MURWILLUMBAH EDUCATIONAL CAMPUS

Construction Traffic Management Plan

Schools Infrastructure NSW

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1. INTRODUCTION

1.1 Background

Bitzios Consulting has been engaged to prepare a Construction Traffic Management Plan (CTMP) and a Construction Traffic Pedestrian Management Plan (CTPMP) for the redevelopment of the Murwillumbah High School (MHS) into the Murwillumbah Educational Campus (MEC) located at 86 Riverview Street, Murwillumbah (subject site) (formally described as Lot 2 DP 578679).

The school location is shown in Figure 1.1.

SOURCE: Nearmap

Figure 1.1: Subject Site Location

1.2 Purpose

The purpose of this CTMP is to assess the impacts associated with construction activities and maintain an accessible and efficient road network for all users. This document has been prepared to assist the Principal Contractor (i.e. Built) to implement vehicle and pedestrian management measures when carrying out the works phase of the development.

The purpose of this report is to also inform the state significant development (SSD) applicants and respond to NSW Department of Planning, Industry, and Environmental (DPIE) and the Planning Secretary's Environmental Assessment Requirements (SEARs)

2. EXISTING CONDITIONS

2.1 Road Network

Table 2.1 provides a summary of the key roads within the surrounding road network.

Table 2.1: Key Roads

Road Name	Jurisdiction	Hierarchy	Lanes	Divided	Posted Speed
Riverview Street / Kyogle Road	Council*	Sub-arterial	2	No	50km/h 40km/h (school peaks)
Nullum Street	Council	Collector	2	No	50km/h 40km/h (school peaks)
High School Lane	Council	Local	1	No	50km/h**
James Street	Council	Collector	2	Yes	60km/h 40km/h (school peaks)

** Riverview Street / Kyogle Road is a regional road of state significance to TfNSW*
*** Default speed limit for built-up urban areas*

The surrounding roads are generally sign posted with kerbside 'No Stopping' or 'Bus Zone' with exceptions of James Street and sections of Riverview Street. Bus zones are located on Nullum Street from the south of Hartigan Street to the school frontage.

Two staff parking areas are provided within the subject site, as follows

- Parking Area 1- Accessed via the Riverview Street / Kyogle Road along with a small KnD facility and four central parking spaces
- Parking Area 2 - Accessed via the southern end of Nullum Street.

Nearby on-street parking restrictions and school parking facilities are shown in Figure 2.1.

SOURCE: Nearmap

Figure 2.1: Nearby On-street Car Parking Restrictions

The surrounding key intersections in proximity to the subject site are detailed in Table 2.2.

Table 2.2: Surrounding Key Intersection Details

No.	Major Road	Minor Road	Jurisdiction	Control
1	Riverview Street	Kyogle Road	Council	Priority
2	Riverview Street	James Street	Council	Priority
3	Nullum Street	High School Lane	Council	Priority
4	Nullum Street	James Street	Council	Priority

The location of the key intersections with respect to the school is shown in Figure 2.2.

Source: Nearmap

Figure 2.2: Key Intersections

2.2 Alternate Transport

2.2.1 Public Transport

The subject site is currently serviced by school bus services which interchange on Nullum Street, at the bus layover area. The bus interchange allows for buses to bring students into Murwillumbah before being distributed to the surrounding schools. During the interchange process students generally wait on the buses or are corralled on the pathway. No management of students outside the buses is currently undertaken with several different bus operators undertaking a well-established morning and afternoon operation.

The bus interchange area extends for approximately 300m on the western side of Nullum Street (i.e. between Hartigan Street and the cul-de-sac fronting the school). The MHS student bus drop off /pick up zone extends from the cul-de-sac fronting the school to High School Lane, on the eastern side of Nullum Street (extending for approximately 100m), as shown in Figure 2.3.

Figure 2.3: Existing Bus Interchange Facility on Nullum Street

2.2.2 Active Transport

Footpaths are provided along Nullum Street and Riverview Street fronting the subject site. Nullum Street footpaths provide connections between the school and the adjacent hockey and sporting fields as well as the residential catchment and Murwillumbah CBD to the north. The Riverview Street footpaths form part of the greater network, connecting MHS and the western residential catchments.

No bicycle lanes and off-road cycle/shared paths are provided surrounding the subject site.

The surrounding active transport network is shown in Figure 2.4.

Figure 2.4: **Surrounding Active Transport Network**

3. CONSTRUCTION ACTIVITIES

3.1 Overview

The proposed site construction works will be contained wholly within the subject site boundaries. No works will be undertaken at or adjacent to public road. A separate CTMP will be prepared for any external road or infrastructure works as part of works applications with the relevant local authorities.

The proposed site construction works have been divided as follows:

- **Work Phase 1**: Demolition of building E
- **Work Phase 2**: Construction of proposed buildings 1, 2, 3 and 4, refurbishment building F and refurbishment of building A.

3.1.1 Work Phase 1

As advised by the principal contractor, work phase 1 will require approximately 20 workers daily.

During Work Phase 1 workers and deliveries will access the subject site via two access points at Nullum Street and via one access point at Riverview Street.

3.1.2 Work Phase 2

As advised by the principal contractor, work phase 2 will require approximately 120 workers daily.

During Work Phase 1 workers and deliveries will access the subject site via two access points at Nullum Street and via one access point at Riverview Street.

3.2 Construction Hours

The hours of construction including delivery of materials to and from the site will occur within the following periods:

- Monday to Friday 7:00am-6:00pm (inclusive)
- Saturday 7:00am-1:00pm (inclusive)
- No works to be undertaken on Sundays or public holidays.

3.3 Schedule of Works

The construction works will be completed over two stages as follows:

- Phase 1 – One month period
- Phase 2 – 18 months period.

3.4 Delivery, Loading and Unloading of Plant, Equipment and Materials

During the construction period, all deliveries, loading and unloading of all plant, equipment and/or materials are restricted to occur wholly within the subject site grounds. It is understood that a 20.0m Articulated Vehicle (AV) will be used to float plant to and from the construction site as needed.

Irrespective of the above, if required, a specific Work Zone permit should be made to the relevant road authority.

3.5 Construction Workers Parking

Worker's parking will be provided within the school grounds (i.e. MHS oval, south of the work zone) and at the bus zone area fronting the subject site at Nullum Street.

In addition to on-site parking, surrounding public parking is generally available to accommodate for additional parking demands without having a significant impacting on local amenity or street parking for surrounding residents, businesses, and their visitors.

3.6 Construction Worker Induction

All workers and subcontractors engaged on-site should be required to undergo a site induction. The induction should address elements related to traffic and transport management, including:

- Existence and requirements of the CTMP
- Relevant legislation, regulations and conditions (e.g. Workplace Health & Safety procedures)
- Roles and responsibilities
- Incident response, management and reporting procedures
- Construction hours
- Access routes and preferred parking locations
- Road safety and occupancy
- Temporary and interim traffic arrangements.

Informal training on traffic management (including monitoring and reviewing traffic control devices and mitigation measures) should be undertaken during toolbox meetings with site personnel.

3.6.1 Safe Work Requirements

To protect the safety of workers and the public, the work site should be adequately secured (i.e. security fence) to prevent access by unauthorised personnel. Additionally, all works must be conducted in accordance with the relevant SafeWork requirements.

