

Construction Traffic Management Plan

Partial demolition and alterations and additions to
existing school and associated site works
St Edmunds College

60 & 60A Burns Road
Wahroonga NSW 2076

Date: 03/12/2020

Optimus Traffic Management Pty Ltd

T: 02 8607 8877

E: ilya@optm.com.au

W: optm.com.au

Document Verification

Job Number: 25674

St Edmunds College Upgrade

Client: Rohrig NSW Pty Ltd

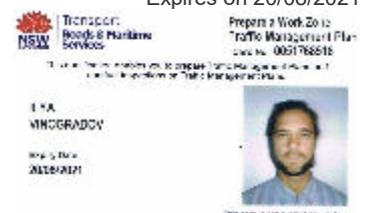
Traffic Management Accreditation

Name: Ilya Vinogradov

Vinogradov

RMS Prepare Work Zone Traffic Management Plan No. 0051768518

Expires on 20/08/2021



Contents

1. Introduction ----- 4

- 1.1 CTMP Purpose - 4
- 1.2 CTMP Legislative Requirements - 4
- 1.3 Standard Requirements for CTMP – 5
- 1.4 Application of this CTMP - 6
- 1.5 Distribution and Control of this CTMP - 6

2. Development and Construction Details----- 7

- 2.1 Project Summary ---- 7
- 2.2 Staging Plan ---- 10
- 2.3 Hours of work ---- 10
- 2.4 Daily Onsite Workforce ---- 10
- 2.5 Prevailing Site Conditions ---- 10
- 2.6 Road Network Use ---- 12
- 2.7 Surrounding Traffic Controls ---- 14
- 2.8 On Street Parking ---- 14
- 2.9 Public Transport Facilities ---- 14
 - 2.9.1 Pedestrian Paths ---- 14

3. Proposed Construction Traffic Impact----- 15

- 3.1 Location of Proposed Hoardings ---- 15
- 3.2 Location of proposed Crane Standing Zone ---- 16
- 3.3 Concrete Pour Work Zones ---- 16
- 3.4 Loading / Unloading Zones ---- 16
- 3.5 Location of Excavations ---- 16
- 3.6 Site Accommodations ---- 16
- 3.7 Material, Plant and Spoil Bin Storage Areas ---- 16
- 3.8 Nearby Construction Sites ---- 16
- 3.9 Access Management Arrangements ---- 17
 - 3.1.1 Vehicle Movement Plan ---- 12
 - 3.1.2 Impact to Residents, Businesses and the Public ---- 17
 - 3.1.3 Neighbouring Properties ---- 17
 - 3.1.4 Transport Management for Service, Delivery, and Garbage Vehicles ---- 17
 - 3.1.5 Public Transport Impacts ---- 17
 - 3.1.6 Site Parking ---- 17
 - 3.1.7 Emergency Services ---- 17
 - 3.1.8 Pedestrians ---- 18
 - 3.1.9 Cyclists ---- 18
- 3.2.1 Construction Traffic and Heavy Vehicles ---- 18
- 3.2.2 Types of Trucks Approaching Site ---- 18
- 3.2.3 Estimated Daily Truck Volumes ---- 20
- 3.2.4 Vehicle Queueing ---- 20
- 3.2.5 Abnormal and Oversize/Over mass Loads ---- 21
- 3.2.6 Traffic Control Signs and Devices ---- 21
- 3.2.7 Risk Assessment ---- 22
- 3.2.8 Stakeholder Works Notifications ---- 22
- 3.2.9 Emergency Services Notification ---- 22
- 3.3.1 Key Contacts ---- 23

Appendices----- 24

- Appendix A – Construction Site Details ---- 24
- Appendix B – Traffic Control Plans ---- 26
- Appendix C – Truck Swept Path Analysis ---- 30

Glossary / Abbreviations

Council	Ku-ring-gai Council
RMS	Roads and Maritime Services
CTMP	Construction Traffic Management Plan
PMP	Pedestrian Management Plan
TCP	Traffic Control Plan
TC	Traffic Controller
BSO	Bus Service Operator (privately or government owned bus service provider)
MOP	Member of Public
Project	60&60A Burns Road, Wahroonga– St Edmunds College Upgrade

1. Introduction

Optimus Traffic Management has been commissioned by Rohrig NSW Pty Ltd to prepare a Construction Traffic Management Plan to be implemented during the construction of new building of property located 60&60A Burns Road, Wahroonga – St Edmunds College Upgrade. This CTMP is required to be submitted and approved by Ku-ring-gai Council prior to the commencement of works. This report addresses Construction Traffic Management Plan requirements of DA #:DA 0528/19.

This Construction Traffic Management Plan (CTMP) and associated Traffic Control Plans (TCP) includes the provision for the safe movement of vehicular and pedestrian traffic, the protection of workers from passing traffic, the provision for access to properties located within the limits of the project, the provision of traffic controllers and traffic control measures, the installation of temporary signs and safety devices as required at 60&60A Burns Road, Wahroonga.

This Traffic Management Plan (CTMP) & associated Traffic Control Plans (TCP) describes and illustrates the locations of proposed Ingress & Egress points for Construction Vehicles, standing of delivery vehicles, Standing of Plant (if required) and Traffic Control and Pedestrian Control measures for the site.

1.1 Purpose

The Purpose of this Report is to satisfy Ku-ring-gai Council requirements and describe how Rohrig NSW Pty Ltd proposes to manage traffic and pedestrian movements safely whilst carrying out their respective activities. The CTMP must ensure that public safety is maintained at all times and that wherever possible interruption to the use of public space is minimised.

The objectives with respect to the Construction Traffic Management Plan (“CTMP”) are to:

- Ensure the safety of its employees, the general public, pedestrians, cyclists and traffic (where applicable),
- To satisfy Council’s conditions related to Traffic, Transport and Access.
- To actively monitor traffic impacts related to the construction works so that information can be applied to the planning and implementation of traffic control plans
- Keep all site traffic delays to a minimum,
- Maintain satisfactory property access,
- Minimise disturbance to the environment and
- Meet the requirements of relevant Australian Standards (specifically AS1742.3), RMS G10 Traffic Management and the RMS Traffic Control at Worksites Manual V6.0 2020.

1.2 Legislative requirements

This Construction Traffic Management Plan (CTMP) complies with Australian Standard 1742.3-2009 Manual of uniform traffic control devices, Part 3: Traffic control for works on roads.

- All personnel dealing with traffic control, being either contractors or sub-contractors are to have the following current accreditation, for the management of each item listed below:
- WHS&E general induction certificate (white card)
- RMS Traffic Controller (for traffic control, performing stop/slow control)
- RMS Implement Traffic Control Plans (for implementation of signage)
- RMS Prepare a Work Zone Traffic Management Plan (TMP) for the design of Traffic Management Plan (TMP) and Traffic Control Plans
- All staff need to be inducted on site before the commencement of works

- Staff must always carry current accreditation on them while on site
- Appropriate PPE as outlined in the appropriate SWMS for the works.

In accordance with Ku-ring-gai Council consent all traffic control work and excavation, demolition and construction activities must be undertaken in accordance with the approved Consent and any conditions attached to the approved Consent.

The TMP needs to specify, but not limited to, the following:

- Location of the proposed construction work zones;
- Proposed crane location;
- Vehicle movement plan (construction vehicle access routes);
- Tradesperson parking arrangements;
- Proposed construction hours;
- Estimated number of construction vehicle movements;
- Construction Schedule;
- Consultation strategy for liaison with surrounding stakeholders;
- Any potential impacts to general traffic, cyclists, pedestrians and bus services within the vicinity of the site from construction vehicles during the construction of the proposed works;
- A site plan indicating site entrances and exits controlled by RMS certified traffic controllers.

Please note that the provision of any information in this CTMP will not exempt the Applicant from correctly fulfilling all other conditions relevant to the development consent for the above site.

1.3 Standard Requirements for CTMP

A CTMP is to be prepared by an appropriately qualified Traffic Management Consultant and submitted to and approved by Council's Engineering Section, prior to the commencement of any works including demolition. The following matters should be addressed in the TMP (where applicable):

Description of the demolition, excavation and construction works;

- i. Site plan/s showing the site, roads, footpaths, site access points and vehicular movements;
- ii. Size, type and estimated number of vehicular movements (including removal of excavated materials, delivery of materials and concrete to the site);
- iii. Proposed route(s) from the arterial (state) road network to the site and the proposed route from the site back to the arterial road network;
- iv. Impacts of the work and vehicular movements on the road network, traffic and pedestrians and proposed methods to safely manage pedestrians and construction related vehicles in the frontage roadways;
- v. Any Traffic Control Plans (TCP's) proposed to regulate traffic and pedestrian movements for construction activities (such as concrete pours, crane installation/removal etc.);
- vi. Proposed hours of construction related activities and vehicular movements to and from the site;
- vii. Current/proposed approvals from other Agencies and Authorities (including Roads and Maritime Services, Police and State Transit Authority);
- viii. Any activities proposed to be located or impact upon Council's road, footways or any public place;
- x. Measures to maintain public safety and convenience;
- xi. Any proposed road and/or footpath closures;
- xii. Turning areas within the site for construction and spoil removal vehicles, allowing a forward egress for all construction vehicles on the site;
- xiii. Locations of work zones (where it is not possible for loading/unloading to occur on the site) in the frontage roadways accompanied by supporting documentation that such work zones have been approved by the Local Traffic Committee and Council;
- xiv. Location of any proposed crane and concrete pump and truck standing areas on and off the site (and relevant approvals from Council for plant on road);

- xv. A dedicated unloading and loading point within the site for all construction vehicles, plant and deliveries;
- xvi. Material, plant and spoil bin storage areas within the site, where all materials are to be dropped off and collected;
- xvii. On-site parking area for employees, tradespersons and construction vehicles as far as possible;
- xviii. Proposed areas within the site to be used for the storage of excavated material, construction materials and waste and recycling containers during the construction period; and
- xix. How it is proposed to ensure that soil/excavated material is not transported onto surrounding footpaths and roadways.

1.4 Application of this CTMP

Once this CTMP approved by Ku-ring-gai Council, all involved parties and subcontractors of Rohrig NSW shall comply with the requirements of this plan.

1.5 Distribution and control of this TMP

2.1 Approval & Changes

Approval of Plan

Record of Issue, Review and Approval of Plan will be done by Council and delivered through Rohrig NSW Pty Ltd.

Issue of Plan

Rohrig NSW will ensure the approved plan is available to all relevant site personnel

Master Copy

The most current version of the Plan is available upon request to Traffic Engineer of Ku-ring-gai Council

Changes to the TMP

All minor changes to the TMP will be conducted by Ilya Vinogradov (Optimus Traffic Management). Where major changes impact on the general concept of the plan, these changes will require a further revision being issued in consultation with the Traffic Engineer of Ku-ring-gai Council

Distribution Policy

Controlled copy of the TMP is held by Rohrig NSW. All company employees have access to this plan through Dane Malone. The list of holders of controlled copies of the plan includes:

Copy #	Issued to	Issue Date	Issued by
01	Rohrig NSW – Dane Malone	03/12/2020	I.V.
02			
03			
04			
05			
06			

2. Development and Construction Details

2.1 Project Summary

- Demolition of existing structures
- Retention of key facilities, such as pool, hospitality area, existing heritage listed building
- Renovation of existing buildings
- Additions to the rear of existing buildings to be retained, including new hall, new library, administration area, amenities, classroom
- Construction of a staff car park).

