

# Construction Traffic Management Plan

Griffith Base Hospital  
Main Works

For Health Infrastructure  
28th November 2022

parking;  
traffic;  
civil design;  
wayfinding;  
**ptc.**

## Document Control

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## Contact

Dan Budai  
SafeWork NSW Card No. TCT0016805 (PWZ)  
+61 2 8920 0800  
+61 450 524 500  
dan.budai@ptcconsultants.co

Jake Jansen  
SafeWork NSW Card No. TCT1027562 (PWZ)  
+61 2 8920 0800  
jake.jansen@ptcconsultants.co

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

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# 1 Introduction

## 1.1 Project Description

ptc. has been engaged by Health Infrastructure (HI) to prepare a Construction Traffic Management Plan (CTMP) for the proposed redevelopment of Griffiths Base Hospital ("The Hospital"). This assessment will be submitted for assessment as part of the Stage 2 Crown Certificate 1, Early and Enabling Works.

The site location is outlined in Figure 1.1.

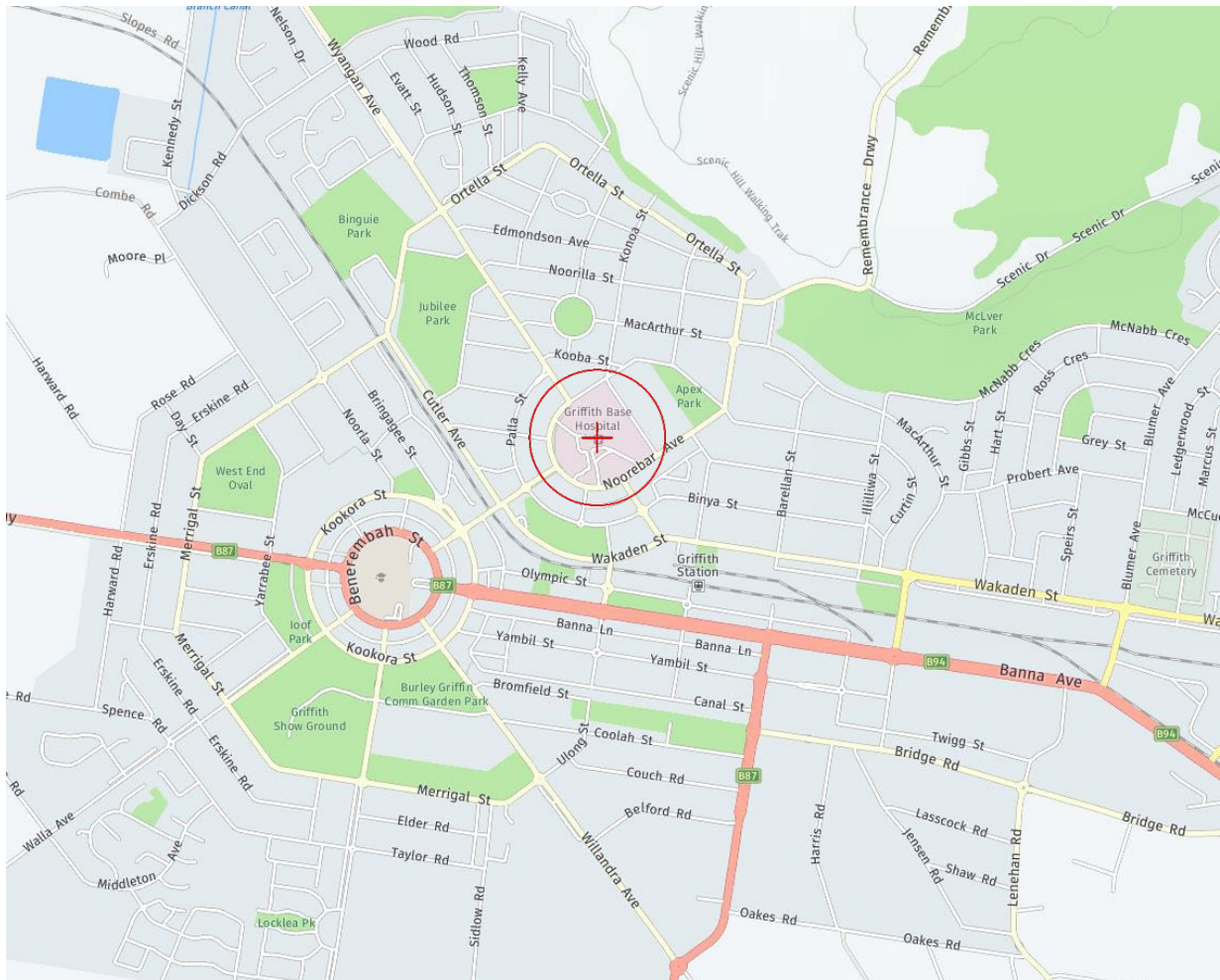


Figure 1.1: Site Location

## 1.2 Purpose of this Report / Compliance with Conditions of Consent

This CTMP addresses the proposed demolition and excavation works associated with Stage 2 Crown Certificate 1, Early and Enabling Works and includes:

- Outline the proposed demolition and construction staging.
- Haulage routes and construction vehicle access arrangements.
- A heavy vehicle swept path assessment, demonstrating feasibility of site access, in addition to haulage routes.

- 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.
- Measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts will be clearly identified and included in the CTMP.
- Development of a Traffic Guidance Scheme (TGS), outlining the construction access to the development and a description of traffic control measures required.