3.6.2 SafeWork Method Statements

A Safe Work Method Statement (SWMS) should be complied whenever any person is undertaking high risk construction work as defined by SafeWork NSW. Generally, the SWMS should include:

- The task/s
- All known hazards and risks
- Any control measures including their implementation, monitoring and review.

If a control measure is changed, the SMWS are to be reviewed and updated accordingly.

3.7 Assumptions

At this stage the exact school operations and surrounding schools bus operations is not yet confirmed. The following assumptions have been made, based on consultation with relevant stakeholders:

- All existing MHS students will be relocated to the Wollumbin High School, as such no students or staff will be in the MHS grounds during the entire construction period
- The school bus stop area on the western side of Nullum Street will be closed
- Bus interchange operations will continue to operate as normal, using the bus interchange facility on the eastern side of Nullum Street. Students enrolled in the surrounding schools will continue to use the interchange between buses as per existing operations. Additional details regarding the students interchange between buses is provided in Section 4.

4. TRAFFIC MANAGEMENT PLAN

4.1 Work Phase 1

Key elements for Works Phase 1 are as follows:

- All plant and workers will be contained wholly within the subject site
- Existing Building E will be demolished
- Vehicle access will occur via the Nullum Street and Riverview Street construction access in accordance with the Swept Path assessment provided in **Appendix B**
- The largest vehicle during Phase 1 is anticipated to be a 20m AV
- AVs exiting the construction site via the Riverview Street access will require a contra-flow arrangement
- Outside of work hours, temporary infrastructure is to be installed to restrict vehicular and pedestrian access within the construction zone
- Traffic Management will need to be set up and removed outside of the works window.

4.1.1 Traffic Management Options

The detailed traffic management option analysis has been provided in **Appendix B**.

4.1.1.1 General Traffic

Although the works from Phase 1 will occur outside the existing carriageway, the southbound carriageway at Riverview Street will require to be closed to allow for the 20m AV trucks to egress from the construction zone. Traffic controllers will be required to undertake a contra-flow arrangement fronting the construction access, around the raised median for larger construction vehicle egressing the subject site.

Traffic controllers will stop traffic in both directions, allowing constructions vehicles to use the southbound carriageway to travel north before merging into the northbound traffic lane past the raised median.

No impacts to general traffic movements are expected at the two access points at Nullum Street, as such current arrangements are to be retained during Work Phase 1.

4.1.1.2 Public Transport Stops and Public Transport Operations

As per the assumptions described in Section 3.7, no students will be on the MHS grounds during the entire construction period. As such the existing ‘MHS bus stop’ on the western side of Nullum Street will be closed.

The bus interchange area will remain open to allow the current school bus interchange operations to continue as per existing (i.e. students interchanging between buses at the eastern side of Nullum Street). Given the increase of heavy vehicles movements in the area and the increase in student numbers using the bus interchange area, it is recommended that a ‘traffic controller / marshal’ assist students interchanging between buses and that temporary shelters are installed on the eastern side of Nullum Street.

All student interchange movements between buses are restricted to the eastern side of Nullum Street out of the road carriageway. As part of the interchange, shelter facilities should be installed to accommodate students on the eastern side of Nullum Street.

4.1.1.3 On-road Cyclists

It is noted there are no on-road cycle lanes fronting the subject site. On-road cyclists are to follow the same traffic management as general traffic, as described in Section 4.1.1.1. This includes the contra-flow arrangement in which cyclists will be directed to wait for the passing 20m AV.

4.1.1.4 Pedestrians

The works from Work Phase 1 will not impact the existing footpath network. Current arrangements for pedestrians are to be retained during the Work Phase 1.

4.1.1.5 Driveway Access

The works from Work Phase 1 will not impact driveway access. Current arrangements for driveway access are to be retained during Work Phase 1.

4.1.1.6 On-Street Parking

The works from Work Phase 1 will not impact on-street parking. Current arrangements for on-street parking are to be retained during Work Phase 1.

4.1.1.7 Refuse Collection

General refuse collection at the school grounds will cease during the construction period. Current arrangements for refuse collection are to be retained during Work Phase 1 for surrounding developments.

4.1.1.8 State Emergency Services (SES)

It is acknowledged a SES facility is provided approximately 150m northwest of the construction access point at Riverview Street. The construction works will not impact SES access. Current arrangements for SES are to be retained during Work Phase 1.

4.1.2 Preferred Traffic Management Arrangement for Work Phase 1

Based on the above, the traffic management arrangements for Work Phase 1 are as follows:

- Contra-flow for arrangement for general traffic to allow construction vehicles to exit the subject site at Riverview Street
- Retain current arrangements for general traffic at Nullum Street
- Close the existing MHS bus stops on the western side of Nullum Street
- Retain existing arrangements for the bus layover area on the eastern side of Nullum Street – Traffic controllers / marshals to assist students during interchange between buses
- Contra-flow arrangement for on-road cyclists to allow construction vehicles to exit the subject site at Riverview Street
- Retain current arrangements for on-street cyclists at Nullum Street
- Retain current arrangements for pedestrians
- Retain current arrangements for driveway access
- Retain current arrangements for on-street parking
- Retain current arrangements for refuse collection
- Retain current arrangements for SES access.

4.2 Work Phase 2

Key elements for Work Phase 2 are as follows:

- All plant and workers will be contained wholly within the subject site
- Construction of proposed buildings 1, 2, 3 and 4, refurbishment building F and refurbishment of building A.
- Vehicle access will occur via the Nullum Street and Riverview Street construction access in accordance with the Swept Path assessment provided in **Appendix B**
- The largest vehicle during Phase 2 is anticipated to be a 20m AV
- AVs exiting the construction site via the Riverview Street access will require a contra-flow arrangement
- Outside of work hours, temporary infrastructure is to be installed to restrict vehicular and pedestrian access within the school grounds
- Traffic Management will need to be set up and removed outside of the works window.

4.2.1 Traffic Management Options

The detailed traffic management option analysis has been provided in **Appendix C**.

4.2.1.1 General Traffic

As per Phase 1, the southbound carriageway at Riverview Street will require to be closed to allow for the 20m AV trucks to egress from the construction zone. Traffic controllers will be required to undertake a contra-flow arrangement fronting the construction access, around the raised median just for construction vehicle egressing the subject site.

Traffic controllers will stop traffic on both directions, allowing constructions vehicles to use the southbound carriageway to travel north before merging into the northbound traffic lane past the raised median.

No impacts to general traffic movements are expected at the two access points at Nullum Street, as such current arrangements are to be retained during Work Phase 2.

4.2.1.2 Public Transport Stops and Public Transport Operations

No students will be on the MHS grounds during the entire construction period. As such the existing 'MHS bus stop' on the western side of Nullum Street will be closed.

The bus interchange area will remain open to allow the current school bus interchange operations to continue as per existing (i.e. students interchanging between buses at the eastern side of Nullum Street). Given the increase of heavy vehicles movements in the area and the increase in student numbers using the bus interchange area, it is recommended that a 'traffic controller / marshal' assist students interchanging between buses and that temporary shelters are installed on the eastern side of Nullum Street.

All student interchange movements between buses are restricted to the eastern side of Nullum Street out of the road carriageway. As part of the interchange, shelter facilities should be installed to accommodate students on the eastern side of Nullum Street.

