



## **Department of Education**

### **Picton High School Redevelopment**

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### **Construction Traffic Management Plan**

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September 2018

## Department of Education

### Picton High School Redevelopment

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## Construction Traffic Management Plan Quality Assurance Statement

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Status: Final CTMP

Date: 14 September 2018

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# 1. Introduction

The Construction Traffic Management Plan (CTMP) provides a review of the traffic, parking and pedestrian implications of the construction traffic management measures proposed as part of the Picton High School Redevelopment.

The planned redevelopment will see replacement of a significant portion of the existing buildings, with any retained buildings to be re-purposed and refurbished. It is to include the following:

- The existing bus drop-off and pick-up facility adjacent to Argyle Street will be redesigned to improve safety and efficiency, separate different movement modes, and will continue to accommodate up to six buses;
- The site boundary adjacent to Argyle Street will be realigned so that the bus drop-off/pick-up area will be located within the road reserve;
- A right turn bay will be provided along Argyle Street to assist vehicles turning into the site, resulting in the relocation of the existing pedestrian refuge facility;
- Entrance to the south-western staff parking area will be discontinued from the bus area and a new entry-only access will be provided from Argyle Street;
- A new access will be provided via Wonga Road, which will connect with the south-western staff parking area;
- A bus parking facility will be provided on Wonga Road adjacent to the site to accommodate up to four buses, including a turning facility to enable buses to turn around;
- A total of 141 parking spaces are proposed on-site, including four accessible spaces; and
- A loading area is provided at the southern end of the site adjacent to Building O, with service vehicles to access the site via the new Wonga Road access.

The construction works associated with the construction of the buildings are to be confined to the subject site, with minimal disruption expected to vehicular traffic, pedestrians and cyclists.

The main contract work is estimated between January 2019 to November 2020.

The primary traffic and parking effects relate to the traffic generation associated with the transport of materials and staff to and from the site, rerouting the bus services, pick up and drop of areas for parents, students and staff access. By way of a summary it is concluded that these effects can be managed within acceptable bounds.

This CTMP is based on the information available for the proposed development at the time of writing. However, it cannot be guaranteed that the specific methodology described herein is to be that employed at the time of construction. Any changes are to be incorporated into the appropriate Construction Traffic Management Plans (CTMP) prior to the commencement of those works.

The CTMP is to be submitted to the relevant authorities prior to the commencement of work.

## 2. Transport Environment

### 2.1 Site Location

**Figure 1** shows the location of the site in relation to Picton and the surrounding transport network.



**Figure 1: Site Location<sup>1</sup>**

Picton High School is located on the eastern side of Argyle Street, approximately 100 metres north of Wonga Road. The site has an area of 5.69 hectares. Vehicular access to the site is provided via separate entry and exit driveways that connect to Argyle Street, with the northern access accommodating entry movements and the southern access accommodating exit movements. The site also has frontage to Wonga Road and a partially formed paper road across the eastern site boundary.

Key features of the site and its surrounds are as follows:

- Established residential use occupies the land to the north of the site;
- Land to the west, south and east is predominantly undeveloped at present;

<sup>1</sup> Source: Intramaps: <http://maps.wollondilly.nsw.gov.au/intramaps80public/>

- Some commercial and industrial uses are located along Wonga Road, including the Picton Bus depot which is the company operating the school services; and
- A paper road extension of Wonga Road extends about half way across the rear (eastern) boundary of the site.

An aerial photo view of the site in relation to the local road network is shown in **Figure 2**.



**Figure 2: Aerial Photo of the Site<sup>2</sup>**

The site carries a R2 Low Density Residential zoning control, with the objectives of the zone including; to enable other land uses that provide facilities or services to meet the day to day needs of residents. Educational establishments are permitted with consent in the zone.

## 2.2 Road Environment

Argyle Street is identified as a Regional Classified Road in the vicinity of the site and is managed by Wollondilly Shire Council. It runs in a north-south alignment and has a carriageway width of 13.0 metres kerb to kerb, accommodating one lane of traffic in each direction and parallel parking on both sides of the road.

Continuous double white centreline markings are established across the whole of the site frontage. In effect, these impose a no right turning restriction either to or from the driveway crossings. These current controls are somewhat impractical as established and evidence from site observations are that the control is ignored in the present environment.

A school speed zone control is imposed along Argyle Street that reduces the permissible speed limit to 40km/h between 8:00am to 9:30am and 2:30pm to 4:00pm on school days, extending from Wood Street in the north to a location about 90 metres north of Wonga

<sup>2</sup> Source: Nearmap Website (<https://www.nearmap.com.au/>)



Road. This covers the entire school frontage area and extends north over the marked kerbside parking environment.

The on-street parking controls on Argyle Street comprises of the following elements:

- On the western side of Argyle Street, five spaces with a P2 (2 minute) parking restriction between 8:00am to 9:30am and 2:30pm to 4:00pm;
- On the immediate school frontage, a P2 (2 minute) parking restriction drop-off zone of about 50 metres in length, catering for up to about eight vehicles at a time;
- A bus layover area is established about 20 metres north of the school's northern driveway crossing on the east side of Argyle Street. Its defined operating times are: 8:30am to 9:30am and 3:00pm to 4:00pm on school days; and
- Otherwise, generally time unrestricted parking controls are provided.

Wonga Road is a local road that runs in an east-west alignment extending from Argyle Street and runs in a north-south alignment to about the eastern boundary of the site. It has a carriageway width of 13.0 metres kerb to kerb and accommodates one lane of traffic in each direction. Unrestricted parking is provided on both sides of the road.

Wonga Road intersects Argyle Street at a Stop controlled intersection. Argyle Street has a painted right turn bay and left turn deceleration lane established to facilitate access to Wonga Road.

On-road cycling is currently provided for within the carriageway of Argyle Street, under the school speed zone-controlled environment. There are no cycle facilities provided along Wonga Road.

A continuous concrete footpath is established along Argyle Street on the school side of the road. It extends north from the southern school boundary connecting the school with the Picton town centre. No pedestrian facilities are provided along Wonga Road.

## **2.3 Operating of Existing Road Systems**

### **2.3.1 Existing Traffic Environment**

Turning movement surveys were commissioned on Thursday 26 July 2018, between 7:00am to 10:00am and 2:00pm to 5:30pm, at the intersection of Argyle Street and Wonga Road.