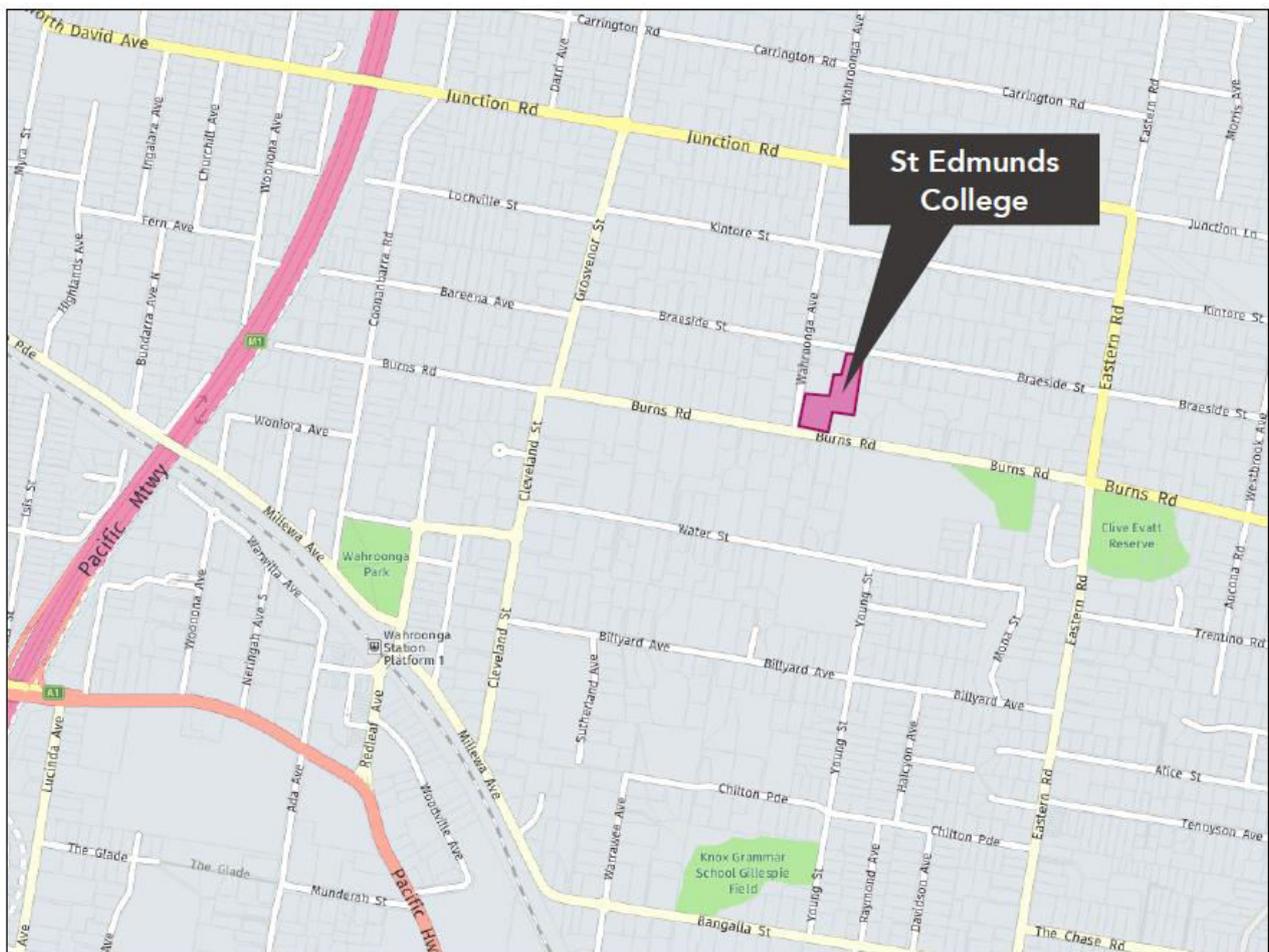
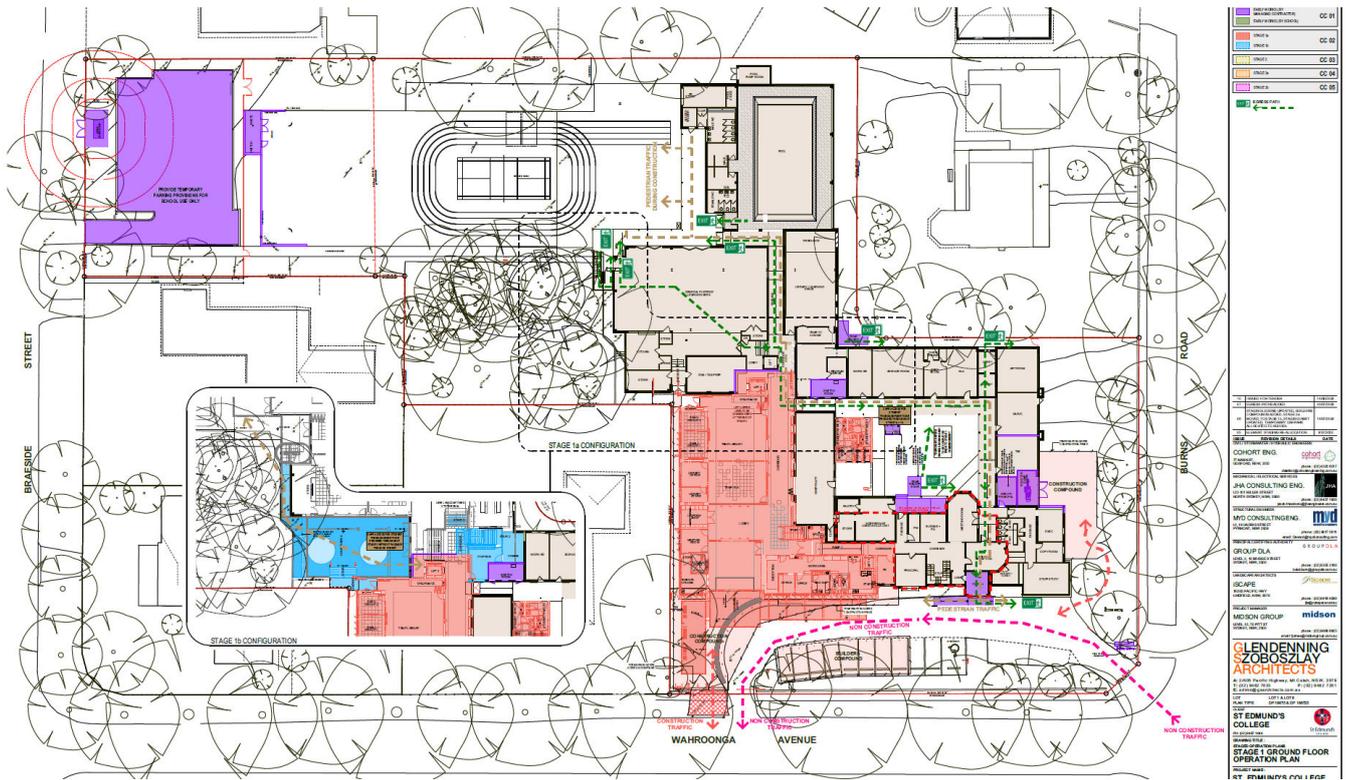


Figure 1 – Site Location

Please see plans below:



PERSPECTIVE NEW BUILDING VIEWS



1 VEHICLE APPROACH



2 VIEW FROM BURNFORD ROAD



3 MAIN ENTRY



4 MAIN ENTRY FROM N



5 VIEW FROM NORTHERN PLAYGROUND



6 LOOKING TO CANTEN/HALL



7 HALL FROM SHARED SPACE



8 HALL VIEW 2



9 HALL - FOCUS

Figure 2 – construction plan and project perspectives

2.2 Staging Plan - Commencement Dates and Duration

Stages	Activity	Start Date	Finish Date
01	Site Establishment	10/12/2020	17/12/2020
	Site Demolition Works	18/12/2020	25/01/2021
	Start groundworks	27/01/2021	16/03/2021
	Sub structure	17/03/2021	30/04/2021
02	Start groundworks	01/05/2021	16/05/2021
	Structure and roofing	18/05/2021	24/07/2021
	Fit out	26/07/2021	26/09/2021
03	New Staff Car Park	27/09/2021	18/10/2021
	External works/paving works/landscape works/public domain	19/09/2021	14/11/2021
	Project Complete/Site demobilized		22/11/2021

2.3 Hours of Work

Demolition, construction work and deliveries of building material and equipment must not take place outside the hours of 7.00am to 5.00pm Monday to Friday and 8.00am to 12 noon Saturday. No work and no deliveries are to take place on Sundays and public holidays.

Demolition and/or excavation using machinery of any kind must be limited to between 7.00am and 5.00pm Monday to Friday, with a respite break of 45 minutes between 12 noon and 1.00pm. No demolition and/or excavation using machinery of any kind is to occur on Saturdays, Sundays or public holidays.

Where it is necessary for works to occur outside of these hours (i.e.) placement of concrete for large floor areas on large residential/commercial developments or where building processes require the use of oversized trucks and/or cranes that are restricted by Transport for NSW (TfNSW) from travelling during daylight hours to deliver, erect or remove machinery, tower cranes, pre-cast panels, beams, tanks or service equipment to or from the site, approval for such activities will be subject to the issue of an "outside of hours works

permit" from Council as well as notification of the surrounding properties likely to be affected by the proposed works.

Building construction and works must be restricted to within the hours of 7.00 am to 5.00 pm Monday to Friday and on Saturday to within the hours of 8.00 am to 1.00 pm inclusive, with no work on Sundays and Public Holidays.

2.4 Daily Onsite Workforce

Average daily workforce of approximately 5-45 people (tradesmen) during different stages of the development.