### 1.3 Relevant Conditions

SEARs	Response
Analysis of the impacts of the traffic generated during construction of the proposed development, including:	
<ul style="list-style-type: none"> <li>• construction vehicle routes, types and volumes.</li> <li>• construction program (duration and milestones).</li> <li>• on-site car parking and access arrangements for construction, emergency and construction worker vehicles.</li> <li>• cumulative impacts associated with other construction activities in the locality (if any).</li> <li>• road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality.</li> <li>• measures to mitigate impacts, including to ensure the safety of pedestrian and cyclists during construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.8</li> <li>• Section</li> <li>• Section 5.11</li> <li>• Minimal cumulative impacts are expected.</li> <li>• Section 5.19</li> <li>• Section 5.19, Section 5.20</li> </ul>
Analysis of the existing transport network, including:	
<ul style="list-style-type: none"> <li>• road hierarchy.</li> <li>• pedestrian, cycle and public transport infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 4.1</li> <li>• Section 4.2, 4.2.1, 4.3</li> </ul>

Conditions of Consent	Response
B17. The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following:	

(a) be prepared by a suitably qualified and experienced person(s);	Satisfied
(b) be prepared in consultation with Council and TfNSW;	Satisfied
(c) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; and	Satisfied – Sections 5.3, 5.8, 5.18, 5.19, 6
(d) detail heavy vehicle routes, access and parking arrangements.	Satisfied – Sections 5.8, 5.11
C10. All construction vehicles (excluding site personnel vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site or an approved on-street work zone before stopping unless directed by traffic control.	Sections 5.8, 5.11

## 1.4 Consultation with Authority

The history of consultation with authority (Council / TfNSW) is detailed below:

Date	Occurrence	Outcome
11/08/2021	RtS Consultation Meeting with Griffith City Council No. 1	ptc in attendance. Discussion of access and traffic arrangements.
Ongoing	Submission of CTMP revisions to authority for assessment	Submission of each revision to council for assessment acts as consultation and engagement with authority.



### 3 Development Proposal

**ptc.** has been engaged by Health Infrastructure (HI) to prepare a CTMP for the Stage 2 Crown Certificate 1 early and enabling works associated with the Griffith Base Hospital redevelopment as part of the Concept Design Package to HI.

Stage 2 works will involve the following;

- Demolition of the majority of the existing hospital structures (excluding the Dentistry Building, Nurses Education Building and the Ambulatory Care Unit),
- The construction of the new Medical Block and Back of House.
- The existing Ambulatory Care Unit will be utilised for the Community Health Services which is currently provided off-site.



## 4 Existing Transport Facilities

### 4.1 Road Hierarchy

The site lies within the Griffith local government area, and is serviced by state and regional roads, including Kidman Way, Burley Griffin Way, and Wakaden Street. Local roads are managed by Griffith City Council.