4.2.1.3 On-road Cyclists

It is noted there are no on-road cycle lanes fronting the subject site. On road cyclists are to follow the same traffic management as general traffic, as described in Section 4.2.1.1. This includes the contra-flow arrangement in which cyclists will be directed to wait for the passing 20m AV.

4.2.1.4 Pedestrians

The works from Work Phase 2 will not impact the existing footpath network. Current arrangements for pedestrians are to be retained during the Work Phase 2.

4.2.1.5 Driveway Access

The works from Work Phase 2 will not impact driveway access. Current arrangements for driveway access are to be retained during Work Phase 2.

4.2.1.6 On-Street Parking

The works from Work Phase 2 will not impact on-street parking. Current arrangements for on-street parking are to be retained during Work Phase 2.

4.2.1.7 Refuse Collection

General refuse collection at school grounds will cease during the construction period. Current arrangements for refuse collection are to be retained during Work Phase 2 for surrounding developments.

4.2.1.8 State Emergency Services (SES)

It is acknowledged a SES facility is provided approximately 150m northwest of the construction access point at Riverview Street. The construction works will not impact SES access. Current arrangements for SES are to be retained during Work Phase 2.

4.2.2 Preferred Traffic Management Arrangement for Work Phase 2

Based on the above, the traffic management arrangements for Work Phase 2 are as follows:

- Contra-flow for arrangement for general traffic to allow construction vehicles to exit the subject site at Riverview Street
- Retain current arrangements for general traffic at Nullum Street
- Close the existing MHS bus stops on the western side of Nullum Street
- Retain existing arrangements for the bus layover area on the eastern side of Nullum Street – Traffic controllers / marshals to assist students during interchange between buses
- Contra-flow arrangement for on-road cyclists to allow construction vehicles to exit the subject site at Riverview Street
- Retain current arrangements for on-street cyclists at Nullum Street
- Retain current arrangements for pedestrians
- Retain current arrangements for driveway access
- Retain current arrangements for on-street parking
- Retain current arrangements for refuse collection
- Retain current arrangements for SES access.

5. CONSTRUCTION TRAFFIC IMPACTS

5.1 Construction Traffic Generating Activities

An increase in traffic volumes is expected during the construction of the project as the result of commuting workers, deliveries of equipment and haulage of materials to and from the subject site. It is anticipated that the primary traffic generation of construction will comprise of:

- The delivery and removal of construction machinery and materials, spoil and waste
- The movement of construction personnel, including contractors, workers and management staff.

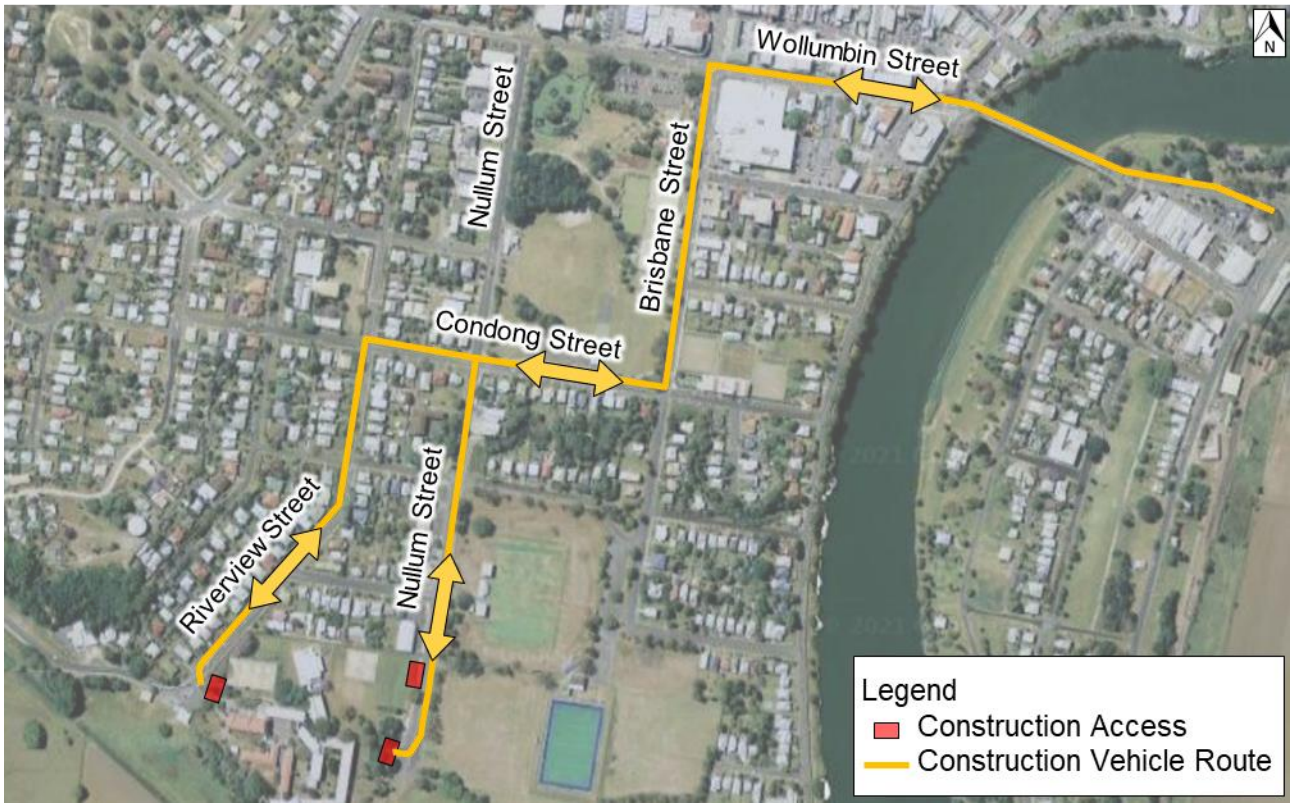
5.2 Construction Vehicle Routes

5.2.1 Access Routes

All construction traffic will come from the north-east of Murwillumbah, using Tweed Valley Way. The main access / haulage construction traffic will use the following routes to / from the site:

- Ingress construction traffic travelling from Tweed Valley Way entering the site via the Nullum Street access:
  - Turn right from Tweed Valley Way onto Wollumbin Street
  - Turn left from Wollumbin Street onto Brisbane Street
  - Turn right from Brisbane Street onto Condong Street
  - Turn left from Condong Street onto Nullum Street
  - Enter the construction site from the Nullum Street access.
- Ingress construction traffic travelling from Tweed Valley Way entering the site via Riverview Street access:
  - Turn right from Tweed Valley Way onto Wollumbin Street
  - Turn left from Wollumbin Street onto Brisbane Street
  - Turn right from Brisbane Street onto Condong Street
  - Turn left from Condong Street onto Riverview Street
  - Enter the construction site from the Riverview Street access.
- Egress construction traffic exiting the site via Nullum Street access:
  - Turn left out of the Nullum Street Access
  - Turn Right from Nullum Street onto Condong Street
  - Turn left from Condong Street onto Brisbane Street
  - Turn right from Brisbane Street onto Wollumbin Street
  - Turn left from Wollumbin Street onto Tweed valley way.
- Egress construction traffic exiting the site via Riverview Street access:
  - Turn right out of the Riverview Street Access onto Riverview Street
  - Turn right from Riverview Street onto Condong Street
  - Turn left from Condong Street onto Brisbane Street
  - Turn right from Brisbane Street onto Wollumbin Street
  - Turn left from Wollumbin Street onto Tweed valley way.

