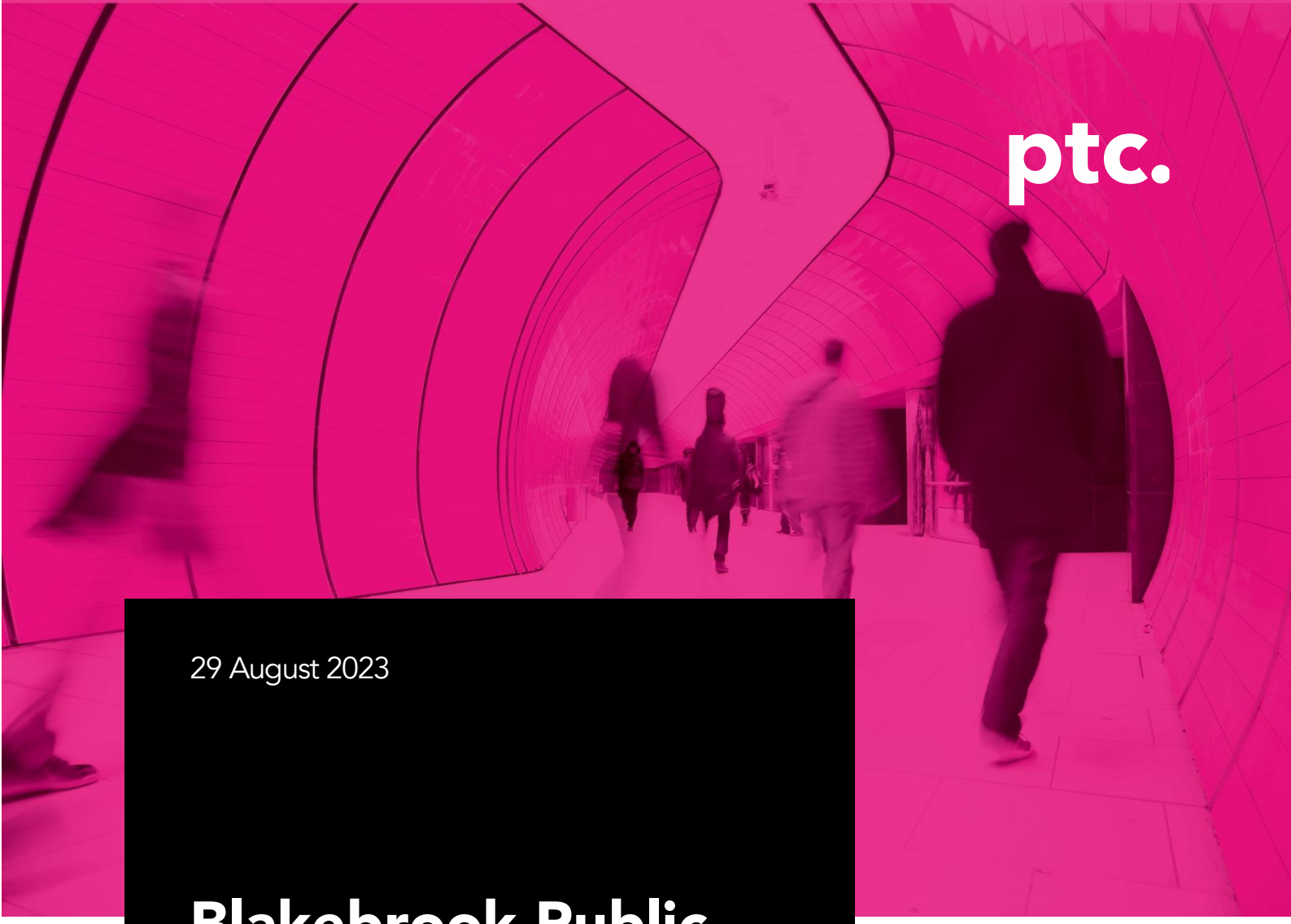


29 August 2023

Blakebrook Public School

ADCO

Construction Traffic Management Plan;

For: **ADCO**

Site Address: **417 Rosehill Road, Blakebrook NSW 2480**

Document reference number: **23-0608**

document control;

Issue:	Date	Issue details	Author	Reviewed
1	24/08/2023	Final	Kalyani Patil – TCT1037063 (PWZ)	Andrew Morse Pragya Sharma – TCT1021273 (PWZ)
2	29/08/2023	Revision 1	Pragya Sharma – TCT1021273 (PWZ)	Andrew Morse

For the attention of:

Brittany Dimovski

Cadet

ADCO

Contact:

Andrew Morse

+61 2 8920 0800

+61 414 618 002

andrew.morse@ptcconsultants.co

Pragya Sharma

+61 2 8920 0800

pragya.sharma@ptcconsultants.co

ptc.

Suite 502, 1 James Place, North Sydney NSW 2060

info@ptcconsultants.co | (+61) 2 8920 0800 | ptcconsultants.co

ABN 85 114 561 223

contents;

Document reference number: 23-0608 1

1.Introduction **1**
1.1. Background 1
1.2. Project Summary 2
1.3. Land Use 3

2.Existing Transport Facilities **4**
2.1. Road Hierarchy 4
2.2. Public Transport 6

3.Traffic Management Plan **8**
3.1. Objective 8
3.2. Traffic Management Planning Process 8
3.3. Traffic Management Strategy 8
3.4. Decision of TTM Method 9
3.5. General Requirements 9
3.6. Hours of Work 10
3.7. Construction Phasing 10
3.8. Construction Vehicle Types 11
3.9. Construction Traffic Volumes 11
3.10. Construction Vehicle Routes 12
3.11. Traffic Control Measures 16
3.12. Parking Controls 19
3.12.1. Parking controls while using 25m and 20m Articulated Vehicle (AV) 19
3.13. Pedestrian Management 19
3.14. Special Deliveries 20
3.15. Staff Parking 20
3.16. Work Site Security 20
3.17. Staff Induction 20
3.18. Emergency Vehicle Access 20
3.19. Access to Adjoining Properties 20
3.20. Occupational Health and Safety 20
3.21. Method of Communicating Traffic Changes 21
3.22. Contact Details for Onsite Enquiries and Site Access 21
3.23. Maintenance of Roads and Footpaths 21

contents;

3.24. Hazard and Risk Identification 21

4.CTMP Approval, Monitoring and Review 24

5.TGS Confirmation and Approval 26
5.1. TGS Verification 26
5.2. TGS Approval 26
5.3. The Role of Traffic Controllers 27

6.Summary 28

Appendix 1. TGS

Table 1: Road network characteristics - Rosehill Road 5

Table 2: Road network characteristics - Nimbin Road 5

Table 3: Bus services summary (Source: Northern Rivers Buslines and TfNSW) 7

Table 4: Schedule 1 Works Phasing Summary 10

Table 5: Vehicle Types used during individual phases 11

Table 6: Construction Vehicle Volumes - Average and Peak 11

Table 7: Risk Matrix 22

Table 8: Monitoring Activities 24

Figure 1: School location 1

Figure 2: Land use map around the School (Source: NSW Planning Portal Spatial Viewer) 3

Figure 3: Road classification around the School (Source: TfNSW Road Network Classification Map) 4

Figure 4: Rosehill Road at School frontage (Source: Google Map) 5

Figure 5: Nimbin Road near Rosehill Road (Source: Google Map) 5

Figure 6: Public transport options around the School (Source: Northern Rivers Buslines and TfNSW) 6

contents;

Figure 7: Traffic Management Planning Process 8

Figure 8: Construction Vehicle egress and ingress routes 12

Figure 9: Swept path 1 - Elliott Road / Wilson Street 13

Figure 10: Swept path 2 - Wilson Street / Nimbin Road 14

Figure 11: Swept path 3 - Nimbin Road / Rosehill Road 15

Figure 12: Swept Path 4 - Rosehill Road / Site Access 16

Figure 13: TGS 1 – East of School along Nimbin Road and Rosehill Road 17

Figure 14: TGS 2 – Southwest of School along Rosehill Road 18

Figure 15: The location and extent of proposed changes to parking restrictions while using 25m and 20m AV 19

1. Introduction

1.1. Background

ptc. has been engaged by ADCO to prepare a Construction Traffic Management Plan (CTMP) associated with the construction of Blakebrook Public School in Blakebrook.

The school is located at 417 Rosehill Road, Blakebrook NSW 2480, in the Local Government Area (LGA) of Lismore City Council. Blakebrook is a locality in the Northern Rivers region of New South Wales that situates approximately 7km from the Lismore City, Blakebrook had a population of 132 people in 2021 census.

As shown in Figure 1, the school has Rosehill Road as the frontage Road to the south, and is bounded by rural properties to the east, north and west.