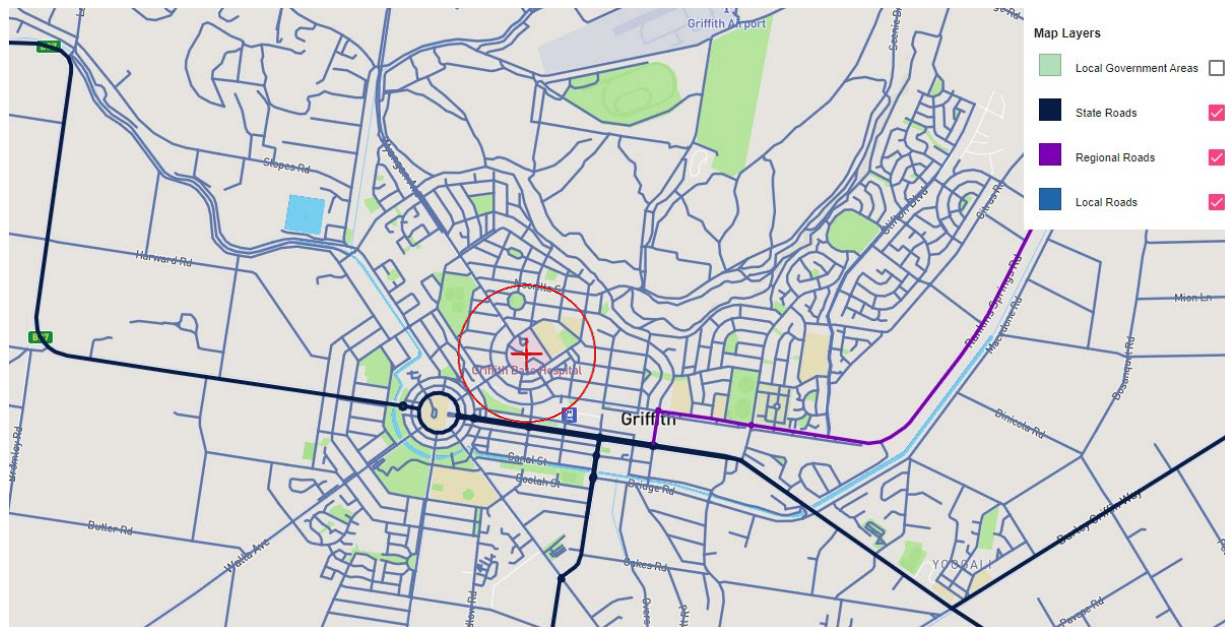


Figure 4.1: Road Hierarchy

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

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

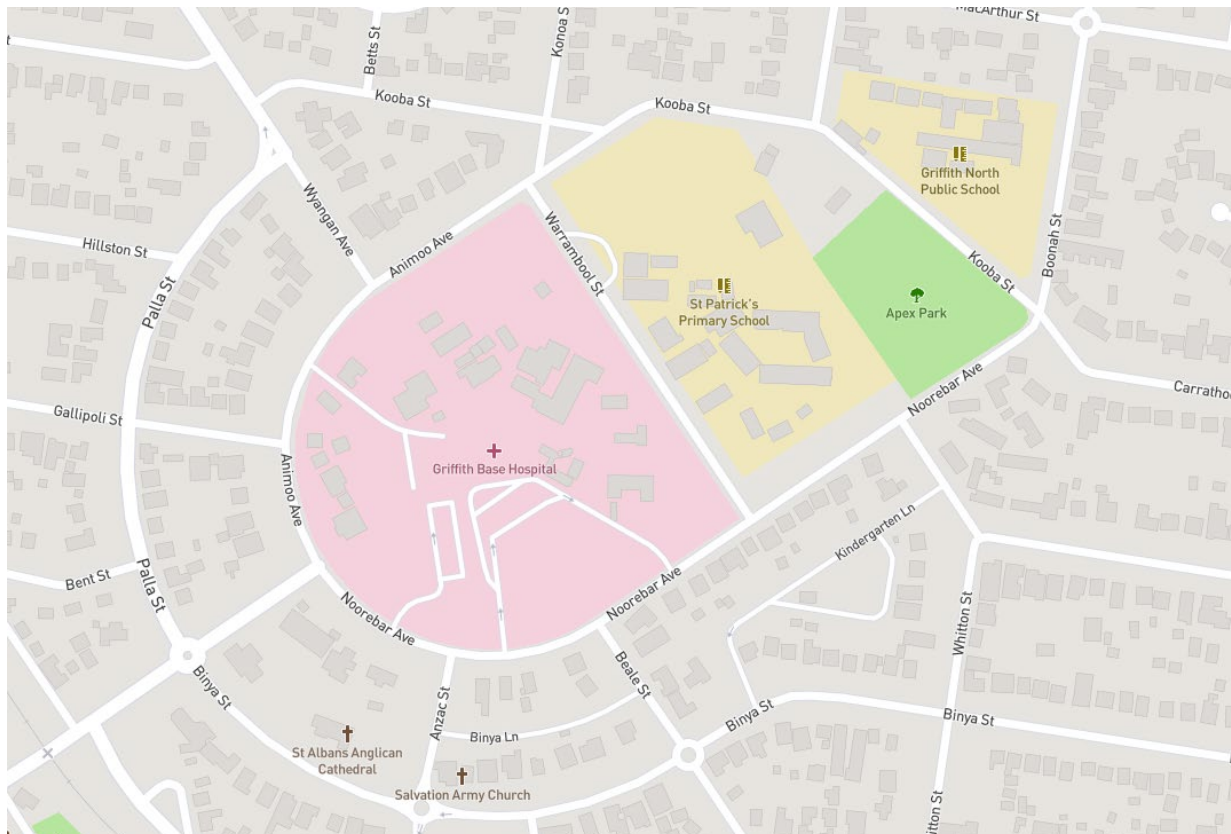


Figure 4.2: Local Road Network

#### Warramboul Street

Road Classification	Local Road
Alignment	North-West to South-East
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	18.5m
Speed Limit	50 km/h
School Zone	Yes
Parking Controls	Unrestricted perpendicular and angled parking on either side
Forms Site Frontage	Yes



Figure 4.3: Warramboul Street looking southeast

**Noorebar Avenue**

Road Classification	Local Road
Alignment	North-East to South-West
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12.5m
Speed Limit	50 km/h
School Zone	Yes
Parking Controls	Unrestricted
Forms Site Frontage	Yes



Figure 4.4: Noorebar Ave looking southwest

**Animoo Avenue**

Road Classification	Local Road
Alignment	North-East to South-West
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50 km/h
School Zone	Yes
Parking Controls	Unrestricted
Forms Site Frontage	Yes



Figure 4.5: Animoo Ave looking northeast



**Kooba Street**

Road Classification	Local Road
Alignment	North-West to South-East
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50 km/h
School Zone	Yes
Parking Controls	No Parking 8am-9:30am & 2:30pm-4pm School Days
Forms Site Frontage	No



Figure 4.6: Kooba St looking southeast

**Wyangan Avenue**

Road Classification	Local Road
Alignment	North-West to South-East
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	14.5m
Speed Limit	50 km/h
School Zone	No
Parking Controls	Unrestricted
Forms Site Frontage	No



Figure 4.7: Wyangan Ave looking southeast

**Gallipoli Street**

Road Classification	Local Road
Alignment	East – West
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	9m
Speed Limit	50 km/h
School Zone	No
Parking Controls	Unrestricted
Forms Site Frontage	No



Figure 4.8: Gallipoli Ave looking east

**Koorungal Avenue**

Road Classification	Local Road
Alignment	North-East to South-West
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	13m
Speed Limit	50 km/h
School Zone	No
Parking Controls	Unrestricted
Forms Site Frontage	No



Figure 4.9: Koorungal St looking east



## 4.2 Public Transport

The locality was assessed in the context of available forms of public transport that may be utilised by visitors. When defining accessibility, the NSW Guidelines to Walking & Cycling (2004) suggests that 400m-800m is a comfortable walking distance.



Figure 4.10: 800m Radius from the Hospital

### 4.2.1 Public Transport Services

A review of the public transport network in the vicinity of the Griffith Hospital has been undertaken to evaluate the accessibility to the site using public transport modes. NSW Guidelines to Walking & Cycling (2004) suggests that 400m-800m is a comfortable walking distance.

There are six bus stops located within 400m of the hospital, and an additional seven stops within 800m. A train station is within the 800m catchment.