The construction vehicle routes are shown in Figure 5.1.



SOURCE: Google Maps

Figure 5.1: Construction Vehicle Routes

5.3 Construction Traffic Impacts

5.3.1 Surrounding Road Network

No detailed analysis of the wider transport network has been undertaken as it is expected that the surrounding road network will have sufficient capacity to accommodate the low levels of additional construction traffic coupled with the temporary closure of school activities at the subject site. Buses and other heavy vehicles currently operate on all streets proposed to be used by construction vehicles

5.3.2 Pedestrians and Cyclists

There is expected to be minimal impacts to pedestrians and cyclists in the area during construction due to the extent of works being internal. Any impacts to pedestrian pathways or cycle routes will be managed under the CTMP.

5.3.3 Bus Zones and Services

The school bus interchange is not expected to be impacted by the construction traffic due to the works being internal. It is recommended that a traffic marshal be present during the morning and afternoon peak hours during the bus interchange times to minimise risks to students on the eastern side of Nullum Street.

5.3.4 Property Access

It is not expected that construction works will have any adverse impacts on existing property accesses of nearby lots with access to all properties maintained during construction unless otherwise agreed to by the relevant business owner, property owner or occupier.

5.3.5 Emergency Services

The proposed construction activities are not expected to impact emergency services. Emergency services will continue to have access to the site and surrounding roads.

5.3.6 Refuse Collection

The proposed construction activities are not expected to impact refuse collection vehicles. Refuse collection will continue to have access to the surrounding properties.

6. TRAFFIC GUIDANCE SCHEMES

6.1 Traffic Guidance Schemes Implementation

Prior to implementation, construction traffic management measures will require the preparation of an approved Traffic Guidance Scheme (TGS) indicating the road worksite arrangements to ensure the safety of all road users as well as workers at the site.'

Given the level of uncertainty at this stage, regarding the existing MHS school and bus layover operations, TGSs will be completed at this stage. TGSs are recommended to be developed once the above assumptions are confirmed.

TCPs will be developed as per Australian Standards AS1742.3 and the RMS *Traffic Control at Work Sites Technical Manual* (*version 6*).

6.2 Risk Assessment

Similarly, the risk assessment for the subject site construction works will be developed once the above assumptions are confirmed.

7. MONITORING AND EVALUATION

7.1 Inspection and Monitoring

In addition to traffic control safety inspections, formal and documented daily (short-term) and weekly (long-term) inspections shall be undertaken at work sites by suitably qualified persons (i.e. holding the Prepare Work Zone Traffic Management Plan qualification).

It is also important for any near miss incidents to be recorded and documented then reviewed as part of any inspection.

7.2 Signage Device List

When TGSs are completed, all signage and devices are to be provided as per the TGS. If signage nominated is not available like for like replacement is acceptable where the principal contractor has been notified and the proposed change has been certified by the Nominated Traffic Officer (NTO).

7.3 Site Access

All site work areas and access / egress to and from the site are to be negotiated by the Principal Contractor. On-site work areas are to be put in place by the Principal Contractor.

7.4 Site Delivery Timeframes

All deliveries are to be arranged 24 hours prior to the delivery date. Deliveries may be scheduled within the following time frames:

- Work Phase 1: Monday to Friday 7:00am-6:00pm
- Work Phase 1: Saturday 7:00am-1:00pm
- Work Phase 2: Monday to Friday 7:00am-6:00pm
- Work Phase 2: Saturday 7:00am-1:00pm

7.5 Coordination Meetings

Coordination meetings are to be coordinated as follows:

- Principal Contractor prestart meeting: two weeks prior to initial commencement of works
- Traffic Management prestart meeting: two weeks prior to initial commencement of works
- Daily onsite prestart: 30 minutes before works start for Traffic Control.

7.6 TGS On-Site Implementation

When the TGS's are produces, Traffic Controllers are to set up TGS's as follows:

- Work Phase 1 Monday to Friday: Set up from 6:00am and remove on completion of works (no later than 7:00pm). Aftercare signage to be in place after 6:00pm.
- Work Phase 1 Saturday: Set up from 6:00am and remove on completion of works (no later than 2:00pm). Aftercare signage to be in place after 1:00pm
- Work Phase 2 Monday to Friday: Set up from 6:00am and remove on completion of works (no later than 7:00pm). Aftercare signage to be in place after 6:00pm.
- Work Phase 2 Saturday: Set up from 6:00am and remove on completion of works (no later than 2:00pm). Aftercare signage to be in place after 1:00pm

7.7 Communication

Relevant information regarding communications and public notifications is as follows:

- All issues to be communicated to site supervisor who will escalate as appropriate
- The relevant traffic manager to be contacted prior to TGS implementation and upon removal of TGS (when these are completed)
- Principal contractor to designate Site Wide General UHF Channel (e.g.. channel 30)
- Principal contractor name to display site UHF Channel/s in advance or work area
- All Subcontractor vehicles to be fitted with UHF radios
- Work area access / egress at Principal Contractor Supervisor's approval
- Emergencies to be reported to the Principal Contractor Supervisor or Team Leader onsite
- Principal Contractor Supervisor or Team Leader onsite to contact emergency services and WHS.

7.8 Contingency Plan

Relevant information regarding the contingency plan is as follows:

- Traffic Management Company to have Contingency Plan demonstrating ability to Supply Continuity of Service as negotiated by the Principal Contractor
- Principal Contractor to:
  - Designate onsite Emergency Contact
  - Ensure Emergency Response Team (ERT) readiness
  - Provide emergency procedures
  - Liaise with Emergency Services
  - Provide emergency evacuation training, equipment, plans, designated assembly points, signage, support.

7.9 Incident Response

In an emergency:

- Emergency Services to have full site access
- Affected site works to cease
- Principal Contractor Emergency Response Team (ERT) to enact ERT Plan
- In the event of an emergency, Emergency Services are to be contacted at 000.

7.10 Key Personnel

7.10.1 Project Manager Role

The Project Manager, as the representative of the Principal Contractor is responsible for the overall management and safety of the project. The Project Manager shall:

- Ensure that a traffic control safety inspection is carried out at least once per month by a qualified person and that the date, time and deficiencies are recorded
- Ensure that a traffic control safety inspection or road safety audit is carried out prior to the implementation of any changes in traffic control or a TGS
- Provide the TMP and TGS to the relevant personnel
- Ensure that TMP and TGS's have been understood
- Ensure risk is managed and that high-risk work is performed safely
- Ensure that near miss incidents are being reported and recorded then reviewed

- Ensure that any corrective action specified is taken and recorded
- Develop and implement the Work Health and Safety (WHS) Plan
- Ensure a copy of the safe work method statement (SWMS) for high risk works has been completed before the high-risk works start
- Ensure only registered Traffic Management companies are used, and that the traffic controllers are accredited to required level
- Liaise with stakeholders
- Manage all the complaints.

This information may be critical, should legal proceedings follow an accident.