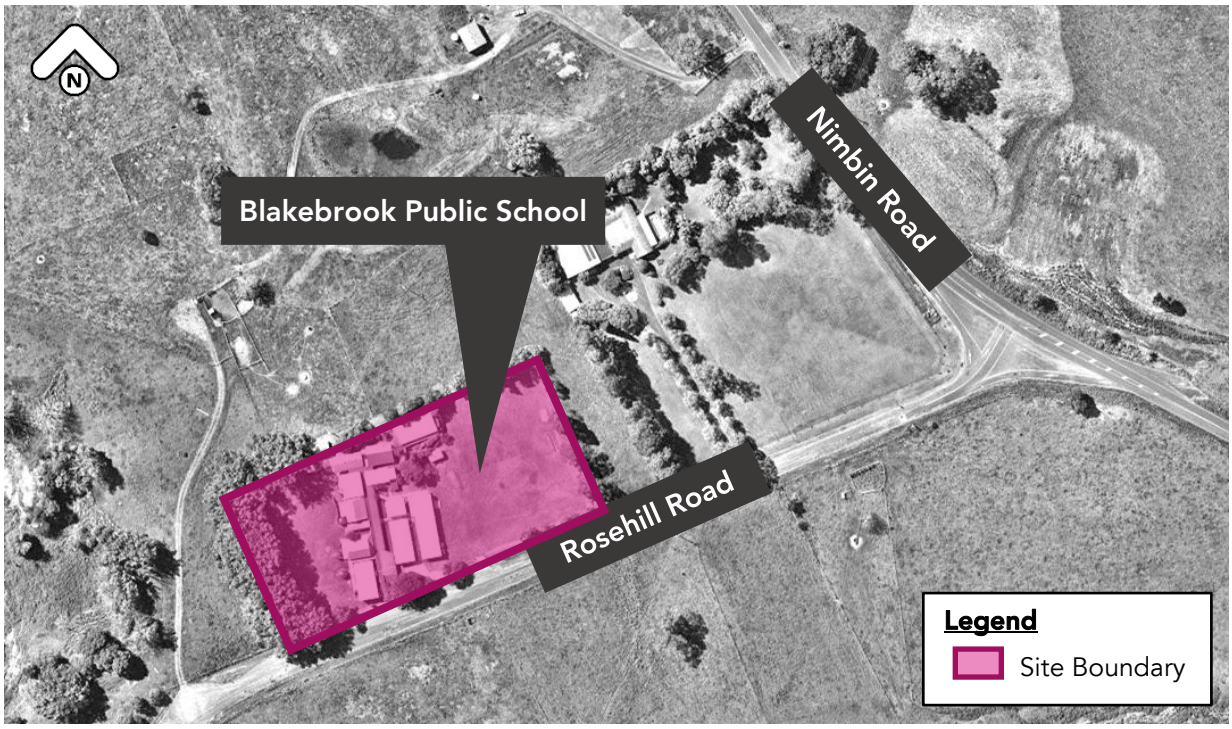


Figure 1: School location

1.2. Project Summary

The proposed development is to be undertaken in two (2) stages as follows:

- Stage 1: Demolition of the existing buildings and tree removal (Early Works DA); and
- Stage 2: Construction of a new elevated school building and landscaping and ancillary works and structures (Main works DA).

The Early Works development comprises:

- Site preparation including site establishment works, earthworks and relocation of heritage bell and memorial bench.
- Demolition of the existing school buildings.
- Tree removal.
- Make good of site following demolition.

The Main works development comprises:

- Construction of a new elevated school building, with at-grade (undercroft) amenities and storage, including:
    - Ground Level:
        - Open undercroft space for covered outdoor learning and play.
        - Male and female amenities and accessible toilet / change room facility.
        - Cleaners' store.
        - Equipment store.
        - Sport equipment store.
    - Elevated Level:
        - New administration comprising interview room, clerical spaces, Principal's office, staff room, sick bay and male, female and accessible amenities.
        - School library with computer room, store, main communications room and library office.
        - Four (4) General Learning Spaces (GLS) with learning commons and multi-purpose space.
        - Canteen with open servery space.
        - Store.
        - Male, female and accessible amenities.
        - Mechanical plant.
- New and hard soft landscaping including replacement play equipment, vegetable garden, fernery and yarning circle.
- New hydrant pump house with fire tanks.
- Relocation and replacement of existing septic tanks and water tanks.

It is not proposed to increase staff or student numbers as a result of these works.

1.3. Land Use

With reference to the NSW Planning Portal Spatial Viewer, the School site sits on land lot2, Deposited Plan (DP) 859866, and is categorised as SP2 Infrastructure zone. The School is surrounded by a large piece of land zoned RU1 Primary Productions, as shown in Figure 2.

The land use zonings in the vicinity are relatively simple, this determines the existing local traffic generation has the following features:

- Generally associated with the School, surrounding rural residential properties and primary industries;
- Vehicular traffic (private transport) is expected to be the predominant mode share for the transport activities; and
- Low traffic volumes.

Figure 2: Land use map around the School (Source: NSW Planning Portal Spatial Viewer)

2. Existing Transport Facilities

2.1. Road Hierarchy

The NSW administrative road hierarchy comprises the following road classifications, which align with the generic road hierarchy as follows:

- **State Roads** Freeways and Primary Arterials (TfNSW managed)
- **Regional Roads** Secondary or sub arterials (Council managed, part funded by State)
- **Local Roads** Collector and local access roads (Council managed)

With reference to the TfNSW Road Network Classification Map, the School's frontage road Rosehill Road is a Local Road, it further connects with Regional Road on either side, being Nimbin Road immediately to the north and Kyogle Road approximately 4km to the south (Figure 3).

The road classification in the vicinity suggests that low traffic volumes are expected around the School site, and are predominantly associated with local properties and primary industries.

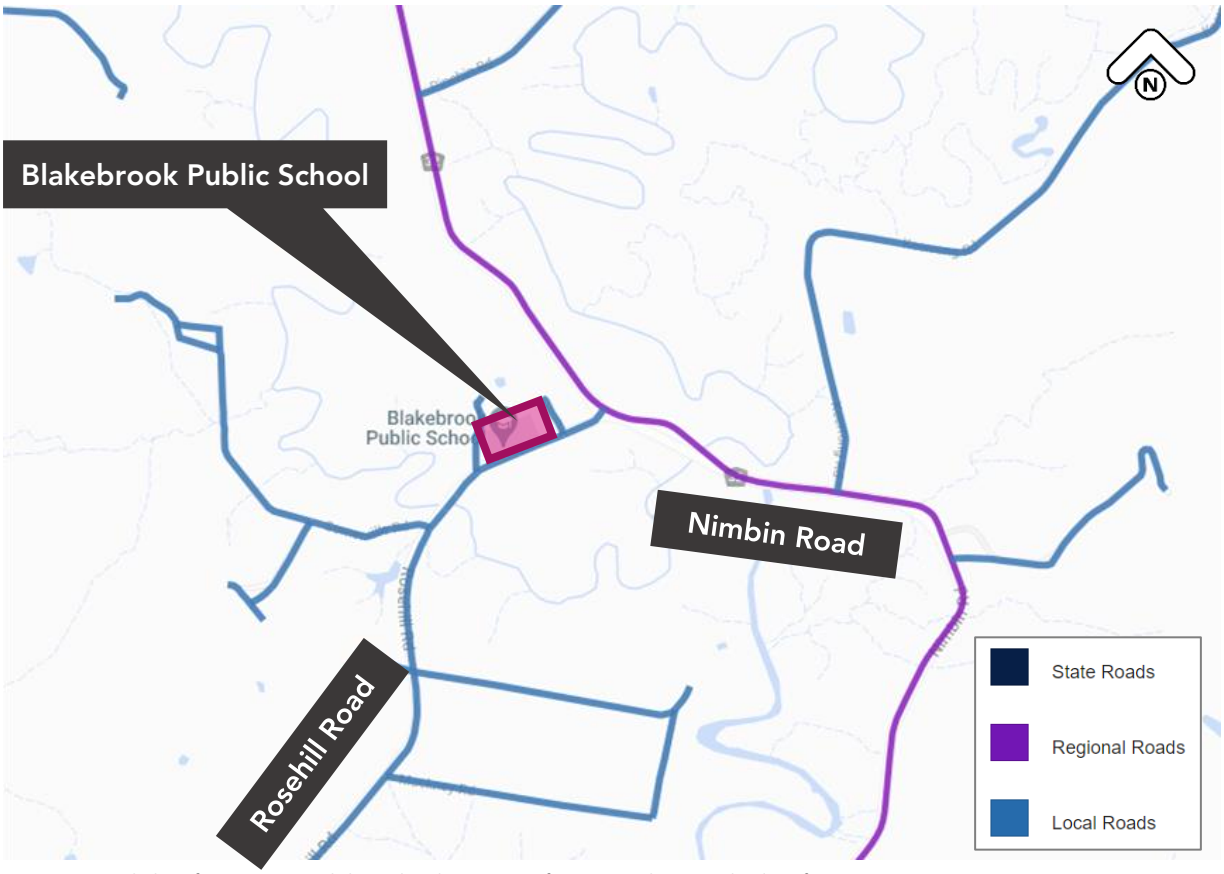


Figure 3: Road classification around the School (Source: TfNSW Road Network Classification Map)

The details of the existing immediate road network servicing the School are analysed and summarised overleaf.

Table 1: Road network characteristics - Rosehill Road

Rosehill Road	
Road Classification	Local Road
Alignment	East - west
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	7 metres
Speed Limit	80km/h
School Zone	Yes
Parking Controls	Bus zone at school frontage
Forms Site Frontage	Yes

Figure 4: Rosehill Road at School frontage (Source: Google Map)

Table 2: Road network characteristics - Nimbin Road

Nimbin Road	
Road Classification	Regional Road
Alignment	North - south
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	7.5 metres
Speed Limit	80km/h
School Zone	No
Parking Controls	Nil
Forms Site Frontage	No

Figure 5: Nimbin Road near Rosehill Road (Source: Google Map)

2.2. Public Transport

The NSW Planning Guidelines for Walking and Cycling (2004) suggests that an 800m (10 minutes' walk) catchment is an acceptable walkable distance for accessing public transport. Furthermore, the document also suggests a distance of 1500m is a suitable catchment for cycling to public transport facilities and local amenities.

A desktop analysis of the public transport options around the School shows one bus stop is available within 800m (10 minutes' walk) catchment, being the Blakebrook Public School Stop, the bus stop is currently serviced by two public bus routes and five school bus routes, as illustrated in Figure 6.