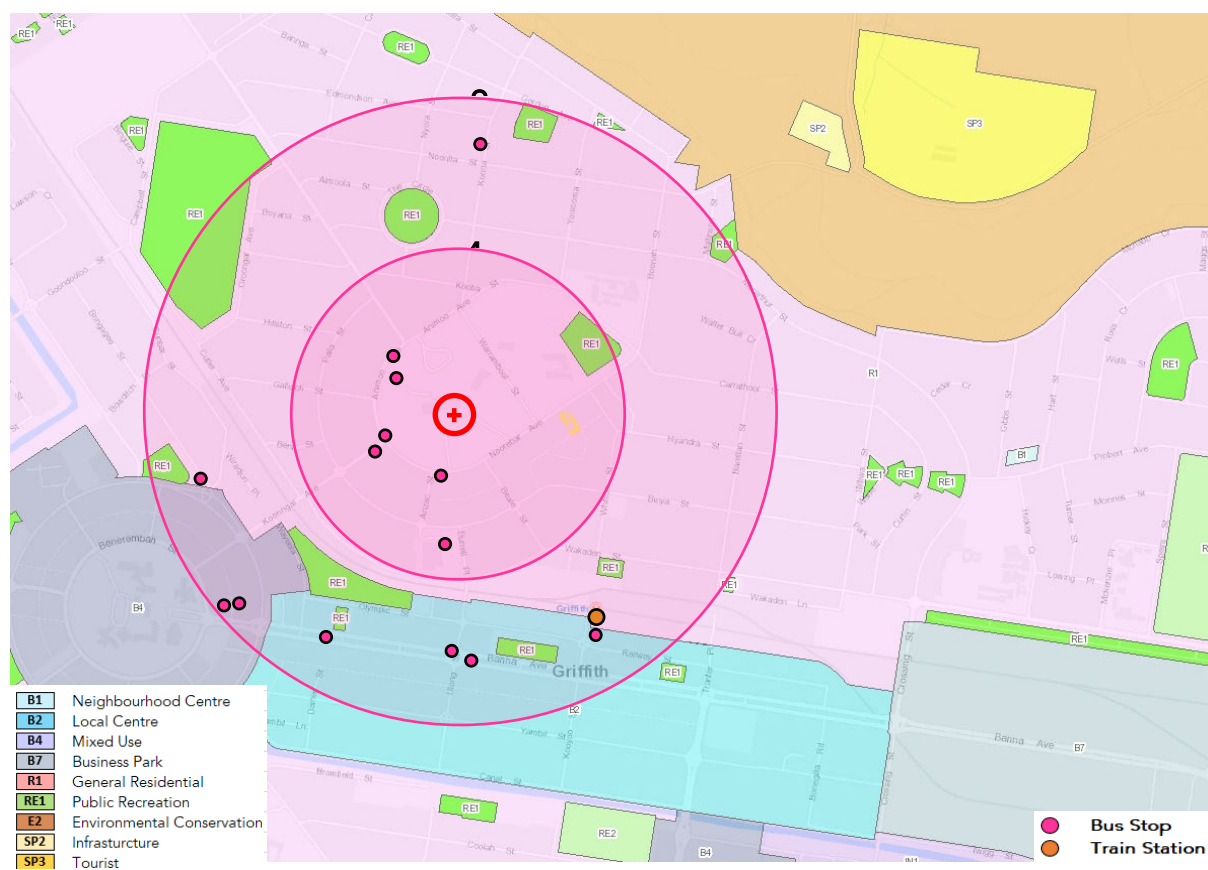


Figure 4.11: Public Transport Stops within 800m

The bus services in the area are summarised in Table 4.1.

Table 4.1: Bus Services

Route Number	Coverage (to and from)	Frequency
941	Griffith CBD to North Griffith (Loop Service)	<b>Monday to Friday:</b> Every 1.5 hours <b>Saturday:</b> Every 2.5 hours <b>Sunday:</b> No Services
942	Griffith CBD to South Griffith via Pioneer (Loop Service)	<b>Monday, Tuesday, Thursday, Friday:</b> Every hour <b>Saturday:</b> Every hour <b>Sunday:</b> No Services
946	Griffith CBD to Mayfair via Three Ways (Loop Service)	<b>Monday, Tuesday, Thursday, Friday:</b> Every 1-2 hours <b>Saturday:</b> Every 1-2 hours <b>Sunday:</b> No Services



## 4.3 Active Transport

### 4.3.1 Walking

Walking is a viable transport option for distances under one (1) kilometre (approximately 20-25mins) and is often quicker for short trips door to door. Walking is also the most space efficient mode of transport for short trips and presents the highest benefits. Co-benefits where walking replaces a motorised trip includes improved health for the individual, reduced congestion on the road network and reduced noise and emission pollution.

Footpaths are currently provided around the hospital frontage, which are generally wide and can adequately accommodate two-way pedestrian flow. Footpaths are generally not provided along the surrounding road network, which is not uncommon for low-density residential areas. However, it is noted that the roads generally provide wide grassy verges which could potentially allow residents / employees to walk to the site.

### 4.3.2 Cycling

There is an existing shared path along the hospital frontage, as well as a shared path connection along Koorungal Avenue towards the Griffith Town Centre. Although the existing infrastructure is limited, Griffith Council's future plans for improving the pedestrian and bicycle network will provide better connection within the wider Griffith region.

Considering this, it is considered that walking and cycling will be a viable alternative mode of transportation, in the future, for many local visitors and employees of the hospital.

