:
    - *To be advised by Council for inclusion in post-approval documentation.*
- Email:
    - *To be advised by Council for inclusion in post-approval documentation.*

7.0 Construction Traffic and Pedestrian Management Plan

This preliminary Construction Traffic and Pedestrian Management Plan (CTPMP) addresses the proposed construction of the Wee Waa High School redevelopment. It discusses the management of construction vehicles and activities, and an investigation of the local traffic and safety conditions throughout the construction process. A draft CTPMP is required in accordance with the SEARs for this development.

A detailed CTPMP cannot be produced without consideration of all final design selections and a finalised construction methodology. This preliminary CTPMP is intended to provide a framework within which a future CTPMP can be developed and implemented, and to demonstrate the potential operation of the construction site.

A CTPMP is developed to satisfy the duties of various work health and safety legislation, regulations and codes of practice including those from SafeWork NSW. Traffic Guidance Schemes (TGS) will also need to be developed in association with a final CTPMP for the future site to demonstrate the traffic control procedures to be implemented. These must be developed in accordance with TfNSW and the relevant Australian Standards. In addition to a detailed CTPMP, the builder shall be responsible for acquiring the necessary certificates, licences, consents, permits, and approvals relevant to the construction on this site.

7.1 Construction Operations

7.1.1 Access Arrangements

The majority of built works are located adjacent to George Street and Mitchell Street, providing good construction access to the site. It is proposed that a construction site access point be provided along George Street. As Mitchell Street is a state road, the site provides good construction vehicle access.

Turning path analysis is to be provided in the final CTPMP and is needed to calculate appropriate access arrangements for large vehicles such as how vehicles will safely perform exit manoeuvres.

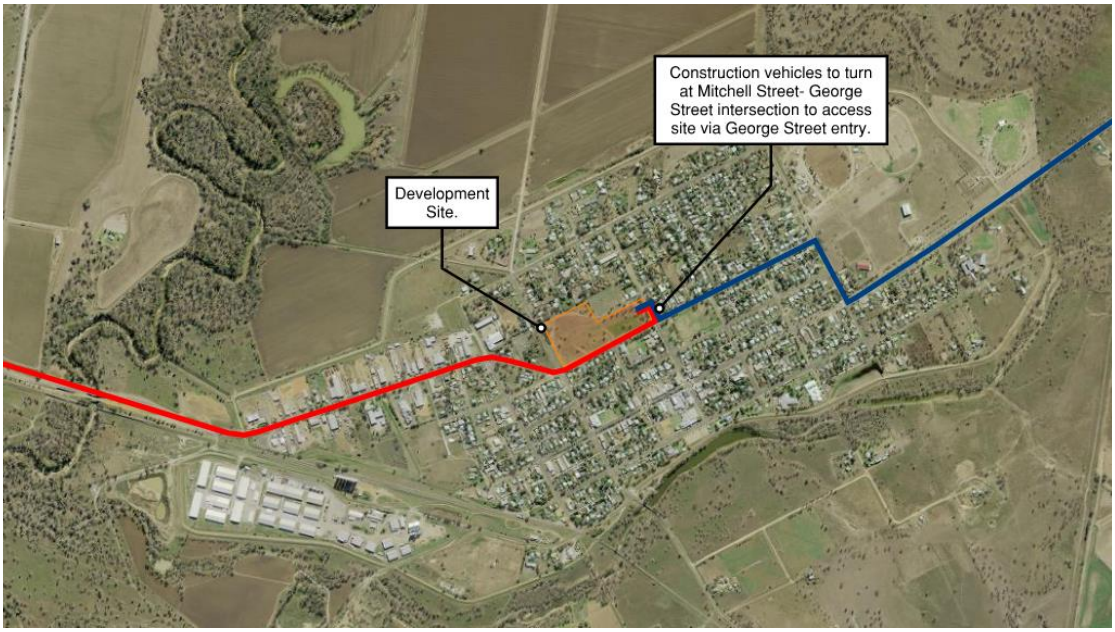


***Figure 7.1- Likely construction vehicle routes*.**

7.1.2 Works Zone

While an on-street Works Zone is not currently identified in the site establishment plan, if required this would be subject to separate approvals.

7.1.3 Construction Worker Parking

There are a number of potential options for construction worker parking with several management methods. These include but are not limited to:

1. *Utilising spare capacity around development site.*

Where possible, it is advised that workers utilise parking within the site. This may be staged as the separate early works and main works scopes are likely to cover separate areas of the site. During construction, the High School is to continue operation from the Primary School site and therefore parking south of Mitchell Street adjacent to this site should be discouraged.

2. *Restricting workers from parking in school pick-up and drop-off zones*

During construction, PUDO and bus zones will resume operation around the Wee Waa Primary School site for both primary and high school students. Worker parking should therefore be restricted to north of Mitchell Street to reduce any impacts to the operation of these zones.

7.1.4 Construction Program

A construction program for this development has yet to be drafted. Construction works are likely to be split between early works and main works with project completion in mid to late 2022.

The hours of operation for construction activities are to be determined by the planning authority and will likely contain similar work hours to the following:

- Monday to Friday 7am to 6pm
- Saturday 8am to 1pm
- Sunday and public holidays None

Construction vehicle traffic generated from the development is to be included as part of the construction program. It is assumed that vehicle numbers are to be consistent with other NSW Department of Education (DoE) programs and therefore vehicles generated per day will range between 5-10 vehicles during early works, increasing to 10-12 vehicles during main stage works. These are to be confirmed post finalisation of the construction program.

7.2 Construction Traffic Management

7.2.1 Vehicle Management

Vehicle movements will occur within the prescribed working hours. Delivery and removal trucks are to have a staggered arrival schedule and occur outside general peak hours as well as school peak hours where possible. Avoiding peak hours allows for minimal queueing of construction vehicles and prevents congestion in the neighbouring areas. Any vehicles arriving after the worksite has reached maximum capacity will need to reschedule their delivery and depart, although it is anticipated that enough queueing space will be available.

All loading and unloading of construction vehicles will occur within the site boundaries or within an approved Works Zone (subject to separate approvals). In an event where this is not possible (e.g. footpath or driveway works) traffic controllers will be stationed so that other road users can still move safely and efficiently around the construction activities.

Careful management of heavy construction vehicles exiting the site will ensure traffic safety. The relatively low traffic volumes on George Street means vehicles are expected to use suitable traffic gaps to exit.

To successfully coordinate and execute these processes, communication between all delivery depots and waste management centres will be maintained.

7.2.2 Construction Vehicle Routes

Construction vehicles will enter and exit the site on George Road in a forward direction, meaning trucks must arrive at the site to navigate left into the bus bay. As Mitchell Street is state road and therefore the primary access point for construction vehicles entering Wee Waa, access to site will involve only a single turn at either the George Street or Charles Street intersections. Figure 7.1 outlines the recommended haulage routes according to the desired origin and destination point.

7.2.3 Traffic Impacts

Traffic modelling performed as part of Section 4.0 of this report determined that the Level of Service (LOS) of the surrounding streetscape was performing at an high level A. Construction traffic is therefore expected to represent a negligible fraction of total local traffic volumes and cause no impact to existing intersection operation. Suitable traffic management measures will nevertheless be implemented to manage these vehicles, as outlined in this preliminary CTPMP and the final CTPMP to be provided by the appointed builder.

7.2.4 Public Transport Impacts

The primary vehicle access gate is to be located on George Street and therefore will have no impact to the current school bus stops located on Cowper Street.

7.2.5 Cumulative Impacts

No additional works have been raised for surrounding developments. Council has not identified plans for works to surrounding road networks and therefore any additional developments outside the scope of this project are unlikely.

7.3 Road Safety

7.3.1 Construction Vehicle Access Points

The access driveway to the site is along George Street Which links pedestrians living north of Mitchell Street with the current existing High School and Primary School site. This will likely create some level of potential conflict between construction vehicle movements and pedestrian movements, particularly during the peak before and after school periods. It is recommended that movements should be restricted to not occur during any School Zone times, to eliminate conflict with high pedestrian volumes.

7.3.2 Construction Vehicle Routes and Intersections

Primary access to site will be via George Street. As Mitchell Street is a state road and therefore the primary access point to Wee Waa, routes will involve a single turn at the George Street- Mitchell Street unsignalised intersection.

Secondary access to site may be made available via Charles Street when developing the vehicular bridge and western on-site parking area. This will involve turning at the Charles Street-Mitchell Street unsignalised intersection.

7.3.3 Pedestrians

During school peak hours, significant pedestrian activity is expected near the primary school site as students and staff arrive and depart. As discussed, construction vehicle movements will be scheduled outside of school peak hours to ensure pedestrian safety. Pedestrians will be prohibited from entering or passing through the

site during construction, enforced by fencing around the perimeter. Signage should be fitted to communicate to students and staff the site location. Any changes to external pedestrian routes should also be communicated with signage and detours clearly marked.

7.3.4 Cyclists

Signage should be installed on approach to warn both drivers and cyclists of the changed traffic conditions ahead. This is important for construction vehicle drivers and workers who are often unfamiliar with local traffic conditions and need to be prepared for the presence of cyclists.

It should be noted that due to the age of students, it is likely that changes to pedestrian infrastructure are more likely to impact student cyclists than changed road conditions and should therefore be accounted for during pedestrian rerouting.

8.0 Conclusion

8.1 Transport Strategy

The overall transport strategy for the proposed development is as follows:

- **Pedestrians**
  - Improve facilities within the catchment to increase mode share and safety
- **Cyclists**
  - Improve facilities on-site to increase cyclist mode share
  - Pedestrian improvements will also be able to be used by cycling students aged 16 and under
- **Public transport**
  - Provide close pedestrian connections between the school and proposed bus bay
- **Kiss & ride**
  - Provide sufficient length of kiss and ride to cater for anticipated demands
- **Car parking**
  - Provide 40 on site car parking spaces for staff only

Preliminary versions of a Green Travel Plan (GTP), Operational Traffic and Access Management Plan (OTAMP), and Construction Traffic and Pedestrian Management Plan (CTPMP) have been prepared as part of this report.

8.2 Findings

This TAIA has analysed the proposed development and its transport strategy and found the following:

- Pedestrian crossing volumes at Mitchell Street do not currently meet the requirements for installing a marked pedestrian crossing. Future projections show that demands across Mitchell Street will meet these warrants, and considering the significant pedestrian demand and current lack of crossing facility within Wee Waa, a pedestrian crossing has been proposed.
- Forecast additional vehicle traffic volumes can be comfortably accommodated in the local road network and sustain good levels of intersection performance.
- The proposed car parking provision is considered suitable in the context of the overall transport strategy and the provision of alternative modes, and worst-case parking demand scenarios could be comfortably accommodated in on-street parking without significantly compromising residential amenity.
- Construction traffic is expected to be negligible in relation to total local traffic volumes, and will also be comfortably accommodated in the local road network based on existing intersection operation

The proposed development is considered suitable on consideration of the traffic and transport elements of the site and its surrounds, with only minor items required to be resolved during further design (see below).

8.3 Next Steps

Following the approval of this SSDA, the expected future works would include:

- Further development of the Green Travel Plan, Operational Traffic and Access Management Plan, and Construction Traffic and Pedestrian Management Plan (or inclusion in the School Transport Plan subject to the relevant conditions of consent)

Appendix A

Agency Consultation

Meeting Minutes

School Infrastructure NSW & Narrabri Shire Council

Wee Waa High School

Date and Time	Thursday 29 July 2021 @ 3:00pm
Venue	Via Zoom
Enquiries	Matthew Arnett
Teleconference Details	Refer meeting invitation for Teams Meeting details

Members	Organisation	Role	Attendance (Y, N or T/C)
Matthew Arnett	SINSW	Senior Project Director	Y
Alana Alford	SINSW	Project Officer	Y
Alejandra Rojas	SINSW	Principal Statutory Planner	Y
Fiona Larkin	Ontoit	Project Director	Y
Richard Sheraton	Ontoit	Project Director	Y
Andrew Brown	NSC	Director, Planning & Strategy	Y
Eloise Chaplin	NSC	Director, Infrastructure Delivery	Y
Donna Ausling	NSC	Manager Strategic Planning	Y
Anthony Smetanin	NSC	Manager Design Services	Y
Stewart Todd	NSC	General Manager	N
Justin Hamilton	SHAC	Director	Y
Grace Carpp	TTW	Technical Director	Y
Paul Yannoulatos	TTW	Technical Director	Y

Item	Description	Responsibility
1	**Introduction & Apologies**	
1.1	Attendance and apologies as above	Note
2	**Design Update**	
2.1	JH – Key design considerations aim to meet the specific needs of Wee Waa high school. The school has been consulted at length and design team have responded to the needs outlined in the Educational Rationale	Note
2.2	JH – The design aims to respect the site and environment, and to reflect the Indigenous presence of the school community.	Note
2.3	JH – The design comprises three precincts; the buildings precinct, sports recreation and wellbeing, and the agriculture precinct where students can continue to develop their links with local industry	Note
2.4	JH – The existing stand of trees to the east is maintained, and there are civic connections to the Public School and to Dangar Park	Note
2.5	JH – The entry has been moved to George Street with an approach to the east	Note
2.6	JH – The Banalba Aboriginal Learning Centre is immersed in the landscape and is a place for learning and sharing, and quiet engagement and interaction with the school	Note
2.7	JH – A covered outdoor line-up area next to the multi-purpose hall which can be open after hours and on weekends. The library can be jointly used as a community engagement centre	Note
2.8	JH – We've reached a positive solution for the kiss and drop. Students staff and visitors will arrive through a single controlled covered entrance	Note
2.9	JH – Built form is designed to a grid that can be assembled in a kit of parts and established quickly and efficiently	Note
2.10	JH – A range of engineering elements are being employed dealing with water on the site. Overland flow and drainage are key considerations of the design. Buildings will be raised above flood level which will allow for airflow. Onsite water detention will be employed	Note
2.11	AB - 20 parking spots are now showing which is more palatable to us – is there a reason that there's only 20?	Note
3	**Transport Update**	
3.1	GC - Current school catchment for the High School and Public School are quite different. The HS catchment is much bigger. Given that the PS is adjacent, TTW have looked at how these two will interact.	Note
3.2	GC – The HS current student enrolment is 150, with 50 staff. The PS current student enrolment is 117 with 11 staff	Note