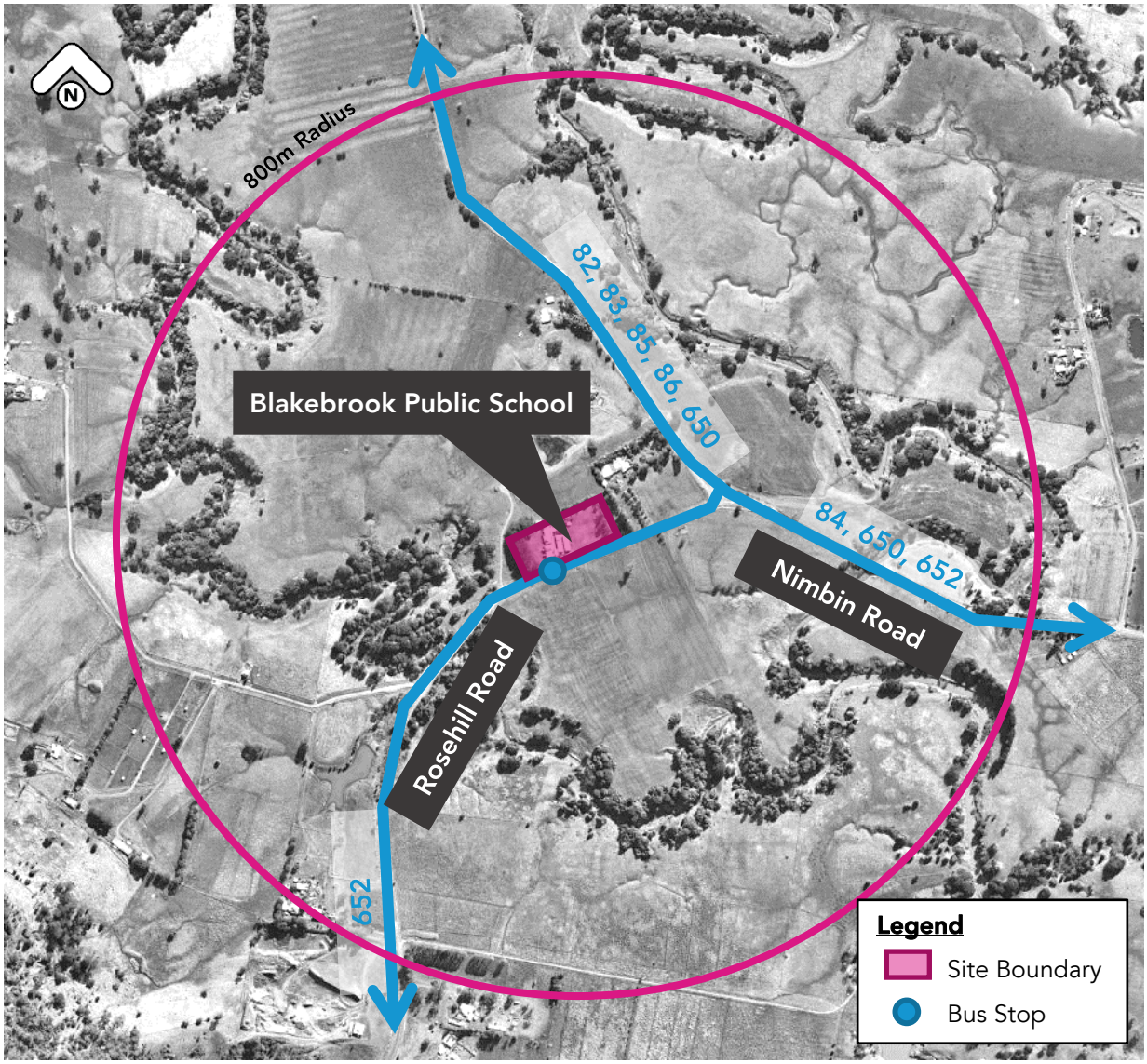


Figure 6: Public transport options around the School (Source: Northern Rivers Buslines and TfNSW)

The public bus routes service the bus stop at the School are routes 650 and 652, they operate under different timetable and stopping arrangements on school and non-school days, services are only available for the School on school-days. The school bus services available to the School are routes 82, 83, 84, 85 and 86.

The bus routes operate between 1-2 services per day at the bus stop, their operation timetable at the bus stop is summarised in Table 3.

Table 3: Bus services summary (Source: Northern Rivers Buslines and TfNSW)

Routes	Coverage	Operation summary
82	Between Lismore and Blakebrook Public School via Goolmangar School	2 services per day, being 1 service in the morning (8:20am) and 1 service in the afternoon (3:48pm).
83	Between East Lismore and Blakebrook Public School via Jiggi Public School	2 services per day, being 1 service in the morning (8:20am) and 1 service in the afternoon (3:55pm).
84	Between East Lismore and Blakebrook Public School	2 services per day, being 1 service in the morning (8:20am) and 1 service in the afternoon (3:48pm).
85	Between Jiggi and Blakebrook Public School	2 services per day, being 1 service in the morning (8:20am) and 1 service in the afternoon (3:50pm).
86	Between Nimbin and Blakebrook Public School via 7:45 Nimbin Central School	2 services per day, being 1 service in the morning (8:20am) and 1 service in the afternoon (3:50pm).
650	Between Lismore and Nimbin	Operate on school days only, 2 services in each direction per day, being 1 in the morning (8:20am) and 1 in the afternoon (3:50pm).
652	Between Lismore and Tuntable Creek	Operate on school days only, 1 service in each direction per day, being Lismore direction in the morning (8:20am) and Tuntable Creek direction in the afternoon (4:02pm).

The public transport options available in the locality is in single mode (bus), it is considered adequate based on the area characteristics and enrolled student numbers and age. With consideration to the coverage area and operation frequency, public transport is expected to be a proportion in the student and staff travel mode share.

3. Traffic Management Plan

3.1. Objective

The following sections outline the proposed construction activity, anticipated timeline as well as the proposed management measures relating to vehicular access, pedestrian access and other key considerations for the duration of the works.

- To minimise the impact of the construction vehicle traffic on the overall operation of the road network;
- To ensure continuous, safe and efficient movement of traffic for both the general public and construction workers;
- Installation of appropriate advance warning signs to inform users of the changed traffic conditions;
- To provide a description of the construction vehicles and the volume of these construction vehicles accessing the construction site;
- To provide information regarding the changed access arrangement and also a description of the proposed external routes for vehicles including the construction vehicles accessing the site; and
- Establishment of a safe pedestrian environment in the vicinity of the site.

3.2. Traffic Management Planning Process

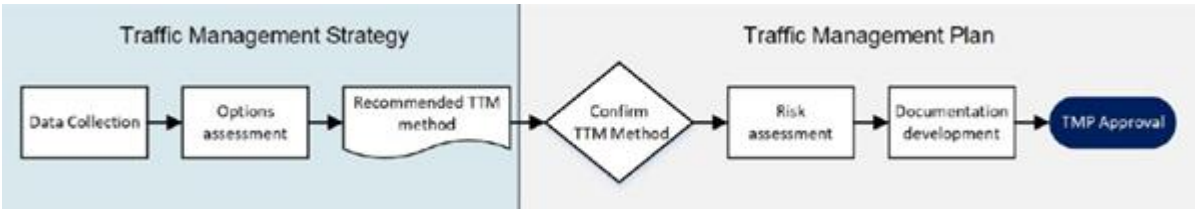


Figure 7: Traffic Management Planning Process

Temporary Traffic Management (TTM) for the project has been planned in accordance with Transport for NSW, *Traffic control at work sites – Technical Manual, Issue No.6.1,* March 2022 (TCAWS). The process is shown in Figure 7.

An iterative process is being adopted in collaboration with relevant stakeholders to adopt the most appropriate traffic management approach and develop the associated documents for the work.

3.3. Traffic Management Strategy

A traffic management strategy has been chosen to support the appropriate allocation of time, funds and resources for the project, and allow for consultation in determining the safest and most efficient way for road users to interact with the work site. The following have been considered in determining the TTM method:

Detour Options

No detours are necessary or proposed by the client and therefore, disproportionate disruption to the road users will not be introduced. A pedestrian detour and footpath closure is anticipated for early stages of work.

Site Location

The site of the works does contain existing street parking that may obstruct signs and devices needed for certain strategies. TGS should be set out by a certified Traffic Controller in accordance with TCAWS 6.1 to minimise these obstructions.

Work Area

The area needed to safely perform the work does not require the full closure of sections of road. All work and construction traffic shall enter the site to undertake duties. We note that high voltage upgrade works may require ROP depending on final design.

Vulnerable Road Users

Desire lines of pedestrians, cyclists, motorcyclists do not significantly impact on works or create undesired interaction between these road users and traffic. Consideration has been taken to minimise impact on the daily ongoing operations of the centre and its users while works are undertaken.

Community Facilities and Needs

Access to all nearby facilities will remain possible during these works. Signage or directions for any detours or changes are to be implemented where necessary.

3.4. Decision of TTM Method

The method selected is Around (elimination) where all truck and excavation/construction activity will take place on site, including the delivery of plant and site goods. Traffic is fully separated from the works.

In any instances where work occurs outside the boundary of the site, the Past (isolation) methodology is to be approved by council prior to implementation, to safely guide traffic along an adjacent path to the work area.

3.5. General Requirements

In accordance with Transport for New South Wales (TfNSW) requirements, all vehicles transporting loose materials will have the entire load covered and/or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the site. All subcontractors must be inducted by the lead contractor to ensure that the procedures are met for all vehicles entering and exiting the construction site. The lead contractors will monitor the roads leading to and from the site and take all necessary steps to rectify any road deposits caused by site vehicles.

Vehicles operating to, from and within the site shall do so in a manner, which does not create unreasonable or unnecessary noise or vibration. No tracked vehicles will be permitted or required on any paved roads. Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances.

Spoil shall be exported from site as progressively as the works occur. Spoil shall not be stockpiled and exported from the site in bulk.

The applicant/contractor is required to follow and abide by the any specific standard requirements for construction management as set out by the Lismore City Council.

3.6. Hours of Work

All works, associated with the project will be restricted to the time periods, which are as follows:

- Monday to Friday – General Works 7:00am to 6:00pm;
- Saturday 8:00am to 1:00pm; and
- Sunday, Public Holidays No works to be undertaken without prior approval.

Deliveries may occur outside the hours of demolition and construction referred to above, but not before 6:30am or after 6:30pm.

Demolition and construction may be undertaken outside of the hours listed above if required:

(a) By the police or public authority for the delivery of vehicles or materials;

(b) In an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or where the works are inaudible at the nearest sensitive receivers

3.7. Construction Phasing

The delivery of the project will be undertaken in the following milestone phases as outlined in Table 4.