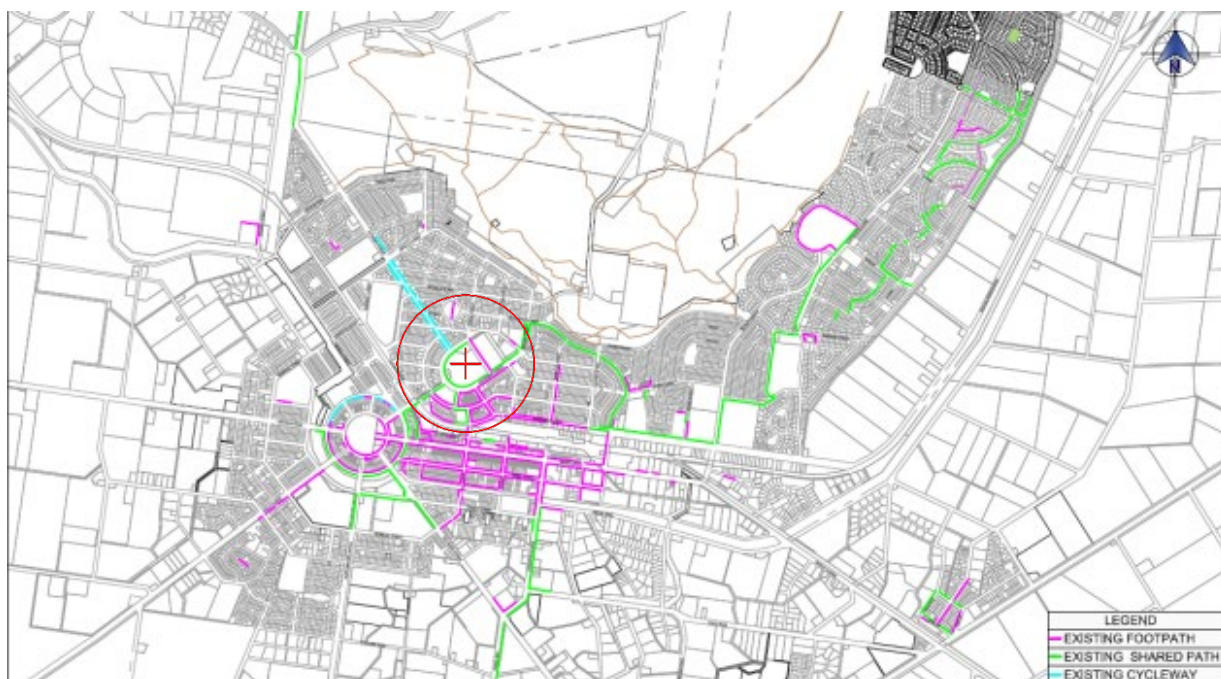


Figure 4.12: Griffith Cycle Infrastructure (Source: Griffith Pedestrian and Bicycle Strategy 2021)

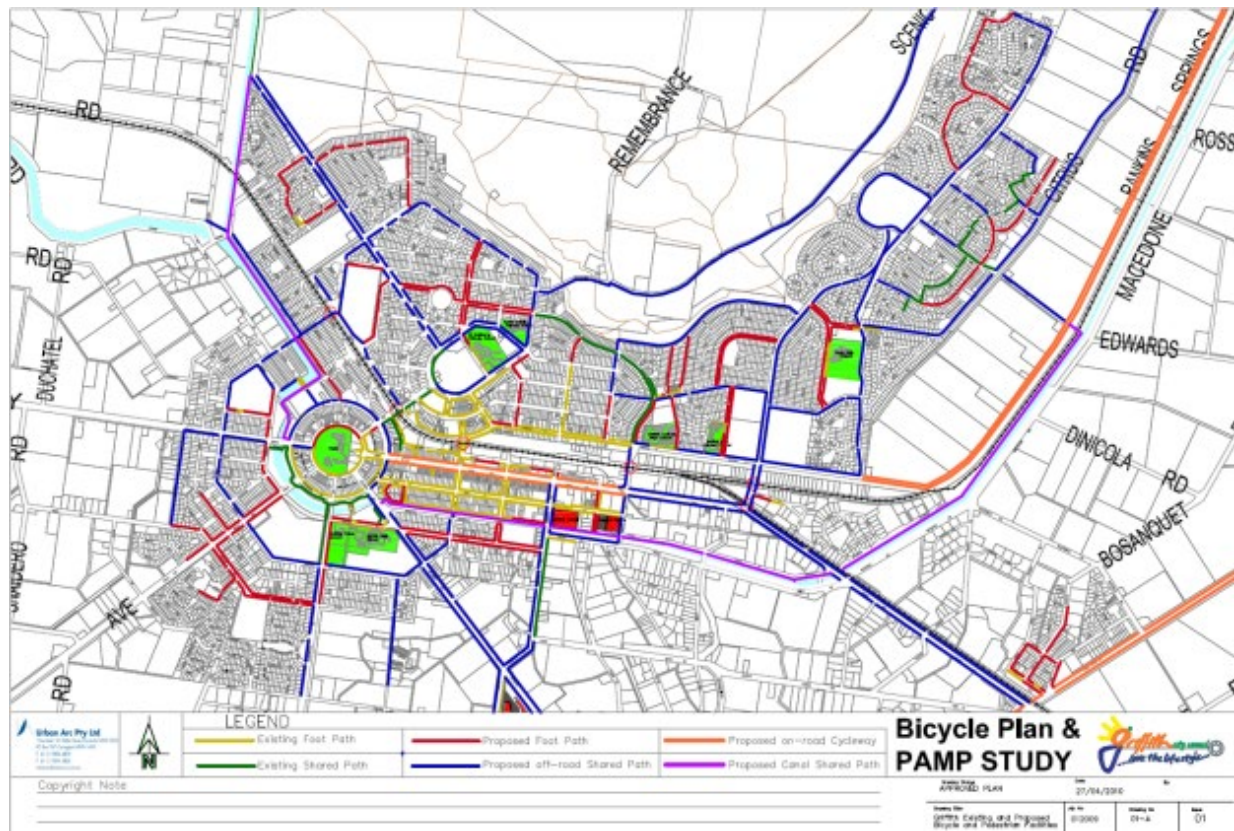


Figure 4.13: Griffith Council Bicycle Plan (Source: Griffith Pedestrian and Bicycle Strategy 2021)