The results of the intersection traffic surveys for the morning and evening peak periods are presented in Figure 3.



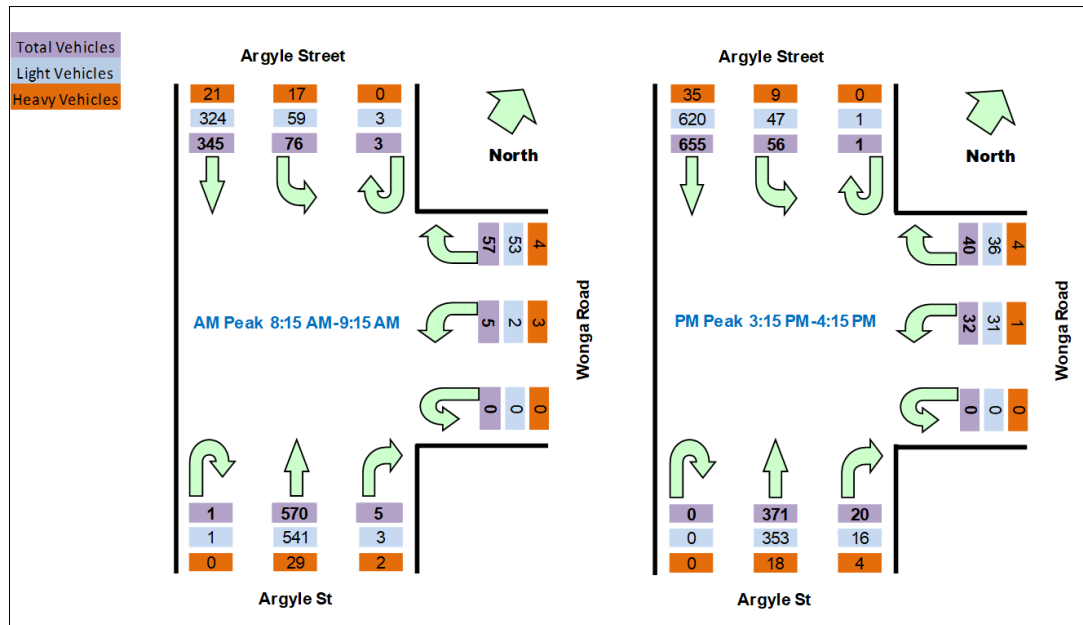


Figure 3: Morning and Evening Peak Periods - Turning Movements

The survey results indicate that Wonga Road currently carries a low level of traffic, with 62 and 72 vehicle movements recorded in the morning and evening peak periods, respectively.

### 2.3.2 Operating of Existing Intersection

An analysis of the operation of all critical intersections within the study area was carried out using the SIDRA computer modelling program for the existing intersection traffic volumes and layouts.

The concepts of intersection capacity and level of service, as defined in the Guidelines published by the *RTA Guide to Traffic Generating Developments*, are described in Error! Reference source not found. together with criteria for their assessment. The best indicator of the level of service at an intersection is the average delay experienced by vehicles at that intersection. For traffic signals, the average delay over all movements should be taken. For roundabouts and priority control intersections (with Stop and Give Way signs or operating under the T-junction rule) the critical movement for level of service assessment should be that with the highest average delay.

The existing intersection layout of Argyle Street and Wonga Road is shown in Figure 4



**Figure 4: Existing intersection configuration of Argyle Street and Wonga Road**

Table 1 gives a summary of the SIDRA results for the current volumes applied to the existing intersection configuration under sign controlled. The SIDRA outputs included in Appendix D.

Intersection	Morning Peak		Evening Peak	
	Average Delay (secs)	Level of Service (LoS)	Average Delay (secs)	Level of Service (LoS)
Argyle Street and Wonga Road	15.8	B	18.4	B

*Note: For the SIDRA assessment, the gap acceptance values for right turning vehicles from Wonga Road have been reduced to 5.0 seconds and 3.0 seconds for the critical gap and follow-up headway. The reductions are based on on-site observations and traffic surveys to reflect the Austroads values*

**Table 1: SIDRA Outputs for Argyle Street and Wonga Road Intersection**

The intersection analysis results show that the intersection of Wonga Road and Argyle Street is currently operating at a Level of Service B for both the morning and evening peak periods. There is ample capacity to accommodate for future traffic volumes.

## 2.4 Existing Parking Environment

On-street parking surveys were commissioned on Thursday 26 July 2018 to coincide with the intersection traffic surveys, along Argyle Street and Wonga Road as shown in Figure 5.



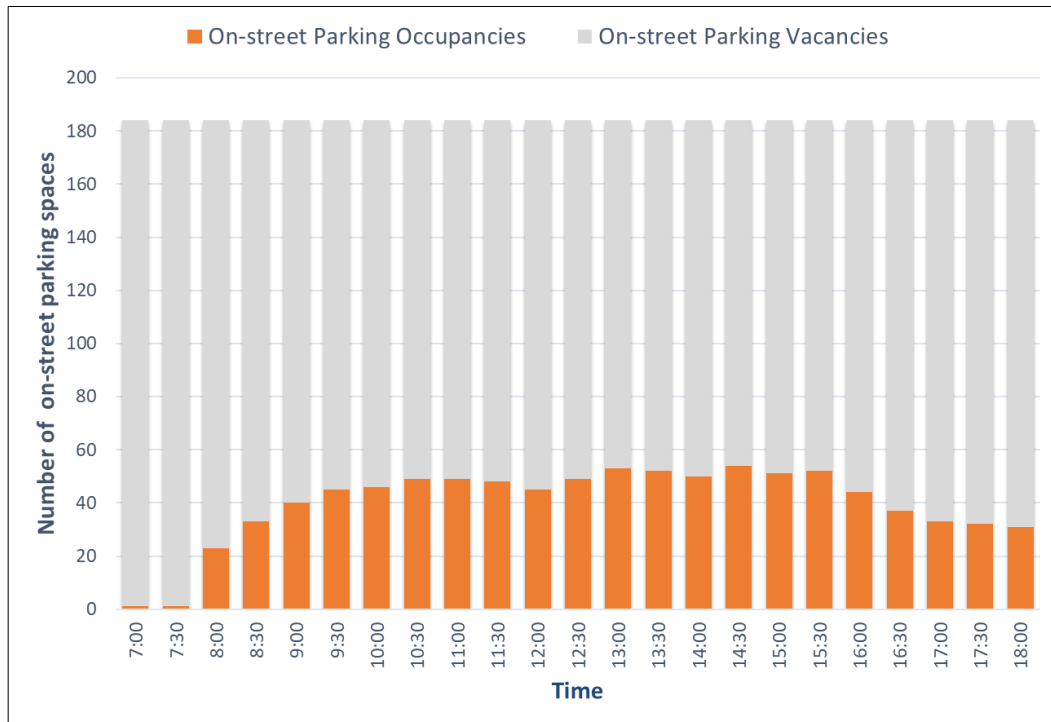
**Figure 5: Parking Survey Locations along Argyle Street and Wonga Road<sup>3</sup>**