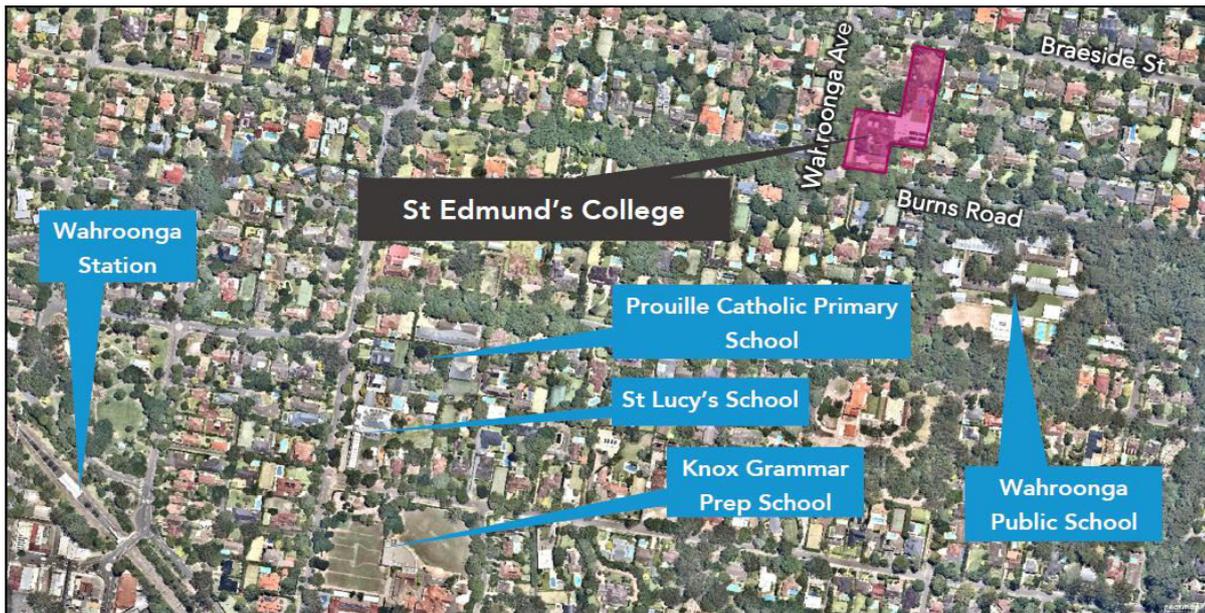
2.5 Prevailing Site Conditions – Wahroonga

St Edmund's College is located at 60 Burns Road, Wahroonga, approximately 22 kilometres north of Sydney CBD. The College is bounded by Burns Road, Wahroonga Avenue and Braeside Street. The nearest railway station is Wahroonga Station, located approximately 1.2 km to the south-west.

The College is located within a predominantly residential area comprising a mixture of large established dwellings and educational institutions. Wahroonga Public School is located on the south-east side of Burns Road opposite to the College.

Wahroonga is a suburb in the Upper North Shore of Sydney, in the state of New South Wales, Australia, 19 kilometres north-west of the Sydney central business district, in the local government areas of Ku-ring-gai Council and Hornsby Shire. Wahroonga shares the postcode of 2076 with the adjacent suburbs of Normanhurst and North Wahroonga. Wahroonga has several small shopping villages, such as Wahroonga Village located near the railway station with several small restaurants, cafes, pharmacies and stores including IGA, Hampden Avenue shopping centre in East Wahroonga and Fox Valley Shopping Centre on Fox Valley Road. The Sydney Adventist Hospital is in Wahroonga, as is Globalstar's Australian office, and the offices of the South Pacific Division of Seventh-day Adventists.

The aerial photograph in **Figure 3** (below) provides an overview of the area and context in relation to the surrounding land uses.



Vehicular entry into the College is via an existing driveway at the intersection between Burns Road and Wahroonga Avenue, whilst exit is via an existing vehicular crossover along Wahroonga Avenue. This is shown in the following figures.



Figure 4 – Vehicular Entry



Figure 5 – Vehicular Exit

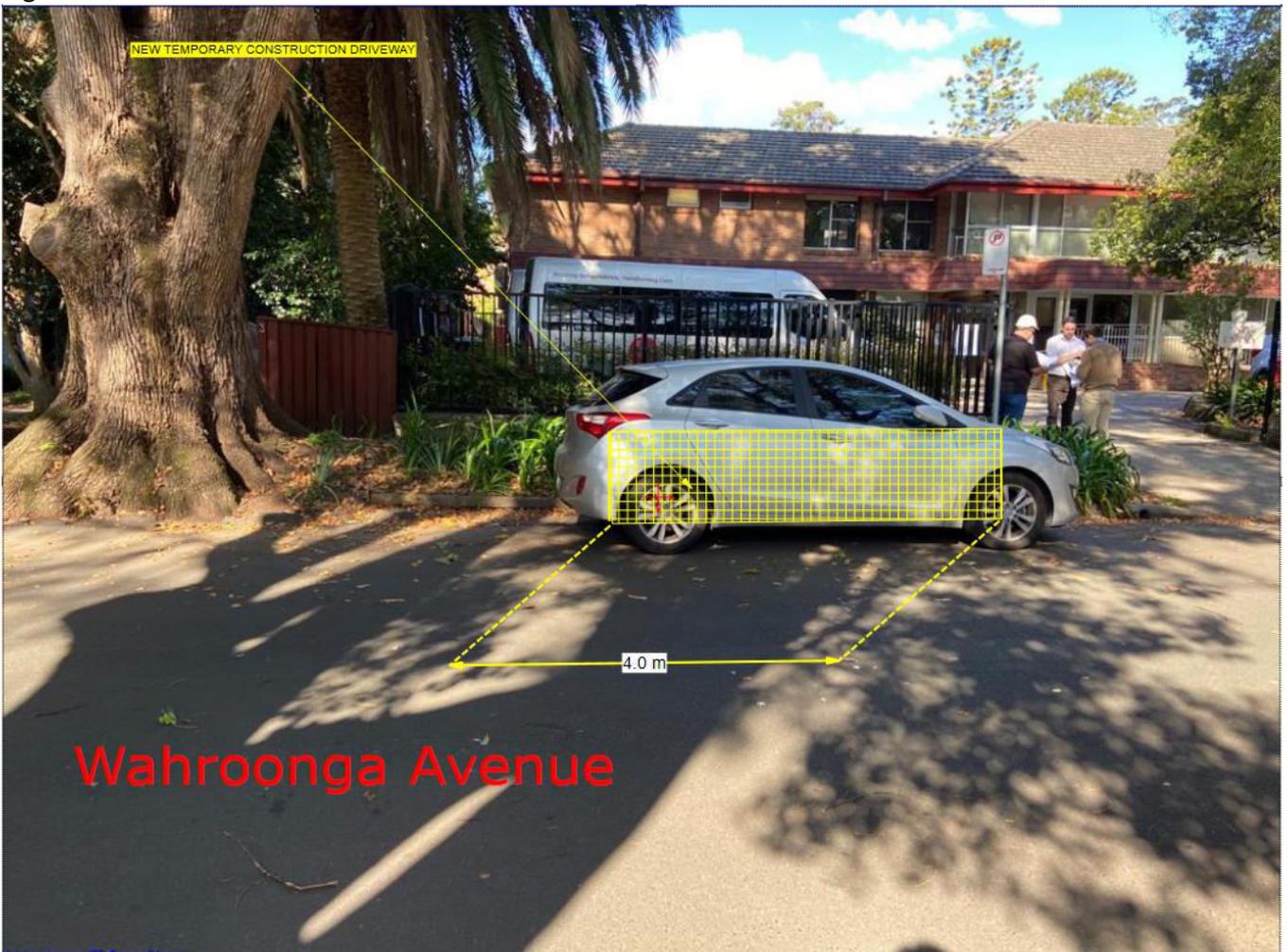


Figure 6 – Proposed Driveway

2.6 Road Network Use in the area

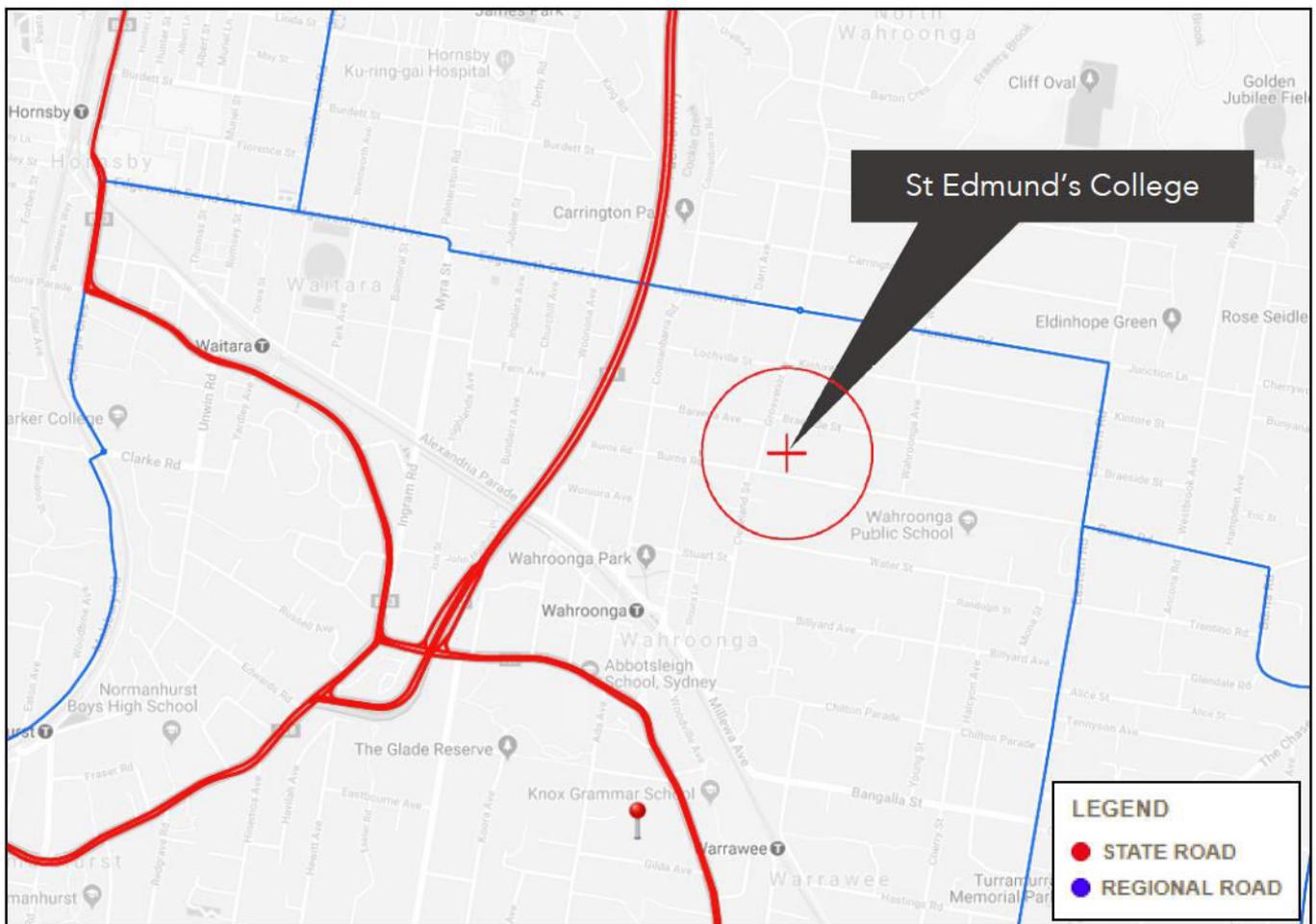
Burns Road is an east-west, 2 lane 2 way 9m wide road, which is a Local Road parallel to the Junctions Road providing overhead crossing of the F3 Sydney-Newcastle motorway and connecting to Hornsby. Burns Road connects to Eastern Road/Burns Road intersection to the east providing strategic access to the College frontage and connects with the Eastern Road to the east. In the vicinity of the college the carriageway accommodates parking along both sides, with an undivided roadway able to accommodate two-way vehicles at low speed.