Table 4: Schedule 1 Works Phasing Summary

Description	Approximate Timeframe
Site Establishment / Demolition	31 Jan 24 – 13 Feb 24
Structure	14 Feb 24 – 28 Mar 24
Structural & fit out works	3 Apr 24 – 9 May 24
External Works	14 Mar 24 – 2 May 24
Final Commissioning & Handover	10 May 24 – 24 May 24
Stage 2 Site Establishment/ Demolition	27 May 24 – 26 June 24
Stage 2 External works	27 June 24 – 08 August 24
Stage 2 Final Commissioning & Handover	02 August 24 – 08 August 24

3.8. Construction Vehicle Types

It is anticipated that the works will involve the use of the following vehicle types:

Table 5: Vehicle Types used during individual phases

Description	Vehicle Type
Site Establishment / Demolition	HRV (12.5m)
Structure	• 20m Articulated Vehicles (AV) (In cases where a module is 16m long a trailer extension will be required which increases the Semi length to 24m for inbound vehicles only)– **ADCO to confirm the sizes of vehicles for the individual stages.** • 300t crane for transferring the module into place (17m long) - **ADCO to confirm the sizes of vehicles for the individual stages** • The largest vehicle accessing the site – 25m AV • The largest vehicle exiting the site – 20m AV
Structural & fit out works	
External Works	**ADCO to confirm the sizes of vehicles for the individual stages**
Stage 2 Site Establishment/ Demolition	**ADCO to confirm the sizes of vehicles for the individual stages**
Stage 2 External works	**ADCO to confirm the sizes of vehicles for the individual stages**
Stage 2 Final Commissioning & Handover	**ADCO to confirm the sizes of vehicles for the individual stages**

Any oversized vehicle (including the use of mobile cranes) that is required to travel to the project into the vicinity of the site will be dealt with separately, with the submission of required permits to and subsequent approval from Council and TfNSW prior to any delivery being undertaken.

Refer to Section 3.14 for further details regarding special deliveries.

3.9. Construction Traffic Volumes

Table 6: Construction Vehicle Volumes - Average and Peak

Description	Trucks/Deliveries Daily Avg	Trucks/Deliveries Peak
Site Establishment / Demolition	3	5
Structure	7	15
Structural & fit out works	15	15
External Works	3	5
Final Commissioning & Handover	1	2
Stage 2 Site Establishment/ Demolition	3	5
Stage 2 External works	3	5
Stage 2 Final Commissioning & Handover	1	2

3.10. Construction Vehicle Routes

The proposed construction vehicle routes have regard for the road geometry and traffic arrangements in the vicinity of the site.

All vehicle routes to the site are restricted to existing public roads that have the physical geometry to accommodate the turning movements.

A swept path assessment has been undertaken for all proposed vehicle routes and are below.

Following a review of the route options, the following route has been identified to avoid constraints (e.g. Walsh Bridge on Rosehill Road) and to bypass the Lismore town centre.

Vehicles approaching the site will travel via the Pacific Highway, westbound along Bruxner Way continuing to Elliott Road, northbound along Wilson Street, westbound along Nimbin Road, finally southbound along Rosehill Road to enter the site.

The loading and unloading activities are proposed to occur within the subject site. The vehicles will enter and exit via Rosehill Road.

Vehicles will exit the site northbound on Rosehill Road, travel eastbound along Nimbin Road, southbound along Wilson Street, eastbound along Elliott Road continuing to Bruxner Way, and either northbound or southbound along Pacific Highway.

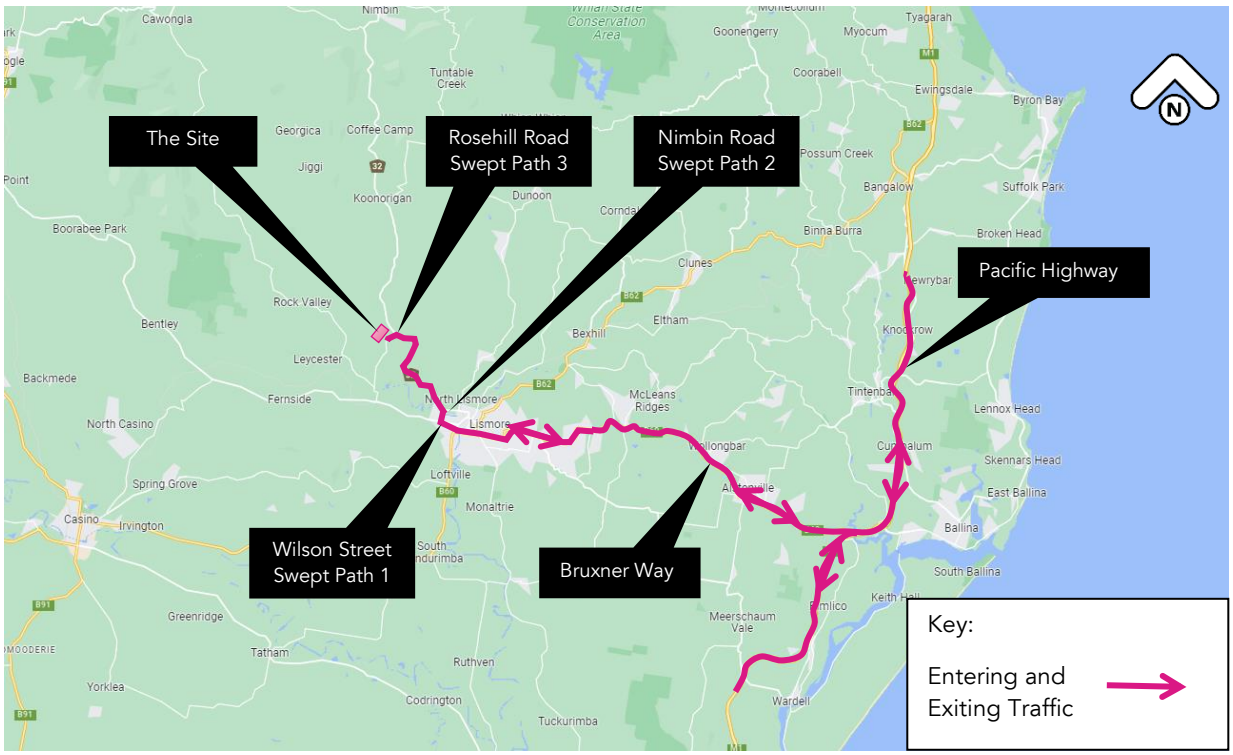


Figure 8: Construction Vehicle egress and ingress routes

A swept path assessment has been undertaken to assess whether the existing road geometry and key intersections are able to accommodate the turn manoeuvres of the largest anticipated vehicle.

The inbound (25m AV) and outbound (20m AV) swept paths at the site and key intersections are shown in the following figures. Any traffic management measures required are described in Section 3.11.