A summary of the parking survey results is shown in Figure 6, with key findings from the survey are summarised below:

- There is a maximum of 184 on-street parking spaces along Argyle Street and Wonga Road;
- There was a maximum of 45 vehicles parked during the morning peak period between 8:00am to 9:30am;
- There was a maximum of 54 vehicles parked during the evening peak period between 2:00pm to 3:30pm; and
- The peak car parking demand occurred at 2:30pm with 54 out of 184 car parking spaces occupied.

<sup>3</sup> Source: SIX Maps (<https://maps.six.nsw.gov.au/>)





**Figure 6: Argyle Street and Wonga Road On-Street Parking Demand**

The extent of the survey area and detailed survey results are provided within Appendix A.

#### 2.4.1 Wonga Road

A detailed parking assessment of the survey results of Wonga Road has been undertaken. Figure 7 shows the extent of the parking survey of Wonga Road and the number of car parking spaces provided at each of the locations.



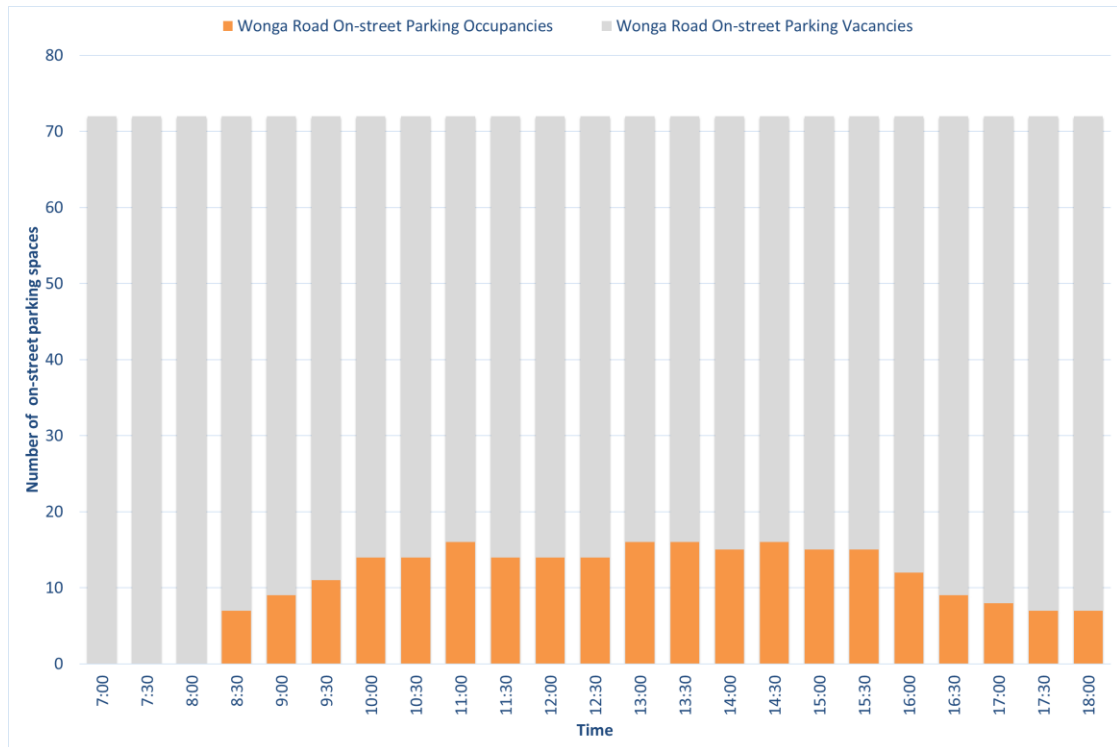
**Figure 7: Number of Car Parking Spaces on Wonga Road<sup>4</sup>**

<sup>4</sup> Source: Nearmap (<https://www.nearmap.com.au/>)

Based on the parking surveys along Wonga Road there is a maximum of 72 on-street parking spaces. The key findings from the survey are summarised below:

- The peak for car parking occurred at 11:00am, 1:10pm, 1:30pm and 2:30pm, with 16 out of 72 car parking spaces occupied;
- There were no vehicles parked before 8:00am; and
- There were less than 10 vehicles parked from 4:30pm onwards.

The car parking demand and available car parking spaces is presented in Figure 8.



**Figure 8: Wonga Road On-Street Parking Demand**

In summary, the parking survey results indicate that there is ample spare on-street parking capacity along Wonga Road to accommodate an increase in parking demand.

## 3. Scope of Works

### 3.1 Development Proposal

The proposed redevelopment will see replacement of a significant portion of the existing building stock, with any retained buildings to be re-purposed and refurbishment. It is to include the following:

- The existing bus drop-off/pick-up facility adjacent to Argyle Street will be redesigned to improve safety and efficiency, separate different movement modes, and will continue to accommodate up to six buses;
- The site boundary adjacent to Argyle Street will be realigned so that the bus drop-off/pick-up area will be located within the road reserve;
- A right turn bay will be provided along Argyle Street to assist vehicles turning into the site, resulting in the relocation of the existing pedestrian refuge facility;
- Entrance to the south-western staff parking area will be discontinued from the bus area and a new entry-only access will be provided from Argyle Street;
- A new access will be provided via Wonga Road, which will connect with the south-western staff parking area;
- A bus parking facility will be provided on Wonga Road adjacent to the site to accommodate up to four buses, including a turning facility to enable buses to turn around;
- A total of 141 parking spaces are proposed on-site, including four accessible spaces; and
- A loading area is provided at the southern end of the site adjacent to Building O, with service vehicles to access the site via the new Wonga Road access.