3.3	GC - Pick up and drop off has moved to George Street. We've looked at the number of students expected to arrive at any one time. We can fit peak demand for drop off as well as the bus-bay on George Street. Teachers have said they like to be able to see the students as dropped off and picked off	Note
3.4	GC – The diagram presented shows onsite parking and loading area, and pedestrian pathways through the site	Note
3.5	GC – It is noted that Council are concerned about safety and the current parking situation on Mitchell Street and temporary and permanent management measures are proposed	Note
3.6	GC – As Mitchell Street is a TfNSW road, we are limited as to what we can do. We are in correspondence with TfNSW to see what is possible in the interim	Note
3.7	Temporary measures ▪ Instruct staff and parents/carers to not park on Mitchell Street ▪ Provide temporary signage to Public School facing Mitchell Street to alert them not to park there for safety reasons ▪ Provide map of alternative parking locations to staff and parents/carers	Note
3.8	Permanent Measures ▪ Investigate potential for "No Stopping" zones to both sides of Mitchell Street fronting both the Public School and High School during school hours ▪ Works to form part of the wider High School project to allow for the approvals process with TfNSW ▪ Investigate potential to provide planting (for example low height shrubs) to act as a physical barrier from the kerb to the footpaths	Note
3.9	GC - Current parking demand for the PS and HS is 60 spaces. Once the HS is open, the PS car park will be operational	Note
3.10	GC – Following feedback, car spaces have been increased to 20 which is in line with the facilities at the existing school. Sustainability is a key consideration	Note
3.11	GC - There are available street spaces that do not front residential properties on George Street. On Charles Street to the west, there are almost 30 spaces. We think this solution provides enough spaces on the site and enough spaces in total	Note
3.12	GC – Traffic and pedestrian counts are being organised to see if we meet the numbers for a warrant for a street crossing	Note
3.13	GC – The design response to SEARs feedback includes • Relocation of pick-up/drop-off to George Street • Temporary traffic control measures on Mitchell street • Proposed permanent measures • Increased parking on site in line with existing provision • Suitable locations for overflow parking	Note
4	**Discussion**	
4.1	AB - We've got councillors asking us questions about how we're dealing with community concerns. It may become a political issue owing to the timing of the local elections as relates to this project	Note
4.2	AB – We appreciate the work that's gone into this but carpooling is not a realistic option for teachers. 20 simply isn't enough on-site spots. The existing	Note

	school is not beside a primary school nor surrounded by houses – it's a very different site	
4.3	AS - We are looking at having no on-street parking and all staff accommodated on-site	Note
4.4	GC - There are 11 staff at PS and 10 spaces. Some staff currently carpool. We can look at the driving rate we have from the travel mode survey. The number is likely to be about 45	Note
4.5	AR - Expanding the parking will affect the green space and the EFSG allocation of green space per student	Note
4.6	AB – I'm concerned with your comment that some of the teachers carpool. This is circumstantial and is unlikely to be the case in the future	Note
4.7	PY – Sustainability is a key consideration and Council has sustainability policies	Note
4.8	AB - At this stage, our Councillors are more concerned about the concerns of constituents. This could cause legacy issues for Council	Note
4.9	AR - Expansion of on-site parking will affect all of the other targets we have to meet from a planning and design point of view and it might affect the benchmarks we work with	Note
4.10	AR – Will develop 2 options for review – one that involves the full off-street parking allowance, and an option that moves towards greater sustainability	Note
4.11	AB - What is the reason we can't provide more parking?	Note
4.12	There is a vacant parcel right next to the site which could be acquired to deal with the parking	Note
4.13	GC – The design is at the stage where everything fits now, if you change one element, it impacts all others. We can be very clear in the pros and cons	Note
4.14	AB - The local government election has been pushed to 4 December. That gives this issue a platform. There are people who will be running in Wee Waa on platforms against decisions you've made. It is going to make everything harder	Note
4.15	AB – Key issues remain the location, parking, flooding etc. We would like the ability to say you've considered everything and we've got the absolute best option	Note
4.16	SI can provide options and opportunity constraints for each issue. It'd be good to understand what the councillors issues are and the sooner we know the sooner we can present something back to you	Note
4.17	AB - We've provided councillors with our SEARs response and they will be coming back to us with key issues	Note
4.18	EC – Flooding is key, as is the raising of the site, the fill material and the downstream implications for stormwater	Note
4.19	EC - Transport and police will be in our traffic committee meeting	Note
4.20	The demolition and remediation of the old site will become a political issue with the upcoming election	Note
4.21	MA – We are onboarding a structural engineer to do a comprehensive structural report for the existing site. This will take about the month	Note
4.23	AB – We want to know that the old site hasn't been left behind and that there is at least a plan to have it resolved. The State Member will continue to raise this particular issue	Note

4.26	RS – Can you give more detail on the neighbour concerned about raising the school and being overlooked	Note
4.27	EC - The councillor has raised concerns about what it will look like as well as the fill material to be used on site	Note
4.28	MA - Lyall and Associates flood consultant has all the background modelling for the whole town. That data will inform what's happening on the site and any required downstream works. In 2 weeks we'll be a lot better informed. The intent is not to impact neighbours	Note
4.30	MA – Scenarios need to be tested. We will ascertain if our project can afford it and if there's a compromise to be made with Council	Note
4.31	PY – Regarding the road blister happening just east of the site - is that because of the need for a crossing?	Note
4.32	The PS requested about 10 years ago that Blistering be put in for the residential boundary of the school	Note
4.33	AS - RMS will not want a pedestrian crossing. I do not believe you will meet the warrants required for a crossing	Note
4.35	AS – I believe any pedestrian crossing would be stopped because of the wide vehicles. I would be opposed to a pedestrian crossing because the wide vehicles	Note
4.36	AS – The National Heavy Vehicle Regulator is the federal body for heavy vehicles. They have all the information	Note
4.37	AS – Council is happy to meet with project consultants on-site	Note
4.38	MA - Lyall & Associates mentioned that possible piping improvements will be required to alleviate flooding. If there are sections Council wants to improve, now's the time to consider.	Note
4.39	RS - I'd like to thank the council for bringing forward the concerns of councillors and neighbours. We do appreciate that, thank you.	Note
5	**Close**	

Meeting Notes

21 June 2021

Wee Waa High School – Transport Strategy Review

Date	21/06/2021
Time	1:00pm
Location	MS Teams
Sensitivity classification	Sensitive: Standard
Attendees	• Belinda Roberts - TfNSW • David Vant - TfNSW • Matthew Arnett – SINSW • Grace Carpp - TTW

Meeting Notes

KEY FEEDBACK & DISCUSSION POINTS

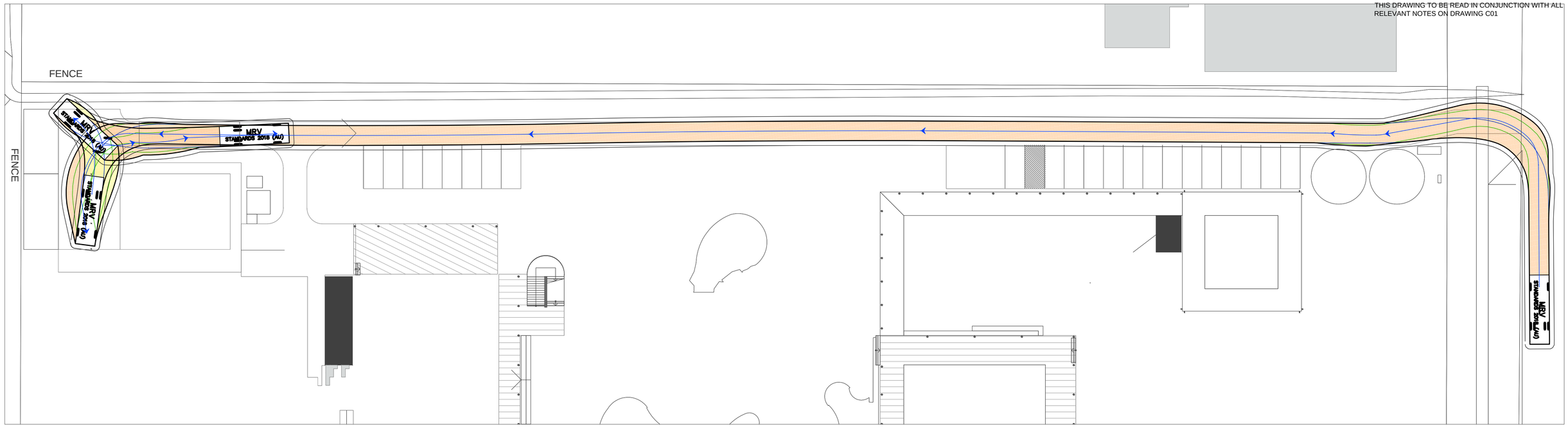
- TfNSW: Crossings must be supervised
- TfNSW: On site parking not enough, community use and event parking, parent parking etc
- TfNSW: Kiss n drop preferred off Mitchell Street

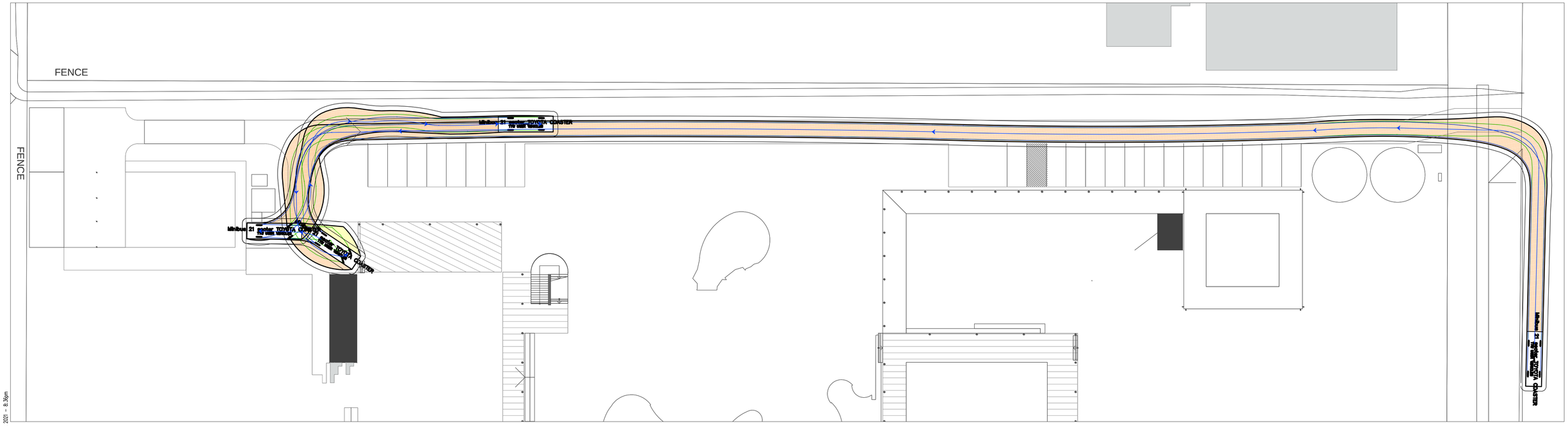
- TfNSW will be on site 26th 2:30pm and would like to have an SI rep present
- TfNSW will attend traffic committee meeting at same time
- TfNSW will get freight numbers
- TTW to get traffic numbers from council.
- Gave ok to Belinda to bring in bus company to talk about changing contract, Bus company requests change, TfNSW approved.
- TTW: Can provide traffic count in 3 weeks.
- TTW / SINSW: Provide rough numbers crossings between PS/HS per day

Appendix B

Swept Path Analysis

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01





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Rev	Description	Eng	Draft	Date
P1	PRELIMINARY	GC	GC	15.10.21

Rev Description Eng Draft Date

Rev Description Eng Draft Date

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Project
WEE WAA HIGH SCHOOL

Sheet Subject
SWEPT PATH ANALYSIS
MRV & MINIBUS

PRELIMINARY
NOT TO BE USED
FOR CONSTRUCTION

Scale : A1	Drawn	Authorised
1:250	GC	PY

Job No	Drawing No	Revision
211022	SKT01	P1

Plot File Created: Oct 14, 2021 - 8:36pm

Appendix C

Traffic Count Data

Job No	AUNSW1332
Client	TTW
Site	Mitchell St, Wee Waa
Location	Between Church St & George St
Site No	1
Start Date	4-Aug-21
Description	Volume Summary
Direction	Combined

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	9-Aug	10-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug		
AM Peak	0	0	180	0	0	0	0		
PM Peak	0	0	198	0	0	0	0	**413**	**295**
0:00	0	0	3	0	0	0	0	1	0
1:00	0	0	2	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	2	0	0	0	0	0	0
4:00	0	0	4	0	0	0	0	1	1
5:00	0	0	5	0	0	0	0	1	1
6:00	0	0	53	0	0	0	0	11	8
7:00	0	0	102	0	0	0	0	20	15
8:00	0	0	180	0	0	0	0	36	26
9:00	0	0	147	0	0	0	0	29	21
10:00	0	0	127	0	0	0	0	25	18
11:00	0	0	119	0	0	0	0	24	17
12:00	0	0	159	0	0	0	0	32	23
13:00	0	0	180	0	0	0	0	36	26
14:00	0	0	198	0	0	0	0	40	28
15:00	0	0	189	0	0	0	0	38	27
16:00	0	0	158	0	0	0	0	32	23
17:00	0	0	190	0	0	0	0	38	27
18:00	0	0	74	0	0	0	0	15	11
19:00	0	0	94	0	0	0	0	19	13
20:00	0	0	41	0	0	0	0	8	6
21:00	0	0	21	0	0	0	0	4	3
22:00	0	0	4	0	0	0	0	1	1
23:00	0	0	12	0	0	0	0	2	2
Total	0	0	2064	0	0	0	0	413	295

7-19	0	0	1823	0	0	0	0	365	260
6-22	0	0	2032	0	0	0	0	406	290
6-24	0	0	2048	0	0	0	0	410	293
0-24	0	0	2064	0	0	0	0	413	295

Select Site

1. Mitchell St, Wee Waa

Select Direction

Combined

Job No	AUNSW1332
Client	TTW
Site	George St, Wee Waa
Location	Between Mitchell St & Cowper St
Site No	2
Start Date	4-Aug-21
Description	Volume Summary
Direction	Combined

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	9-Aug	10-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug		
AM Peak	0	0	80	0	0	0	0		
PM Peak	0	0	85	0	0	0	0	**174**	**124**
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	2	0	0	0	0	0	0
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6:00	0	0	24	0	0	0	0	5	3
7:00	0	0	38	0	0	0	0	8	5
8:00	0	0	80	0	0	0	0	16	11
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16:00	0	0	64	0	0	0	0	13	9
17:00	0	0	85	0	0	0	0	17	12
18:00	0	0	49	0	0	0	0	10	7
19:00	0	0	32	0	0	0	0	6	5
20:00	0	0	13	0	0	0	0	3	2
21:00	0	0	4	0	0	0	0	1	1
22:00	0	0	3	0	0	0	0	1	0
23:00	0	0	3	0	0	0	0	1	0
Total	0	0	871	0	0	0	0	174	124

7-19	0	0	782	0	0	0	0	156	112
6-22	0	0	855	0	0	0	0	171	122
6-24	0	0	861	0	0	0	0	172	123
0-24	0	0	871	0	0	0	0	174	124

Select Site

2. George St, Wee Waa

Select Direction

Combined

Client	Taylor Thomson Whitting (NSW) Pty Ltd
Location	Wee Waa
Date	Wednesday, 4 August 2021
Survey Time	7:00-11:00 & 14:30-18:30 (8hrs)
Description	Pedestrians Survey

Client	Taylor Thomson Whitting (NSW) Pty Ltd
Location	Wee Waa
Date	Wednesday, 4 August 2021
Survey Time	7:00-11:00 & 14:30-18:30 (8hrs)
Description	Pedestrians Survey

MATRIX Traffic and Transport Data

[Peak Hour Summary]

	Time Periods	PED 1												Grand Total
		Southern Footpath						Northern Footpath			Crossing			
		A	B	Total	C	D	Total	E	F	Total	NB	SB	Total	
AM	8:15 to 9:15	1	1	2	1	27	28	0	0	0	1	19	20	50
PM	14:45 to 15:45	0	11	11	43	3	46	0	0	0	16	0	16	73

[15mins interval]