Braeside Street - is an east-west, 2 lane 2 way 8m wide road, road features parking lanes on both sides, primarily carries local residential traffic. Braeside Street is a Local Road also connecting Eastern Road to the east. Emergency vehicle access is available through the game on Braeside Street.

Wahroonga Avenue - is a north-south, 2 lane 2 way 8m wide road, which is a Local Road providing access between Burns Road and Braeside Street. The College’s vehicle exit is located on Wahroonga Avenue. On-street parking is allowed on the eastern side of Wahroonga Avenue. Parking is prohibited on the western side during school peak time.

Eastern Road - is classified as a Regional Road and provides a connection to the East Wahroonga Area and Junction Road, which provides an important alternative connection to Hornsby.

Figure 7 – Road Hierarchy in the area:



Road Name	Road Type	Authority
Burns Road	Unclassified Regional Road, Collector Road	Ku-ring-gai Council
Braeside Street	Unclassified Regional Road	Ku-ring-gai Council
Wahroonga Avenue	Unclassified Regional Road	Ku-ring-gai Council

2.7 Surrounding Traffic Controls

The traffic controls in the vicinity of the college comprise a general 50kph speed limit and a 40kph school zone applicable to Burns Road, Wahroonga Avenue and Braeside Street. Other controls include a pedestrian crossing located on Burns Road near Wahroonga Avenue. This crossing is not managed by a traffic controller during school peak hours, due to the low volume of pedestrians crossing. The intersection is not subject to any STOP or GIVE WAY control, although it is clear to the motorists that Burns Road has priority over Wahroonga Avenue.

2.8 On Street Parking

Due to low population density in the area on street parking is available, on any given day there is about 50% of parking spots available along the subject roads, except morning and afternoon school times when school associated traffic floods the area.

2.9 Public Transport Facilities

The nearest bus stop to the College is on Junction Road servicing by Route 575, 591 and 576.

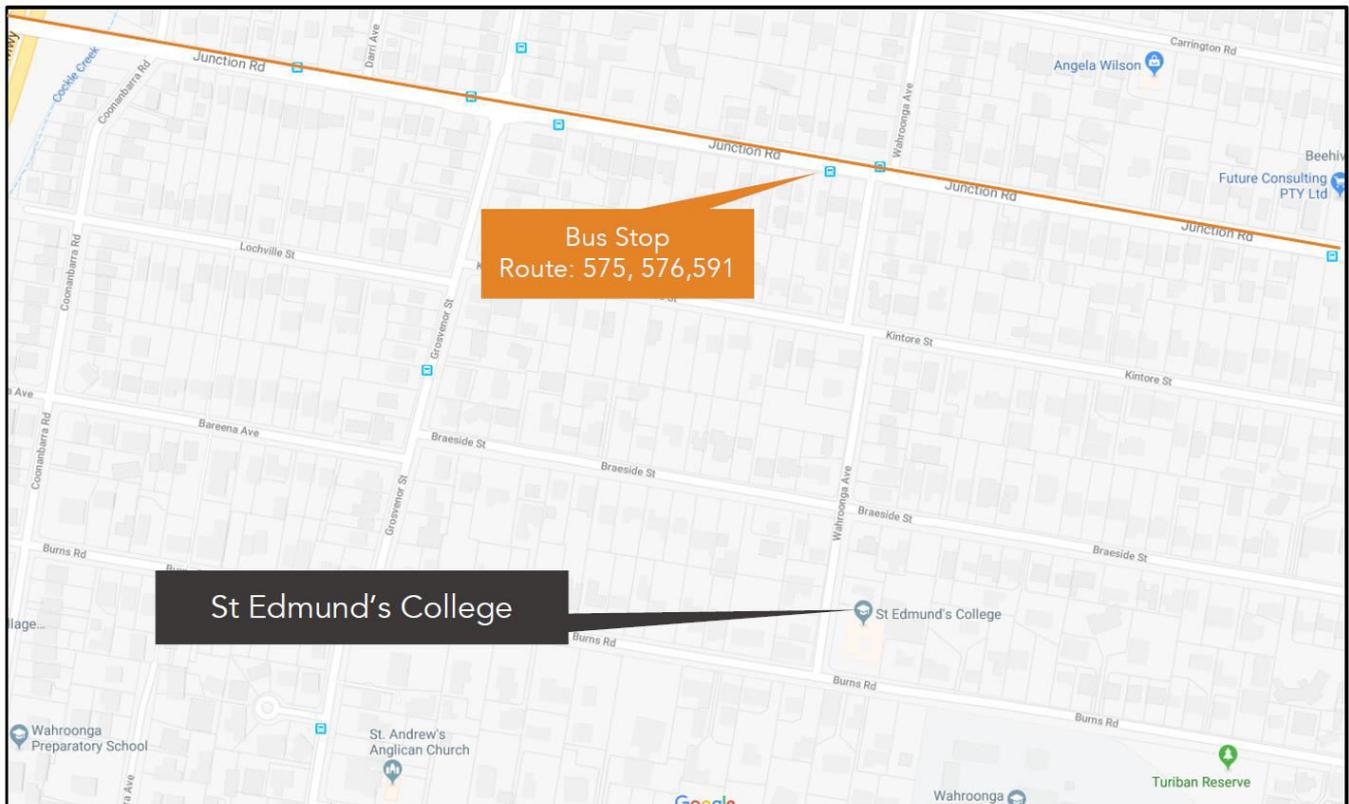


Figure 8 – Public Transport facilities in the area:

2.9.1 Pedestrian and Cycle Paths

Wahroonga Avenue has pedestrian paths on both sides, however on southern side footpath stretches only from Burns Road to the end (boundary) of the project site. Burns Road pedestrian Infrastructure is presented by 2 footpaths positioned on the both sides of the road. Pedestrian movement patterns commonly represented by nearby school related traffic and occasional residents. Pedestrian Activity is

considered very high during morning and afternoon school times. Cyclist Route Runs on Burns Road, the route is unmarked and it used by cyclists occasionally – please see cyclist route figure below:

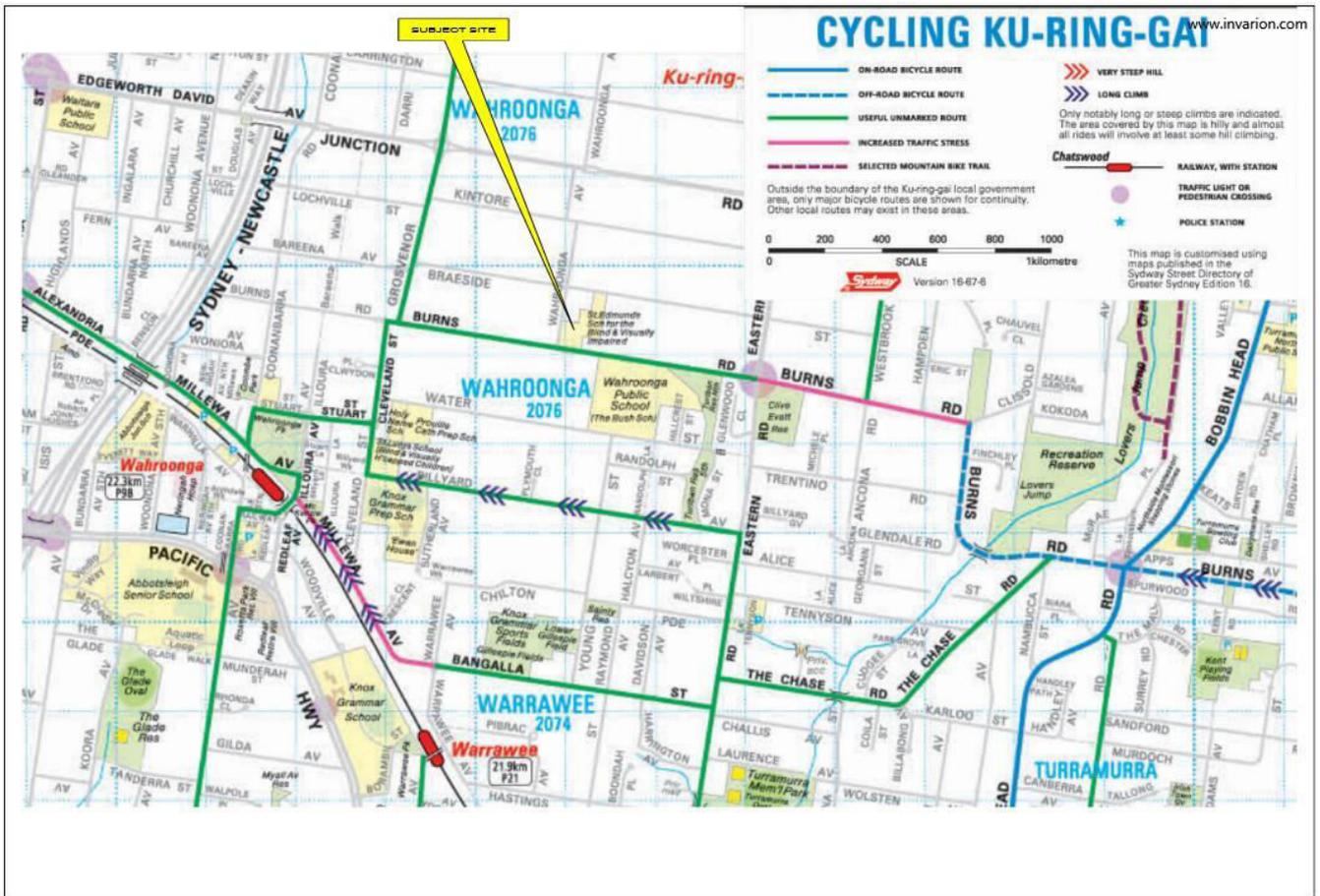
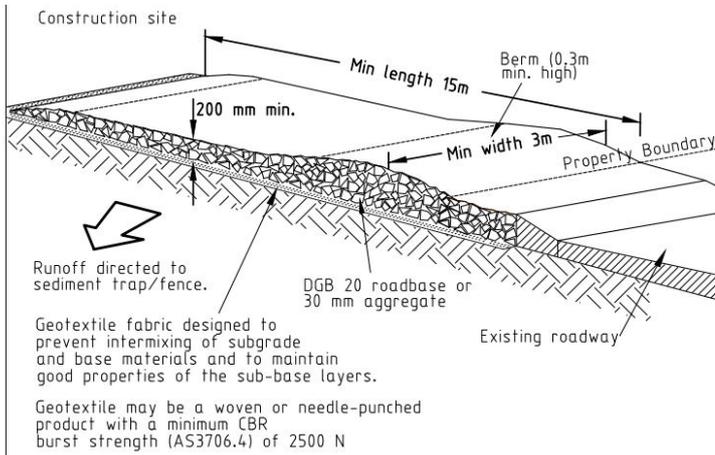


Figure 9 – Cyclist facilities in the area:

3. Proposed Construction Traffic Impacts

3.1 Location of Proposed Hoardings

No B-Class hoardings will be installed on this project. Class A hoarding along with scaffold will mostly cover perimeters of the site, for further information please refer to site layout diagram in the appendix of this document. Site gates will be used to secure the construction site from unauthorised access. The Applicant must apply to the Council Traffic Works Co-ordinator to organise appropriate approvals for Temporary Work Permits (crane or stand/plant permit and lane closures) and footpath occupancy permits for site outside works. Construction Site gates to be equipped with anti-sediment control as per image below:



TEMPORARY CONSTRUCTION EXIT

3.2 Location of proposed Crane Standing Zone

There will be only mobile crane used for façade and roof works, all cranes works will be operated within work site boundaries. Maximum crane size is 15T frana crane.