### 3.2 Staging of Construction Works

The required construction works is separated into two stages. A breakdown of the construction works is provided below:

- Stage 1 constructions works - consists of civil works and earthworks levelling to accommodate prefabricated buildings and associated services, and the delivery of classroom demountables; and
- Stage 2 construction works - consists of demolition of some of the existing single storey buildings, construction of new buildings including services and the construction of the surrounding soft and hard landscaping works.

The constructions works is estimated to commence in January 2019, with completion of the overall construction work programme forecast for November 2020.

### **3.3 Report Scope**

The Construction Traffic Management Plan (CTMP) covers the traffic management concepts behind the construction of the Picton High School Redevelopment and the new bus area on Wonga Road.



## 4. Construction Operations

### 4.1 Constructions Times and Staging

The construction works are to be undertaken in accordance with the Draft Construction Traffic Management Report dated February 2018, 'the construction works (including demolition and deliveries of building materials and equipment's). The required constructions hours of work are outlined below.

- Monday to Friday 7:00am to 5:00pm; and
- Saturday from 8:00am to 4:00pm.

The school will remain in operation during the construction works. Unless the above proposed Saturday work period is approved, reduction on Saturday working hours may be conditional to suit the following council requirement

- Saturday 8:00am to 1:00pm; and
- No work on Sundays or gazetted public holidays.

**Table 2** identifies the relevant stages of construction and the estimated maximum number of truck movements per day.

Stage	Estimated Maximum Number of Trucks Per Day
Stage 1: Civil and Earthworks	Up to 50 trucks per day
Stage 1: Demountable deliveries	Up to 12 trucks per day
Stage 2: Demolition and Construction	<i>Details to be confirmed by the builders</i>

**Table 2: Construction Programme Staging**

The maximum sized design vehicle for the project is a truck and dog / semi-trailer with 40ft trailer, although various types of trucks will visit the site.

The number of construction vehicles to service the site is typically 20 trucks per day for the duration of construction period. It is expected that there will be an increase in construction vehicles during the Stage 1 civil and earthworks of up to 50 trucks per day. This is not forecast to occur for extended periods.

### 4.2 Construction Truck Volumes

**Table 2** outlines the estimated construction truck volumes for Stages 1 and 2. It can be seen that the highest truck traffic volumes are expected to occur during Stage 1 for the civil and earthworks.

Stage 1 construction works is expected to have up to 50 trucks per day (50 inbound movements, 50 outbound movements) for the civil works and earthworks levelling. This is equivalent to five truck movements per hour. However, it is expected the majority of the truck movements will arrive and depart outside of the school peak times.

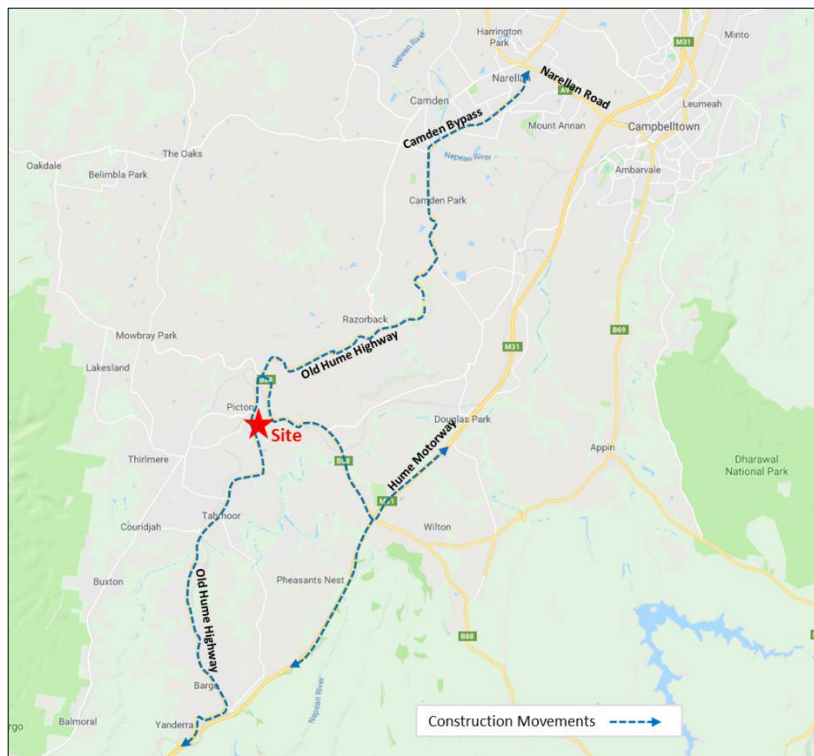
### 4.3 Truck Routing

The majority of trucks associated with the construction activities will access the site via Wonga Road for Stage 1 works, and Argyle Street for Stage 2 works.

The proposed construction vehicle movement plan accessing the site is shown in Figure 9.



**Figure 9: Construction Vehicle Movement Plan <sup>5</sup>**



**Figure 10: Construction Movements (Overview)**

<sup>5</sup> Source: Nearmap (<https://www.nearmap.com.au/>)

The majority of heavy vehicles associated with the construction at the site will use Old Hume Highway (Argyle Street) to travel to and from the site via Hume Motorway and Picton Road, depending on the direction of travel.

An overview of the construction truck routes connecting the State roads is shown in Figure 10.

#### 4.4 Traffic Environmental Impact Considerations

The environmental measures and controls that may be imposed as part of other construction operations should be detailed in the reporting appropriate to those construction aspects. As a minimum, it is proposed to install or impose the following operational environmental measures as part of the proposed traffic operations:

- Pedestrian fencing is to be installed around the site to prevent inadvertent / unauthorised pedestrian access;
- A wheel-wash is to be installed at the site egress points for truck cleaning prior to departure when there is exposed ground on the site;
- All excavated material is to be covered prior to leaving the site to prevent aerial dispersal onto the road network.

#### 4.5 Signages

The temporary construction traffic related signages is to be erected and maintained for the duration of the construction works on the site. All signposting is to be developed in accordance with the Australian Standards (*AS1742.3:2009 – Traffic Control Devices for Works on Roads*) and Roads and Maritime Services (RMS) Traffic Control at Work Sites Manual.