Figure 9: Swept path 1 - Elliott Road / Wilson Street

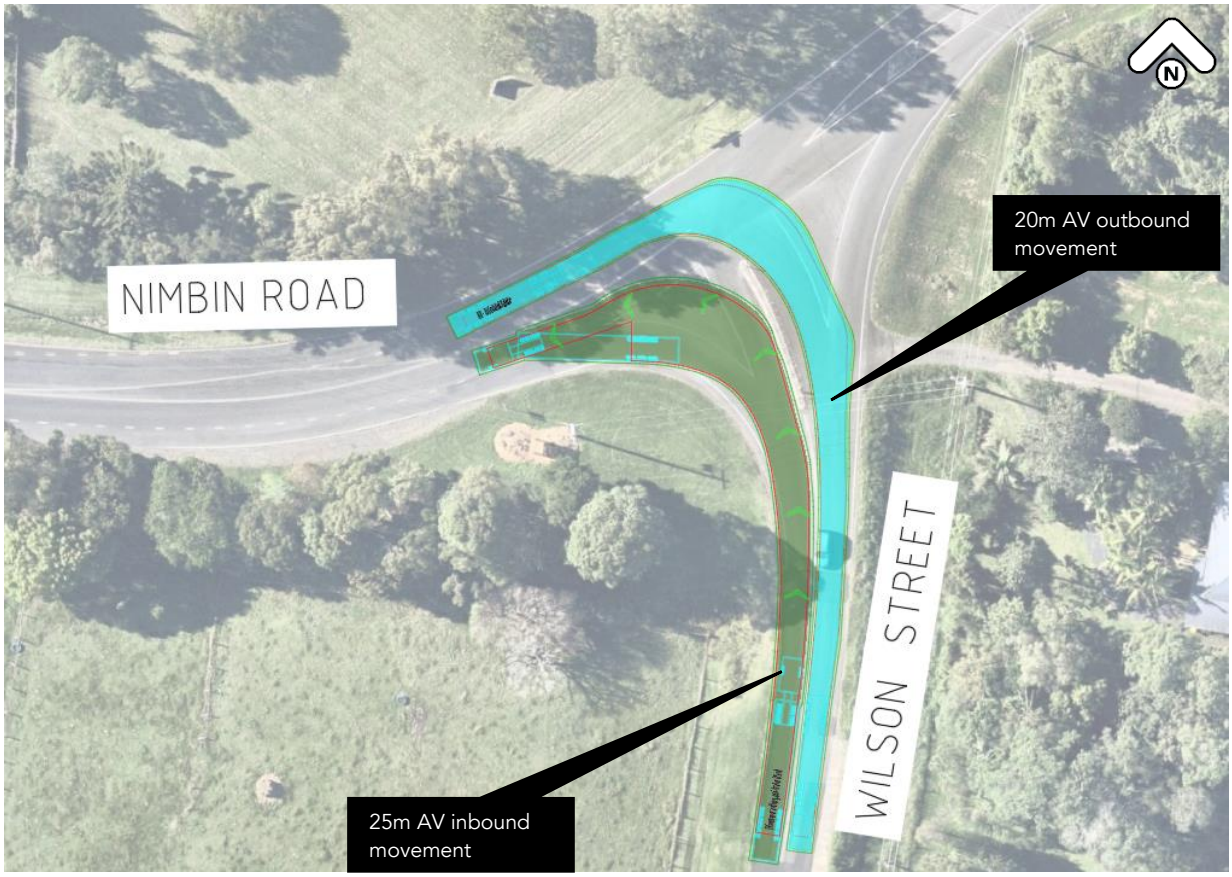


Figure 10: Swept path 2 - Wilson Street / Nimbin Road

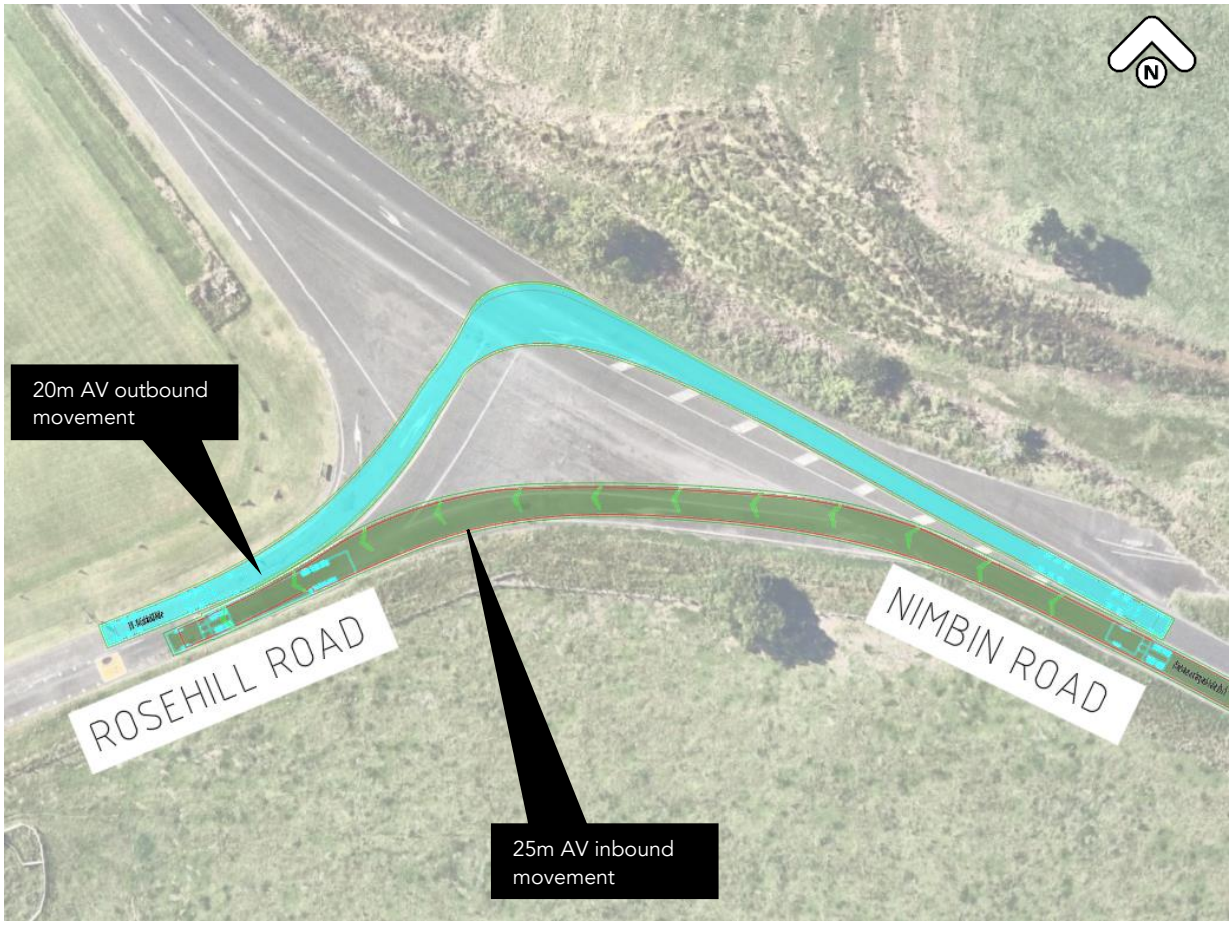


Figure 11: Swept path 3 - Nimbin Road / Rosehill Road

No queuing or marshalling of heavy vehicles is permitted on any public road and the loading and unloading of materials will generally be undertaken within the site.

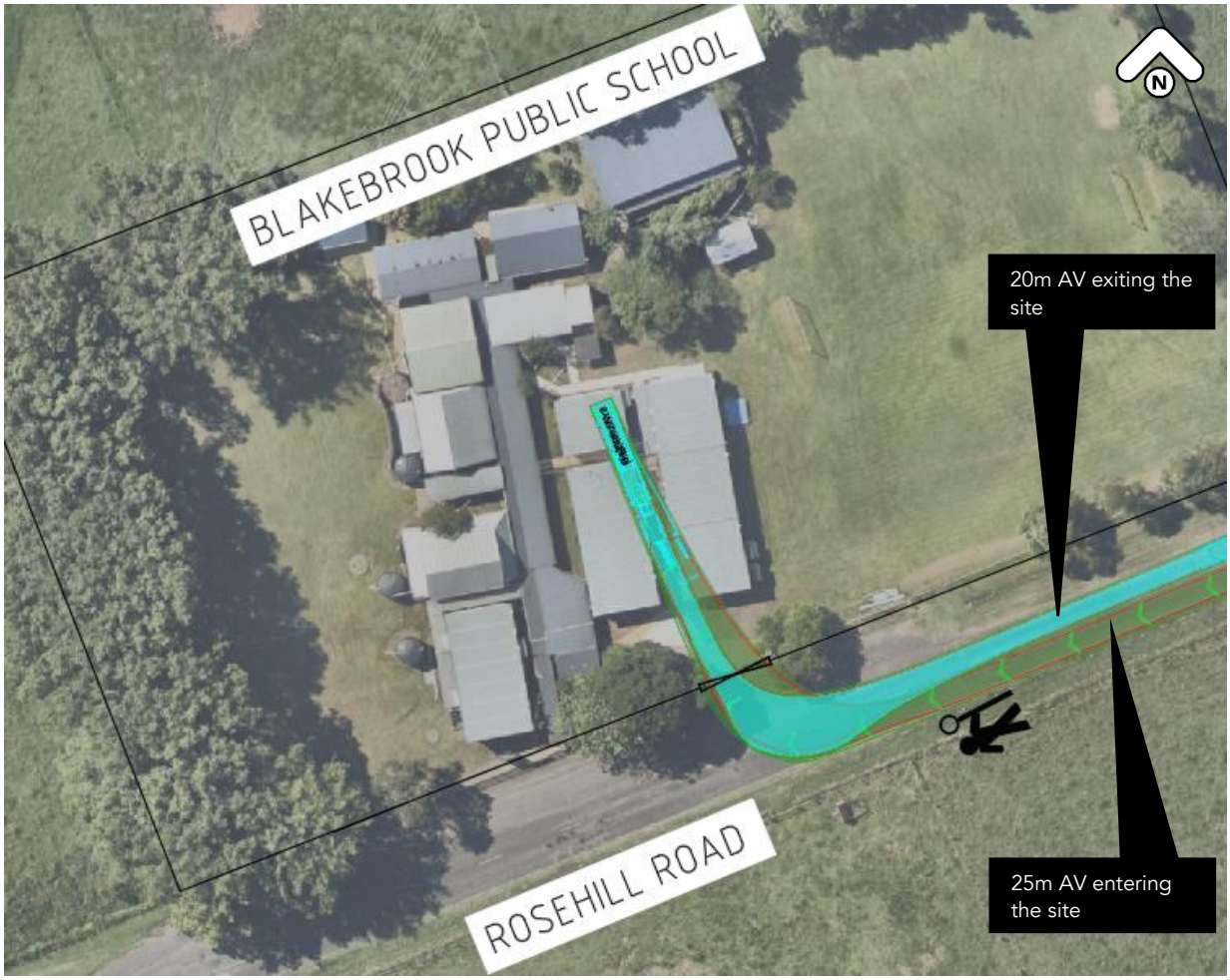


Figure 12: Swept Path 4 - Rosehill Road / Site Access

It is imperative for the contractor to verify the width of Rosehill Road. This verification is necessary to ensure that trucks can navigate through the area without any hindrances. Additionally, the contractor should inspect for potential obstructions such as trees, power poles, and signage poles. Any trees found in the vicinity should be appropriately pruned to allow for the required 4.5-meter vehicle headroom.

3.11. Traffic Control Measures

The Traffic Guidance Scheme (TGS) outlines the proposed traffic management to inform road users of the changed traffic conditions in the vicinity of the works site.

The TGSs have been set out in accordance with the TfNSW Traffic Control at Works Site.

It is noted that detailed TGSs are to be prepared by the appointed traffic management contractor prior to commencement of works and submitted to Council and TfNSW for approval. All Traffic Guidance Schemes associated with the CTMP must comply with the Australian Standards and Roads and TfNSW Traffic Control at Work Sites Guidelines Issue 6.1 (2022).

The Principal Contractor shall provide appropriate traffic and pedestrian management at all site interfaces with the public road. This will ensure truck movements and deliveries are received efficiently and safely.

The proposed TGS has been designed to be suitable for the work and location in accordance with Issue 6.1 of the traffic Control at Work Sites Technical Manual, 2022 (TCAWS).

The TGSs are shown in the figures below. The detailed TGSs are presented in Appendix 1.