3.3 Concrete Pour Work Zones

10 concrete pours for foundations and structural elements, in total around 300m³ of concrete. All planned concrete pours to be done within work site boundaries. If there will be a need to have concrete pours done from council road reserve, it will require Police Notification and Stand/Plant Permit from the council.

3.4 Loading / Unloading Zones

Most of loading and unloading will be within the construction site performed by small up to 6m long LVs on both sides of work site, and occasionally by HRs.

3.5 Location of Excavations

- Excavator (5T) will be used for demolition work purpose and footing base excavation and public domain works (site specific TCPs addresses those scenarios - #2938 and #2937)

3.6 Site Accommodations

All site accommodations will be located wholly within the site compound not on public lands – please refer to **Appendix A – Figure 10**

3.7 Material, Plant and Spoil Bin Storage Areas

These areas will be allocated within the construction site boundary. Skip bins will be contained wholly within the site boundary. No storage of materials, plant or spoil will be allowed on public land or public roads. All waste/material will be collected on site in a position for easy access for both use on site and removal by trucks. As previously described, all removal trucks will have the load covered by tarpaulin or other means to secure the load and will adhere to the approved travel routes as described in this TMP.

It is noted the Rohrig NSW Pty Ltd must obtain a permit from the Ku-ring-gai Council regarding the placing of any plant/equipment o public ways, should this ever be required.

3.8 Nearby Construction Sites

Nil observed

3.9 Access Management Arrangements

Dedicated temporary construction site driveway entrances and exits will be signposted and managed by certified traffic controllers. This will remain in place to safely manage pedestrians and construction-related vehicles to the Site frontage's roadways and footpaths.

Authorised Traffic Controllers will also be in place to assist with vehicle access to any private car spaces if required. It is not expected, but should there be a need to relocate any car spaces due to the spaces being inaccessible, suitable alternative arrangements will be provided to the occupant of the car space.

3.1.1 Vehicle Movement Plan

A vehicle movement plan has been developed for this project and is located in **Appendix A Figure 11**.

Please note that VMP is subject to careful council assessment due 3T weight limit in the area.

3.1.2 Impact to Residents, Businesses and the Public

Most of the works will be carried out within construction site boundaries, this project is not expected to have any significant impact on residents, public transport and cyclists. Existing access arrangements and services to other transport modes will be maintained comparable to the existing situation. Adequate provision for motorists, pedestrians and cyclists will be made for current movements along all frontages and intersecting streets.

3.1.3 Neighbouring Properties

Access to neighbouring properties will be maintained at all times. Neighbouring property occupants and local stakeholders will be regularly notified of the timeframes for completion and of any other impacts that may affect the local surrounds.

3.1.4 Transport Management for Service, Delivery, and Garbage Vehicles

No impact on existing services is expected during the works. Stakeholder consultation will occur throughout the project and particular on the stage of high impact Lane Closures.

3.1.5 Public Transport Impacts

This project is expected to have nil impact on public transport (buses) timetables. All traffic control works will be carried out away from local bus routes in the area.

3.1.6 On Site Parking

Site management reserves 5 parking spots for tradesmen at the front school driveway, please refer to Construction Site Plan – **Figure 10 of Appendix A**

It will be prompted that site staff, workers and contractors related to the project are to be encouraged to use public transport. No truck pooling/parking will be permitted at any time during the project at any frontage to the project or any other roadway within the Ku-ring-gai Council Local Government Area.

3.1.7 Emergency Services

For any works on the roadway, a 3.2m isle is to be maintained at all times during any road works to ensure emergency vehicle can pass if required.

3.1.8 Pedestrians

Project makes almost nil impact on pedestrian movements, occasional pedestrian diversion work scenario is addressed in TCPs #2912 and all those movements will be managed by onsite traffic control personnel.

3.1.9 Cyclists

Cyclists will be subject to the same Traffic Management Controls as registered road users and will always have the right of way over construction works and vehicles accessing the site, except days when temporary lane closure with stop/slow operation and footpath traffic diversion in place (currently no affected footpaths are shared with cyclists) will be in place.

3.2.1 Construction Traffic and Heavy Vehicles

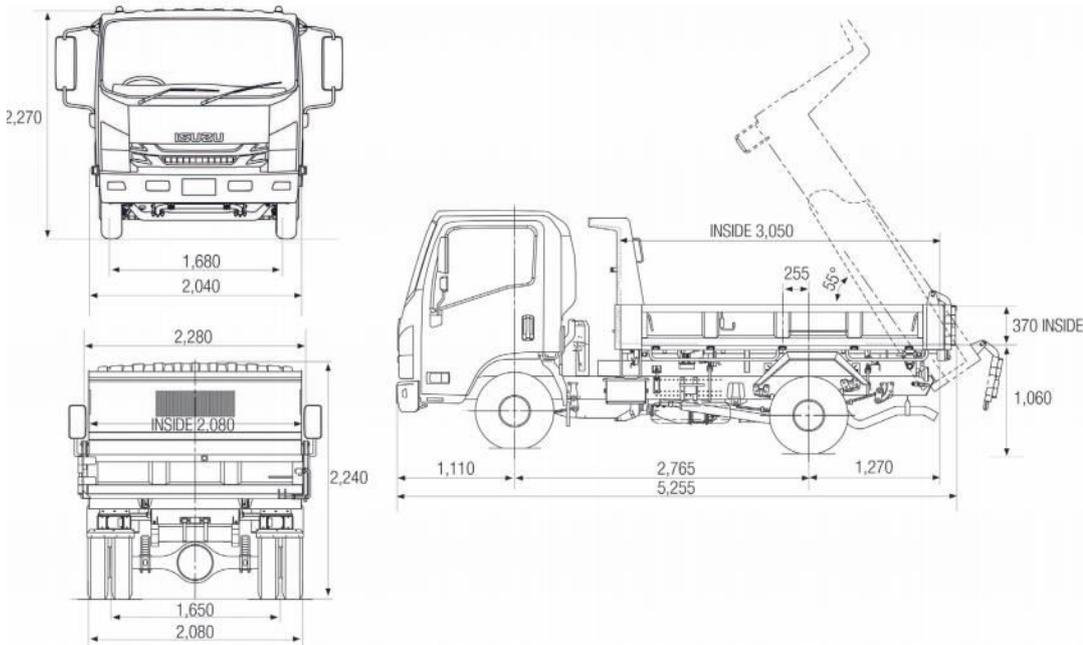
Typically, the most high-risk movement for construction vehicles occurs when vehicles are entering or exiting the construction site to and from the external road network. The management of construction access will include the following:

- During busy construction periods, additional Traffic Controllers will be considered at access points to facilitate additional entry and exit movements;
- Where practicable, heavy vehicles will avoid using local roads;
- Authorised Traffic Controllers will be utilised to assist with safe access and egress of public vehicles around the work area where required.
- Due to the fact that proposed truck route passes through multiple “School Zones” in the area and in Burns Road and as such, Truck movements will be restricted during the morning and afternoon school hours, i.e 8:00am-9:30am and 2:30pm-4:00pm.

3.2.2 Types of Trucks Approaching Site

There will be a combination of small rigid vehicles (LV's 6.0m), heavy rigid vehicles (HR's 12.5m) pantech and flatbed trucks accessing and egressing from the site. Site Surrounding Roads are designed to carry vehicles with short wheel base, hence there are no plans to use vehicles longer than 12.5m.

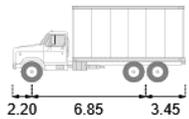
DAILY ONSITE ACCESS VEHICLES – LIGHT VEHICLE
NPR 45/55-155 Tipper



SITE DELIVERIES AND SPOIL MATERIAL REMOVAL INCLUDING (CONCRETE AND CONSTRUCTION MATERIAL DELIVERY VEHICLE)



Vehicle dimensions



Single unit truck/bus

- Length: 12.50 m
- Width: 2.50 m
- Lock to lock time: 4.0 s
- Max steering angle: 36.65°
- Turn radius (curb to curb): 12.50 m
- Turn radius (wall to wall): 13.83 m

6 Wheeler Trucks



Carrying Capacity	0.6m³ To 6.0m³
Height	Minimum 4m clearance required for site access
Length	7.3m
Width	2.5m (0.4m extra required each side for mirrors)
Weight (CML)	23 tonnes with Mass Management Accreditation
Chute Length	2.8m
Chute Height	1.6m

For any works carried out OUTSIDE OF SITE BOUNDARIES i.e. at the frontage kerb lane there will be need a temporary lane closure permit from Ku-ring-gai Council.

3.2.3 Estimated Daily Truck Volumes

The estimated average number of daily truck movements would be 2-5 per day.

The estimated construction traffic generated by the works is summarized in **Table 3** below.

TABLE 3: CONSTRUCTION VEHICLE MOVEMENTS

STAGE	TRUCKS	TRUCK TYPE	DURATION
Site Establishment and Demolition works	35 spoil material collection vehicles; 5 material delivery vehicles - 5 vehicles a week	HR Trucks	5 weeks
Earth Material Removal	40 vehicles 3-5 vehicles a week	SR, HR Trucks	12 weeks
Concrete Truck Deliveries	25 trucks 3-4 trucks a week	HR Trucks	7 weeks
Deliveries of construction materials and site supplies	50 delivery vehicles 2 vehicles a week	SR, HR Trucks	32 weeks
Tradesmen Vehicles	8 vehicles a day 48 vehicle movements a week	LVs	48 weeks

Note: Construction vehicle movements have been assumed without the input from a builder and as such is subject to change prior to submission to Ku-ring-gai Council

3.2.4 Vehicle Queueing

No queuing or marshalling of trucks is permitted on any public road. If there is no adequate space on-site or in the approved temporary Work Zone. All construction vehicles should be coordinated to site only when sufficient space is available. Circulating construction vehicles on the network will not be tolerated.