A Traffic Control Plan (TCP) has been developed for each of the construction stages, as shown in Appendix B. This will be used as required during the construction phases. The Traffic Control Plans has been designed in accordance with the Australian Standards and the Roads and Maritime Services (RMS) Traffic Control at Work Sites Manual and prepared by an RMS Accredited Traffic Control Plan Developer.

#### 4.6 Methods of Communicating Change

Local residents, parents, staff and building managements will be informed of the construction works, site access and dates by letter box drops, advertisement in the local newspaper and school newsletters. The notifications will occur 2 weeks in advance of the commencement date.

#### 4.7 Monitoring of Traffic Control Plans (TCPs)

During the construction phase, the contractor shall ensure that each morning prior to works commencing, all signage is correctly erected and positioned in accordance with the active Traffic Control Plan (TCP). Every evening after works are completed for the day, the contractor shall ensure that relevant signage is removed or covered as necessary.

Any variations to the layout or operations of the TCP on-site are to be recorded and certified by authorised RMS accredited personnel.

A review of TCPs is to be undertaken as necessary in order to determine the requirement for any adjustments.

## **4.8 Construction Permits**

### **4.8.1 Works Zone**

An application for a 'works zone' fronting the subject site during the construction phase will be submitted to Council for approval, if required. This would be a separate application to the Construction Traffic Management Plan.

### **4.8.2 Temporary Road Closures**

Any road closures or partial road closures that are required during the construction works, an application will be submitted to Council for approval.

### **4.8.3 Road Occupancy License**

A Road Occupancy Licence 'ROL' will be submitted to the relevant authorities when works are within the road carriageway. A ROL is required for any activity likely to impact on traffic flow, even if that activity takes place off-road. RMS or Council are the assessing authority depending on the responsibility.

## **4.9 Stakeholder Management**

A Stakeholder Management Plan will be prepared to address the strategies for liaison with the surrounding stakeholders. The appointed contractor (*Details to be confirmed - Company*) have a 24/7 contact number for complaints and feedback (*Details to be confirmed – contact number*), in addition to a complaints and feedback email address (*Details to be confirmed – email details*).



## 5. Access Arrangements

### 5.1 Construction Vehicle Access

The proposed construction vehicle access is shown in Figure 11. Throughout the construction activities, there will be separate access for staff and construction vehicles. A turning area for trucks will be provided on-site, to allow trucks to manoeuvre and exit in a forward direction.



**Figure 11: Construction Vehicle Access<sup>2</sup>**

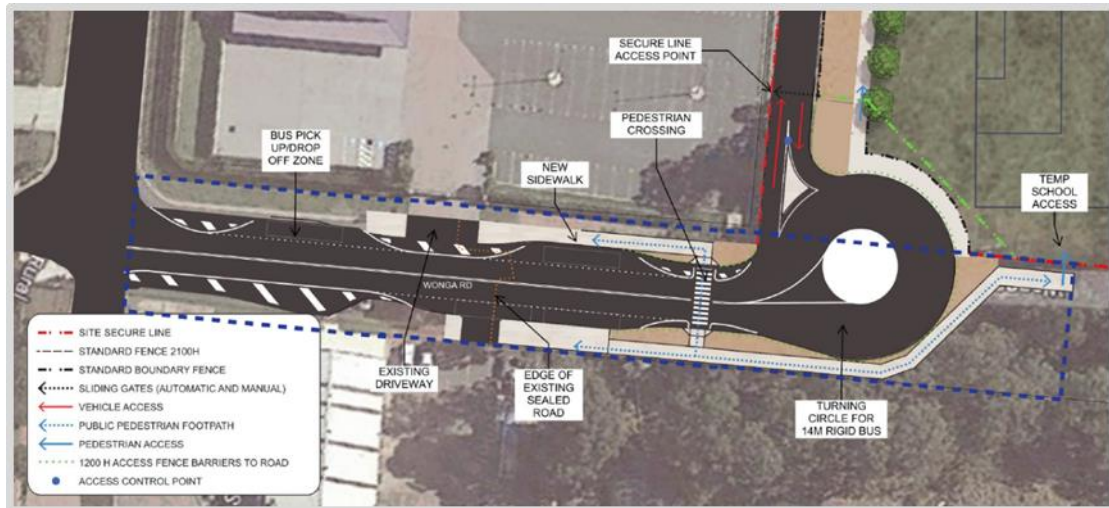
It is proposed that construction vehicles will enter and exit the site via Wonga Road during the Stage 1 Construction works. Once Stage 1 works have been completed, Stage 2 works will commence with a separate entry and exit access via Argyle Street.

### 5.2 Bus Access

Existing bus zone and operations along Argyle Street will not be impacted during Stage 1 construction works. The bus services will enter the site via the northern access and exit via the southern access.

During Stage 2 of the construction works, the bus services (pick up and drop off) will occur along Wonga Road and bus operations along Argyle Street will be discontinued. There will be a new bus facility provided on both sides of Wonga Road near the school entrance at the rear, accommodating up to four buses as shown in Figure 12. If the bus area is fully occupied, other buses will queue along Wonga Road until a bus area is unoccupied.

A turning area is also located at the end of Wonga Road, to allow buses to U-turn and head back to Argyle Street.



**Figure 12: Proposed Wonga Road Upgrade**

It should be noted that there has been discussion with Picton Buslines on Friday, 07 September 2018, during the Stage 2 works, bus operators should consider buses temporarily queuing on Wonga Road whilst waiting to access drop pick up point. The methodology is subject to further negotiation with Picton Buslines.

Figure 13 shows the bus movements for Stages 1 and 2 of the construction works.



**Figure 13: Bus Movements during the Construction Works**



## 5.3 Staff Access

Staff access will remain unchanged during the Stage 1 works. Staff will have access to both the northern and southern carparks via Argyle Street.

Throughout Stage 2 construction works, the staff access via Argyle Street will be discontinued. A new access will run along the southern boundary of the site connecting Wonga Road to the southern carpark. The primary access for staff will be via Wonga Road.

Figure 14 shows the staff access movements for Stages 1 and 2.



**Figure 14: Staff Access During the Construction Works**

## 5.4 Student Access

Student access will be maintained through the existing main entry along Argyle Street. during Stage 1.