Time Periods	PED 1												Grand Total
	Southern Footpath						Northern Footpath			Crossing			
	A	B	Total	C	D	Total	E	F	Total	NB	SB	Total	
7:00 to 7:15	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**
7:15 to 7:30	0	0	**0**	0	1	**1**	0	0	**0**	0	0	**0**	**1**
7:30 to 7:45	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**
7:45 to 8:00	0	1	**1**	0	5	**5**	0	0	**0**	0	1	**1**	**7**
8:00 to 8:15	0	0	**0**	0	1	**1**	0	0	**0**	0	1	**1**	**2**
8:15 to 8:30	0	0	**0**	0	7	**7**	0	0	**0**	0	9	**9**	**16**
8:30 to 8:45	0	0	**0**	0	4	**4**	0	0	**0**	0	3	**3**	**7**
8:45 to 9:00	0	1	**1**	0	5	**5**	0	0	**0**	1	7	**8**	**14**
9:00 to 9:15	1	0	**1**	1	11	**12**	0	0	**0**	0	0	**0**	**13**
9:15 to 9:30	0	0	**0**	1	2	**3**	0	0	**0**	0	0	**0**	**3**
9:30 to 9:45	0	0	**0**	0	2	**2**	0	0	**0**	0	0	**0**	**2**
9:45 to 10:00	0	0	**0**	0	4	**4**	0	0	**0**	0	0	**0**	**4**
10:00 to 10:15	0	0	**0**	1	1	**2**	0	0	**0**	0	1	**1**	**3**
10:15 to 10:30	0	0	**0**	3	1	**4**	0	0	**0**	0	0	**0**	**4**
10:30 to 10:45	0	0	**0**	0	1	**1**	0	0	**0**	1	1	**2**	**3**
10:45 to 11:00	0	0	**0**	3	0	**3**	0	0	**0**	0	0	**0**	**3**
Totals	**1**	**2**	**3**	**9**	**45**	**54**	**0**	**0**	**0**	**2**	**23**	**25**	**82**
14:30 to 14:45	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	**2**
14:45 to 15:00	0	10	**10**	20	0	**20**	0	0	**0**	5	0	**5**	**35**
15:00 to 15:15	0	0	**0**	6	0	**6**	0	0	**0**	4	0	**4**	**10**
15:15 to 15:30	0	1	**1**	12	2	**14**	0	0	**0**	6	0	**6**	**21**
15:30 to 15:45	0	0	**0**	5	1	**6**	0	0	**0**	1	0	**1**	**7**
15:45 to 16:00	0	0	**0**	2	0	**2**	0	0	**0**	0	1	**1**	**3**
16:00 to 16:15	0	0	**0**	1	0	**1**	0	0	**0**	0	0	**0**	**1**
16:15 to 16:30	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**
16:30 to 16:45	0	0	**0**	1	0	**1**	0	0	**0**	2	0	**2**	**3**
16:45 to 17:00	0	6	**6**	0	0	**0**	2	0	**2**	2	0	**2**	**10**
17:00 to 17:15	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	**1**
17:15 to 17:30	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**
17:30 to 17:45	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**
17:45 to 18:00	1	0	**1**	0	0	**0**	0	0	**0**	0	1	**1**	**2**
18:00 to 18:15	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**
18:15 to 18:30	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**
Totals	**3**	**17**	**20**	**48**	**3**	**51**	**2**	**0**	**2**	**20**	**2**	**22**	**95**

[Hourly Summary]

Time Periods	PED 1												Grand Total
	Southern Footpath						Northern Footpath			Crossing			
	A	B	Total	C	D	Total	E	F	Total	NB	SB	Total	
7:00 to 8:00	0	1	**1**	0	6	**6**	0	0	**0**	0	1	**1**	**8**
7:15 to 8:15	0	1	**1**	0	7	**7**	0	0	**0**	0	2	**2**	**10**
7:30 to 8:30	0	1	**1**	0	13	**13**	0	0	**0**	0	11	**11**	**25**
7:45 to 8:45	0	1	**1**	0	17	**17**	0	0	**0**	0	14	**14**	**32**
8:00 to 9:00	0	1	**1**	0	17	**17**	0	0	**0**	1	20	**21**	**39**
8:15 to 9:15	1	1	**2**	1	27	**28**	0	0	**0**	1	19	**20**	**50**
8:30 to 9:30	1	1	**2**	2	22	**24**	0	0	**0**	1	10	**11**	**37**
8:45 to 9:45	1	1	**2**	2	20	**22**	0	0	**0**	1	7	**8**	**32**
9:00 to 10:00	1	0	**1**	2	19	**21**	0	0	**0**	0	0	**0**	**22**
9:15 to 10:15	0	0	**0**	2	9	**11**	0	0	**0**	0	1	**1**	**12**
9:30 to 10:30	0	0	**0**	4	8	**12**	0	0	**0**	0	1	**1**	**13**
9:45 to 10:45	0	0	**0**	4	7	**11**	0	0	**0**	1	2	**3**	**14**
10:00 to 11:00	0	0	**0**	7	3	**10**	0	0	**0**	1	2	**3**	**13**
Totals	**1**	**2**	**3**	**9**	**45**	**54**	**0**	**0**	**0**	**2**	**23**	**25**	**82**
14:30 to 15:30	1	11	**12**	39	2	**41**	0	0	**0**	15	0	**15**	**68**

14:45 to 15:45	0	11	**11**	43	3	**46**	0	0	**0**	16	0	**16**	**73**
15:00 to 16:00	0	1	**1**	25	3	**28**	0	0	**0**	11	1	**12**	**41**
15:15 to 16:15	0	1	**1**	20	3	**23**	0	0	**0**	7	1	**8**	**32**
15:30 to 16:30	0	0	**0**	8	1	**9**	0	0	**0**	1	1	**2**	**11**
15:45 to 16:45	0	0	**0**	4	0	**4**	0	0	**0**	2	1	**3**	**7**
16:00 to 17:00	0	6	**6**	2	0	**2**	2	0	**2**	4	0	**4**	**14**
16:15 to 17:15	1	6	**7**	1	0	**1**	2	0	**2**	4	0	**4**	**14**
16:30 to 17:30	1	6	**7**	1	0	**1**	2	0	**2**	4	0	**4**	**14**
16:45 to 17:45	1	6	**7**	0	0	**0**	2	0	**2**	2	0	**2**	**11**
17:00 to 18:00	2	0	**2**	0	0	**0**	0	0	**0**	0	1	**1**	**3**
17:15 to 18:15	1	0	**1**	0	0	**0**	0	0	**0**	0	1	**1**	**2**
17:30 to 18:30	1	0	**1**	0	0	**0**	0	0	**0**	0	1	**1**	**2**
Totals	**3**	**17**	**20**	**48**	**3**	**51**	**2**	**0**	**2**	**20**	**2**	**22**	**95**

Client	Taylor Thomson Whitting (NSW) Pty Ltd
Location	Wee Waa
Date	Wednesday, 4 August 2021
Survey Time	7:00-11:00 & 14:30-18:30 (8hrs)
Description	Pedestrians Survey

MATRIX Traffic and Transport Data

[Peak Hour Summary]

	Time Periods	PED 2									Grand Total
		Western Footpath			Eastern Footpath			Crossing			
		A	B	Total	C	D	Total	WB	EB	Total	
AM	8:15 to 9:15	4	10	14	0	0	0	11	1	12	**26**
PM	14:30 to 15:30	10	16	26	0	0	0	3	16	19	**45**

[15mins interval]

Time Periods	PED 2									Grand Total
	Western Footpath			Eastern Footpath			Crossing			
	A	B	Total	C	D	Total	WB	EB	Total	
7:00 to 7:15	0	0	**0**	0	0	**0**	0	0	**0**	**0**
7:15 to 7:30	0	0	**0**	0	0	**0**	0	0	**0**	**0**
7:30 to 7:45	0	1	**1**	0	0	**0**	0	0	**0**	**1**
7:45 to 8:00	0	1	**1**	0	0	**0**	0	0	**0**	**1**
8:00 to 8:15	0	0	**0**	0	1	**1**	0	0	**0**	**1**
8:15 to 8:30	2	5	**7**	0	0	**0**	0	0	**0**	**7**
8:30 to 8:45	0	3	**3**	0	0	**0**	0	0	**0**	**3**
8:45 to 9:00	0	1	**1**	0	0	**0**	4	1	**5**	**6**
9:00 to 9:15	2	1	**3**	0	0	**0**	7	0	**7**	**10**
9:15 to 9:30	0	0	**0**	0	0	**0**	1	1	**2**	**2**
9:30 to 9:45	1	0	**1**	0	0	**0**	0	0	**0**	**1**
9:45 to 10:00	1	0	**1**	0	0	**0**	0	0	**0**	**1**
10:00 to 10:15	0	0	**0**	0	0	**0**	0	0	**0**	**0**
10:15 to 10:30	0	0	**0**	0	0	**0**	0	0	**0**	**0**
10:30 to 10:45	1	0	**1**	0	0	**0**	0	0	**0**	**1**
10:45 to 11:00	0	0	**0**	0	0	**0**	0	0	**0**	**0**
Totals	**7**	**12**	**19**	**0**	**1**	**1**	**12**	**2**	**14**	**34**
14:30 to 14:45	0	0	**0**	0	0	**0**	0	0	**0**	**0**
14:45 to 15:00	0	8	**8**	0	0	**0**	2	11	**13**	**21**
15:00 to 15:15	7	8	**15**	0	0	**0**	1	5	**6**	**21**
15:15 to 15:30	3	0	**3**	0	0	**0**	0	0	**0**	**3**
15:30 to 15:45	0	0	**0**	0	0	**0**	0	0	**0**	**0**
15:45 to 16:00	5	0	**5**	0	0	**0**	0	0	**0**	**5**
16:00 to 16:15	1	2	**3**	0	0	**0**	0	0	**0**	**3**
16:15 to 16:30	9	10	**19**	2	0	**2**	0	0	**0**	**21**
16:30 to 16:45	0	0	**0**	0	0	**0**	0	0	**0**	**0**
16:45 to 17:00	2	0	**2**	0	0	**0**	1	0	**1**	**3**
17:00 to 17:15	2	0	**2**	0	0	**0**	0	0	**0**	**2**
17:15 to 17:30	3	3	**6**	0	0	**0**	0	0	**0**	**6**
17:30 to 17:45	0	0	**0**	0	0	**0**	0	0	**0**	**0**
17:45 to 18:00	1	3	**4**	0	0	**0**	0	1	**1**	**5**
18:00 to 18:15	0	0	**0**	0	0	**0**	0	0	**0**	**0**
18:15 to 18:30	0	0	**0**	0	0	**0**	0	0	**0**	**0**
Totals	**33**	**34**	**67**	**2**	**0**	**2**	**4**	**17**	**21**	**90**

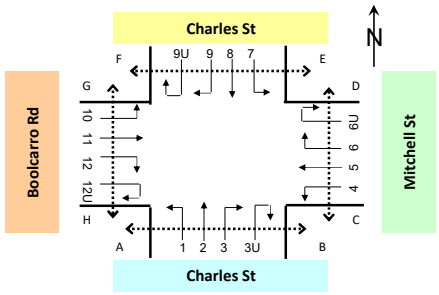
[Hourly Summary]

Time Periods	PED 2									Grand Total
	Western Footpath			Eastern Footpath			Crossing			
	A	B	Total	C	D	Total	WB	EB	Total	
7:00 to 8:00	0	2	**2**	0	0	**0**	0	0	**0**	**2**
7:15 to 8:15	0	2	**2**	0	1	**1**	0	0	**0**	**3**
7:30 to 8:30	2	7	**9**	0	1	**1**	0	0	**0**	**10**
7:45 to 8:45	2	9	**11**	0	1	**1**	0	0	**0**	**12**
8:00 to 9:00	2	9	**11**	0	1	**1**	4	1	**5**	**17**
8:15 to 9:15	4	10	**14**	0	0	**0**	11	1	**12**	**26**
8:30 to 9:30	2	5	**7**	0	0	**0**	12	2	**14**	**21**
8:45 to 9:45	3	2	**5**	0	0	**0**	12	2	**14**	**19**
9:00 to 10:00	4	1	**5**	0	0	**0**	8	1	**9**	**14**
9:15 to 10:15	2	0	**2**	0	0	**0**	1	1	**2**	**4**

9:30 to 10:30	2	0	**2**	0	0	**0**	0	0	**0**	**2**
9:45 to 10:45	2	0	**2**	0	0	**0**	0	0	**0**	**2**
10:00 to 11:00	1	0	**1**	0	0	**0**	0	0	**0**	**1**
Totals	**7**	**12**	**19**	**0**	**1**	**1**	**12**	**2**	**14**	**34**
14:30 to 15:30	10	16	**26**	0	0	**0**	3	16	**19**	**45**
14:45 to 15:45	10	16	**26**	0	0	**0**	3	16	**19**	**45**
15:00 to 16:00	15	8	**23**	0	0	**0**	1	5	**6**	**29**
15:15 to 16:15	9	2	**11**	0	0	**0**	0	0	**0**	**11**
15:30 to 16:30	15	12	**27**	2	0	**2**	0	0	**0**	**29**
15:45 to 16:45	15	12	**27**	2	0	**2**	0	0	**0**	**29**
16:00 to 17:00	12	12	**24**	2	0	**2**	1	0	**1**	**27**
16:15 to 17:15	13	10	**23**	2	0	**2**	1	0	**1**	**26**
16:30 to 17:30	7	3	**10**	0	0	**0**	1	0	**1**	**11**
16:45 to 17:45	7	3	**10**	0	0	**0**	1	0	**1**	**11**
17:00 to 18:00	6	6	**12**	0	0	**0**	0	1	**1**	**13**
17:15 to 18:15	4	6	**10**	0	0	**0**	0	1	**1**	**11**
17:30 to 18:30	1	3	**4**	0	0	**0**	0	1	**1**	**5**
Totals	**33**	**34**	**67**	**2**	**0**	**2**	**4**	**17**	**21**	**90**

Job No.	: AUNSW1332
Client	: Taylor Thomson Whitting (NSW) Pty Ltd
Suburb	: Wee Waa
Location	: 1. Mitchell St / Charles St
Day/Date	: Wed, 4th Aug 2021
Weather	: Fine
Description	: Classified Intersection Count
	: 15 mins Data

Classifications	**Class 1**	**Class 2**
	Lights	Heavies



Approach	**Charles St**												**Mitchell St**											
Direction	**Direction 1 (Left Turn)**			**Direction 2 (Through)**			**Direction 3 (Right Turn)**			**Direction 3U (U Turn)**			**Direction 4 (Left Turn)**			**Direction 5 (Through)**			**Direction 6 (Right Turn)**			**Direction 6U (U Turn)**		
Time Period	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**
7:00 to 7:15	4	0	**4**	0	0	**0**	2	0	**2**	0	0	**0**	2	0	**2**	13	4	**17**	0	0	**0**	0	0	**0**
7:15 to 7:30	4	0	**4**	2	0	**2**	1	0	**1**	0	0	**0**	0	0	**0**	11	4	**15**	0	0	**0**	0	0	**0**
7:30 to 7:45	4	0	**4**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	10	3	**13**	0	0	**0**	0	0	**0**
7:45 to 8:00	8	0	**8**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	17	6	**23**	0	0	**0**	0	0	**0**
8:00 to 8:15	3	0	**3**	0	0	**0**	2	0	**2**	0	0	**0**	2	0	**2**	12	2	**14**	0	0	**0**	0	0	**0**
8:15 to 8:30	5	0	**5**	2	0	**2**	3	0	**3**	0	0	**0**	4	0	**4**	11	1	**12**	0	0	**0**	0	0	**0**
8:30 to 8:45	1	1	**2**	3	0	**3**	1	0	**1**	0	0	**0**	3	1	**4**	19	1	**20**	1	0	**1**	0	0	**0**
8:45 to 9:00	2	0	**2**	1	0	**1**	1	0	**1**	0	0	**0**	7	2	**9**	16	5	**21**	4	0	**4**	0	0	**0**
9:00 to 9:15	1	0	**1**	2	0	**2**	0	0	**0**	0	0	**0**	3	0	**3**	12	3	**15**	0	0	**0**	0	0	**0**
9:15 to 9:30	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	9	3	**12**	2	0	**2**	0	0	**0**
9:30 to 9:45	2	0	**2**	1	0	**1**	1	0	**1**	0	0	**0**	3	0	**3**	11	3	**14**	1	0	**1**	0	0	**0**
9:45 to 10:00	3	0	**3**	1	0	**1**	0	0	**0**	0	0	**0**	1	0	**1**	9	8	**17**	0	0	**0**	0	0	**0**
10:00 to 10:15	1	0	**1**	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	6	1	**7**	1	0	**1**	0	0	**0**
10:15 to 10:30	1	0	**1**	0	0	**0**	2	0	**2**	0	0	**0**	0	0	**0**	11	1	**12**	1	0	**1**	0	0	**0**
10:30 to 10:45	1	0	**1**	0	0	**0**	4	0	**4**	0	0	**0**	1	0	**1**	8	4	**12**	0	0	**0**	0	0	**0**
10:45 to 11:00	5	0	**5**	0	0	**0**	0	0	**0**	0	0	**0**	4	0	**4**	7	3	**10**	2	0	**2**	0	0	**0**
AM Totals	**46**	**1**	**47**	**13**	**0**	**13**	**18**	**0**	**18**	**0**	**0**	**0**	**32**	**3**	**35**	**182**	**52**	**234**	**12**	**0**	**12**	**0**	**0**	**0**
14:30 to 14:45	4	0	**4**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	7	2	**9**	1	0	**1**	0	0	**0**
14:45 to 15:00	3	0	**3**	0	0	**0**	2	0	**2**	0	0	**0**	3	0	**3**	9	2	**11**	0	0	**0**	0	0	**0**
15:00 to 15:15	1	0	**1**	3	0	**3**	1	0	**1**	0	0	**0**	2	3	**5**	13	4	**17**	1	0	**1**	0	0	**0**
15:15 to 15:30	2	0	**2**	1	0	**1**	1	0	**1**	0	0	**0**	5	0	**5**	13	2	**15**	2	0	**2**	0	0	**0**
15:30 to 15:45	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	2	0	**2**	10	3	**13**	0	0	**0**	0	0	**0**
15:45 to 16:00	2	0	**2**	3	0	**3**	0	0	**0**	0	0	**0**	0	0	**0**	6	3	**9**	0	0	**0**	0	0	**0**
16:00 to 16:15	1	1	**2**	4	0	**4**	0	0	**0**	0	0	**0**	2	0	**2**	17	1	**18**	0	0	**0**	0	0	**0**