## 5 Construction Traffic Management Plan

### 5.1 Objective

The traffic management plan associated with the construction activity aims to ensure the safety of all workers and road users within the vicinity of the construction site and following are the primary objectives:

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

### 5.2 Traffic Management Planning Process

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

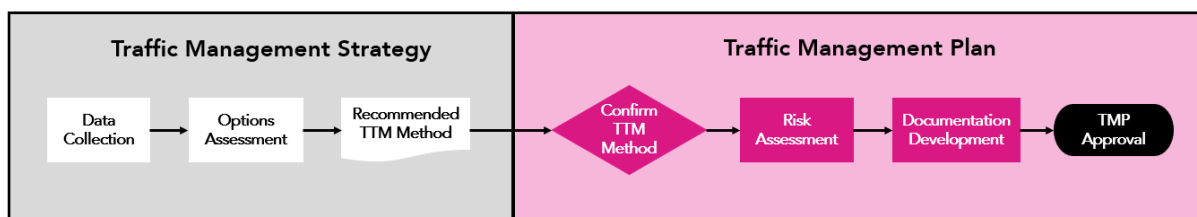


Figure 5.1: TTM Process

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

### 5.3 Traffic Management Strategy

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

#### Detour Options

No detours are necessary or proposed by the client and therefore, disproportionate amount of disruption to the road users will NOT be introduced.

#### Site Location



Existing signage and infrastructure, in addition to the curved road alignment and parked vehicles, many obstruct or limit visibility of signage and strategies.

#### **Work Area**

The area needed to safely perform the work does not justify the full closure of sections of road.

#### **Vulnerable Road Users**

Desire lines of pedestrians (students, staff, carers), cyclists, motorcyclists and users of scooters may impact on works or create undesired interaction between these road users and traffic.

#### **Community Facilities and Needs**

Access to nearby bus stops in the locality of the site could result in increased interaction between pedestrians and the worksite entry/exit on Animoo Ave. Access to hospital facilities is maintained throughout the project through staging, however signage is required for changes to location of services.

### **5.4 Decision of TTM Method**

After considering the factors in Section 5.3 and the recommendation of the client, the TTM method chosen is "Around (elimination)" as traffic can and will be completely separated from the work area. This method will provide the lowest overall net risk option.

### **5.5 Hours of Work**

All works, associated with the project will be restricted by the hours described in the conditions of consent, which in our experience would comprise the following:

- Mondays to Fridays inclusive 07:00am to 06:00pm
- Saturdays 08:00am to 01:00pm
- Sunday or public holidays No works may be carried out

### **5.6 General Requirements**

In accordance with TfNSW requirements, all vehicles transporting loose materials will have the entire load covered and/or secured to prevent any items, excess dust or dirt particles depositing onto the roadway during travel to and from the site. All subcontractors shall undergo induction by the lead contractor to ensure all procedures are met for all vehicles entering and exiting the construction site. The lead contractors will monitor the roads leading to and from the site and undertake all necessary steps to rectify any road deposits caused by the construction activity.

Vehicles operating to, from and within the site shall do so in a manner that does not create unreasonable or unnecessary noise or vibration. No tracked vehicles are required nor permitted on any paved roads. Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances.

The applicant/contractor is required to follow and abide the specific standard requirements for construction management.

## 5.7 Construction Vehicles

This stage of the project will involve the use of commercial trucks up to 19m 'truck and dogs' and 19m articulated vehicles (AVs).

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

All construction vehicles are to enter and exit the site in a forward movement. In the event of an emergency or where a large vehicle cannot turn around within the confines of the site, a reverse manoeuvre to enter and exit the site can be performed at the direction of RMS accredited traffic controllers.

## 5.8 Construction Vehicle Routes

Site access is located on Animoo Avenue using an existing driveway with full time traffic control. Space is provided within the site boundary for unloading and manoeuvring, so vehicles are able to perform service without disruption to local traffic. Vehicle routes to the site are constrained by road geometry that permits turning movements. Vehicle ingress and egress routes are shown in Figure 5.3 and 5.4.

Swept path analysis for intersections on route has been undertaken in Appendix A.