7.10.2 Works Supervisor Role

For all long-term work sites, the Works Supervisor who is appropriately qualified shall:

- Hold current Traffic Management qualification
- Ensure all equipment and plant is fit for purpose
- Ensure all personnel are adequately qualified and competent
- Ensure all traffic controllers have the capacity to implement, monitor and close the TGS's as per MUTCD Risk Assessment requirements
- Perform toolboxes meetings daily
- Report any incidents or near miss incidents as soon as possible
- Provide TMP and TGS to workers as required
- Ensure risk is managed and that compliance has been met by reviewing and monitoring the risk
- Inspect the traffic control layout on the day before the work begins and at least once per week during the duration of the work
- Inspect the traffic control layout between shifts at least once during the first week and at least once every two months for the duration of work
- Provide after-hours contact to local police for the duration of the work
- Inspect the site on the final day to ensure that unnecessary signs and devices are removed
- Record results of these inspections noting date, time, deficiencies and any corrective action taken or specified Plan arrangements for vehicles associated with the works
- Ensure that any specified corrective action is taken.

7.10.3 Traffic Controllers

The services of a qualified Traffic Control subcontractor must be used to provide traffic control services for the construction of the project. Traffic controllers will be trained and inducted in accordance with the Traffic Controller Accreditation and Implementation Traffic Control Plans qualifications as well as comply with the requirements of the *Traffic Control at Work Sites Technical Manual* (Version 5.0).

It is also the responsibility of a Traffic Controllers employed on-site to record any issues relating to the implemented traffic management measures and report them to the Site Manager so that any issues are recorded within a site register then reviewed.

7.11 Notifications

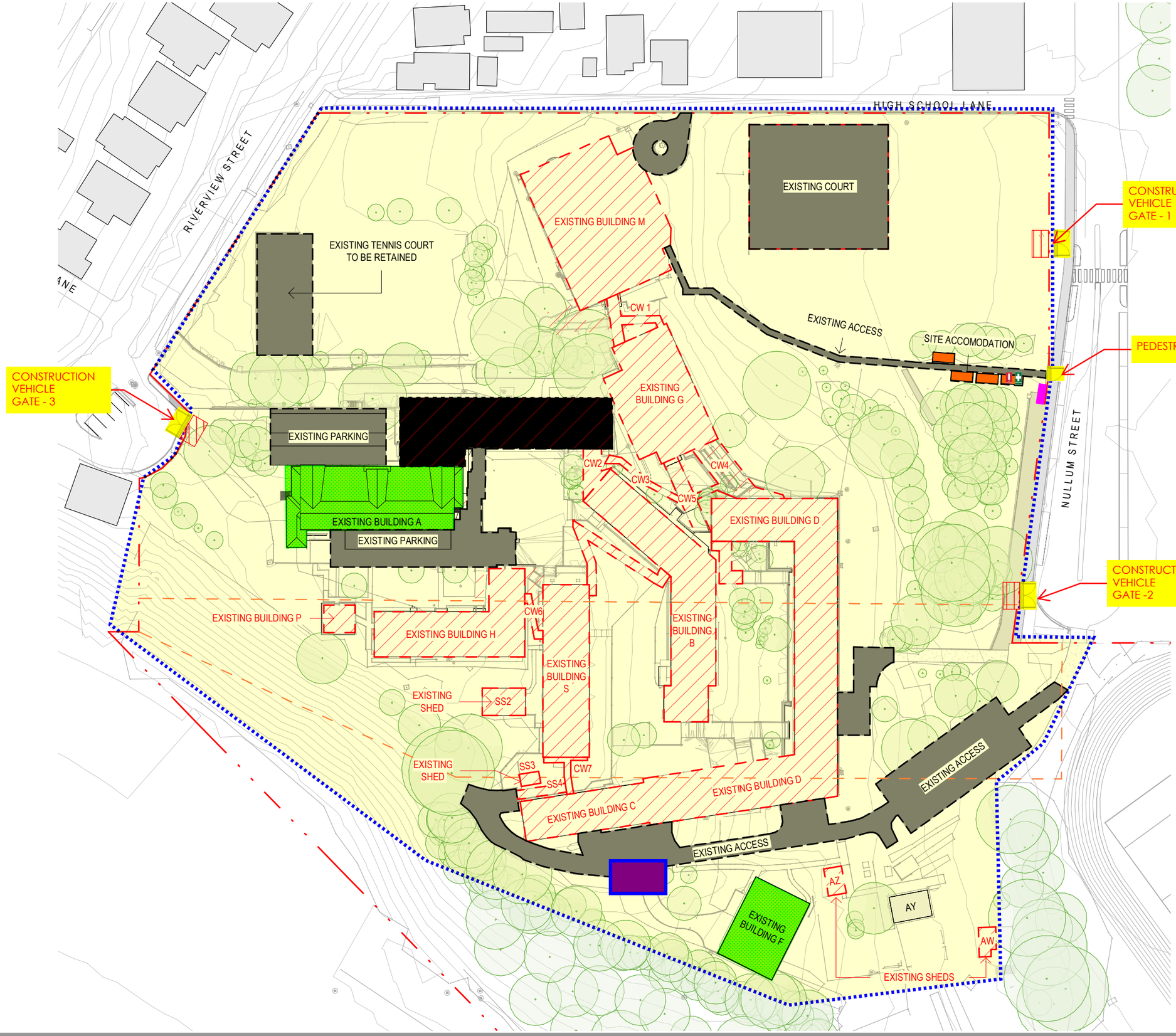
All traffic management notifications to be submitted and authorised before implementation, as per MRTS02 requirements.

7.12 Records and Reporting

Records and reporting are the undertaken in accordance with MRTS02, as follows:

- Signage records to be completed daily as per MUTCD Appendix A
- Bitzios Consulting will monitor effectiveness and amend TGS as required by the Principal Contractor
- All WHS incidents to be reported to Principal Contractor as soon ‘as it is safe to do so’ and not later than ‘end of shift’
- Traffic incident to be reported to Principal Contractor within 24 hours
- Non-conformities to be reported to affected parties and remedied within required timeframe or extension sort prior to timeframe expiry
- Principal Contractor to advise Bitzios Consulting and Traffic Management Company/s of specific records and reporting requirements.

Appendix A: Construction Zone Plan



LEGEND

- CONSTRUCTION ZONE/SITE FENCING
- EXISTING BUILDINGS SLABS TO BE REMOVED
- SHAKER GRID / WASHDOWN FACILITIES
- SITE SIGNAGE
- SITE COMPOUND
- BUILDING UNDER CONSTRUCTION/ REFURBISHMENT
- BUILDING TO BE RETAINED
- COMPLETED BUILDINGS
- PEDESTRIAN GATE
- CONSTRUCTION VEHICLE GATE
- EXISTING BUILDINGS TO BE DEMOLISHED
- CONSTRUCTION WASTE BIN LOCATION