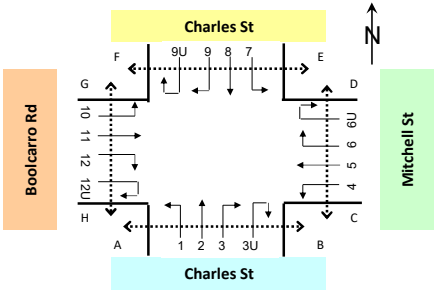
16:15 to 16:30	4	1	**5**	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	11	1	**12**	0	0	**0**	0	0	**0**
16:30 to 16:45	3	0	**3**	1	0	**1**	2	0	**2**	0	0	**0**	1	0	**1**	11	6	**17**	1	0	**1**	0	0	**0**
16:45 to 17:00	0	0	**0**	3	0	**3**	2	0	**2**	0	0	**0**	2	0	**2**	8	1	**9**	0	0	**0**	0	0	**0**
17:00 to 17:15	2	0	**2**	1	0	**1**	2	0	**2**	0	0	**0**	3	0	**3**	8	2	**10**	2	0	**2**	0	0	**0**
17:15 to 17:30	2	0	**2**	3	0	**3**	1	0	**1**	0	0	**0**	4	0	**4**	9	4	**13**	1	0	**1**	0	0	**0**
17:30 to 17:45	4	0	**4**	2	1	**3**	0	0	**0**	0	0	**0**	1	0	**1**	7	3	**10**	1	0	**1**	0	0	**0**
17:45 to 18:00	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	4	3	**7**	0	0	**0**	0	0	**0**
18:00 to 18:15	2	0	**2**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	10	0	**10**	1	0	**1**	0	0	**0**
18:15 to 18:30	0	0	**0**	1	0	**1**	0	0	**0**	0	0	**0**	1	0	**1**	2	0	**2**	1	0	**1**	0	0	**0**
PM Totals	**32**	**2**	**34**	**26**	**1**	**27**	**12**	**0**	**12**	**0**	**0**	**0**	**27**	**3**	**30**	**145**	**37**	**182**	**11**	**0**	**11**	**0**	**0**	**0**

Approach	**Charles St**												**Boolcarro Rd**										**Crossing Pedestrians**								
Direction	**Direction 7 (Left Turn)**			**Direction 8 (Through)**			**Direction 9 (Right Turn)**			**Direction 9U (U Turn)**			**Direction 10 (Left Turn)**			**Direction 11 (Through)**			**Direction 12 (Right Turn)**			**Direction 12U (U Turn)**									
Time Period	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**B to A**	**A to B**	**D to C**	**C to D**	**F to E**	**E to F**	**H to G**	**G to H**	**Total**
7:00 to 7:15	0	0	**0**	2	0	**2**	0	0	**0**	0	0	**0**	1	0	**1**	3	4	**7**	3	1	**4**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
7:15 to 7:30	0	0	**0**	1	0	**1**	2	0	**2**	0	0	**0**	0	0	**0**	8	2	**10**	0	0	**0**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
7:30 to 7:45	2	0	**2**	1	0	**1**	1	0	**1**	0	0	**0**	1	0	**1**	10	0	**10**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
7:45 to 8:00	0	0	**0**	4	0	**4**	0	0	**0**	0	0	**0**	0	0	**0**	6	1	**7**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
8:00 to 8:15	0	0	**0**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	7	1	**8**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
8:15 to 8:30	2	0	**2**	3	0	**3**	0	0	**0**	0	0	**0**	0	0	**0**	22	3	**25**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
8:30 to 8:45	2	0	**2**	2	0	**2**	0	0	**0**	0	0	**0**	0	0	**0**	16	0	**16**	3	0	**3**	0	0	**0**	0	2	0	0	0	0	0	0	**2**
8:45 to 9:00	3	0	**3**	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	17	3	**20**	1	0	**1**	0	0	**0**	0	1	1	0	0	0	0	2	**4**
9:00 to 9:15	0	0	**0**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	16	2	**18**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
9:15 to 9:30	1	0	**1**	2	0	**2**	0	0	**0**	0	0	**0**	0	0	**0**	8	4	**12**	5	0	**5**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
9:30 to 9:45	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	0	1	**1**	8	3	**11**	2	0	**2**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
9:45 to 10:00	2	0	**2**	3	0	**3**	0	0	**0**	0	0	**0**	0	0	**0**	15	1	**16**	2	0	**2**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
10:00 to 10:15	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	12	1	**13**	2	0	**2**	0	0	**0**	0	0	0	1	0	0	0	0	**1**
10:15 to 10:30	1	0	**1**	2	0	**2**	0	0	**0**	0	0	**0**	0	0	**0**	12	2	**14**	1	0	**1**	0	0	**0**	0	0	3	0	0	0	0	1	**4**
10:30 to 10:45	0	0	**0**	1	0	**1**	0	0	**0**	0	0	**0**	1	0	**1**	10	4	**14**	0	0	**0**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
10:45 to 11:00	0	0	**0**	4	0	**4**	0	0	**0**	0	0	**0**	1	0	**1**	7	5	**12**	4	0	**4**	0	0	**0**	0	0	0	1	0	1	0	0	**2**
AM Totals	**15**	**0**	**15**	**28**	**0**	**28**	**4**	**0**	**4**	**0**	**0**	**0**	**4**	**1**	**5**	**177**	**36**	**213**	**28**	**1**	**29**	**0**	**0**	**0**	**0**	**3**	**4**	**2**	**0**	**1**	**0**	**3**	**13**
14:30 to 14:45	2	0	**2**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	11	2	**13**	3	0	**3**	0	0	**0**	1	0	0	0	0	0	1	1	**3**
14:45 to 15:00	2	0	**2**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	16	9	**25**	4	1	**5**	0	0	**0**	2	0	0	0	0	1	0	0	**3**
15:00 to 15:15	0	0	**0**	4	0	**4**	0	0	**0**	0	0	**0**	0	0	**0**	8	7	**15**	4	1	**5**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
15:15 to 15:30	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	13	5	**18**	4	0	**4**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
15:30 to 15:45	0	0	**0**	3	0	**3**	0	0	**0**	0	0	**0**	0	0	**0**	12	2	**14**	1	0	**1**	0	0	**0**	2	0	0	0	0	0	0	0	**2**
15:45 to 16:00	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	12	6	**18**	7	0	**7**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
16:00 to 16:15	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	9	5	**14**	4	0	**4**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
16:15 to 16:30	1	0	**1**	3	0	**3**	0	0	**0**	0	0	**0**	0	0	**0**	14	4	**18**	6	0	**6**	0	0	**0**	0	0	2	0	0	0	0	0	**2**
16:30 to 16:45	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	13	8	**21**	2	0	**2**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
16:45 to 17:00	0	0	**0**	3	0	**3**	0	0	**0**	0	0	**0**	0	0	**0**	9	1	**10**	3	0	**3**	0	0	**0**	0	0	2	0	1	0	0	0	**3**
17:00 to 17:15	3	0	**3**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	31	3	**34**	10	0	**10**	0	0	**0**	0	0	0	0	0	0	0	0	**0**

17:15	to	17:30	1	0	**1**	3	0	**3**	0	0	**0**	0	0	**0**	0	0	**0**	13	5	**18**	3	0	**3**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
17:30	to	17:45	0	0	**0**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	9	3	**12**	4	0	**4**	0	0	**0**	0	0	0	0	0	0	2	0	**2**
17:45	to	18:00	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	6	2	**8**	5	0	**5**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
18:00	to	18:15	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	10	1	**11**	3	1	**4**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
18:15	to	18:30	0	0	**0**	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	8	0	**8**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
PM Totals			**13**	**0**	**13**	**22**	**0**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**194**	**63**	**257**	**64**	**3**	**67**	**0**	**0**	**0**	**5**	**0**	**4**	**0**	**1**	**1**	**3**	**1**	**15**

Job No. : AUNSW1332
Client : Taylor Thomson Whitting (NSW) Pty Ltd
Suburb : Wee Waa
Location : 1. Mitchell St / Charles St

Day/Date : Wed, 4th Aug 2021
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



MATRIX Traffic and Transport Data

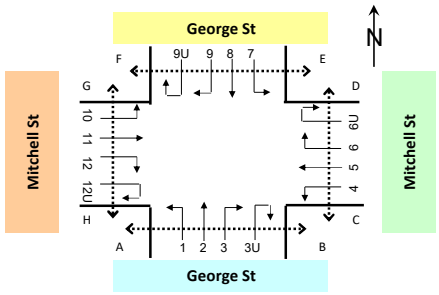
Approach	Charles St												Mitchell St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	20	0	**20**	2	0	**2**	3	0	**3**	0	0	**0**	4	0	**4**	51	17	**68**	0	0	**0**	0	0	**0**
7:15 to 8:15	19	0	**19**	2	0	**2**	3	0	**3**	0	0	**0**	4	0	**4**	50	15	**65**	0	0	**0**	0	0	**0**
7:30 to 8:30	20	0	**20**	2	0	**2**	5	0	**5**	0	0	**0**	8	0	**8**	50	12	**62**	0	0	**0**	0	0	**0**
7:45 to 8:45	17	1	**18**	5	0	**5**	6	0	**6**	0	0	**0**	10	1	**11**	59	10	**69**	1	0	**1**	0	0	**0**
8:00 to 9:00	11	1	**12**	6	0	**6**	7	0	**7**	0	0	**0**	16	3	**19**	58	9	**67**	5	0	**5**	0	0	**0**
8:15 to 9:15	9	1	**10**	8	0	**8**	5	0	**5**	0	0	**0**	17	3	**20**	58	10	**68**	5	0	**5**	0	0	**0**
8:30 to 9:30	5	1	**6**	6	0	**6**	2	0	**2**	0	0	**0**	13	3	**16**	56	12	**68**	7	0	**7**	0	0	**0**
8:45 to 9:45	6	0	**6**	4	0	**4**	2	0	**2**	0	0	**0**	13	2	**15**	48	14	**62**	7	0	**7**	0	0	**0**
9:00 to 10:00	7	0	**7**	4	0	**4**	1	0	**1**	0	0	**0**	7	0	**7**	41	17	**58**	3	0	**3**	0	0	**0**
9:15 to 10:15	7	0	**7**	3	0	**3**	2	0	**2**	0	0	**0**	4	0	**4**	35	15	**50**	4	0	**4**	0	0	**0**
9:30 to 10:30	7	0	**7**	3	0	**3**	4	0	**4**	0	0	**0**	4	0	**4**	37	13	**50**	3	0	**3**	0	0	**0**
9:45 to 10:45	6	0	**6**	2	0	**2**	7	0	**7**	0	0	**0**	2	0	**2**	34	14	**48**	2	0	**2**	0	0	**0**
10:00 to 11:00	8	0	**8**	1	0	**1**	7	0	**7**	0	0	**0**	5	0	**5**	32	9	**41**	4	0	**4**	0	0	**0**
AM Totals	**46**	**1**	**47**	**13**	**0**	**13**	**18**	**0**	**18**	**0**	**0**	**0**	**32**	**3**	**35**	**182**	**52**	**234**	**12**	**0**	**12**	**0**	**0**	**0**
14:30 to 15:30	10	0	**10**	4	0	**4**	4	0	**4**	0	0	**0**	11	3	**14**	42	10	**52**	4	0	**4**	0	0	**0**
14:45 to 15:45	7	0	**7**	5	0	**5**	4	0	**4**	0	0	**0**	12	3	**15**	45	11	**56**	3	0	**3**	0	0	**0**
15:00 to 16:00	6	0	**6**	8	0	**8**	2	0	**2**	0	0	**0**	9	3	**12**	42	12	**54**	3	0	**3**	0	0	**0**
15:15 to 16:15	6	1	**7**	9	0	**9**	1	0	**1**	0	0	**0**	9	0	**9**	46	9	**55**	2	0	**2**	0	0	**0**
15:30 to 16:30	8	2	**10**	9	0	**9**	1	0	**1**	0	0	**0**	4	0	**4**	44	8	**52**	0	0	**0**	0	0	**0**
15:45 to 16:45	10	2	**12**	9	0	**9**	3	0	**3**	0	0	**0**	3	0	**3**	45	11	**56**	1	0	**1**	0	0	**0**

16:00 to 17:00	8	2	**10**	9	0	**9**	5	0	**5**	0	0	**0**	5	0	**5**	47	9	**56**	1	0	**1**	0	0	**0**
16:15 to 17:15	9	1	**10**	6	0	**6**	7	0	**7**	0	0	**0**	6	0	**6**	38	10	**48**	3	0	**3**	0	0	**0**
16:30 to 17:30	7	0	**7**	8	0	**8**	7	0	**7**	0	0	**0**	10	0	**10**	36	13	**49**	4	0	**4**	0	0	**0**
16:45 to 17:45	8	0	**8**	9	1	**10**	5	0	**5**	0	0	**0**	10	0	**10**	32	10	**42**	4	0	**4**	0	0	**0**
17:00 to 18:00	9	0	**9**	7	1	**8**	3	0	**3**	0	0	**0**	8	0	**8**	28	12	**40**	4	0	**4**	0	0	**0**
17:15 to 18:15	9	0	**9**	7	1	**8**	1	0	**1**	0	0	**0**	5	0	**5**	30	10	**40**	3	0	**3**	0	0	**0**
17:30 to 18:30	7	0	**7**	5	1	**6**	0	0	**0**	0	0	**0**	2	0	**2**	23	6	**29**	3	0	**3**	0	0	**0**
PM Totals	**32**	**2**	**34**	**26**	**1**	**27**	**12**	**0**	**12**	**0**	**0**	**0**	**27**	**3**	**30**	**145**	**37**	**182**	**11**	**0**	**11**	**0**	**0**	**0**