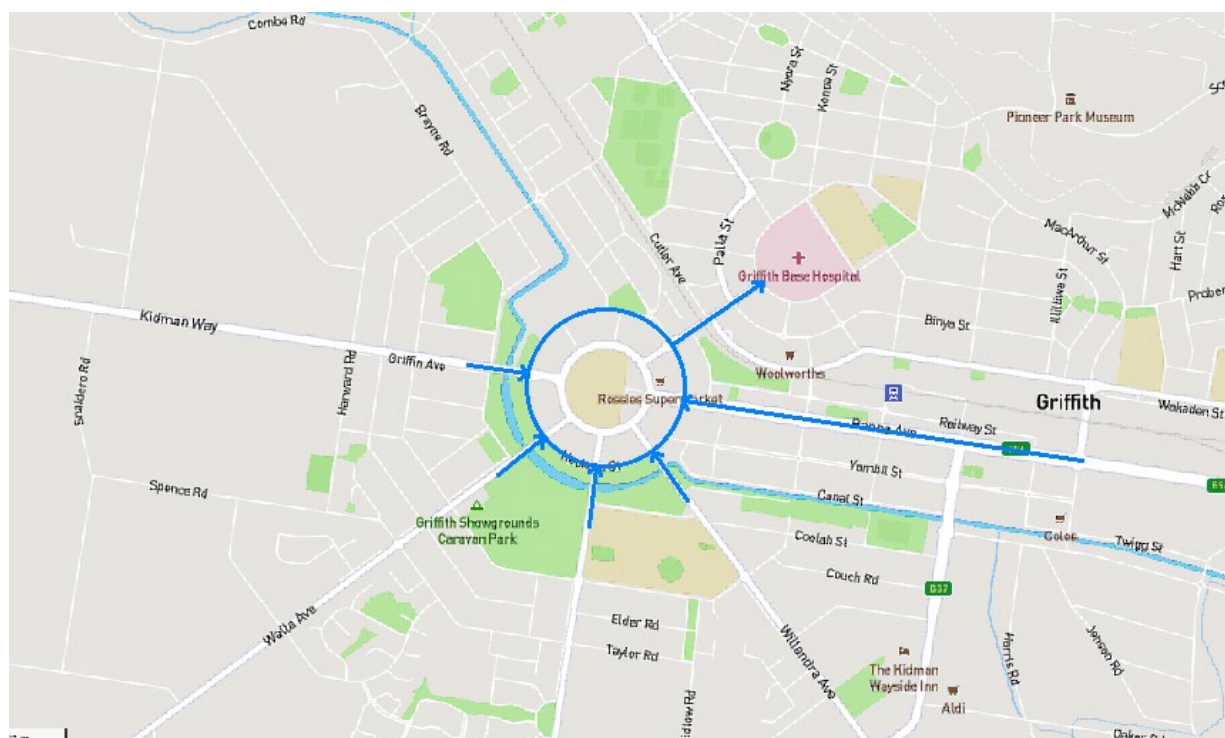


Figure 5.2: Site Ingress Route

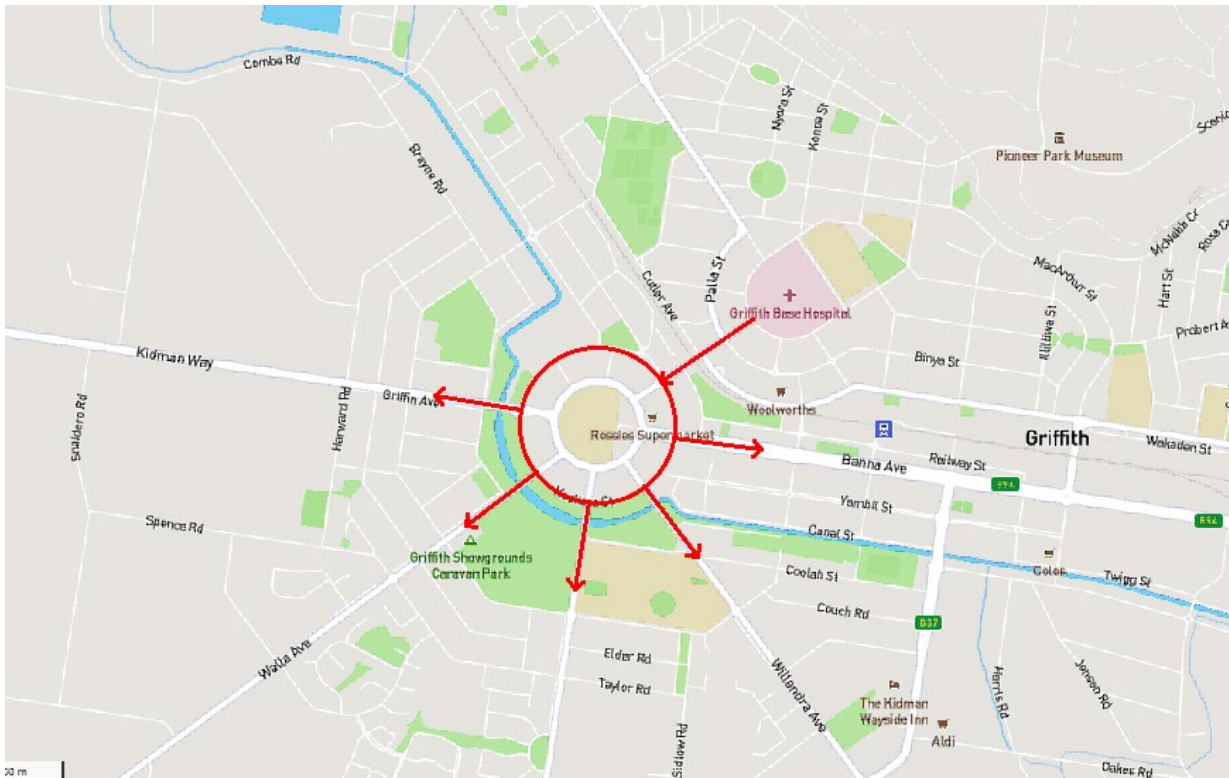


Figure 5.3: Site Egress Route

## 5.9 Work Site

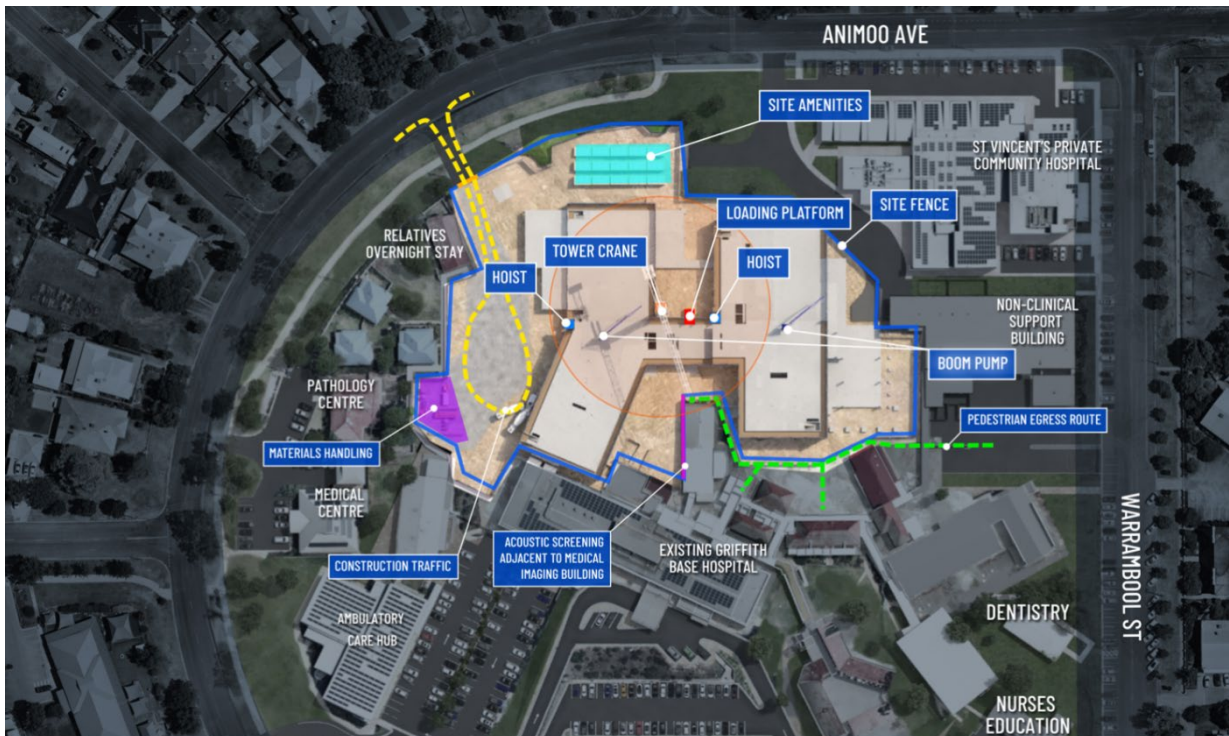


Figure 5.4: Work Site Layout Stage 1 & 3





Figure 5.5: Work Site Access

Construction access to the site is provided from Animoo Ave using the existing driveway for the stages involving the Clinical Services Building. For the remaining milestone stages, temporary and existing on site car park access is utilised for construction vehicles with access from Noorebar Ave. Work zones are not required.

## 5.10 Special Deliveries

Any oversized vehicles that are required to travel to the site will be dealt with separately, with the submission of relevant permits to and subsequent approval by the Griffith City Council prior to any delivery.

## 5.11 Staff Parking

The construction contractors and subcontractors will be contractually obliged not to park in areas designated as parking for patients or hospital staff on the hospital campus. They will be permitted to park within their site compound at the provided contractor parking area. Details of acceptable parking areas are in Appendix C.

The construction contractors and subcontractors will be contractually obliged not to park in areas designated as high use around the hospital campus which includes Warrambool Street and the area adjacent to the Griffith Medical Centre and Community Kids Early Education Centre. They will likely park personal vehicles on-street, within 400mm of the Hospital where approximately 792 on-street parking spaces are available. Of these spaces, the surveys that were undertaken show that only 130 vehicles were parked. Considering the size of this project (with an estimated peak workforce of 250), it is anticipated that the parking demand generated by the construction personnel will be adequately accommodated by the on-street parking supply.