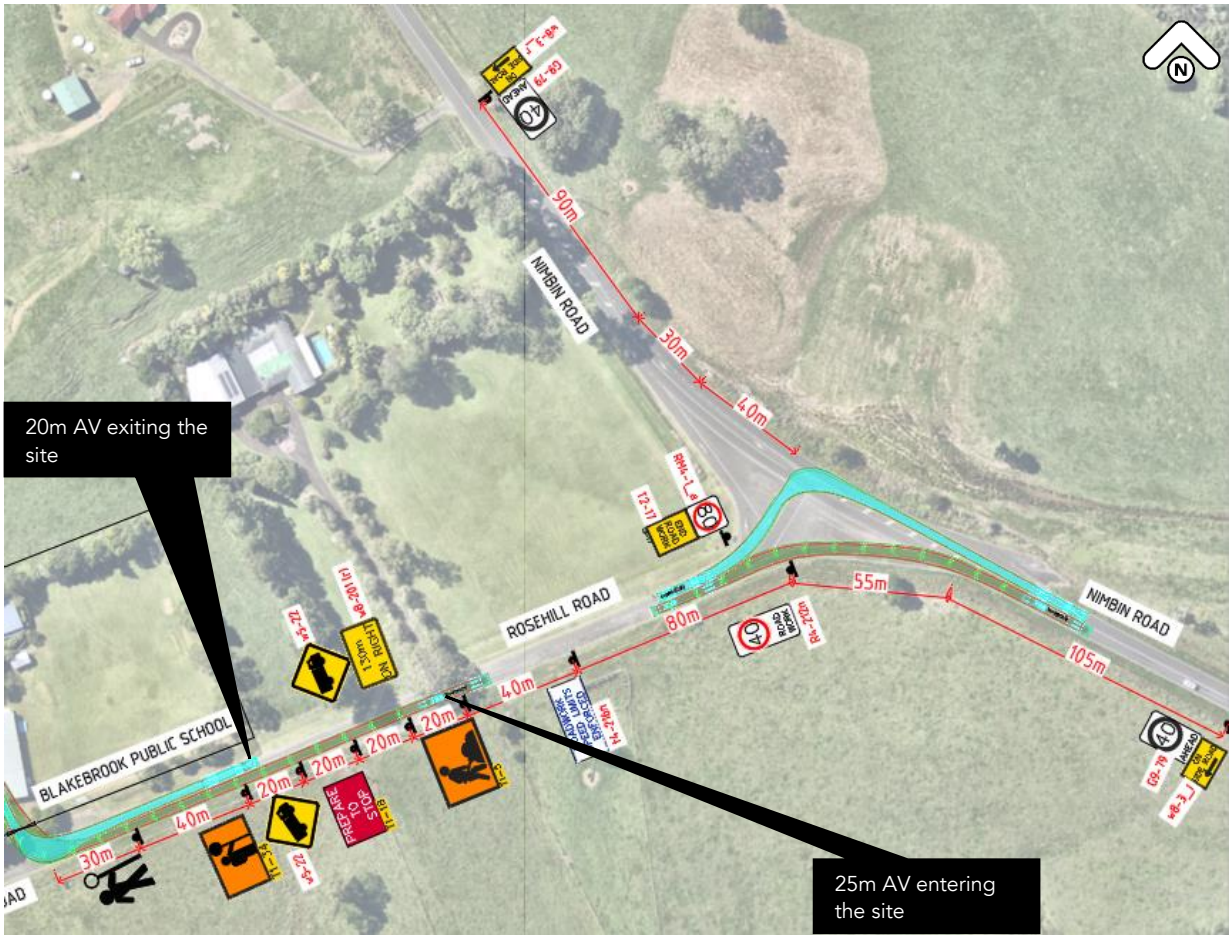


Figure 13: TGS 1 – East of School along Nimbin Road and Rosehill Road

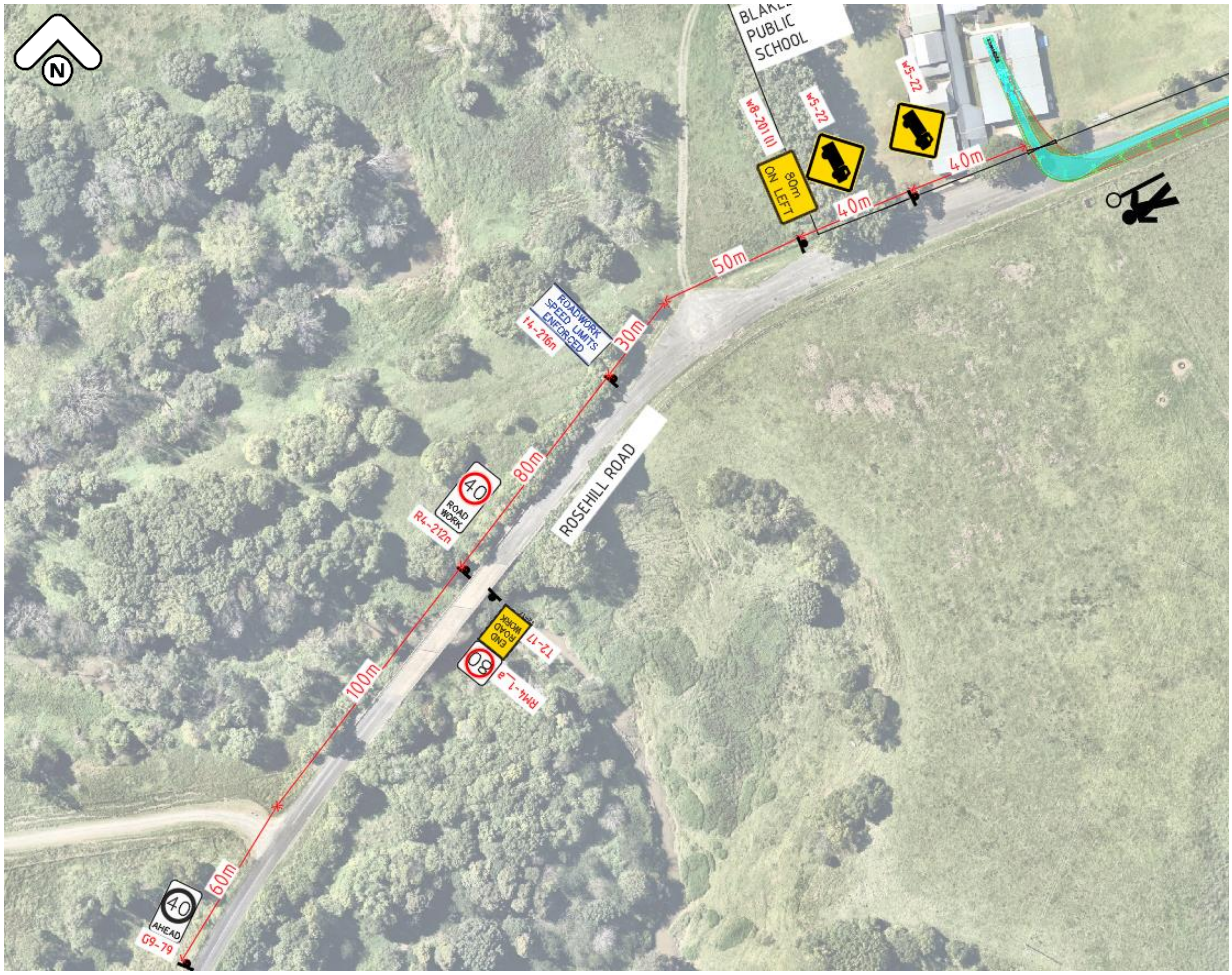


Figure 14: TGS 2 – Southwest of School along Rosehill Road

Traffic Controllers

Traffic Controllers (TCs) are required to be implemented to ensure that no conflict arises between construction vehicles and public traffic.

3.12. Parking Controls

Rosehill Road currently has parking on one side of the roadway. The proposed construction vehicle routes require access to the site via Rosehill Road.

3.12.1. Parking controls while using 25m and 20m Articulated Vehicle (AV)

The existing car park entry gate is approximately 5.5m wide. The swept path assessment indicates that a 10m wide gate would be required for the 25m AV to enter and 20m AV to exit the construction site. Additionally, parking should not be allowed for upto 14m in the kerbside lane to allow space for turning trucks. This is shown in Figure 15.

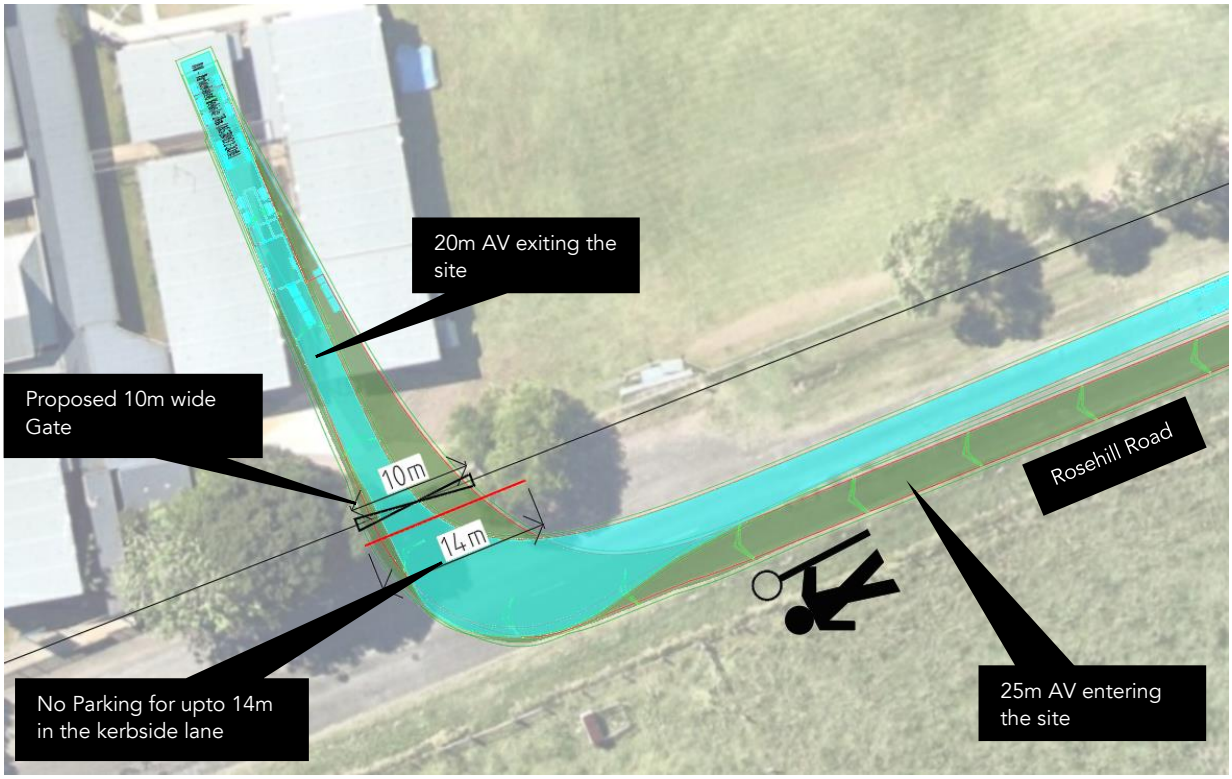


Figure 15: The location and extent of proposed changes to parking restrictions while using 25m and 20m AV

3.13. Pedestrian Management

The public will not be allowed access to the site. The contractor will ensure that the proposed site fencing is maintained in a clean, well illuminated, and safe manner at all times, throughout the duration of the project. Due to the nature of the site and the emphasis placed on materials handling, the efficient control and protection of pedestrian traffic is of utmost importance.