3.2.5 Abnormal and Oversize/Over mass Loads

Oversize and over-mass vehicles are not allowed to travel on Local Roads (unless approval for a one-off occasion is obtained from the Ku-ring-gai Council Traffic Operations Unit). Requests to use these vehicles must be submitted to Ku-ring-gai Council 28 days prior to the vehicle's scheduled travel date.

Specific Traffic Management Plan will be developed for each abnormal movement and will be submitted for assessment to the relevant local and regulatory authorities on a case by case basis. For more information, please contact the National Heavy Vehicle Regulator (NHVR) on 1300 696 487 or <https://www.nhvr.gov.au/>

3.2.6 Traffic Control Signs and Devices

Traffic control devices are an important tool for influencing the safety of road users, in particular where temporary traffic controls are implemented at work sites.

The following traffic control details shall be strictly adhered to during this project:

- Advance Warning Signs shall be erected accordingly on each approach to the job site.
- Work for the shift shall be discussed with the team during the toolbox talk and SWMS Induction prior to commencement.
- All signs shall be of a size appropriate for residential streets with approach speeds of no more than 60km/hr.
- Sign spacing shall be within -10% to +25%.
- Contradictory signs to be covered.
- Do not cross open lanes to set out signs.
- Cones to be 700mm in height and reflective.
- Stop traffic at times when there is not enough lateral clearance.
- Allow for cyclists and parked cars in setting out T/C equipment.
- Need an escape route for traffic controllers.
- Prevent other vehicles following when Construction Vehicles are turning into site.
- All personnel, plant and equipment to keep a minimum of 1.2m from traffic.
- Record and initial any changes to TCP.
- Complete TCP checklist prior to implementation of TCP

All signposting installed throughout the project will comply with the requirements outlined in the RMS's TCWS Manual Version 5, AUSTRROADS Guide to Traffic Engineering Practice, Part 8 – Traffic Control Devices and the Relevant parts of Australian Standard 1742.3-2009.

Traffic Controllers are to stop traffic on the public street(s) to allow trucks to enter or leave the site as site access does not vehicle make u-turn onsite. However, traffic controllers must wait until a suitable gap in traffic allows them to assist trucks in entering or exiting the site. This procedure must be approved by Ku-ring-gai Council traffic department.

Temporary signposting will be implemented as per the detailed traffic plans. As documented in **Appendix B** – Traffic Control Plans.

Designed TCPs cover different work scenarios, for further information please see table below:

Event	DESCRIPTION	TCP
1	Site Establishment and temporary crossover works	#2937 and #2912
2	Demolition, Earthworks and Construction Phase works	#2912 and #2935
3	Start groundworks – deliveries and concrete pours	#2912 and #2935
4	Sub structure – deliveries and concrete pours	#2912 and #2935
5	Structure and roofing – crane lifts within work site boundaries	#2912 and #2935
6	Public Domain Works – restabilising crossovers and footpaths	#2937 and #2938

3.2.7 Risk Assessment

A detailed risk assessment and control method must be documented for each stage of the works. A Safe Work Method Statement is to be developed in consultation with all stakeholders and signed off by all workers prior to commencement of work.

3.2.8 Stakeholder Works Notifications

Notifications will be provided to all impacted stakeholders. Local community notification and consultation processes will be undertaken with all stakeholders prior to any changes to or impact on the road network. It will be very vital to coordinate every interested party affected by proposed lane closures with stop/slow operations in order to achieve convenience and traffic from efficiency prior. A copy of the notification letter for general traffic control works to residents is in below:

60 & 60A Burns Road, Wahroonga

Thursday 10th December 2020 – Tuesday 22nd December 2020

07:00am to 5:00pm

Thursday, 10 December 2020

Dear Resident,

Please be advised that a construction works will be occurring on Wahroonga Avenue (*or insert Braeside Street when necessary*). Access to the road way and footpath for public will remain open under the guidance traffic control signage and/or authorised traffic controllers. For any concerns on the day of the works please contact Dane on 0431 835 303.

Apologies for any potential delays caused.

If you would like any further details, please contact Dane on 0431 835 303 between 9.00am and 5.00pm Monday to Friday.

3.2.9 Emergency Services Notification

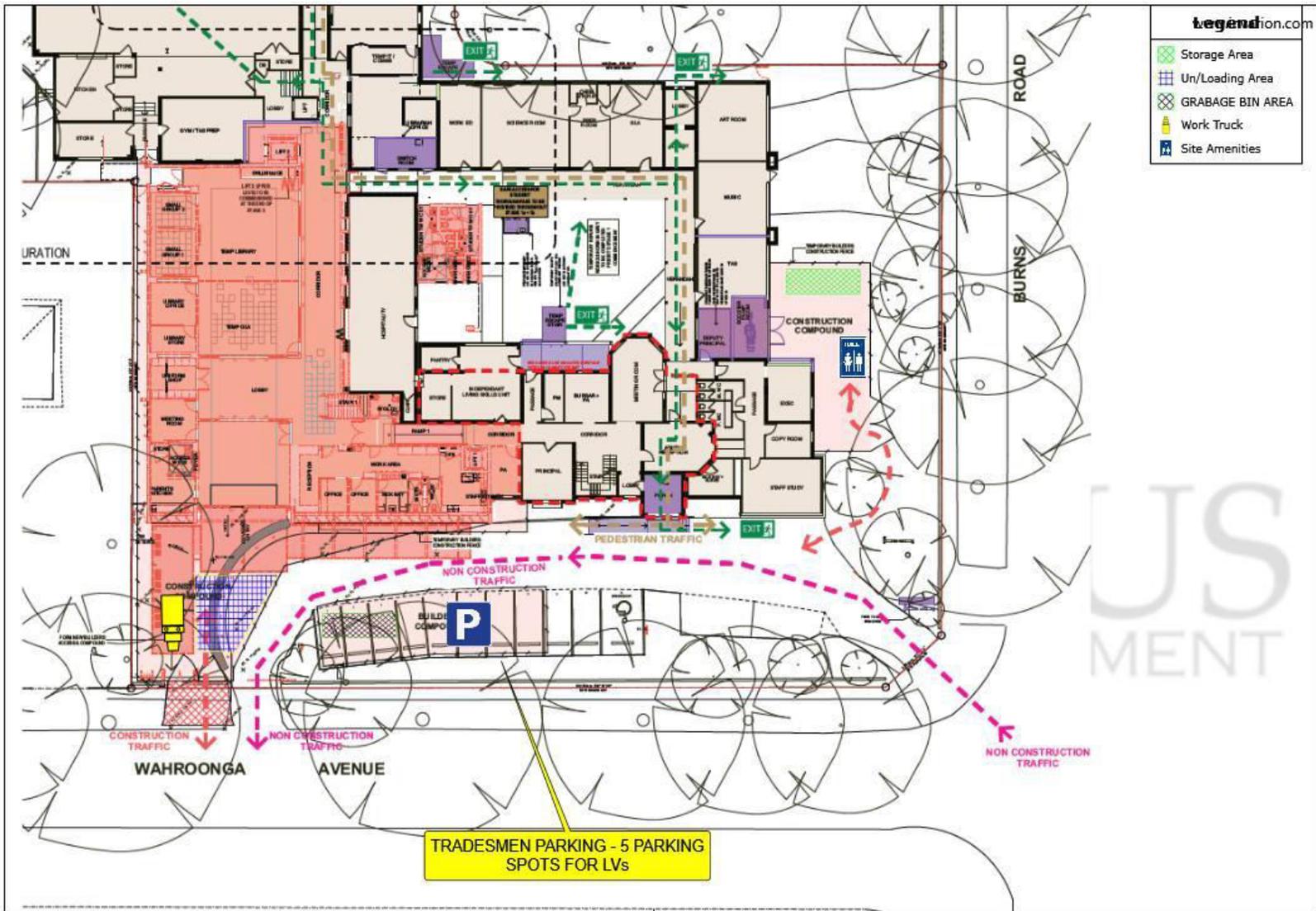
Emergency Services will be informed in a timely manner of relevant activities proposed within this TMP that affect the use of the roadway. It is noted that it is a condition of the Ku-ring-gai Council Construction Regulation Unit that emergency services be notified prior to obtaining Mobile Hoisting, Temporary Works, Road Opening or Road Closure permit from the Construction Regulation Unit.

At the stage of total Hume Lane closure Emergency Vehicles will need to be notified in special format as it applied to road closure.