Approach	**Charles St**												**Boolcarro Rd**											**Crossing Pedestrians**								
Direction	**Direction 7 (Left Turn)**			**Direction 8 (Through)**			**Direction 9 (Right Turn)**			**Direction 9U (U Turn)**			**Direction 10 (Left Turn)**			**Direction 11 (Through)**			**Direction 12 (Right Turn)**			**Direction 12U (U Turn)**										
Time Period	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**B to A**	**A to B**	**D to C**	**C to D**	**F to E**	**E to F**	**H to G**	**G to H**	**Total**
7:00 to 8:00	2	0	**2**	8	0	**8**	3	0	**3**	0	0	**0**	2	0	**2**	27	7	**34**	5	1	**6**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
7:15 to 8:15	2	0	**2**	7	0	**7**	3	0	**3**	0	0	**0**	1	0	**1**	31	4	**35**	3	0	**3**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
7:30 to 8:30	4	0	**4**	9	0	**9**	1	0	**1**	0	0	**0**	1	0	**1**	45	5	**50**	4	0	**4**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
7:45 to 8:45	4	0	**4**	10	0	**10**	0	0	**0**	0	0	**0**	0	0	**0**	51	5	**56**	6	0	**6**	0	0	**0**	0	2	0	0	0	0	0	0	**2**
8:00 to 9:00	7	0	**7**	7	0	**7**	1	0	**1**	0	0	**0**	0	0	**0**	62	7	**69**	6	0	**6**	0	0	**0**	0	3	1	0	0	0	0	2	**6**
8:15 to 9:15	7	0	**7**	7	0	**7**	1	0	**1**	0	0	**0**	0	0	**0**	71	8	**79**	6	0	**6**	0	0	**0**	0	3	1	0	0	0	0	2	**6**
8:30 to 9:30	6	0	**6**	6	0	**6**	1	0	**1**	0	0	**0**	0	0	**0**	57	9	**66**	10	0	**10**	0	0	**0**	0	3	1	0	0	0	0	2	**6**
8:45 to 9:45	5	0	**5**	4	0	**4**	1	0	**1**	0	0	**0**	0	1	**1**	49	12	**61**	9	0	**9**	0	0	**0**	0	1	1	0	0	0	0	2	**4**
9:00 to 10:00	4	0	**4**	6	0	**6**	0	0	**0**	0	0	**0**	0	1	**1**	47	10	**57**	10	0	**10**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
9:15 to 10:15	5	0	**5**	5	0	**5**	0	0	**0**	0	0	**0**	0	1	**1**	43	9	**52**	11	0	**11**	0	0	**0**	0	0	0	1	0	0	0	0	**1**
9:30 to 10:30	5	0	**5**	5	0	**5**	0	0	**0**	0	0	**0**	0	1	**1**	47	7	**54**	7	0	**7**	0	0	**0**	0	0	3	1	0	0	0	1	**5**
9:45 to 10:45	4	0	**4**	6	0	**6**	0	0	**0**	0	0	**0**	1	0	**1**	49	8	**57**	5	0	**5**	0	0	**0**	0	0	3	1	0	0	0	1	**5**
10:00 to 11:00	2	0	**2**	7	0	**7**	0	0	**0**	0	0	**0**	2	0	**2**	41	12	**53**	7	0	**7**	0	0	**0**	0	0	3	2	0	1	0	1	**7**
AM Totals	**15**	**0**	**15**	**28**	**0**	**28**	**4**	**0**	**4**	**0**	**0**	**0**	**4**	**1**	**5**	**177**	**36**	**213**	**28**	**1**	**29**	**0**	**0**	**0**	**0**	**3**	**4**	**2**	**0**	**1**	**0**	**3**	**13**
14:30 to 15:30	5	0	**5**	6	0	**6**	0	0	**0**	0	0	**0**	0	0	**0**	48	23	**71**	15	2	**17**	0	0	**0**	3	0	0	0	0	1	1	1	**6**
14:45 to 15:45	3	0	**3**	9	0	**9**	0	0	**0**	0	0	**0**	0	0	**0**	49	23	**72**	13	2	**15**	0	0	**0**	4	0	0	0	0	1	0	0	**5**
15:00 to 16:00	1	0	**1**	8	0	**8**	0	0	**0**	0	0	**0**	0	0	**0**	45	20	**65**	16	1	**17**	0	0	**0**	2	0	0	0	0	0	0	0	**2**
15:15 to 16:15	1	0	**1**	4	0	**4**	0	0	**0**	0	0	**0**	0	0	**0**	46	18	**64**	16	0	**16**	0	0	**0**	2	0	0	0	0	0	0	0	**2**
15:30 to 16:30	1	0	**1**	6	0	**6**	0	0	**0**	0	0	**0**	0	0	**0**	47	17	**64**	18	0	**18**	0	0	**0**	2	0	2	0	0	0	0	0	**4**
15:45 to 16:45	2	0	**2**	4	0	**4**	0	0	**0**	0	0	**0**	0	0	**0**	48	23	**71**	19	0	**19**	0	0	**0**	0	0	2	0	0	0	0	0	**2**
16:00 to 17:00	2	0	**2**	7	0	**7**	0	0	**0**	0	0	**0**	0	0	**0**	45	18	**63**	15	0	**15**	0	0	**0**	0	0	4	0	1	0	0	0	**5**
16:15 to 17:15	5	0	**5**	7	0	**7**	0	0	**0**	0	0	**0**	0	0	**0**	67	16	**83**	21	0	**21**	0	0	**0**	0	0	4	0	1	0	0	0	**5**
16:30 to 17:30	5	0	**5**	7	0	**7**	0	0	**0**	0	0	**0**	0	0	**0**	66	17	**83**	18	0	**18**	0	0	**0**	0	0	2	0	1	0	0	0	**3**
16:45 to 17:45	4	0	**4**	7	0	**7**	0	0	**0**	0	0	**0**	0	0	**0**	62	12	**74**	20	0	**20**	0	0	**0**	0	0	2	0	1	0	2	0	**5**
17:00 to 18:00	5	0	**5**	5	0	**5**	0	0	**0**	0	0	**0**	0	0	**0**	59	13	**72**	22	0	**22**	0	0	**0**	0	0	0	0	0	0	2	0	**2**
17:15 to 18:15	3	0	**3**	5	0	**5**	0	0	**0**	0	0	**0**	1	0	**1**	38	11	**49**	15	1	**16**	0	0	**0**	0	0	0	0	0	0	2	0	**2**
17:30 to 18:30	2	0	**2**	3	0	**3**	0	0	**0**	0	0	**0**	1	0	**1**	33	6	**39**	13	1	**14**	0	0	**0**	0	0	0	0	0	0	2	0	**2**
PM Totals	**13**	**0**	**13**	**22**	**0**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**194**	**63**	**257**	**64**	**3**	**67**	**0**	**0**	**0**	**5**	**0**	**4**	**0**	**1**	**1**	**3**	**1**	**15**

Job No.	: AUNSW1332
Client	: Taylor Thomson Whitting (NSW) Pty Ltd
Suburb	: Wee Waa
Location	: 2. Mitchell St / George St
Day/Date	: Wed, 4th Aug 2021
Weather	: Fine
Description	: Classified Intersection Count
	: 15 mins Data

Classifications	**Class 1**	**Class 2**
	Lights	Heavies



Approach	**George St**												**Mitchell St**											
Direction	**Direction 1 (Left Turn)**			**Direction 2 (Through)**			**Direction 3 (Right Turn)**			**Direction 3U (U Turn)**			**Direction 4 (Left Turn)**			**Direction 5 (Through)**			**Direction 6 (Right Turn)**			**Direction 6U (U Turn)**		
Time Period	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**
7:00 to 7:15	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	1	0	**1**	12	4	**16**	0	0	**0**	0	0	**0**
7:15 to 7:30	2	0	**2**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	6	4	**10**	0	0	**0**	0	0	**0**
7:30 to 7:45	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	2	0	**2**	8	3	**11**	1	0	**1**	0	0	**0**
7:45 to 8:00	6	0	**6**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	12	6	**18**	0	0	**0**	0	0	**0**
8:00 to 8:15	4	0	**4**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	12	2	**14**	0	0	**0**	0	0	**0**
8:15 to 8:30	6	0	**6**	0	0	**0**	0	0	**0**	0	0	**0**	2	0	**2**	20	1	**21**	1	0	**1**	0	0	**0**
8:30 to 8:45	6	0	**6**	5	0	**5**	0	0	**0**	0	0	**0**	3	0	**3**	12	2	**14**	1	0	**1**	0	0	**0**
8:45 to 9:00	3	1	**4**	1	0	**1**	6	0	**6**	0	0	**0**	4	0	**4**	24	6	**30**	1	0	**1**	0	0	**0**
9:00 to 9:15	4	0	**4**	2	0	**2**	0	0	**0**	0	0	**0**	0	0	**0**	9	3	**12**	1	1	**2**	0	0	**0**
9:15 to 9:30	1	0	**1**	2	0	**2**	2	0	**2**	0	0	**0**	5	1	**6**	7	5	**12**	1	0	**1**	0	0	**0**
9:30 to 9:45	5	0	**5**	2	0	**2**	2	0	**2**	0	0	**0**	3	0	**3**	9	2	**11**	0	0	**0**	0	0	**0**
9:45 to 10:00	4	0	**4**	1	1	**2**	1	0	**1**	0	0	**0**	4	0	**4**	8	9	**17**	0	0	**0**	0	0	**0**
10:00 to 10:15	3	0	**3**	2	1	**3**	2	0	**2**	0	0	**0**	1	0	**1**	4	2	**6**	0	0	**0**	0	0	**0**
10:15 to 10:30	1	0	**1**	1	2	**3**	0	0	**0**	0	0	**0**	0	0	**0**	8	1	**9**	1	0	**1**	0	0	**0**
10:30 to 10:45	3	0	**3**	3	1	**4**	2	0	**2**	0	0	**0**	1	0	**1**	4	5	**9**	0	0	**0**	0	0	**0**
10:45 to 11:00	3	0	**3**	3	0	**3**	1	0	**1**	0	0	**0**	3	0	**3**	7	3	**10**	2	0	**2**	0	0	**0**
AM Totals	**53**	**1**	**54**	**24**	**5**	**29**	**16**	**0**	**16**	**0**	**0**	**0**	**32**	**1**	**33**	**162**	**58**	**220**	**9**	**1**	**10**	**0**	**0**	**0**
14:30 to 14:45	2	0	**2**	2	0	**2**	0	0	**0**	0	0	**0**	1	0	**1**	7	2	**9**	0	0	**0**	0	0	**0**
14:45 to 15:00	4	0	**4**	6	0	**6**	3	0	**3**	0	0	**0**	5	0	**5**	13	2	**15**	2	0	**2**	0	0	**0**
15:00 to 15:15	4	4	**8**	6	0	**6**	3	0	**3**	0	0	**0**	5	0	**5**	7	3	**10**	1	0	**1**	0	0	**0**
15:15 to 15:30	4	0	**4**	2	0	**2**	3	0	**3**	0	0	**0**	0	0	**0**	12	2	**14**	0	0	**0**	0	0	**0**
15:30 to 15:45	4	0	**4**	4	0	**4**	0	0	**0**	0	0	**0**	2	0	**2**	6	3	**9**	1	0	**1**	0	0	**0**
15:45 to 16:00	4	0	**4**	2	0	**2**	2	0	**2**	0	0	**0**	3	0	**3**	0	3	**3**	1	0	**1**	0	0	**0**
16:00 to 16:15	2	0	**2**	8	0	**8**	2	0	**2**	0	0	**0**	2	0	**2**	15	1	**16**	1	0	**1**	0	0	**0**

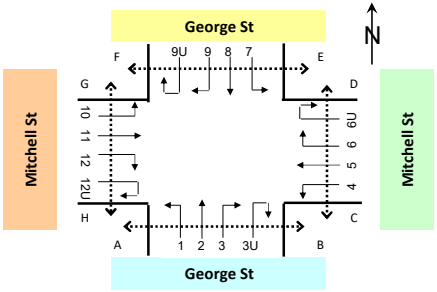
16:15 to 16:30	3	1	**4**	5	0	**5**	2	0	**2**	0	0	**0**	1	1	**2**	6	1	**7**	1	0	**1**	0	0	**0**
16:30 to 16:45	5	0	**5**	2	1	**3**	3	0	**3**	0	0	**0**	2	0	**2**	7	5	**12**	1	0	**1**	0	0	**0**
16:45 to 17:00	3	0	**3**	4	0	**4**	4	0	**4**	0	0	**0**	1	0	**1**	5	1	**6**	2	0	**2**	0	0	**0**
17:00 to 17:15	1	0	**1**	6	0	**6**	4	0	**4**	0	0	**0**	4	0	**4**	6	3	**9**	2	0	**2**	0	0	**0**
17:15 to 17:30	1	0	**1**	7	0	**7**	5	0	**5**	0	0	**0**	3	0	**3**	10	3	**13**	1	0	**1**	0	0	**0**
17:30 to 17:45	1	0	**1**	5	0	**5**	4	0	**4**	0	0	**0**	9	1	**10**	7	3	**10**	1	0	**1**	0	0	**0**
17:45 to 18:00	0	0	**0**	3	0	**3**	4	0	**4**	0	0	**0**	2	0	**2**	3	3	**6**	1	0	**1**	0	0	**0**
18:00 to 18:15	3	0	**3**	2	0	**2**	2	0	**2**	0	0	**0**	0	0	**0**	4	0	**4**	0	0	**0**	0	0	**0**
18:15 to 18:30	1	0	**1**	2	0	**2**	2	0	**2**	0	0	**0**	3	0	**3**	2	0	**2**	0	0	**0**	0	0	**0**
PM Totals	**42**	**5**	**47**	**66**	**1**	**67**	**43**	**0**	**43**	**0**	**0**	**0**	**43**	**2**	**45**	**110**	**35**	**145**	**15**	**0**	**15**	**0**	**0**	**0**