Throughout the Stage 2 construction works, the student access will predominately be via the new Wonga Road entry, and the main access via Argyle Street will be discontinued.



## 6. Car Parking During Construction Works

### 6.1 Construction Workers Parking

Stage 1 of the construction project, it is estimated that up to 80 contractors are to be on-site, and up to 250 contractors for Stage 2 construction activities. Construction workers will also have access to the southern car park during Stage 1, and access to the northern car park for Stage 2. This will be available throughout the construction periods. Construction workers will be advised if on-site parking is unavailable, it is recommended to park along Wonga Road during the Stage 1 works, and to park along Argyle Street during the Stage 2 works.

In addition, as detailed in Section 2.4, additional on-street parking is available along Argyle Street and Wonga Road.

Workers and sub-contractors will be encouraged to use public transport to travel to and from the work site where possible. The site has access to public transport services, fronting the site along Argyle Street. The bus routes are shown in Table 3.

Bus Route	Bus Services
911	Bargo to Picton
912	Yanderra to Picton via Buxton and Thirlmere
913	Buxton to Picton via Tahmoor
914	Buxton to Picton via Estonian Village

**Table 3: Bus Services along Argyle Street**

### 6.2 Staff Parking

Staff parking will be provided on-site throughout the duration of the construction project. Staff parking will remain unchanged for the Stage 1 construction works. Staff will have access to the northern and southern carpark via Argyle Street.

Throughout the Stage 2 construction works, the staff access via Argyle Street will be discontinued, and the northern carpark will be provided to the construction workers. A new access will run along the southern boundary of the site connecting Wonga Road to the carpark. The primary access for Staff will be via Wonga Road and into the southern carpark.

In addition, as detailed in Section 2.4, additional on-street parking is available along Argyle Street and Wonga Road.

### 6.3 On-Street Parking

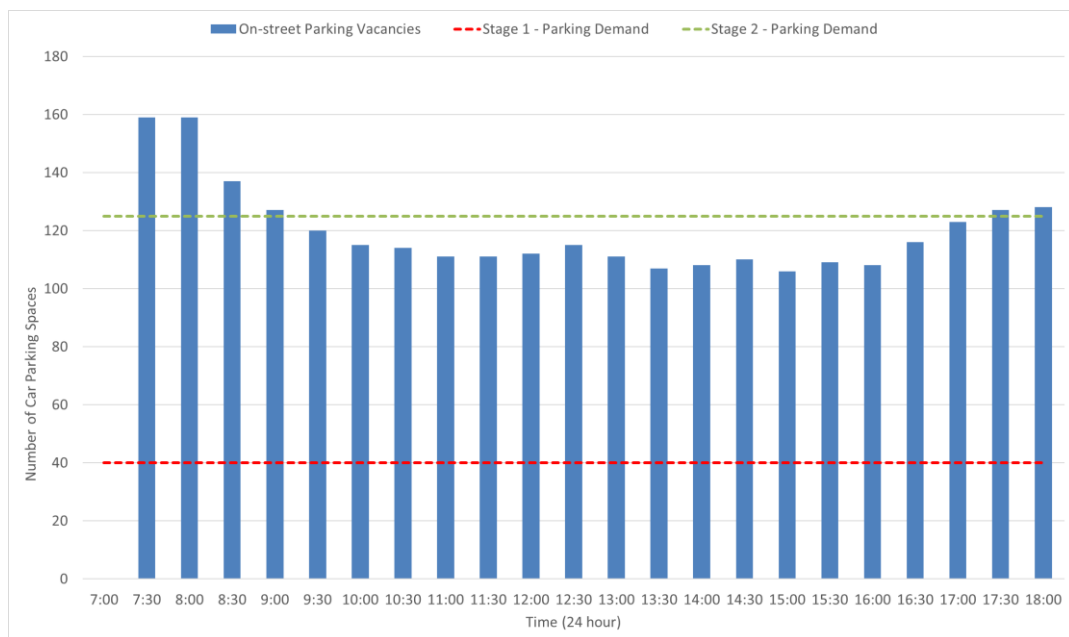
It has been advised on-street parking along both Argyle Street and Wonga Road will not be affected during the course of the construction works. Student parking and parents pick up and drop off will continue to occur along Argyle Street, as per the current operations during

Stage 1. During Stage 2, the primary student access is located via Wonga Road. Parents pick up and drop off will occur along Wonga Road during this construction phase.

Based on Section 2.4, the parking survey results indicate that there is amply spare on-street parking capacity along Wonga Road and Argyle Street to accommodate an increase in parking demand for construction workers. Figure 15 shows the on-street parking vacancies as outlined in Section 2.4, with the parking demand of the construction workers for Stages 1 and 2.

For this assessment we have assumed all construction workers will park on-street on Wonga Road and Argyle Street, with staff (teachers) parking provided on-site. The parking demand during the stage 2 works, shows the construction workers parking demand exceeds the number of on-street parking along Argyle Street and Wonga Road. It should be noted, that the parking demand can be reduced by the following:

- Construction workers will arrive and finish throughout different times of the day;
- Some car parking spaces is provided on-site;
- Public transport will be used to get to / from the site; and
- Construction workers will also car share.



**Figure 15: Parking Demand for Construction Workers**

## 7. Pedestrian Safety

During the construction works, pedestrian movements around the site will be maintained as much as possible. Where works require the closure of an existing pedestrian route, a suitable alternative is to be provided.