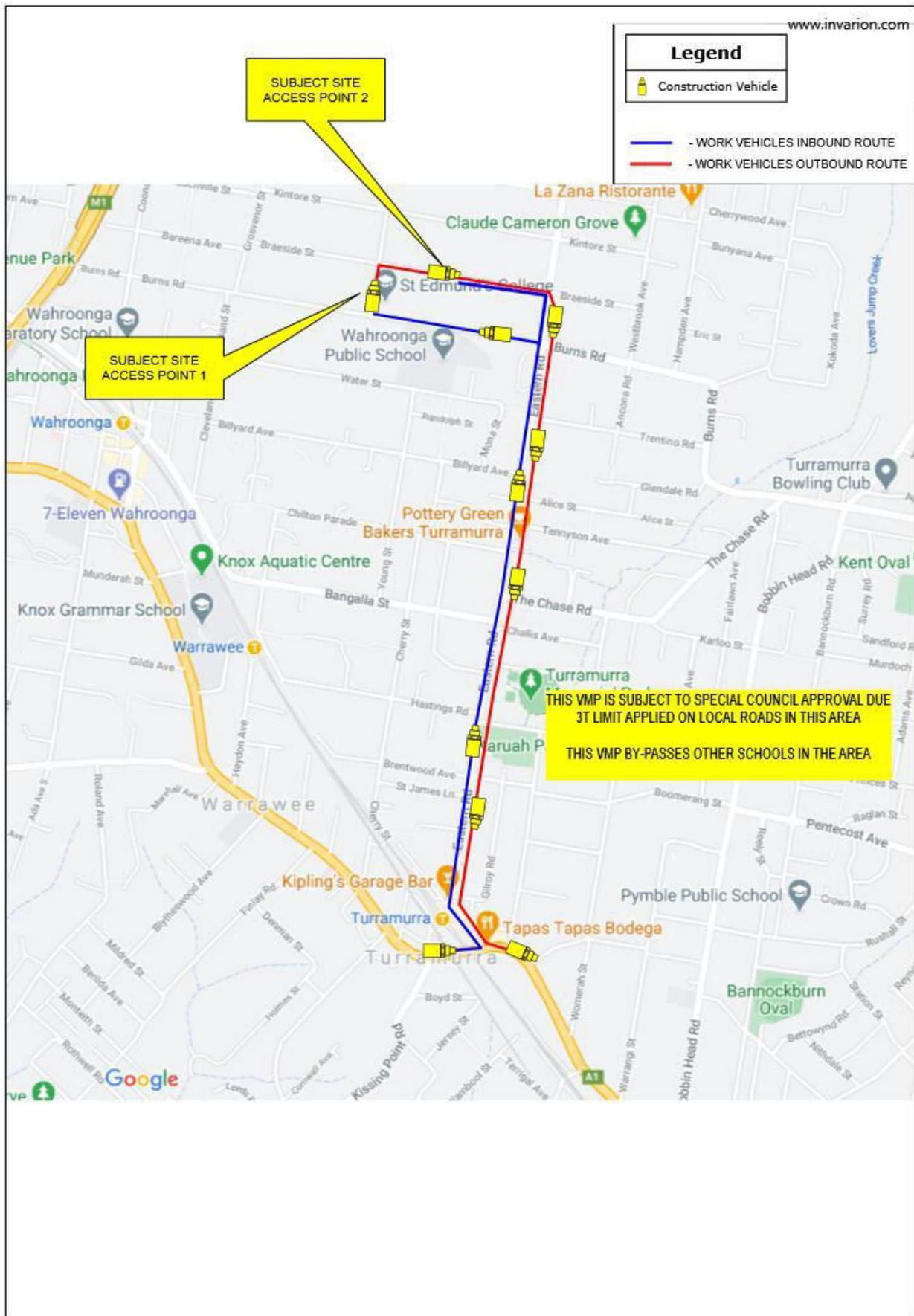
3.3.1 Key Contacts

NAME	POSITION	CONTACT #
Brenden Jones	Property Manager	0435 727 371
Marilyn Noonan	Business Manager	0419 757 571
Rebecca Kirwan	Deputy Principal	0406 174 112
Jon Franzin	Principal	0401 426 463

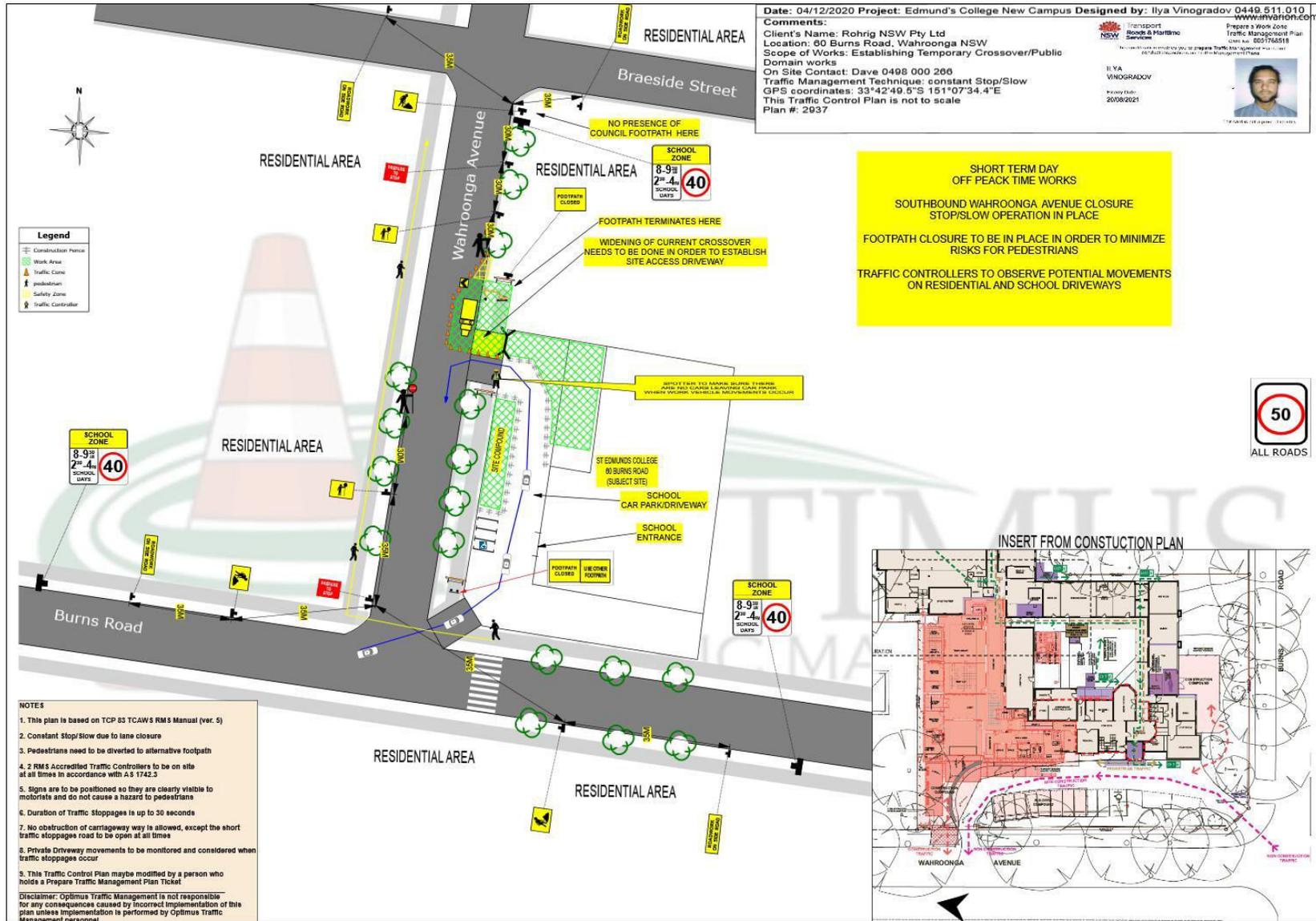
APPENDIX A
 Site Layout– Figure 10



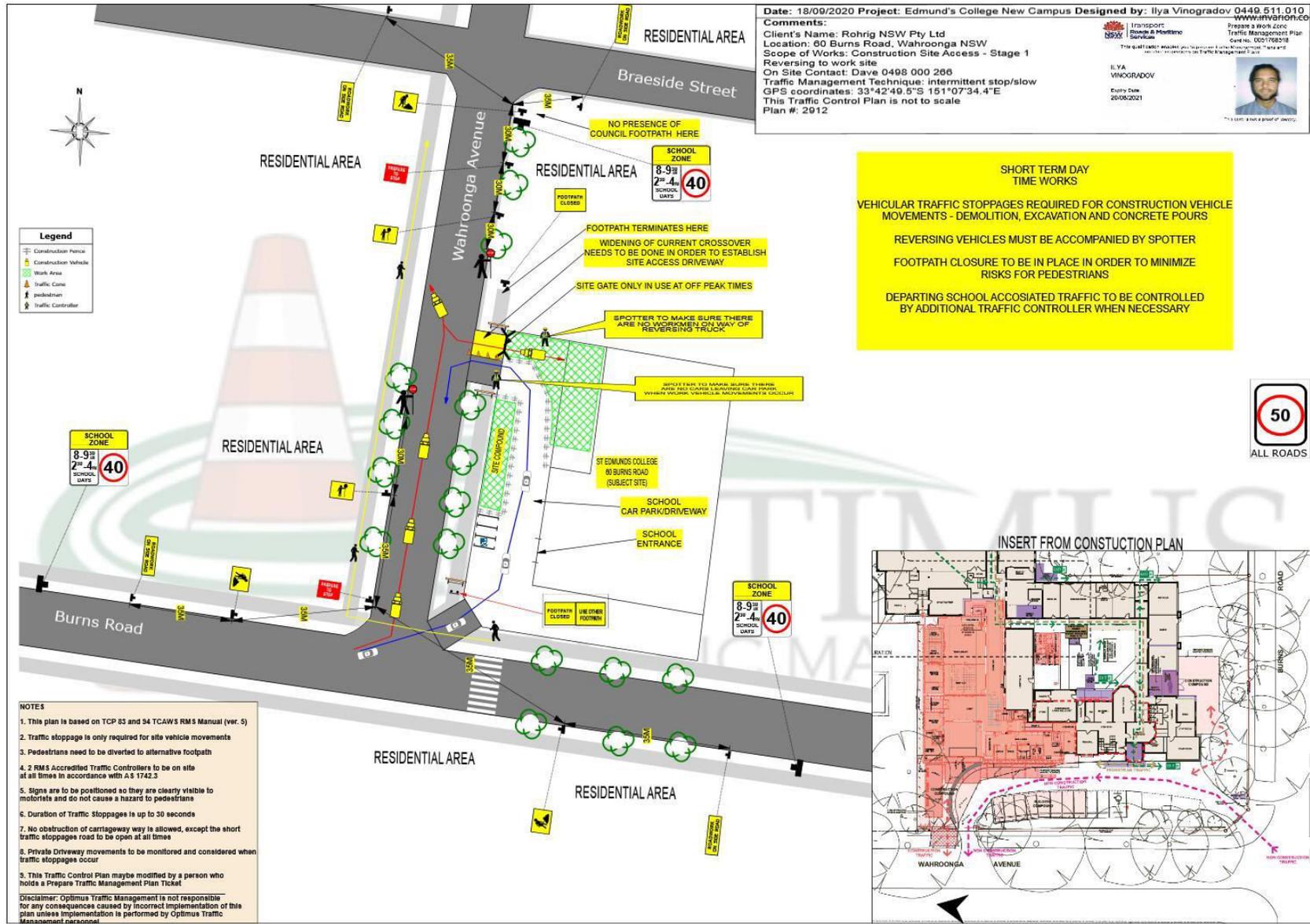
Vehicle Movement Plan for Construction Vehicles – Figure 11