Approach	**George St**												**Mitchell St**												**Crossing Pedestrians**								
Direction	**Direction 7 (Left Turn)**			**Direction 8 (Through)**			**Direction 9 (Right Turn)**			**Direction 9U (U Turn)**			**Direction 10 (Left Turn)**			**Direction 11 (Through)**			**Direction 12 (Right Turn)**			**Direction 12U (U Turn)**										
Time Period	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**B to A**	**A to B**	**D to C**	**C to D**	**F to E**	**E to F**	**H to G**	**G to H**	**Total**
7:00 to 7:15	0	0	**0**	3	0	**3**	0	0	**0**	0	0	**0**	2	0	**2**	5	3	**8**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
7:15 to 7:30	0	0	**0**	1	0	**1**	0	0	**0**	0	0	**0**	2	0	**2**	5	2	**7**	1	0	**1**	0	0	**0**	0	0	5	5	0	0	0	0	**10**
7:30 to 7:45	2	0	**2**	2	0	**2**	0	0	**0**	0	0	**0**	0	0	**0**	6	0	**6**	6	0	**6**	0	0	**0**	0	0	0	0	0	0	0	1	**1**
7:45 to 8:00	0	0	**0**	5	0	**5**	4	0	**4**	0	0	**0**	0	0	**0**	1	0	**1**	5	1	**6**	0	0	**0**	0	0	0	0	0	0	1	1	**2**
8:00 to 8:15	0	0	**0**	2	0	**2**	1	0	**1**	0	0	**0**	0	0	**0**	6	2	**8**	0	0	**0**	0	0	**0**	0	0	1	0	0	0	0	0	**1**
8:15 to 8:30	2	0	**2**	5	0	**5**	2	0	**2**	0	0	**0**	2	0	**2**	5	2	**7**	10	0	**10**	0	0	**0**	0	0	0	0	0	0	2	2	**4**
8:30 to 8:45	0	0	**0**	7	0	**7**	2	0	**2**	0	0	**0**	3	0	**3**	9	0	**9**	3	0	**3**	0	0	**0**	0	0	0	0	0	0	0	4	**4**
8:45 to 9:00	1	0	**1**	6	0	**6**	6	0	**6**	0	0	**0**	2	0	**2**	9	3	**12**	3	0	**3**	0	0	**0**	0	1	0	0	0	0	0	2	**3**
9:00 to 9:15	2	1	**3**	3	0	**3**	2	0	**2**	0	0	**0**	4	0	**4**	6	2	**8**	3	0	**3**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
9:15 to 9:30	1	0	**1**	3	0	**3**	0	0	**0**	0	0	**0**	1	0	**1**	9	4	**13**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	1	**1**
9:30 to 9:45	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	3	3	**6**	4	0	**4**	0	0	**0**	0	0	0	0	0	0	1	0	**1**
9:45 to 10:00	0	0	**0**	5	1	**6**	1	0	**1**	0	0	**0**	1	0	**1**	9	1	**10**	5	0	**5**	0	0	**0**	0	0	0	0	0	0	1	0	**1**
10:00 to 10:15	0	0	**0**	4	1	**5**	1	0	**1**	0	0	**0**	1	0	**1**	8	1	**9**	3	0	**3**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
10:15 to 10:30	1	0	**1**	2	1	**3**	0	0	**0**	0	0	**0**	3	0	**3**	8	2	**10**	0	1	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
10:30 to 10:45	1	0	**1**	2	1	**3**	2	0	**2**	0	0	**0**	2	0	**2**	10	4	**14**	5	0	**5**	0	0	**0**	0	0	0	0	0	0	1	0	**1**
10:45 to 11:00	1	1	**2**	6	0	**6**	1	0	**1**	0	0	**0**	3	0	**3**	3	4	**7**	0	0	**0**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
AM Totals	**12**	**2**	**14**	**56**	**4**	**60**	**22**	**0**	**22**	**0**	**0**	**0**	**27**	**0**	**27**	**102**	**33**	**135**	**50**	**2**	**52**	**0**	**0**	**0**	**0**	**1**	**6**	**5**	**0**	**0**	**6**	**11**	**29**
14:30 to 14:45	0	1	**1**	3	0	**3**	0	0	**0**	0	0	**0**	2	0	**2**	11	1	**12**	2	1	**3**	0	0	**0**	1	0	0	0	0	0	0	0	**1**
14:45 to 15:00	0	0	**0**	2	0	**2**	1	0	**1**	0	0	**0**	2	0	**2**	14	8	**22**	6	0	**6**	0	0	**0**	0	4	0	0	0	0	0	0	**4**
15:00 to 15:15	1	0	**1**	4	0	**4**	0	0	**0**	0	0	**0**	6	0	**6**	14	8	**22**	2	0	**2**	0	0	**0**	0	0	0	0	0	0	7	0	**7**
15:15 to 15:30	4	0	**4**	2	0	**2**	0	0	**0**	0	0	**0**	3	0	**3**	9	5	**14**	7	0	**7**	0	0	**0**	0	0	0	0	0	0	3	0	**3**
15:30 to 15:45	1	0	**1**	4	0	**4**	0	0	**0**	0	0	**0**	3	0	**3**	14	2	**16**	2	0	**2**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
15:45 to 16:00	1	0	**1**	8	0	**8**	1	0	**1**	0	0	**0**	4	0	**4**	6	4	**10**	2	0	**2**	0	0	**0**	1	0	1	0	0	0	1	0	**3**
16:00 to 16:15	1	0	**1**	1	0	**1**	0	0	**0**	0	0	**0**	1	0	**1**	8	5	**13**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
16:15 to 16:30	1	0	**1**	5	0	**5**	0	0	**0**	0	0	**0**	3	0	**3**	13	4	**17**	3	0	**3**	0	0	**0**	0	0	0	2	0	0	0	2	**4**
16:30 to 16:45	1	0	**1**	2	0	**2**	1	0	**1**	0	0	**0**	3	1	**4**	7	7	**14**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
16:45 to 17:00	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	10	1	**11**	1	0	**1**	0	0	**0**	1	0	1	0	0	2	0	0	**4**
17:00 to 17:15	0	0	**0**	2	0	**2**	2	0	**2**	0	0	**0**	6	0	**6**	20	3	**23**	6	0	**6**	0	0	**0**	0	0	0	0	0	0	1	0	**1**

17:15	to	17:30	2	0	**2**	3	0	**3**	1	0	**1**	0	0	**0**	1	0	**1**	14	4	**18**	4	0	**4**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
17:30	to	17:45	4	0	**4**	2	0	**2**	0	0	**0**	0	0	**0**	2	0	**2**	8	4	**12**	2	0	**2**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
17:45	to	18:00	1	0	**1**	0	0	**0**	0	0	**0**	0	0	**0**	1	0	**1**	4	2	**6**	2	0	**2**	0	0	**0**	0	1	0	0	0	0	0	2	**3**
18:00	to	18:15	0	0	**0**	5	0	**5**	1	0	**1**	0	0	**0**	0	0	**0**	10	1	**11**	1	0	**1**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
18:15	to	18:30	1	0	**1**	2	0	**2**	0	0	**0**	0	0	**0**	1	0	**1**	4	0	**4**	3	0	**3**	0	0	**0**	0	0	0	0	0	0	0	0	**0**
PM Totals			**19**	**1**	**20**	**45**	**0**	**45**	**7**	**0**	**7**	**0**	**0**	**0**	**39**	**1**	**40**	**166**	**59**	**225**	**45**	**1**	**46**	**0**	**0**	**0**	**3**	**5**	**2**	**2**	**0**	**2**	**12**	**4**	**30**

Job No. : AUNSW1332
Client : Taylor Thomson Whitting (NSW) Pty Ltd
Suburb : Wee Waa
Location : 2. Mitchell St / George St

Day/Date : Wed, 4th Aug 2021
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



MATRIX Traffic and Transport Data

Approach	George St												Mitchell St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	10	0	**10**	2	0	**2**	0	0	**0**	0	0	**0**	5	0	**5**	38	17	**55**	1	0	**1**	0	0	**0**
7:15 to 8:15	13	0	**13**	1	0	**1**	0	0	**0**	0	0	**0**	5	0	**5**	38	15	**53**	1	0	**1**	0	0	**0**
7:30 to 8:30	17	0	**17**	1	0	**1**	0	0	**0**	0	0	**0**	6	0	**6**	52	12	**64**	2	0	**2**	0	0	**0**
7:45 to 8:45	22	0	**22**	5	0	**5**	0	0	**0**	0	0	**0**	7	0	**7**	56	11	**67**	2	0	**2**	0	0	**0**
8:00 to 9:00	19	1	**20**	6	0	**6**	6	0	**6**	0	0	**0**	10	0	**10**	68	11	**79**	3	0	**3**	0	0	**0**
8:15 to 9:15	19	1	**20**	8	0	**8**	6	0	**6**	0	0	**0**	9	0	**9**	65	12	**77**	4	1	**5**	0	0	**0**
8:30 to 9:30	14	1	**15**	10	0	**10**	8	0	**8**	0	0	**0**	12	1	**13**	52	16	**68**	4	1	**5**	0	0	**0**
8:45 to 9:45	13	1	**14**	7	0	**7**	10	0	**10**	0	0	**0**	12	1	**13**	49	16	**65**	3	1	**4**	0	0	**0**
9:00 to 10:00	14	0	**14**	7	1	**8**	5	0	**5**	0	0	**0**	12	1	**13**	33	19	**52**	2	1	**3**	0	0	**0**
9:15 to 10:15	13	0	**13**	7	2	**9**	7	0	**7**	0	0	**0**	13	1	**14**	28	18	**46**	1	0	**1**	0	0	**0**
9:30 to 10:30	13	0	**13**	6	4	**10**	5	0	**5**	0	0	**0**	8	0	**8**	29	14	**43**	1	0	**1**	0	0	**0**
9:45 to 10:45	11	0	**11**	7	5	**12**	5	0	**5**	0	0	**0**	6	0	**6**	24	17	**41**	1	0	**1**	0	0	**0**
10:00 to 11:00	10	0	**10**	9	4	**13**	5	0	**5**	0	0	**0**	5	0	**5**	23	11	**34**	3	0	**3**	0	0	**0**
AM Totals	**53**	**1**	**54**	**24**	**5**	**29**	**16**	**0**	**16**	**0**	**0**	**0**	**32**	**1**	**33**	**162**	**58**	**220**	**9**	**1**	**10**	**0**	**0**	**0**
14:30 to 15:30	14	4	**18**	16	0	**16**	9	0	**9**	0	0	**0**	11	0	**11**	39	9	**48**	3	0	**3**	0	0	**0**
14:45 to 15:45	16	4	**20**	18	0	**18**	9	0	**9**	0	0	**0**	12	0	**12**	38	10	**48**	4	0	**4**	0	0	**0**
15:00 to 16:00	16	4	**20**	14	0	**14**	8	0	**8**	0	0	**0**	10	0	**10**	25	11	**36**	3	0	**3**	0	0	**0**
15:15 to 16:15	14	0	**14**	16	0	**16**	7	0	**7**	0	0	**0**	7	0	**7**	33	9	**42**	3	0	**3**	0	0	**0**
15:30 to 16:30	13	1	**14**	19	0	**19**	6	0	**6**	0	0	**0**	8	1	**9**	27	8	**35**	4	0	**4**	0	0	**0**
15:45 to 16:45	14	1	**15**	17	1	**18**	9	0	**9**	0	0	**0**	8	1	**9**	28	10	**38**	4	0	**4**	0	0	**0**

16:00 to 17:00	13	1	**14**	19	1	**20**	11	0	**11**	0	0	**0**	6	1	**7**	33	8	**41**	5	0	**5**	0	0	**0**
16:15 to 17:15	12	1	**13**	17	1	**18**	13	0	**13**	0	0	**0**	8	1	**9**	24	10	**34**	6	0	**6**	0	0	**0**
16:30 to 17:30	10	0	**10**	19	1	**20**	16	0	**16**	0	0	**0**	10	0	**10**	28	12	**40**	6	0	**6**	0	0	**0**
16:45 to 17:45	6	0	**6**	22	0	**22**	17	0	**17**	0	0	**0**	17	1	**18**	28	10	**38**	6	0	**6**	0	0	**0**
17:00 to 18:00	3	0	**3**	21	0	**21**	17	0	**17**	0	0	**0**	18	1	**19**	26	12	**38**	5	0	**5**	0	0	**0**
17:15 to 18:15	5	0	**5**	17	0	**17**	15	0	**15**	0	0	**0**	14	1	**15**	24	9	**33**	3	0	**3**	0	0	**0**
17:30 to 18:30	5	0	**5**	12	0	**12**	12	0	**12**	0	0	**0**	14	1	**15**	16	6	**22**	2	0	**2**	0	0	**0**
PM Totals	**42**	**5**	**47**	**66**	**1**	**67**	**43**	**0**	**43**	**0**	**0**	**0**	**43**	**2**	**45**	**110**	**35**	**145**	**15**	**0**	**15**	**0**	**0**	**0**

Approach	**George St**												**Mitchell St**												**Crossing Pedestrians**								
Direction	**Direction 7 (Left Turn)**			**Direction 8 (Through)**			**Direction 9 (Right Turn)**			**Direction 9U (U Turn)**			**Direction 10 (Left Turn)**			**Direction 11 (Through)**			**Direction 12 (Right Turn)**			**Direction 12U (U Turn)**											
Time Period	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**Lights**	**Heavies**	**Total**	**B to A**	**A to B**	**D to C**	**C to D**	**F to E**	**E to F**	**H to G**	**G to H**	**Total**
7:00 to 8:00	2	0	**2**	11	0	**11**	4	0	**4**	0	0	**0**	4	0	**4**	17	5	**22**	13	1	**14**	0	0	**0**	0	0	5	5	0	0	1	2	**13**
7:15 to 8:15	2	0	**2**	10	0	**10**	5	0	**5**	0	0	**0**	2	0	**2**	18	4	**22**	12	1	**13**	0	0	**0**	0	0	6	5	0	0	1	2	**14**
7:30 to 8:30	4	0	**4**	14	0	**14**	7	0	**7**	0	0	**0**	2	0	**2**	18	4	**22**	21	1	**22**	0	0	**0**	0	0	1	0	0	0	3	4	**8**
7:45 to 8:45	2	0	**2**	19	0	**19**	9	0	**9**	0	0	**0**	5	0	**5**	21	4	**25**	18	1	**19**	0	0	**0**	0	0	1	0	0	0	3	7	**11**
8:00 to 9:00	3	0	**3**	20	0	**20**	11	0	**11**	0	0	**0**	7	0	**7**	29	7	**36**	16	0	**16**	0	0	**0**	0	1	1	0	0	0	2	8	**12**
8:15 to 9:15	5	1	**6**	21	0	**21**	12	0	**12**	0	0	**0**	11	0	**11**	29	7	**36**	19	0	**19**	0	0	**0**	0	1	0	0	0	0	2	8	**11**
8:30 to 9:30	4	1	**5**	19	0	**19**	10	0	**10**	0	0	**0**	10	0	**10**	33	9	**42**	10	0	**10**	0	0	**0**	0	1	0	0	0	0	0	7	**8**
8:45 to 9:45	5	1	**6**	12	0	**12**	8	0	**8**	0	0	**0**	8	0	**8**	27	12	**39**	11	0	**11**	0	0	**0**	0	1	0	0	0	0	1	3	**5**
9:00 to 10:00	4	1	**5**	11	1	**12**	3	0	**3**	0	0	**0**	7	0	**7**	27	10	**37**	13	0	**13**	0	0	**0**	0	0	0	0	0	0	2	1	**3**
9:15 to 10:15	2	0	**2**	12	2	**14**	2	0	**2**	0	0	**0**	4	0	**4**	29	9	**38**	13	0	**13**	0	0	**0**	0	0	0	0	0	0	2	1	**3**
9:30 to 10:30	2	0	**2**	11	3	**14**	2	0	**2**	0	0	**0**	6	0	**6**	28	7	**35**	12	1	**13**	0	0	**0**	0	0	0	0	0	0	2	0	**2**
9:45 to 10:45	2	0	**2**	13	4	**17**	4	0	**4**	0	0	**0**	7	0	**7**	35	8	**43**	13	1	**14**	0	0	**0**	0	0	0	0	0	0	2	0	**2**
10:00 to 11:00	3	1	**4**	14	3	**17**	4	0	**4**	0	0	**0**	9	0	**9**	29	11	**40**	8	1	**9**	0	0	**0**	0	0	0	0	0	0	1	0	**1**
AM Totals	**12**	**2**	**14**	**56**	**4**	**60**	**22**	**0**	**22**	**0**	**0**	**0**	**27**	**0**	**27**	**102**	**33**	**135**	**50**	**2**	**52**	**0**	**0**	**0**	**0**	**1**	**6**	**5**	**0**	**0**	**6**	**11**	**29**
14:30 to 15:30	5	1	**6**	11	0	**11**	1	0	**1**	0	0	**0**	13	0	**13**	48	22	**70**	17	1	**18**	0	0	**0**	1	4	0	0	0	0	10	0	**15**
14:45 to 15:45	6	0	**6**	12	0	**12**	1	0	**1**	0	0	**0**	14	0	**14**	51	23	**74**	17	0	**17**	0	0	**0**	0	4	0	0	0	0	10	0	**14**
15:00 to 16:00	7	0	**7**	18	0	**18**	1	0	**1**	0	0	**0**	16	0	**16**	43	19	**62**	13	0	**13**	0	0	**0**	1	0	1	0	0	0	11	0	**13**
15:15 to 16:15	7	0	**7**	15	0	**15**	1	0	**1**	0	0	**0**	11	0	**11**	37	16	**53**	12	0	**12**	0	0	**0**	1	0	1	0	0	0	4	0	**6**
15:30 to 16:30	4	0	**4**	18	0	**18**	1	0	**1**	0	0	**0**	11	0	**11**	41	15	**56**	8	0	**8**	0	0	**0**	1	0	1	2	0	0	1	2	**7**
15:45 to 16:45	4	0	**4**	16	0	**16**	2	0	**2**	0	0	**0**	11	1	**12**	34	20	**54**	7	0	**7**	0	0	**0**	1	0	1	2	0	0	1	2	**7**
16:00 to 17:00	4	0	**4**	8	0	**8**	1	0	**1**	0	0	**0**	8	1	**9**	38	17	**55**	6	0	**6**	0	0	**0**	1	0	1	2	0	2	0	2	**8**
16:15 to 17:15	3	0	**3**	9	0	**9**	3	0	**3**	0	0	**0**	13	1	**14**	50	15	**65**	11	0	**11**	0	0	**0**	1	0	1	2	0	2	1	2	**9**
16:30 to 17:30	4	0	**4**	7	0	**7**	4	0	**4**	0	0	**0**	11	1	**12**	51	15	**66**	12	0	**12**	0	0	**0**	1	0	1	0	0	2	1	0	**5**
16:45 to 17:45	7	0	**7**	7	0	**7**	3	0	**3**	0	0	**0**	10	0	**10**	52	12	**64**	13	0	**13**	0	0	**0**	1	0	1	0	0	2	1	0	**5**
17:00 to 18:00	7	0	**7**	7	0	**7**	3	0	**3**	0	0	**0**	10	0	**10**	46	13	**59**	14	0	**14**	0	0	**0**	0	1	0	0	0	0	1	2	**4**
17:15 to 18:15	7	0	**7**	10	0	**10**	2	0	**2**	0	0	**0**	4	0	**4**	36	11	**47**	9	0	**9**	0	0	**0**	0	1	0	0	0	0	0	2	**3**
17:30 to 18:30	6	0	**6**	9	0	**9**	1	0	**1**	0	0	**0**	4	0	**4**	26	7	**33**	8	0	**8**	0	0	**0**	0	1	0	0	0	0	0	2	**3**
PM Totals	**19**	**1**	**20**	**45**	**0**	**45**	**7**	**0**	**7**	**0**	**0**	**0**	**39**	**1**	**40**	**166**	**59**	**225**	**45**	**1**	**46**	**0**	**0**	**0**	**3**	**5**	**2**	**2**	**0**	**2**	**12**	**4**	**30**