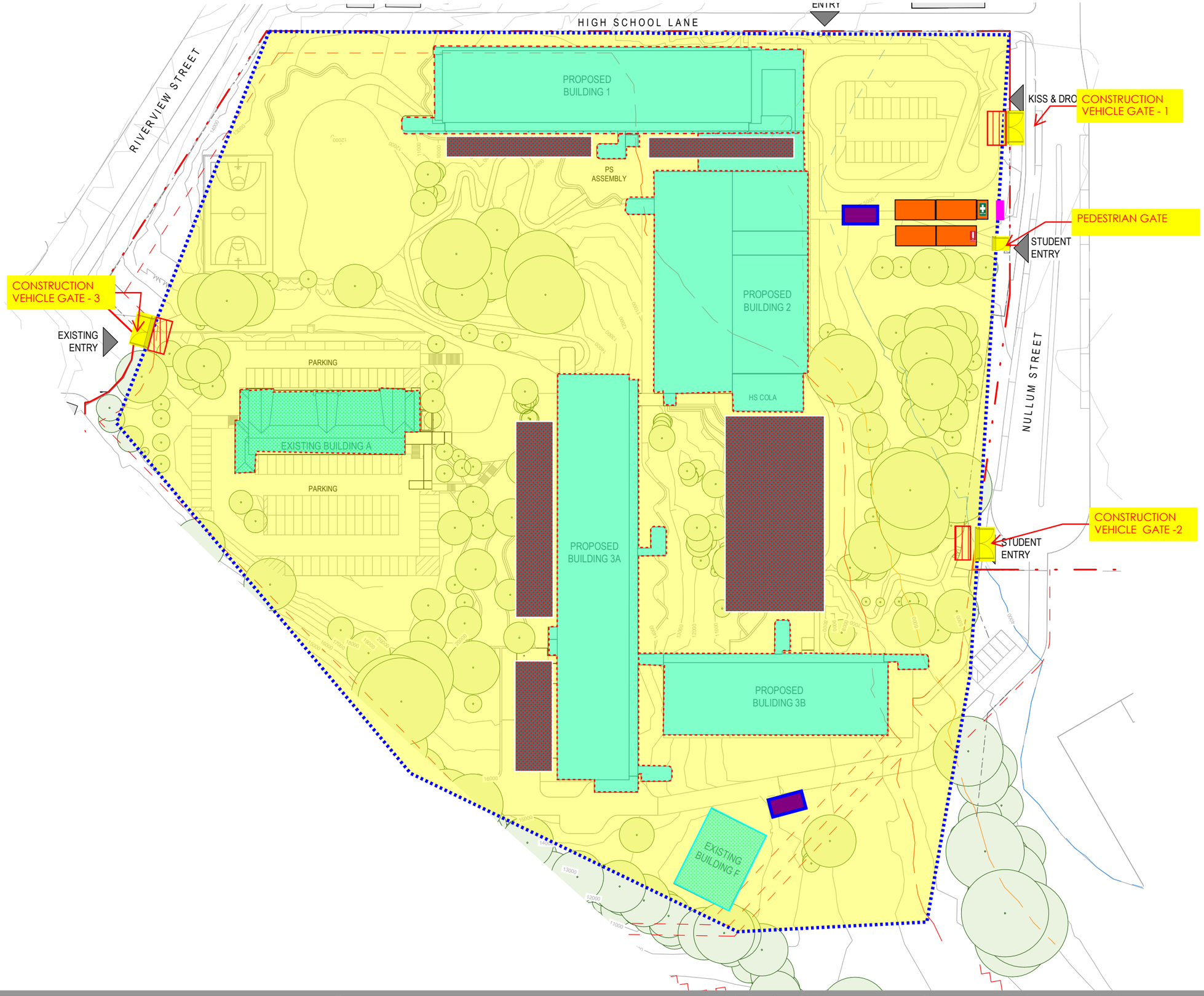
SK001

Revision No.5
Date: 14/03/22

SITE LAYOUT - DEMOLITION

Murwillumbah Education Campus

Built.



LEGEND

- CONSTRUCTION ZONE/SITE FENCING
- EXISTING BUILDING TO BE DEMOLISHED
- SHAKER GRID
- SITE SIGNAGE
- SITE COMPOUND
- BUILDING UNDER CONSTRUCTION/ REFURBISHMENT
- BUILDING TO BE RETAINED
- COMPLETED BUILDINGS
- PEDESTRIAN GATE
- CONSTRUCTION VEHICLE GATE
- CONSTRUCTION WASTE BIN LOCATION
- PLANT AND MATERIALS HANDLING ZONES

SK00B

Revision No.2
Date: 2/12/21

SITE LAYOUT - STAGE 1B

Murwillumbah Education Campus

Built.

Appendix B: Swept Path Diagrams

AV

	mm		
Tractor Width	2500	Lock to Lock Time	6.0
Trailer Width	2500	Steering Angle	28.3
Tractor Track	2500	Articulating Angle	72.0
Trailer Track	2500		

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	Construction Swept paths Diagrams	J.I	08.12.2021

Scale @ A3 0 5 10 15 20 25 1:500

Project: Murwillumbah Education Campus
Construction Traffic Management Plan

Title: Nullum Street North Demolition Access
AV Ingress

Design	Drawn	Checked
J.I	J.I	A.E

CONCEPT ONLY

Date: 08.12.2021

Project Number	Sheet Number	Issue
P5410	1	001

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	Construction Swept paths Diagrams	J.I	08.12.2021

Scale @ A3 0 5 10 15 20 25 1:500

Project: Murwillumbah Education Campus
Construction Traffic Management Plan

Title: Nullum Street North Demolition Access
AV Egress - Option 1

Design	Drawn	Checked
J.I	J.I	A.E

CONCEPT ONLY

Date: 08.12.2021

Project Number	Sheet Number	Issue
P5410	2	001

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	Construction Swept paths Diagrams	J.I	08.12.2021