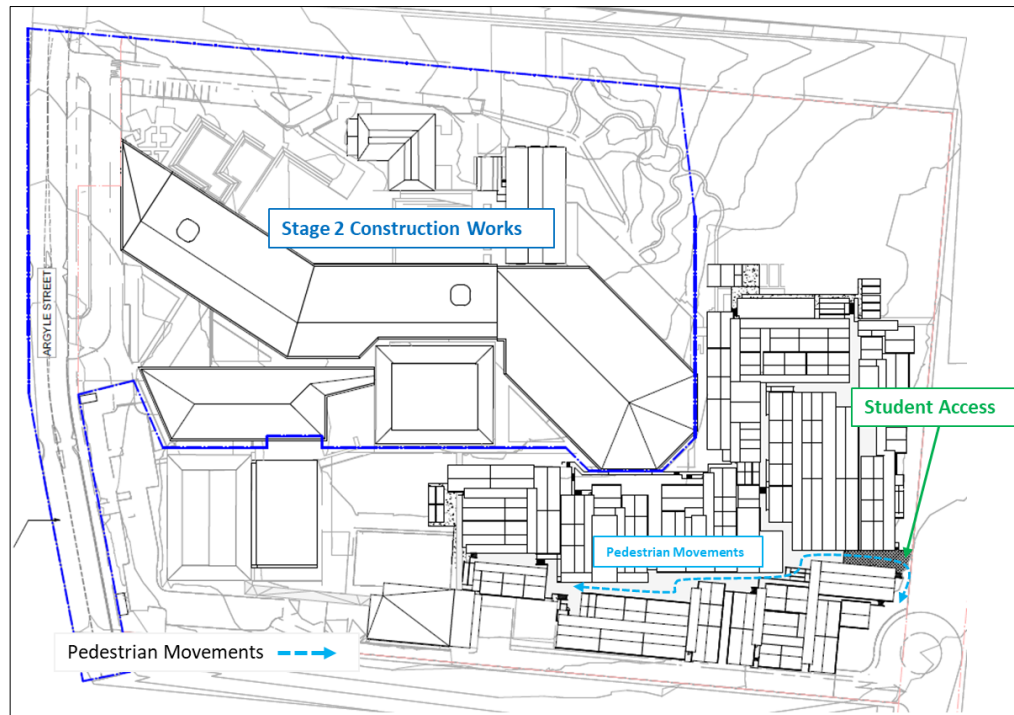
An Accredited RMS Traffic Controller will be on site and will assist in the safety of pedestrians crossing the driveway access to avoid conflicts with the trucks.

A pedestrian movements plan for Stages 1 and 2 is shown in Figure 16 and Figure 17, respectively.



**Figure 16: Stage 1 - Pedestrian Movement Plan**

After completion of the Stage 1 works, a new footpath connecting the school to the new bus facility on Wonga Road will be provided as shown in Figure 17. This will be used by Students during Stage 2 of the construction Works. A waiting area will be provided near the bus area, which will be managed by staff. The staff at the waiting area will inform students of the bus services approaching to ensure students get on the correct bus services.



**Figure 17: Stage 2 – Pedestrian Movement Plan**

## **8. Construction Traffic Effects**

### **8.1 Truck Movements**

Construction works are to generate daily volumes of heavy vehicle movements from January 2019 to November 2020. All loading is proposed to occur within the site compound, with no road and traffic lane closures required to facilitate access to and construction within the site and the adjoining road network.

As outlined in Section 4.1, Stage 1 construction works for the civil and earthworks is expected to generate up to 50 trucks per day (50 inbound movements, 50 outbound movements). This is equivalent to five heavy vehicle movements per hour, and this is not forecast to occur for extended periods.

This is expected to translate to a peak period volume of up to 5 trucks per hour (over 10 hours) equivalent to one truck movement every 12 minutes. It is expected that majority of the heavy vehicle movements will occur outside of the school morning and evening peak periods. The peak construction periods typically align with the surrounding road network's off-peak hours, and it is therefore considered that there is ample capacity to accommodate the construction peak hour truck movements of up to five trucks (10 movements) per hour.

### **8.2 Construction Worker Vehicle Movements**

As outlined in Section 6.1, it is estimated that up to 80 contractors are to be on-site for Stage 1, and up to 250 contractors for Stage 2.

The movements generated by construction workers are expected to be primarily accessing the site in the morning and departing the site in the evening. It has been assumed that the site will generate up to 125 vehicle movements in the morning and evening periods, with a two-person vehicle occupancy.

These vehicle movements will likely be spread over several hours in the morning and evening periods with contractors starting at 7:00am and finishing at 5:00pm. It should be noted contractors start and finish at different times of the day, depending on the construction works that is involved at the time.

The site is also proposed to operate on Saturdays from 8:00am to 4:00pm. During the peak traffic generating times (i.e. before 8:00am and after 4:00pm) the traffic volumes on the surrounding road network are expected to be lower than the weekday morning and evening peak periods.

Based on the above it is considered that the traffic generated by construction workers will occur outside of the surrounding road network peak periods. Given the road classifications and associated traffic volumes of the nearby roads and intersections, it is considered that the road network is able to readily accommodate the expected traffic volumes generated by the construction workers.

A summary of the construction vehicles movements is presented in Table 4.

Construction Stage	Number of Construction Workers per day	Number of Construction Trucks per day
Stage 1	Up to 80 staff (equivalent to 40 vehicles)	Up to 50 truck movements
Stage 2	Up to 250 staff (equivalent to 125 vehicles)	Details to be confirmed

*Note: It has been assumed that there will be a two-person vehicle occupancy.*

**Table 4: Number of Construction Vehicle Movements**

## 9. Traffic Control Plans

A Traffic Control Plan (TCP) has been developed for Stages 1 and 2 of the construction activities. This will be used as required during the construction phase. The Traffic Control Plans has been designed in accordance with the Australian Standards and the Roads and Maritime Services (RMS) Traffic Control at Work Sites Guidelines, and prepared by an RMS accredited Traffic Control Plan Developer.

The references for these traffic control plans are shown in Appendix B.



## 10. Conclusion

TDG (now Stantec) has prepared this Construction Traffic Management Plan (CTMP) to discuss proposed temporary traffic and pedestrian management measures to be employed during Stages 1 and 2 of the construction works for the proposed redevelopment of Picton High School.

The primary traffic and parking effects relate to the traffic generation associated with the transport of materials and staff to and from the site, rerouting the bus services, pick up and drop of areas for parents, students and staff access. By way of a summary it is concluded that these effects can be managed within acceptable bounds.