Appendix D

Intersection Modelling Results

MOVEMENT SUMMARY

Site: 101 [G-St peak 2031 (AM) Post With Crossing (Site Folder: General)]

Network: N101 [Pedestrian Crossing (Network Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Charles St South														
1	L2	40	2.5	40	2.5	0.059	3.7	LOS A	0.1	0.7	0.21	0.43	0.21	37.0
2	T1	27	0.0	27	0.0	0.059	2.8	LOS A	0.1	0.7	0.21	0.43	0.21	38.5
3	R2	7	0.0	7	0.0	0.059	4.7	LOS A	0.1	0.7	0.21	0.43	0.21	38.3
Approach		74	1.4	74	1.4	0.059	3.5	LOS A	0.1	0.7	0.21	0.43	0.21	37.9
East: Mitchell Street														
4	L2	13	23.1	13	23.1	0.056	5.8	LOS A	0.0	0.1	0.02	0.11	0.02	56.3
5	T1	82	12.2	82	12.2	0.056	0.0	LOS A	0.0	0.1	0.02	0.11	0.02	58.0
6	R2	5	0.0	5	0.0	0.056	5.6	LOS A	0.0	0.1	0.02	0.11	0.02	56.8
Approach		100	13.0	100	13.0	0.056	1.1	NA	0.0	0.1	0.02	0.11	0.02	57.5
North: Charles St North														
7	L2	6	0.0	6	0.0	0.099	5.7	LOS A	0.1	1.0	0.26	0.57	0.26	53.5
8	T1	53	0.0	53	0.0	0.099	4.9	LOS A	0.1	1.0	0.26	0.57	0.26	53.6
9	R2	43	0.0	43	0.0	0.099	6.6	LOS A	0.1	1.0	0.26	0.57	0.26	50.6
Approach		102	0.0	102	0.0	0.099	5.7	LOS A	0.1	1.0	0.26	0.57	0.26	52.8
West: Boolcarro Road														
10	L2	13	0.0	13	0.0	0.043	4.7	LOS A	0.1	0.4	0.13	0.25	0.13	53.2
11	T1	41	19.5	41	19.5	0.043	0.1	LOS A	0.1	0.4	0.13	0.25	0.13	55.6
12	R2	21	0.0	21	0.0	0.043	4.7	LOS A	0.1	0.4	0.13	0.25	0.13	52.3
Approach		75	10.7	75	10.7	0.043	2.2	NA	0.1	0.4	0.13	0.25	0.13	54.2
All Vehicles		351	6.3	351	6.3	0.099	3.1	NA	0.1	1.0	0.15	0.34	0.15	49.6

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.

MOVEMENT SUMMARY

Site: 101 [Potential Mitchell St Crossing 2031 (AM) (Site Folder: General)]