Scale @ A3 0 5 10 15 20 25 1:500

Project: Murwillumbah Education Campus
Construction Traffic Management Plan

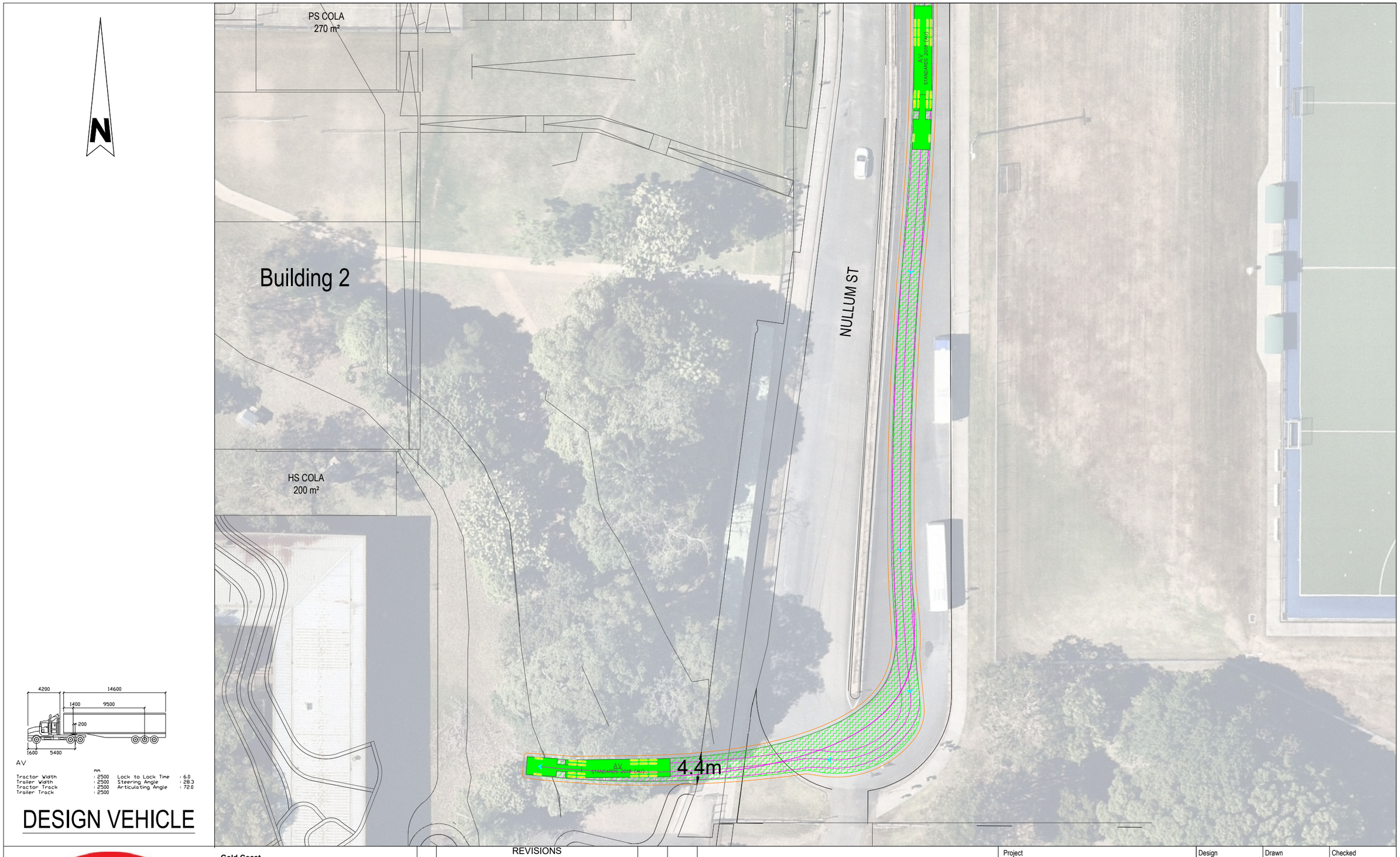
Title: Nullum Street North Demolition Access
AV Egress - Option 2

Design	Drawn	Checked
J.I	J.I	A.E

CONCEPT ONLY

Date: 08.12.2021

Project Number	Sheet Number	Issue
P5410	3	001



AV

	mm		
Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 28.3
Tractor Track	: 2500	Articulating Angle	: 72.0
Trailer Track	: 2500		

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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Construction Swept paths Diagrams	J.I	08.12.2021

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Project
Murwillumbah Education Campus
Construction Traffic Management Plan

Title
Nullum Street South Demolition Access
AV Ingress

Design	Drawn	Checked
J.I	J.I	A.E

CONCEPT ONLY

Date 08.12.2021

Project Number	Sheet Number	Issue
P5410	4	001

AV

	mm		
Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 28.3
Tractor Track	: 2500	Articulating Angle	: 72.0
Trailer Track	: 2500		

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	Construction Swept paths Diagrams	J.I	08.12.2021

Scale @ A3 0 5 10 15 20 25 1:500

Project: Murwillumbah Education Campus
Construction Traffic Management Plan

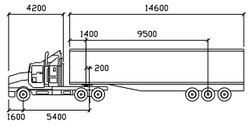
Title: Nullum Street South Demolition Access
AV Egress

Design	Drawn	Checked
J.I	J.I	A.E

CONCEPT ONLY

Date: 08.12.2021

Project Number	Sheet Number	Issue
P5410	5	001



AV

mm

Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 28.3
Tractor Track	: 2500	Articulating Angle	: 72.0
Trailer Track	: 2500		

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	Construction Swept paths Diagrams	J.I	08.12.2021

Scale @ A3 0 5 10 15 20 25 1:500

Project
Murwillumbah Education Campus
Construction Traffic Management Plan

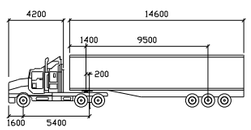
Title
Riverview Street Demolition Access
AV Ingress

Design	Drawn	Checked
J.I	J.I	A.E

CONCEPT ONLY

Date 08.12.2021

Project Number	Sheet Number	Issue
P5410	6	001



AV

	mm		
Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 28.3
Tractor Track	: 2500	Articulating Angle	: 72.0
Trailer Track	: 2500		

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	Construction Swept paths Diagrams	J.I	08.12.2021

Scale @ A3 0 5 10 15 20 25 1:500

Project: Murwillumbah Education Campus
Construction Traffic Management Plan

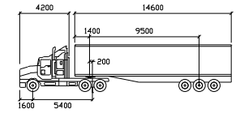
Title: Riverview Street Demolition Access
AV Egress

Design	Drawn	Checked
J.I	J.I	A.E

CONCEPT ONLY

Date: 08.12.2021

Project Number	Sheet Number	Issue
P5410	7	001



AV

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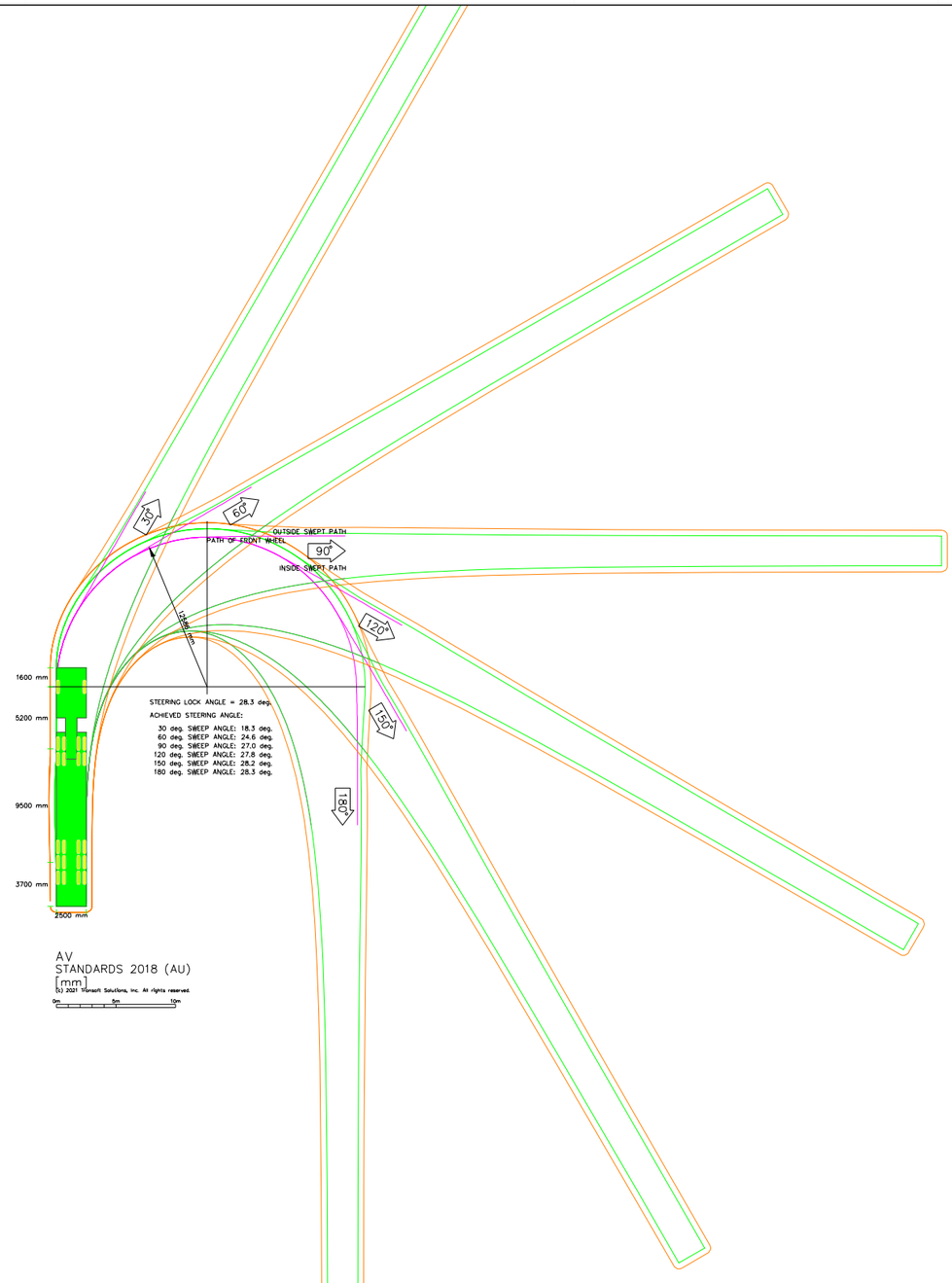
Trailer Width	2500	Steering Angle	28.3
Tractor Track	2500	Articulating Angle	72.0
Trailer Track	2500		