The site perimeter boundaries consist of site fencing, installed during the various construction phases. The site fencing will be established immediately following site possession and fitted with appropriate public directional signage.

Pedestrians may be held only for very short periods to ensure safety when trucks are leaving or entering BUT the contractor must NOT stop pedestrians in anticipation i.e., at all times the pedestrians have right-of-way on the footpath, not construction vehicles.

3.14. Special Deliveries

Any oversized vehicle that is required to travel to the site will be dealt with separately, with the submission of required permits to and subsequent approval by Lismore City Council prior to any delivery.

3.15. Staff Parking

The contractor staff volumes on site at any one time are as expected to be approximately 10 workers on average, with a maximum peak of 30 workers.

All personnel are encouraged to use the street parking around side as there is less public transport options to access the site.

3.16. Work Site Security

As discussed in Section 3.13, to provide security to the work site and protection to the general public, it is proposed that the site perimeter boundaries consist of temporary fencing or hoardings. These boundaries will be established immediately following site possession and fitted with appropriate signage where required.

All gates are securely locked outside of working hours and may be regularly patrolled by security staff. This security network shall continue to work closely with the contractor to ensure that security is being maintained throughout construction.

The contractor shall maintain a site entry register requiring all visitors to sign in upon entry. All visitors are required to wear an identification "visitor" badge and wear appropriate PPE at all times whilst on site.

3.17. Staff Induction

All staff and subcontractors engaged on site will be required to undergo a site induction. The induction will include permitted access routes to and from the construction site for all vehicles, as well as standard environmental, OH&S, driver protocols and emergency procedures. Additionally, the lead contractor will discuss TMP requirements regularly as part of toolbox talks and advise workers of public transport and carpooling opportunities.

3.18. Emergency Vehicle Access

The proposed traffic control arrangements do not propose the closure of any local roads. Any emergency vehicle requiring access to the subject site will do so via the site access along Rosehill Road.

A detailed Emergency Management Plan will be further developed by the contractor prior to site establishment works.

3.19. Access to Adjoining Properties

Access to all adjoining properties will be maintained throughout the works.

3.20. Occupational Health and Safety

Any workers required to undertake works or traffic control within the public domain shall be suitably trained and will be covered by adequate and appropriate insurances. All traffic control personnel will be required to hold TfNSW accreditation in accordance with Section 8 of Traffic Control at Worksites.

3.21. Method of Communicating Traffic Changes

Traffic Guidance Schemes in accordance with the Australian Standards (AS 1742.3 – Traffic Control Devices for Works on Roads) and TfNSW Traffic Control at Worksites will advise motorist of upcoming changes in the road network.

During site operation the contractor shall, each morning, prior to work commencing, ensure all signage is erected in accordance with the TGS and clearly visible. Each evening, upon completion of work, the contractor is to ensure signage is either covered or removed as required. Sign size is to be size "A".

The associated TGS road signage will inform drivers of works activities in the area including truck movements in operation. Any variation to the layout of the TGS on site is to be recorded and certified by authorised SafeWork NSW accredited personnel. Amended TGSs must also be approved by Council prior to implementing any changes.

A minimum 14-day notification must be provided to adjoining property owners prior to the implementation of any temporary traffic control measures.

Road Occupancy License is required for any works which impact on the road corridor, in addition to any permits required by Council. These need to be submitted to the Transport Management Centre (via the OPLINC system) a minimum of 10 business days prior to commencement of works.

3.22. Contact Details for Onsite Enquiries and Site Access

Project Manager – Timothy Rassmussen – 0401 325 737

HSE Advisor – Michael Dijkstra – 0428 286 433

3.23. Maintenance of Roads and Footpaths

The roads and footpaths along the route of travel will be kept in a serviceable state at all times. Any damage arising as a result of the proposed truck movements will be treated / repaired by the principal contractor at no cost to Council.

3.24. Hazard and Risk Identification

All construction projects entail a set of risks—from a transport perspective—that may need to be mitigated. Some of these hazards and risks are related to:

- Moving traffic;
- Queued traffic;
- Site vehicle access and egress points;
- Highly vulnerable road user activity;
- Other construction activity or roadworks in close proximity to the proposed work site; and
- Reduced lane and shoulder widths.

This is appropriate for the construction of the development because of the following:

Risk Matrix Reference: R1 – Conflict between construction traffic and the general public, especially vulnerable road users such as pedestrians and cyclists.

Risk Matrix Reference: R2 – Construction traffic creating localised negative impact to the surrounding road network.

A risk matrix has been prepared to assist with rating the risk of deviation to the procedures described in this report. The risk matrix is shown in using the following definitions:

Risk Rating

- Very High (VH)
- High (H)
- Medium (M)
- Low (L)

Consequence

- Insignificant: Illness, first aid or injury not requiring medical treatment. No lost time.
- Minor: Minor injury or illness requiring medical treatment. No lost time post medical treatment.
- Moderate: Minor injuries or illnesses resulting in lost time.
- Major: 1 to 10 serious injuries or illnesses resulting in lost time or potential permanent impairment.
- Severe: single fatality and/or 11 to 20 serious injuries or illnesses resulting in lost time or potential permanent impairment.
- Catastrophic: multiple fatalities and/or more than 20 serious injuries or illnesses resulting in lost time or potential permanent impairment.

Likelihood

- Almost certain: expected to occur multiple times (10 or more times) during any given year.
- Very likely: expected to occur occasionally (1 to 10 times) during any given year.
- Likely: expected to occur once during any given year.
- Unlikely: expected to occur once every 1 to 10 years.
- Very unlikely: expected to occur once every 10 to 100 years.
- Almost unprecedented: not expected to occur in the next 100 years.

The resulting level of risk and treatment approach is:

Intolerable: Must be corrected.

High: Should be corrected or the risk significantly reduced, even if the treatment costs is high.

Medium: Should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high.

Low: Should be corrected or the risk reduced if the treatment cost is low.

Table 7: Risk Matrix

Likelihood	Consequence						
		Insignificant	Minor	Moderate	Major	Severe	Catastrophic
	Almost certain						
	Very likely						
	Likely						
	Unlikely						
	Very unlikely		R2				
	Almost unprecedented						R1

Some recommended risk mitigation measures include:

- Implementation of traffic control where required to reduce potential conflict between road users.
- Adequate signage and warning of the ongoing construction activity at the site.

4. CTMP Approval, Monitoring and Review

This CTMP has been reviewed and endorsed by the designer's one-up manager who holds a current Prepare Works Zone Traffic Management Plan qualification. This approved CTMP has been used to inform the development of all TGSs for the work.

Regular monitoring and review are to be conducted throughout the life of the project to ensure that the CTMP remains current and addresses all risks at the work site for the duration of the project or activity.

To ensure that this CTMP is kept up to date, the activities identified in Table 8 will be undertaken to facilitate review and continuous improvement.

Table 8: Monitoring Activities

Stage	Activity	Purpose	Qualification	Tools and checklists
Planning	TGS verification	To ensure that the TGS selected or designed is suitable for the works and location.	ITCP or PWZTMP	TCAWS Appendix E.2 TGS verification checklist
During TTM	Weekly TTM inspections (includes preopening inspection)	To ensure that the CTMP and relevant TGS are appropriate and operating safely, effectively, and efficiently	PWZTMP	TCAWS Appendix E.3 Weekly TTM inspection checklist
	Shift TTM inspections	To ensure that the TGS is implemented as designed. This includes at a minimum, twice per shift and when: A TGS is installed, changed, or updated. At regular frequency afterwork commences, recommended every 2 hours; and Once after care arrangements have been installed if required	ITCP or PWZTMP	TCAWS Appendix E.4 Shift / Daily TTM inspection checklist
	CTMP review	To ensure that CTMP controls are achieving the required outcomes.	PWZTMP	Not provided
	Client inspections	Verification of TTM through the Transport Traffic Engineering Services, Work Health and Safety Branch, Surveillance Officers, or other client representatives.	Divisionally determined	Not provided
Post Completion	Post-completion inspection	To ensure that the site has been demobilised as planned and is safe for opening to traffic	ITCP or PWZTMP	Appendix E.5 Post completion inspection checklist

All relevant changes must be considered and recorded in the CTMP with any changes made by an appropriately qualified person. A copy of all documentation relating to the endorsement of the changes must be available to be accessed, either electronically or in hard copy, by the person responsible for the works.

5. TGS Confirmation and Approval

The Traffic Guidance Schemes (TGSs) shown in Appendix 1 outlines the proposed traffic management to inform road users of the changed traffic conditions in the vicinity of the works site. The TGSs must be set out in accordance with Issue 6.1 of the Traffic Control at Work Sites Technical Manual, 2022 (TCAWS).

TGSs are to be implemented throughout the project to warn road users that trucks will be turning into and out of the site, in accordance with TCAWS TGS D.4.7.

It is noted that any changes to the existing parking restrictions will require a minimum fourteen (14) days notification to adjoining property owners prior to the implementation of any temporary traffic control measures.

Any revisions or additional TGSs ones must be prepared by a SafeWork NSW qualified person upon engagement of the traffic management contractor and prior to commence of works on site.

5.1. TGS Verification

Site confirmation must be undertaken via the completion of the TGS verification. A TGS verification must be undertaken to confirm the selected or designed TGS is fit for purpose. A TGS verification must be completed in accordance with Section 8.1.2 TGS verification by an ITCP or PWZTMP qualified person. TGS verification must include an inspection of the work site where the TGS will be implemented.

5.2. TGS Approval

The SafeWork NSW qualified person who has designed or modified the relevant TGS has approved the TGS for use. Approval of the TGS includes:

- Review of the relevant TMP, risk assessment and associated TTM specific documentation;
- Design, redesign or modification of the TGS must be in accordance with the requirements of TCAWS;
- Confirmation that the TGS provides the relevant information for the ITCP person to safely implement on-site.