New Site
Site Category: (None)
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Mitchell Street														
8	T1	82	10	86	12.2	0.117	4.2	LOS A	0.5	3.5	0.27	0.53	0.27	48.1
Approach		82	10	86	12.2	0.117	4.2	LOS A	0.5	3.5	0.27	0.53	0.27	48.1
West: Mitchell Street														
2	T1	41	8	43	19.5	0.061	5.4	LOS A	0.2	1.8	0.26	0.53	0.26	46.2
Approach		41	8	43	19.5	0.061	5.4	LOS A	0.2	1.8	0.26	0.53	0.26	46.2
All Vehicles		123	18	129	14.6	0.117	4.6	NA	0.5	3.5	0.26	0.53	0.26	47.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [C-St peak 2021 (AM) (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Charles St South														
1	L2	10	1	10	10.0	0.019	3.7	LOS A	0.1	0.5	0.19	0.43	0.19	38.6
2	T1	8	0	8	0.0	0.019	2.7	LOS A	0.1	0.5	0.19	0.43	0.19	38.6
3	R2	5	0	5	0.0	0.019	4.4	LOS A	0.1	0.5	0.19	0.43	0.19	38.3
Approach		23	1	23	4.3	0.019	3.5	LOS A	0.1	0.5	0.19	0.43	0.19	38.5
East: Mitchell Street														
4	L2	20	3	20	15.0	0.053	5.8	LOS A	0.0	0.3	0.03	0.16	0.03	56.1
5	T1	68	10	68	14.7	0.053	0.0	LOS A	0.0	0.3	0.03	0.16	0.03	58.4
6	R2	5	0	5	0.0	0.053	5.7	LOS A	0.0	0.3	0.03	0.16	0.03	56.3
Approach		93	13	93	14.0	0.053	1.6	NA	0.0	0.3	0.03	0.16	0.03	57.8
North: Charles St North														
7	L2	7	0	7	0.0	0.012	5.8	LOS A	0.0	0.3	0.19	0.53	0.19	53.5
8	T1	7	0	7	0.0	0.012	4.8	LOS A	0.0	0.3	0.19	0.53	0.19	53.7
9	R2	1	0	1	0.0	0.012	6.3	LOS A	0.0	0.3	0.19	0.53	0.19	53.0
Approach		15	0	15	0.0	0.012	5.4	LOS A	0.0	0.3	0.19	0.53	0.19	53.6
West: Boolcarro Road														
10	L2	1	0	1	0.0	0.047	5.8	LOS A	0.0	0.3	0.03	0.05	0.03	57.8
11	T1	79	8	79	10.1	0.047	0.0	LOS A	0.0	0.3	0.03	0.05	0.03	59.4
12	R2	6	0	6	0.0	0.047	5.7	LOS A	0.0	0.3	0.03	0.05	0.03	57.2
Approach		86	8	86	9.3	0.047	0.5	NA	0.0	0.3	0.03	0.05	0.03	59.2
All Vehicles		217	22	217	10.1	0.053	1.6	NA	0.1	0.5	0.06	0.17	0.06	55.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [C-St peak 2021 (PM) (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Charles St South														
1	L2	8	1	8	12.5	0.014	3.7	LOS A	0.1	0.4	0.17	0.43	0.17	38.5
2	T1	5	0	5	0.0	0.014	2.6	LOS A	0.1	0.4	0.17	0.43	0.17	38.6
3	R2	4	0	4	0.0	0.014	4.3	LOS A	0.1	0.4	0.17	0.43	0.17	38.3
Approach		17	1	17	5.9	0.014	3.5	LOS A	0.1	0.4	0.17	0.43	0.17	38.5
East: Mitchell Street														
4	L2	12	0	12	0.0	0.043	5.6	LOS A	0.0	0.3	0.03	0.13	0.03	57.0
5	T1	57	12	57	21.1	0.043	0.0	LOS A	0.0	0.3	0.03	0.13	0.03	58.6
6	R2	4	1	4	25.0	0.043	6.0	LOS A	0.0	0.3	0.03	0.13	0.03	55.1
Approach		73	13	73	17.8	0.043	1.3	NA	0.0	0.3	0.03	0.13	0.03	58.1
North: Charles St North														
7	L2	4	1	4	25.0	0.012	6.0	LOS A	0.0	0.3	0.18	0.52	0.18	52.8
8	T1	9	0	9	0.0	0.012	4.7	LOS A	0.0	0.3	0.18	0.52	0.18	54.0
9	R2	1	0	1	0.0	0.012	6.1	LOS A	0.0	0.3	0.18	0.52	0.18	53.3
Approach		14	1	14	7.1	0.012	5.2	LOS A	0.0	0.3	0.18	0.52	0.18	53.6
West: Boolcarro Road														
10	L2	1	0	1	0.0	0.039	5.7	LOS A	0.1	0.6	0.07	0.12	0.07	57.0
11	T1	56	7	56	12.5	0.039	0.1	LOS A	0.1	0.6	0.07	0.12	0.07	58.5
12	R2	13	0	13	0.0	0.039	5.7	LOS A	0.1	0.6	0.07	0.12	0.07	56.4
Approach		70	7	70	10.0	0.039	1.2	NA	0.1	0.6	0.07	0.12	0.07	58.1
All Vehicles		174	22	174	12.6	0.043	1.8	NA	0.1	0.6	0.07	0.19	0.07	55.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [G-St peak 2021 (AM) (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: George Street South														
1	L2	19	0	19	0.0	0.026	3.6	LOS A	0.1	0.7	0.19	0.44	0.19	38.5
2	T1	8	0	8	0.0	0.026	2.8	LOS A	0.1	0.7	0.19	0.44	0.19	38.5
3	R2	6	0	6	0.0	0.026	4.5	LOS A	0.1	0.7	0.19	0.44	0.19	38.2
Approach		33	0	33	0.0	0.026	3.6	LOS A	0.1	0.7	0.19	0.44	0.19	38.5
East: Mitchell Street East														
4	L2	12	3	12	25.0	0.052	5.9	LOS A	0.0	0.2	0.02	0.10	0.02	56.2
5	T1	76	11	76	14.5	0.052	0.0	LOS A	0.0	0.2	0.02	0.10	0.02	59.0
6	R2	4	0	4	0.0	0.052	5.7	LOS A	0.0	0.2	0.02	0.10	0.02	56.8
Approach		92	14	92	15.2	0.052	1.0	NA	0.0	0.2	0.02	0.10	0.02	58.5
North: George Street North														
7	L2	5	0	5	0.0	0.035	5.7	LOS A	0.1	0.9	0.23	0.55	0.23	53.6
8	T1	21	0	21	0.0	0.035	4.8	LOS A	0.1	0.9	0.23	0.55	0.23	53.7
9	R2	12	0	12	0.0	0.035	6.4	LOS A	0.1	0.9	0.23	0.55	0.23	53.0
Approach		38	0	38	0.0	0.035	5.4	LOS A	0.1	0.9	0.23	0.55	0.23	53.5
West: Mitchell Street West														
10	L2	11	0	11	0.0	0.053	5.8	LOS A	0.1	1.2	0.12	0.22	0.12	55.5
11	T1	52	23	52	44.2	0.053	0.1	LOS A	0.1	1.2	0.12	0.22	0.12	56.9
12	R2	21	2	21	9.5	0.053	5.9	LOS A	0.1	1.2	0.12	0.22	0.12	54.4
Approach		84	25	84	29.8	0.053	2.3	NA	0.1	1.2	0.12	0.22	0.12	56.1
All Vehicles		247	39	247	15.8	0.053	2.5	NA	0.1	1.2	0.11	0.26	0.11	53.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [G-St peak 2021 (PM) (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: George Street South														
1	L2	20	4	20	20.0	0.040	3.7	LOS A	0.2	1.1	0.17	0.43	0.17	38.6
2	T1	18	0	18	0.0	0.040	2.8	LOS A	0.2	1.1	0.17	0.43	0.17	38.6
3	R2	9	0	9	0.0	0.040	4.4	LOS A	0.2	1.1	0.17	0.43	0.17	38.3
Approach		47	4	47	8.5	0.040	3.5	LOS A	0.2	1.1	0.17	0.43	0.17	38.6
East: Mitchell Street East														
4	L2	12	0	12	0.0	0.037	5.6	LOS A	0.0	0.3	0.04	0.15	0.04	56.7
5	T1	48	10	48	20.8	0.037	0.0	LOS A	0.0	0.3	0.04	0.15	0.04	58.3
6	R2	4	0	4	0.0	0.037	5.7	LOS A	0.0	0.3	0.04	0.15	0.04	56.1
Approach		64	10	64	15.6	0.037	1.4	NA	0.0	0.3	0.04	0.15	0.04	57.8
North: George Street North														
7	L2	6	0	6	0.0	0.016	5.8	LOS A	0.1	0.4	0.21	0.53	0.21	53.7
8	T1	12	0	12	0.0	0.016	4.8	LOS A	0.1	0.4	0.21	0.53	0.21	53.8
9	R2	1	0	1	0.0	0.016	6.4	LOS A	0.1	0.4	0.21	0.53	0.21	53.1
Approach		19	0	19	0.0	0.016	5.2	LOS A	0.1	0.4	0.21	0.53	0.21	53.8
West: Mitchell Street West														
10	L2	14	0	14	0.0	0.062	5.7	LOS A	0.1	1.0	0.07	0.17	0.07	56.2
11	T1	74	23	74	31.1	0.062	0.0	LOS A	0.1	1.0	0.07	0.17	0.07	57.8
12	R2	17	0	17	0.0	0.062	5.6	LOS A	0.1	1.0	0.07	0.17	0.07	55.7
Approach		105	23	105	21.9	0.062	1.7	NA	0.1	1.0	0.07	0.17	0.07	57.2
All Vehicles		235	37	235	15.7	0.062	2.3	NA	0.2	1.1	0.09	0.25	0.09	52.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [C-St peak 2031 (AM) (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Charles St South														
1	L2	11	1	11	9.1	0.022	3.7	LOS A	0.1	0.6	0.21	0.44	0.21	38.5
2	T1	9	0	9	0.0	0.022	2.8	LOS A	0.1	0.6	0.21	0.44	0.21	38.5
3	R2	6	0	6	0.0	0.022	4.6	LOS A	0.1	0.6	0.21	0.44	0.21	38.2
Approach		26	1	26	3.8	0.022	3.6	LOS A	0.1	0.6	0.21	0.44	0.21	38.5
East: Mitchell Street														
4	L2	22	3	22	13.6	0.058	5.8	LOS A	0.0	0.4	0.03	0.16	0.03	56.2
5	T1	75	10	75	13.3	0.058	0.0	LOS A	0.0	0.4	0.03	0.16	0.03	58.4
6	R2	6	0	6	0.0	0.058	5.7	LOS A	0.0	0.4	0.03	0.16	0.03	56.2
Approach		103	13	103	12.6	0.058	1.6	NA	0.0	0.4	0.03	0.16	0.03	57.8
North: Charles St North														
7	L2	8	0	8	0.0	0.015	5.8	LOS A	0.1	0.4	0.21	0.53	0.21	53.5
8	T1	8	0	8	0.0	0.015	4.9	LOS A	0.1	0.4	0.21	0.53	0.21	53.6
9	R2	2	0	2	0.0	0.015	6.4	LOS A	0.1	0.4	0.21	0.53	0.21	53.0
Approach		18	0	18	0.0	0.015	5.5	LOS A	0.1	0.4	0.21	0.53	0.21	53.5
West: Boolcarro Road														
10	L2	1	0	1	0.0	0.052	5.8	LOS A	0.0	0.3	0.04	0.05	0.04	57.7
11	T1	87	8	87	9.2	0.052	0.0	LOS A	0.0	0.3	0.04	0.05	0.04	59.4
12	R2	7	0	7	0.0	0.052	5.7	LOS A	0.0	0.3	0.04	0.05	0.04	57.1
Approach		95	8	95	8.4	0.052	0.5	NA	0.0	0.3	0.04	0.05	0.04	59.2
All Vehicles		242	22	242	9.1	0.058	1.7	NA	0.1	0.6	0.07	0.17	0.07	55.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [C-St peak 2031 (PM) (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Charles St South														
1	L2	9	1	9	11.1	0.017	3.7	LOS A	0.1	0.5	0.18	0.43	0.18	38.5
2	T1	6	0	6	0.0	0.017	2.7	LOS A	0.1	0.5	0.18	0.43	0.18	38.5
3	R2	5	0	5	0.0	0.017	4.3	LOS A	0.1	0.5	0.18	0.43	0.18	38.3
Approach		20	1	20	5.0	0.017	3.5	LOS A	0.1	0.5	0.18	0.43	0.18	38.5
East: Mitchell Street														
4	L2	17	3	17	17.6	0.047	5.8	LOS A	0.0	0.2	0.02	0.15	0.02	56.1
5	T1	60	10	60	16.7	0.047	0.0	LOS A	0.0	0.2	0.02	0.15	0.02	58.5
6	R2	4	0	4	0.0	0.047	5.6	LOS A	0.0	0.2	0.02	0.15	0.02	56.3
Approach		81	13	81	16.0	0.047	1.5	NA	0.0	0.2	0.02	0.15	0.02	57.9
North: Charles St North														
7	L2	4	0	4	0.0	0.012	5.7	LOS A	0.0	0.3	0.20	0.52	0.20	53.8
8	T1	10	0	10	0.0	0.012	4.7	LOS A	0.0	0.3	0.20	0.52	0.20	53.9
9	R2	1	0	1	0.0	0.012	6.2	LOS A	0.0	0.3	0.20	0.52	0.20	53.2
Approach		15	0	15	0.0	0.012	5.1	LOS A	0.0	0.3	0.20	0.52	0.20	53.8
West: Boolcarro Road														
10	L2	1	0	1	0.0	0.044	5.8	LOS A	0.1	0.7	0.08	0.12	0.08	56.9
11	T1	63	8	63	12.7	0.044	0.1	LOS A	0.1	0.7	0.08	0.12	0.08	58.5
12	R2	15	0	15	0.0	0.044	5.7	LOS A	0.1	0.7	0.08	0.12	0.08	56.3
Approach		79	8	79	10.1	0.044	1.2	NA	0.1	0.7	0.08	0.12	0.08	58.1
All Vehicles		195	22	195	11.3	0.047	1.9	NA	0.1	0.7	0.07	0.20	0.07	54.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [G-St peak 2031 (PM) (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: George Street South														
1	L2	19	1	19	5.3	0.041	3.6	LOS A	0.2	1.1	0.18	0.43	0.18	38.6
2	T1	20	0	20	0.0	0.041	2.8	LOS A	0.2	1.1	0.18	0.43	0.18	38.6
3	R2	10	0	10	0.0	0.041	4.4	LOS A	0.2	1.1	0.18	0.43	0.18	38.3
Approach		49	1	49	2.0	0.041	3.4	LOS A	0.2	1.1	0.18	0.43	0.18	38.6
East: Mitchell Street East														
4	L2	17	3	17	17.6	0.043	5.8	LOS A	0.0	0.3	0.04	0.17	0.04	55.8
5	T1	52	10	52	19.2	0.043	0.0	LOS A	0.0	0.3	0.04	0.17	0.04	58.2
6	R2	5	0	5	0.0	0.043	5.7	LOS A	0.0	0.3	0.04	0.17	0.04	56.1
Approach		74	13	74	17.6	0.043	1.7	NA	0.0	0.3	0.04	0.17	0.04	57.5
North: George Street North														
7	L2	7	0	7	0.0	0.019	5.7	LOS A	0.1	0.5	0.20	0.53	0.20	53.7
8	T1	14	0	14	0.0	0.019	4.8	LOS A	0.1	0.5	0.20	0.53	0.20	53.9
9	R2	2	0	2	0.0	0.019	6.3	LOS A	0.1	0.5	0.20	0.53	0.20	53.2
Approach		23	0	23	0.0	0.019	5.2	LOS A	0.1	0.5	0.20	0.53	0.20	53.8
West: Mitchell Street North														
10	L2	16	0	16	0.0	0.056	5.7	LOS A	0.1	1.0	0.08	0.20	0.08	56.2
11	T1	65	8	65	12.3	0.056	0.1	LOS A	0.1	1.0	0.08	0.20	0.08	57.7
12	R2	19	0	19	0.0	0.056	5.7	LOS A	0.1	1.0	0.08	0.20	0.08	55.6
Approach		100	8	100	8.0	0.056	2.0	NA	0.1	1.0	0.08	0.20	0.08	57.0
All Vehicles		246	22	246	8.9	0.056	2.5	NA	0.2	1.1	0.10	0.27	0.10	51.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [G-St peak 2031 (AM) (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: George Street South														
1	L2	22	1	22	4.5	0.030	3.7	LOS A	0.1	0.8	0.20	0.44	0.20	38.5
2	T1	9	0	9	0.0	0.030	2.8	LOS A	0.1	0.8	0.20	0.44	0.20	38.5
3	R2	7	0	7	0.0	0.030	4.5	LOS A	0.1	0.8	0.20	0.44	0.20	38.2
Approach		38	1	38	2.6	0.030	3.6	LOS A	0.1	0.8	0.20	0.44	0.20	38.4
East: Mitchell Street East														
4	L2	13	3	13	23.1	0.056	5.8	LOS A	0.0	0.3	0.02	0.11	0.02	56.3
5	T1	82	10	82	12.2	0.056	0.0	LOS A	0.0	0.3	0.02	0.11	0.02	59.0
6	R2	5	0	5	0.0	0.056	5.6	LOS A	0.0	0.3	0.02	0.11	0.02	56.8
Approach		100	13	100	13.0	0.056	1.1	NA	0.0	0.3	0.02	0.11	0.02	58.5
North: George Street North														
7	L2	6	0	6	0.0	0.040	5.7	LOS A	0.1	1.0	0.21	0.55	0.21	53.6
8	T1	24	0	24	0.0	0.040	4.8	LOS A	0.1	1.0	0.21	0.55	0.21	53.8
9	R2	14	0	14	0.0	0.040	6.4	LOS A	0.1	1.0	0.21	0.55	0.21	53.1
Approach		44	0	44	0.0	0.040	5.4	LOS A	0.1	1.0	0.21	0.55	0.21	53.5
West: Mitchell Street West														
10	L2	13	0	13	0.0	0.043	5.8	LOS A	0.1	1.0	0.13	0.25	0.13	55.4
11	T1	41	8	41	19.5	0.043	0.1	LOS A	0.1	1.0	0.13	0.25	0.13	56.9
12	R2	21	0	21	0.0	0.043	5.7	LOS A	0.1	1.0	0.13	0.25	0.13	54.8
Approach		75	8	75	10.7	0.043	2.7	NA	0.1	1.0	0.13	0.25	0.13	56.0
All Vehicles		257	22	257	8.6	0.056	2.7	NA	0.1	1.0	0.11	0.27	0.11	52.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [C-St peak 2031 (AM) Post (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Charles St South														
1	L2	11	1	11	9.1	0.065	3.7	LOS A	0.2	1.7	0.26	0.47	0.26	38.5
2	T1	30	0	30	0.0	0.065	2.9	LOS A	0.2	1.7	0.26	0.47	0.26	38.5
3	R2	27	0	27	0.0	0.065	4.7	LOS A	0.2	1.7	0.26	0.47	0.26	38.2
Approach		68	1	68	1.5	0.065	3.8	LOS A	0.2	1.7	0.26	0.47	0.26	38.4
East: Mitchell Street														
4	L2	19	0	19	0.0	0.058	5.6	LOS A	0.1	0.5	0.04	0.15	0.04	56.8
5	T1	77	12	77	15.6	0.058	0.0	LOS A	0.1	0.5	0.04	0.15	0.04	58.4
6	R2	7	1	7	14.3	0.058	5.9	LOS A	0.1	0.5	0.04	0.15	0.04	55.5
Approach		103	13	103	12.6	0.058	1.5	NA	0.1	0.5	0.04	0.15	0.04	57.9
North: Charles St North														
7	L2	18	1	18	5.6	0.030	5.9	LOS A	0.1	0.8	0.21	0.54	0.21	53.3
8	T1	17	0	17	0.0	0.030	4.9	LOS A	0.1	0.8	0.21	0.54	0.21	53.7
9	R2	2	0	2	0.0	0.030	6.5	LOS A	0.1	0.8	0.21	0.54	0.21	53.0
Approach		37	1	37	2.7	0.030	5.5	LOS A	0.1	0.8	0.21	0.54	0.21	53.4
West: Boolcarro Road														
10	L2	1	0	1	0.0	0.051	5.8	LOS A	0.0	0.3	0.04	0.05	0.04	57.7
11	T1	86	7	86	8.1	0.051	0.0	LOS A	0.0	0.3	0.04	0.05	0.04	59.3
12	R2	7	0	7	0.0	0.051	5.7	LOS A	0.0	0.3	0.04	0.05	0.04	57.1
Approach		94	7	94	7.4	0.051	0.5	NA	0.0	0.3	0.04	0.05	0.04	59.2
All Vehicles		302	22	302	7.3	0.065	2.2	NA	0.2	1.7	0.11	0.24	0.11	51.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [C-St peak 2031 (PM) Post (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Charles St South														
1	L2	9	1	9	11.1	0.017	3.7	LOS A	0.1	0.5	0.19	0.44	0.19	38.5
2	T1	6	0	6	0.0	0.017	2.8	LOS A	0.1	0.5	0.19	0.44	0.19	38.5
3	R2	5	0	5	0.0	0.017	4.6	LOS A	0.1	0.5	0.19	0.44	0.19	38.2
Approach		20	1	20	5.0	0.017	3.6	LOS A	0.1	0.5	0.19	0.44	0.19	38.5
East: Mitchell Street														
4	L2	56	0	56	0.0	0.079	5.6	LOS A	0.2	1.3	0.07	0.31	0.07	55.2
5	T1	62	12	62	19.4	0.079	0.1	LOS A	0.2	1.3	0.07	0.31	0.07	56.6
6	R2	21	1	21	4.8	0.079	5.7	LOS A	0.2	1.3	0.07	0.31	0.07	54.4
Approach		139	13	139	9.4	0.079	3.2	NA	0.2	1.3	0.07	0.31	0.07	55.7
North: Charles St North														
7	L2	5	1	5	20.0	0.014	6.0	LOS A	0.0	0.4	0.20	0.53	0.20	52.9
8	T1	10	0	10	0.0	0.014	5.0	LOS A	0.0	0.4	0.20	0.53	0.20	53.9
9	R2	1	0	1	0.0	0.014	6.3	LOS A	0.0	0.4	0.20	0.53	0.20	53.2
Approach		16	1	16	6.3	0.014	5.4	LOS A	0.0	0.4	0.20	0.53	0.20	53.6
West: Boolcarro Road														
10	L2	1	0	1	0.0	0.044	5.9	LOS A	0.1	0.7	0.10	0.12	0.10	56.9
11	T1	62	7	62	11.3	0.044	0.1	LOS A	0.1	0.7	0.10	0.12	0.10	58.4
12	R2	15	0	15	0.0	0.044	5.8	LOS A	0.1	0.7	0.10	0.12	0.10	56.3
Approach		78	7	78	9.0	0.044	1.3	NA	0.1	0.7	0.10	0.12	0.10	58.0
All Vehicles		253	22	253	8.7	0.079	2.8	NA	0.2	1.3	0.10	0.28	0.10	54.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [G-St peak 2031 (AM) Post (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Charles St South														
1	L2	40	1	40	2.5	0.059	3.7	LOS A	0.2	1.6	0.21	0.43	0.21	38.6
2	T1	27	0	27	0.0	0.059	2.8	LOS A	0.2	1.6	0.21	0.43	0.21	38.5
3	R2	7	0	7	0.0	0.059	4.7	LOS A	0.2	1.6	0.21	0.43	0.21	38.3
Approach		74	1	74	1.4	0.059	3.5	LOS A	0.2	1.6	0.21	0.43	0.21	38.5
East: Mitchell Street														
4	L2	13	3	13	23.1	0.056	5.8	LOS A	0.0	0.3	0.02	0.11	0.02	56.3
5	T1	82	10	82	12.2	0.056	0.0	LOS A	0.0	0.3	0.02	0.11	0.02	59.0
6	R2	5	0	5	0.0	0.056	5.6	LOS A	0.0	0.3	0.02	0.11	0.02	56.8
Approach		100	13	100	13.0	0.056	1.1	NA	0.0	0.3	0.02	0.11	0.02	58.5
North: Charles St North														
7	L2	6	0	6	0.0	0.099	5.7	LOS A	0.4	2.5	0.26	0.57	0.26	53.5
8	T1	53	0	53	0.0	0.099	4.9	LOS A	0.4	2.5	0.26	0.57	0.26	53.6
9	R2	43	0	43	0.0	0.099	6.6	LOS A	0.4	2.5	0.26	0.57	0.26	52.9
Approach		102	0	102	0.0	0.099	5.7	LOS A	0.4	2.5	0.26	0.57	0.26	53.3
West: Boolcarro Road														
10	L2	13	0	13	0.0	0.043	5.8	LOS A	0.1	1.0	0.13	0.25	0.13	55.4
11	T1	41	8	41	19.5	0.043	0.1	LOS A	0.1	1.0	0.13	0.25	0.13	56.9
12	R2	21	0	21	0.0	0.043	5.7	LOS A	0.1	1.0	0.13	0.25	0.13	54.8
Approach		75	8	75	10.7	0.043	2.7	NA	0.1	1.0	0.13	0.25	0.13	56.0
All Vehicles		351	22	351	6.3	0.099	3.2	NA	0.4	2.5	0.15	0.34	0.15	51.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [G-St peak 2031 (PM) Post (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: George Street South														
1	L2	22	4	22	18.2	0.047	3.7	LOS A	0.2	1.3	0.18	0.44	0.18	38.5
2	T1	20	0	20	0.0	0.047	3.3	LOS A	0.2	1.3	0.18	0.44	0.18	38.6
3	R2	10	0	10	0.0	0.047	4.7	LOS A	0.2	1.3	0.18	0.44	0.18	38.3
Approach		52	4	52	7.7	0.047	3.7	LOS A	0.2	1.3	0.18	0.44	0.18	38.5
East: Mitchell Street East														
4	L2	14	0	14	0.0	0.041	5.7	LOS A	0.0	0.3	0.06	0.15	0.06	56.6
5	T1	52	10	52	19.2	0.041	0.1	LOS A	0.0	0.3	0.06	0.15	0.06	58.1
6	R2	5	0	5	0.0	0.041	5.9	LOS A	0.0	0.3	0.06	0.15	0.06	56.0
Approach		71	10	71	14.1	0.041	1.6	NA	0.0	0.3	0.06	0.15	0.06	57.7
North: George Street North														
7	L2	7	0	7	0.0	0.020	5.8	LOS A	0.1	0.5	0.24	0.54	0.24	53.6
8	T1	14	0	14	0.0	0.020	5.1	LOS A	0.1	0.5	0.24	0.54	0.24	53.7
9	R2	2	0	2	0.0	0.020	6.8	LOS A	0.1	0.5	0.24	0.54	0.24	53.1
Approach		23	0	23	0.0	0.020	5.5	LOS A	0.1	0.5	0.24	0.54	0.24	53.6
West: Mitchell Street West														
10	L2	73	0	73	0.0	0.118	5.7	LOS A	0.4	2.9	0.11	0.34	0.11	54.7
11	T1	80	23	80	28.8	0.118	0.1	LOS A	0.4	2.9	0.11	0.34	0.11	56.1
12	R2	54	0	54	0.0	0.118	5.7	LOS A	0.4	2.9	0.11	0.34	0.11	54.1
Approach		207	23	207	11.1	0.118	3.5	NA	0.4	2.9	0.11	0.34	0.11	55.0
All Vehicles		353	37	353	10.5	0.118	3.3	NA	0.4	2.9	0.12	0.33	0.12	52.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site 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).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.