AV
STANDARDS 2018 (AU)
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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	Construction Swept paths Diagrams	J.I	08.12.2021

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Project: Murwillumbah Education Campus
Construction Traffic Management Plan

Title: Vehicle Template

Design	Drawn	Checked
J.I	J.I	L.J

CONCEPT ONLY

Date: 08.12.2021

Project Number	Sheet Number	Issue
P5410	8	001

Appendix C: Detailed Traffic Management Options Analysis

PHASE 1 DETAILED TRAFFIC MANAGEMENT OPTIONS

Road User	Option		Features	Comment
General Traffic	Traffic Around the Worksite	Side-track	Works to be undertaken outside of exisitng carriageway	Not practical and not adopted for Work Phase 1
		Detour	Works to be undertaken outside of exisitng carriageway	Not practical and not adopted for Work Phase 1
		Contra-flow	20.0m AV require contra-flow arrangement to exit the construction site from the Riverview Street Access	Adopted for Work Phase 1
	Traffic Through the Worksite		Works to be undertaken outside of exisitng carriageway	Not practical and not adopted for Work Phase 1
	Traffic Past the Worksite		Works to be undertaken outside of exisitng carriageway	Not practical and not adopted for Work Phase 1
	Retain Current Arrangements		Works to be undertaken outside of exisitng carriageway at Nullum Street	Adopted for Work Phase 1
Public Transport	Relocate Bus Stop		Bus stop located outside working area.	Not practical and not adopted for Work Phase 1
			No bus routes impacted by works	
	Close Bus Stop		Bus Stop no longer required	Adopted for Work Phase 1
			No bus routes impacted by works	
	Retain Current Arrangements		Bus layover located outside working area.	Adopted for Work Phase 1
			May create additional safety hazards for students interchaging between buses. A traffic controller/marshal is recommended to facilitate students movements between buses.	
On-Road Cyclists	Transition to footpath		No works proposed within road carriageway.	Not adopted for Work Phase 1
	Detour		No works proposed within road carriageway.	Not adopted for Work Phase 1
	Retain current arrangements		No on-street traffic lanes. No works proposed within road carriageway. Cyclists to follow contra-flow arrangement at Riverview Street	Adopted for Work Phase 1
Pedestrians	Detour		No works proposed within road carriageway or on footpaths.	Not adopted for Work Phase 1
	Close footpath		No works proposed within road carriageway or on footpaths.	Not adopted for Work Phase 1
	Retain current arrangements		No works proposed within road carriageway.	Adopted for Work Phase 1
Driveway Access	Close Driveways		Works will not impact access driveway	Not adopted for Work Phase 1
	Maintain Accesses		Works will not impact access driveway	Adopted for Work Phase 1
Refuse Collection	Cancel collection		Would remove refuse collection vehicles from the work zone.	School will not be operational during time of construction. Adopted for Phase 1
On-Street Parking	Remove Parking		No works proposed to impact on-street parking	Not adopted for Work Phase 1
	Retain current arrangement		No works proposed to impact on-street parking	Adopted for Work Phase 1

PHASE 2 DETAILED TRAFFIC MANAGEMENT OPTIONS

Road User	Option		Features	Comment
General Traffic	Traffic Around the Worksite	Side-track	Works to be undertaken outside of exisitng carriageway	Not practical and not adopted for Work Phase 2
		Detour	Works to be undertaken outside of exisitng carriageway	Not practical and not adopted for Work Phase 2
		Contra-flow	20.0m AV require contra-flow arrangement to exit the construction site from the Riverview Street Access	Adopted for Work Phase 2
	Traffic Through the Worksite		Works to be undertaken outside of exisitng carriageway	Not practical and not adopted for Work Phase 2
	Traffic Past the Worksite		Works to be undertaken outside of exisitng carriageway	Not practical and not adopted for Work Phase 2
	Retain Current Arrangements		Works to be undertaken outside of exisitng carriageway at Nullum Street	Adopted for Work Phase 2
Public Transport	Relocate Bus Stop		Bus stop located outside working area.	Not practical and not adopted for Work Phase 2
			No bus routes impacted by works	
	Close Bus Stop		Bus Stop no longer required	Adopted for Work Phase 2
			No bus routes impacted by works	
	Retain Current Arrangements		Bus layover located outside working area.	Adopted for Work Phase 2
			May create additional safety hazards for students interchaging between buses. A traffic controller/marshal is recommended to facilitate students movements between buses.	
On-Road Cyclists	Transition to footpath		No works proposed within road carriageway.	Not adopted for Work Phase 2
	Detour		No works proposed within road carriageway.	Not adopted for Work Phase 2
	Retain current arrangements		No on-street traffic lanes. No works proposed within road carriageway. Cyclists to follow contra-flow arrangement at Riverview Street	Adopted for Work Phase 2
Pedestrians	Detour		No works proposed within road carriageway or on footpaths.	Not adopted for Work Phase 2
	Close footpath		No works proposed within road carriageway or on footpaths.	Not adopted for Work Phase 2
	Retain current arrangements		No works proposed within road carriageway.	Adopted for Work Phase 2
Driveway Access	Close Driveways		Works will not impact access driveway	Not adopted for Work Phase 2
	Maintain Accesses		Works will not impact access driveway	Adopted for Work Phase 2
Refuse Collection	Cancel collection		Would remove refuse collection vehicles from the work zone.	School will not be operational during time of construction. Adopted for Phase 2
On-Street Parking	Remove Parking		No works proposed to impact on-street parking	Not adopted for Work Phase 2
	Retain current arrangement		No works proposed to impact on-street parking	Adopted for Work Phase 2