The one up manager of the SafeWork NSW qualified person has approved the TGS, including:

- Any non-standard or unaccepted signs or devices;
- Any departures from the requirements of TCAWS;
- If a manual traffic controller is proposed for use.

5.3. The Role of Traffic Controllers

Traffic Controllers (TCs) have been implemented at site entry / exit gate as a measure to mitigate the risk of conflict between construction vehicles / pedestrians and other vehicles on road. TCs are to make sure that there is a suitable gap when the trucks are exiting the site and may need to hold the oncoming traffic and pedestrians if required. The Roads Act does not give any special treatment to trucks leaving a construction site – the vehicles already on the road and pedestrians on the footpath have right of-way.

Pedestrians may be held only for very short periods to ensure safety when trucks are leaving or entering BUT you must NOT stop pedestrians in anticipation i.e., at all times the pedestrians have right-of-way on the footpath, not the trucks.

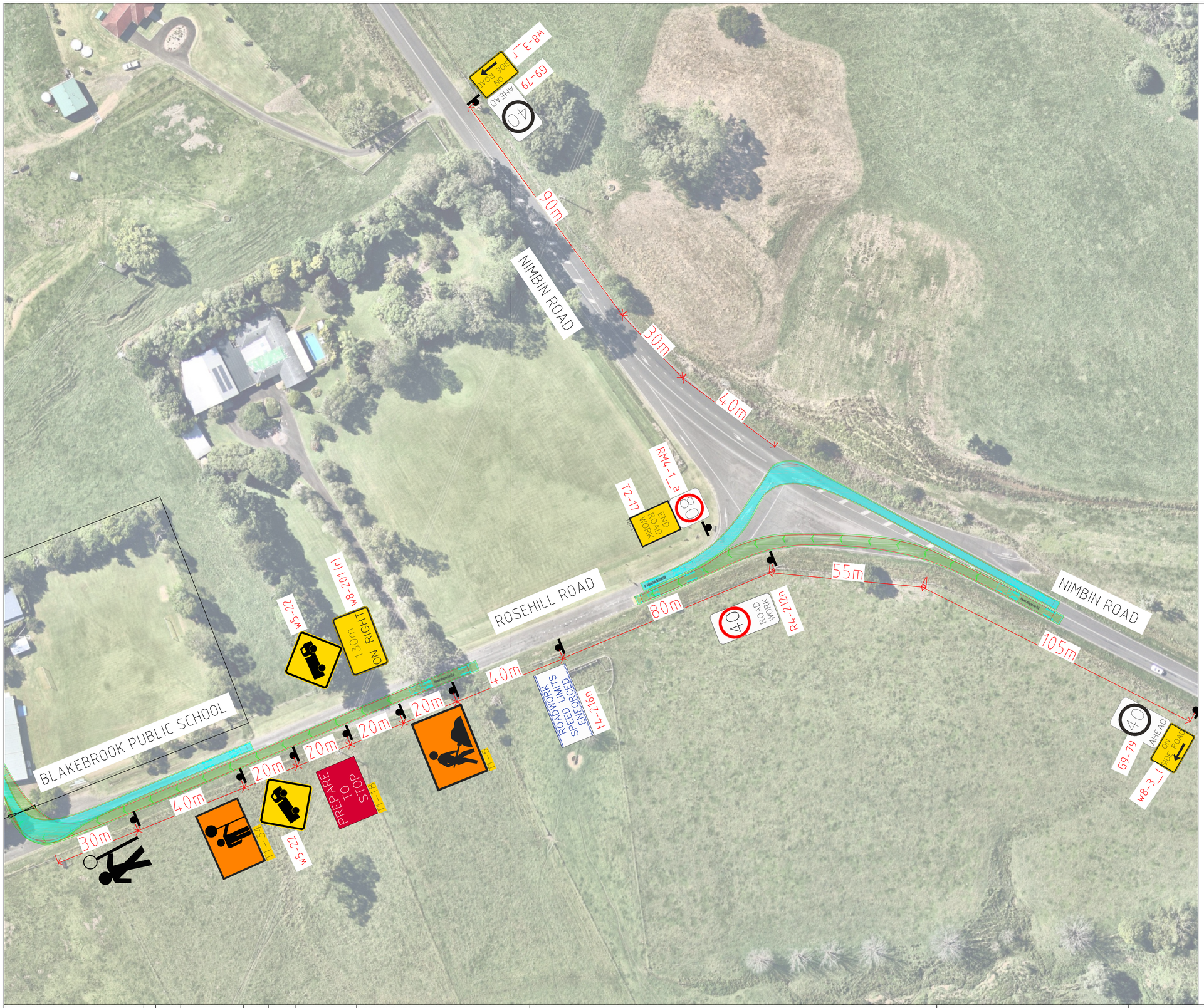
6. Summary

This CTMP has been prepared to outline the construction traffic measures to improve site safety to the public, workers and the construction process.

The construction activity is anticipated to have minimal disruption to the daily activities within the vicinity of the site with the measures described in the CTMP.

It is envisaged that this document will be continually reviewed and amended if required, due to changes in design, TfNSW, Councils or any other authority requirements. Should any changes be made, they will need to be reviewed and approved by the relevant road authority.

Appendix 1. TGS



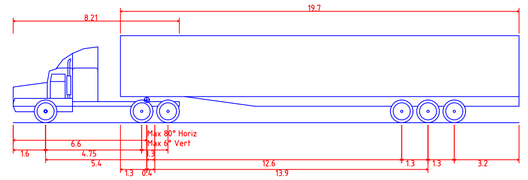
TRAFFIC GUIDANCE SCHEME

General Notes:

1. All information provided regarding traffic guidance schemes (TGS) is indicative
2. Detailed TGS are to be developed by the appointed traffic control company
3. All TGS revisions or adjustments must be made by a suitably accredited person with the appropriate safework NSW licence
4. This drawing is not to scale and is to be used for reference purposes only
5. All signage is to be in accordance with TCAWS v6.1 (2022) and set up in visible and appropriate locations
6. TGS signage to be spaced atdimension D in accordance with TCAWS.

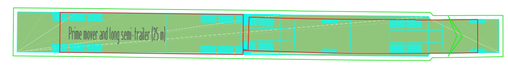
Specific Notes:

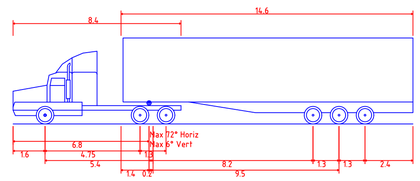
1. Traffic controller is to be in place on any occasion where any (25 or 20m) articulated semi-trailers are entering or exiting the site.
2. On other occasions, where smaller vehicles are required, the traffic controller may not be required for access and egress swept paths.



Prime mover and long semi-trailer (25 m)

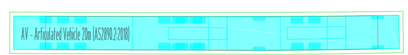
Overall Length	25.000m
Overall Width	3.000m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Max Track Width	3.000m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m





AV - Articulated Vehicle 20m (AS2890.2:2018)

Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P2	29/08/23	FOR INFORMATION	PS	AM
P1	24/08/23	FOR INFORMATION	PS	AM

DRAWING KEY

DRAWN BY -
PRAGYA SHARMA - TCT1021273 (PWZ)

PROJECT
BLAKEBROOK PUBLIC SCHOOL

DRAWING TITLE
TRAFFIC GUIDANCE SCHEME 1
EAST OF SCHOOL
NIMBIN ROAD / ROSEHILL ROAD / SITE ACCESS
25M AV - INGRESS
20M AV - EGRESS

CLIENT	ADCO
DRAWING #	01C-0001
PROJECT #	22-0608
SCALE	NTS

PRELIMINARY

REV P2

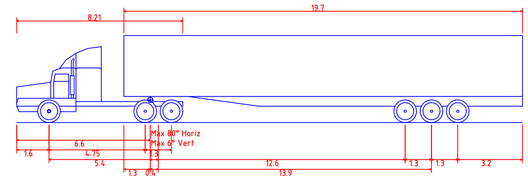
TRAFFIC GUIDANCE SCHEME

General Notes:

1. All information provided regarding traffic guidance schemes (TGS) is indicative
2. Detailed TGS are to be developed by the appointed traffic control company
3. All TGS revisions or adjustments must be made by a suitably accredited person with the appropriate safework NSW licence
4. This drawing is not to scale and is to be used for reference purposes only
5. All signage is to be in accordance with TCAWS v6.1 (2022) and set up in visible and appropriate locations
6. TGS signage to be spaced atdimension D in accordance with TCAWS.

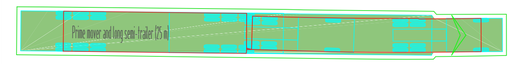
Specific Notes:

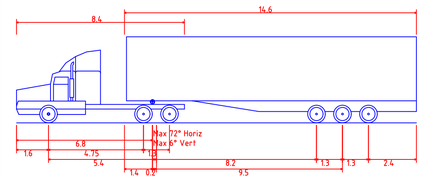
1. Traffic controller is to be in place on any occasion where any (25 or 20m) articulated semi-trailers are entering or exiting the site.
2. On other occasions, where smaller vehicles are required, the traffic controller may not be required for access and egress swept paths.



Prime mover and long semi-trailer (25 m)

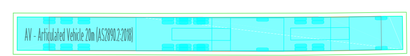
Overall Length	25.000m
Overall Width	3.000m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Max Track Width	3.000m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m





AV - Articulated Vehicle 20m (AS2890.2:2018)

Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P2	29/08/23	FOR INFORMATION	PS	AM
P1	24/08/23	FOR INFORMATION	PS	AM

DRAWING KEY

DRAWN BY -
PRAGYA SHARMA - TCT1021273 (PWZ)

PROJECT
BLAKEBROOK PUBLIC SCHOOL

DRAWING TITLE
TRAFFIC GUIDANCE SCHEME 2
SOUTHWEST OF SCHOOL
ROSEHILL ROAD/SITE ACCESS
25M AV - INGRESS
20M AV - EGRESS

CLIENT	ADCO
DRAWING #	01C-0002
PROJECT #	22-0608
SCALE	NTS

PRELIMINARY

REV P2