## **Appendix A**

### Traffic and Parking Survey Data

Picton Parking

TRANS TRAFFIC SURVEY



QUALITY ASSURED COMPANY BY AS/NZS ISO 9001:2008  
OH&S SYSTEM CERTIFIED TO AS/NZS ISO 4801:2001  
ENVIRONMENT MANAGEMENT SYSTEM CERTIFIED TO AS/NZS ISO 14001:2004  
JAS-ANZ ISO REGN. Number 3337, CM REGN. Number 0054

Parking Occupancy Survey

Date: Thursday, July 26, 2018  
Location: Picton High School  
Weather: Fine  
Customer: TDG

Public Parking (1/0)	Map Ref	Street	Section	Side	Restriction	Capacity	Parking Occupancy																							
							7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	
1	A	Argyle St	Henry St to No. 454	W	1P 8:30am-6pm Mon-Fri, 8:30am-12pm Sat	21	0	0	0	0	3	3	3	3	4	3	2	3	6	4	3	3	2	2	2	2	2	2	2	2
1	G	Argyle St	Henry St to No. 454	E	None	12	0	0	0	0	2	3	3	5	3	5	3	6	5	5	3	2	2	2	2	2	2	2	2	2
1	B	Argyle St	No. 454 to No. 464	W	None	18	0	0	0	0	2	2	3	4	4	4	4	4	4	4	3	3	2	2	2	2	2	2	2	2
1	H	Argyle St	No. 454 to No. 464	E	None	15	0	0	0	0	4	4	5	6	6	6	6	6	6	6	5	4	3	3	2	2	2	2	2	2
1	C	Argyle St	No. 464 to end of school	W	P 2min 8:30am-9:30am, 2:30pm-4pm School Days	5	0	0	5	5	3	3	3	2	2	2	2	2	2	2	2	3	5	5	4	3	2	2	2	2
1	C	Argyle St	No. 464 to end of school	W	None	8	0	0	4	5	2	2	3	3	2	2	2	2	2	2	3	5	4	5	3	2	2	2	2	2
1	I	Argyle St	No. 464 to end of school	E	Bus Zone 8:30am-9:30am, 3pm-4pm School Days	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	I	Argyle St	No. 464 to end of school	E	P 2min 8:30am-9:30am, 2:30pm-4pm School Days	6	0	0	4	5	3	4	2	2	2	2	2	2	2	2	2	3	4	5	5	4	3	3	3	3
1	I	Argyle St	No. 464 to end of school	E	P 15min 8:30am-9:30am, 2:30pm-4pm School Days	6	0	0	5	5	4	5	3	3	3	3	3	3	3	4	6	6	5	4	4	4	3	3	2	2
1	I	Argyle St	No. 464 to end of school	E	None	7	0	0	4	5	3	2	2	2	2	2	2	2	2	2	5	4	4	3	2	2	2	2	2	2
1	J	Argyle St	End of school to Wonga Rd	E	None	3	0	0	0	0	2	2	1	1	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	2
1	D	Argyle St	End of school to Wonga Rd	W	None	10	0	0	0	0	2	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2
0	E	Argyle St	South of Wonga Rd	W	No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	K	Argyle St	South of Wonga Rd	E	No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	F	Argyle St	South of Wonga Rd	W	No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	L	Argyle St	South of Wonga Rd	E	No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	M	Wonga Rd	Argyle St to No. 2225	N	None	12	0	0	0	0	1	1	1	2	3	2	2	2	3	3	2	3	3	3	3	2	2	2	2	2
1	O	Wonga Rd	Argyle St to No. 2225	S	None	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	N	Wonga Rd	No. 2225 to Bend	N	None	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	P	Wonga Rd	No. 2225 to Bend	S	None	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Q	Wonga Rd	Bend to End of Road	W	None	8	0	0	0	2	2	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3
1	R	Wonga Rd	Bend to End of Road	E	Visitor	16	0	0	0	5	6	7	9	8	9	8	8	8	9	9	9	9	8	8	5	3	3	2	2	2
	PUBLIC CAPACITY						184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184
	PUBLIC OCCUPANCIES						1	1	23	33	40	45	46	49	49	48	45	49	53	52	50	54	51	52	44	37	33	32	31	
	PUBLIC VACANCIES						183	183	161	151	144	139	138	135	135	136	139	135	131	132	134	130	133	132	140	147	151	152	153	
	PUBLIC % OCCUPANCIES						1%	1%	13%	18%	22%	24%	25%	27%	27%	26%	24%	27%	29%	28%	27%	29%	28%	28%	24%	20%	18%	17%	17%	

not available for public parking

## **Appendix B**

### Traffic Control Plan





- NOTES**
1. "D" value - 50m in accordance with RMS "Traffic control at worksites".
  2. All signs and temporary traffic control devices to be covered or removed outside of operational hours.
  3. All trucks to avoid parking on or blocking the adjacent driveways.
  4. Aerial image obtained from Nearmap. Any scaling and dimensions are indicative only and subject to detailed survey.
  5. During major construction works, accredited RMS Traffic Controllers will assist in the vehicle activities.

**DESIGNED BY:** KIRK MARTINEZ  
  
**RMS SELECT / MODIFY TRAFFIC CONTROL PLANS**  
**CARD NO:** 0023174468

Thursday, September 6, 2018 10:43:11 AM

REV	DATE	DRN	CHK	DESCRIPTION
00	06/09/18	TJG	----	----

**PICTON HIGH SCHOOL DEVELOPMENT**  
Traffic Control Plan - Stage 1

DRAWN: DA	---	---
DATE: 06-09-18	STATUS: ---	
SCALE: 1:1300 @ A3		
DWG NO:14584.008 - 02SA - TCP		







- ### NOTES
1. "D" value - 50m in accordance with RMS "Traffic control at worksites".
  2. All signs and temporary traffic control devices to be covered or removed outside of operational hours.
  3. All trucks to avoid parking on or blocking the adjacent driveways.
  4. Aerial image obtained from Nearmap. Any scaling and dimensions are indicative only and subject to detailed survey.
  5. During major construction works, accredited RMS Traffic Controllers will assist in the vehicle activities.

**DESIGNED BY:** KIRK MARTINEZ  
*Kllentey*

**RMS SELECT / MODIFY TRAFFIC CONTROL PLANS**  
**CARD NO:** 0023174468

Thursday, September 6, 2018 10:43:11 AM

REV	DATE	DRN	CHK	DESCRIPTION
00	06/09/18	TJG	----	----

PICTON HIGH SCHOOL DEVELOPMENT  
Traffic Control Plan - STAGE 2

DRAWN: DA	---	---
DATE: 06-09-18	STATUS: ---	
SCALE: 1:1300 @ A3		
DWG NO:14584.008 - 02SA - TCP		



A3