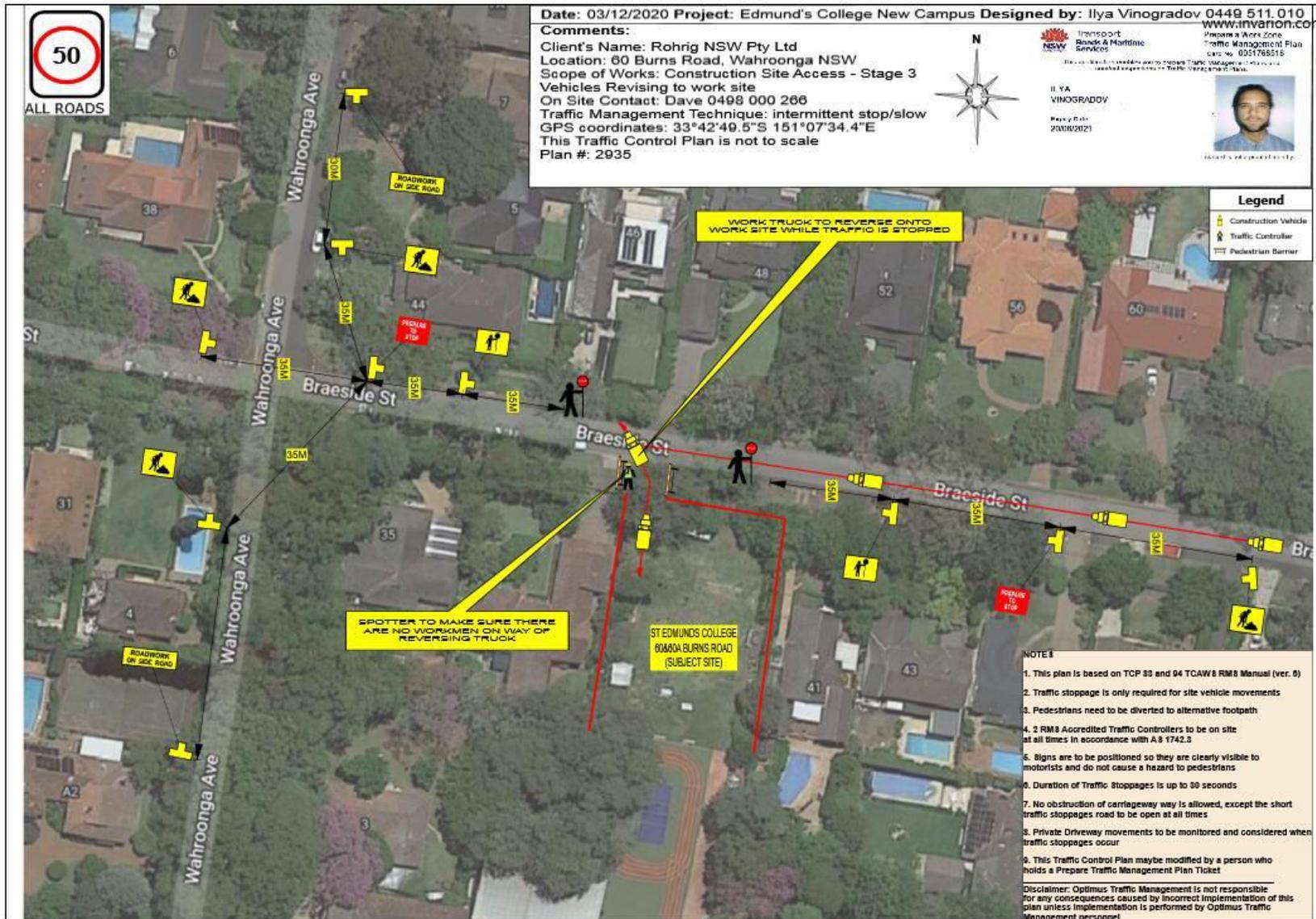
APPENDIX B TRAFFIC CONTROL PLANS - TCP #2937 – TEMPORARY CROSSOVER ESTABLISHMENT AND PUBLIC DOMAIN WORKS



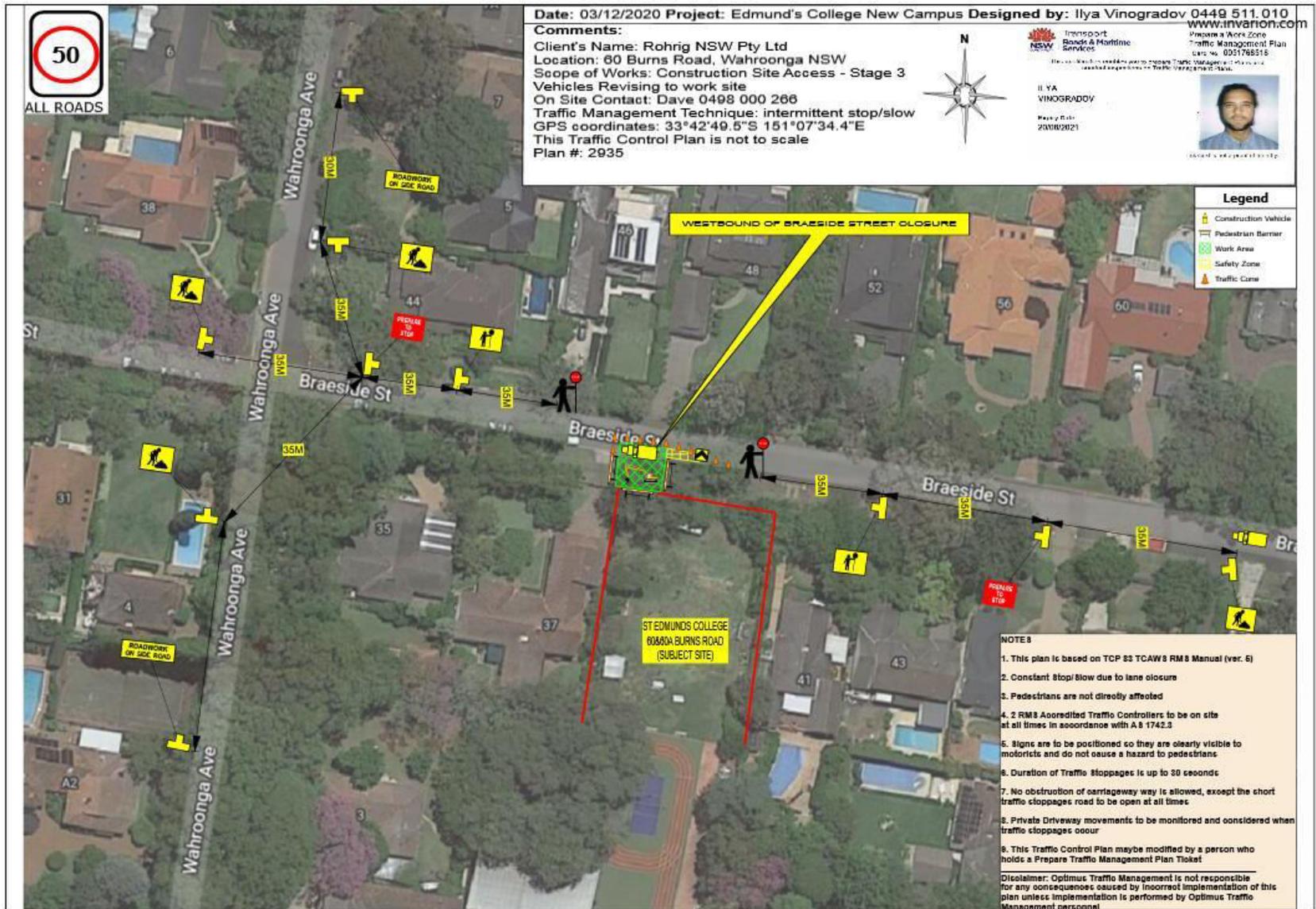
TRAFFIC CONTROL PLANS - TCP #2912 – DAILY SITE ACTIVITIES – DEMOLITION, EARTHWORKS, CONCRETE POURS AND DELIVERIES



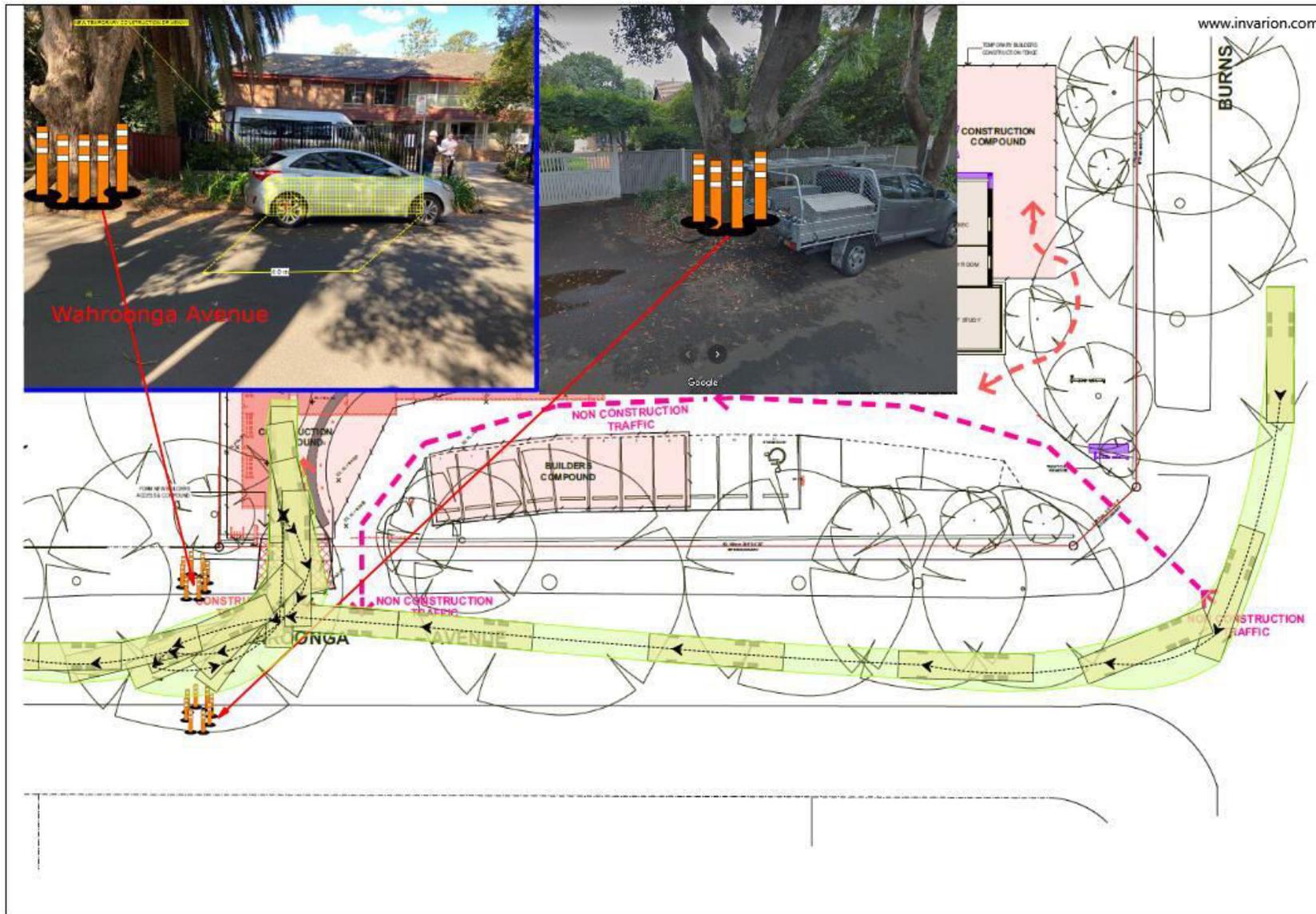
TRAFFIC CONTROL PLANS - TCP #2935– DAILY SITE ACTIVITIES – DEMOLITION, EARTHWORKS, CONCRETE POURS AND DELIVERIES



TRAFFIC CONTROL PLANS - TCP #2938 – CROSSOVER RESTABLISHMENT ON BRAESIDE STREET



APPENDIX C – SWEEP PATH ANALYSIS – SITE ACCESS ON WAHROONGA AVENUE



SWEPT PATH ANALYSIS – SITE ACCESS ON BRAESIDE STREET