Access to onsite hospital visitor and staff carparks is maintained throughout the construction process with adequate signage and wayfinding.

## 5.12 Work Site Security

As specified in ADCO Construction Management Plan;

All work fronts will have secure fixed fencing installed and maintained. 2.1m high chainwire fencing with shade cloth affixed will be used. The office will be locked and alarmed when not occupied and have a static security camera at the site accommodation entry point. Access to the project will be controlled by the designated access point with a turnstile into site.

## 5.13 Plant Management

At the commencement of construction and new stages, plant and equipment, including construction scaffolding material, site sheds, mobile cranes and machinery will be required to be delivered to the site. The delivery and removal of plant and equipment to and from the site will be undertaken from the on-site materials handling/loading area, via the use of machine floats.

The delivery and removal of plant and equipment that requires a wide or long load vehicle will be subject to a separate application/permit and separate prior approval from Griffith City Council and other relevant authorities. In order to minimise traffic disruption during the delivery of the plant and equipment, it is proposed to undertake this work during the evening/early morning period. All plant and equipment deliveries will be carried out in accordance with Council's requirements and the NSW Police regulations.

Lifting using the tower crane is to be restricted over existing buildings and public areas. Tower crane may require aviation lighting subject to approval from Griffith Airports.

## 5.14 Spoil Management

Contaminated material will be checked, sorted and treated prior to the removal from the site. Contaminated material will be classified in accordance with the provisions of the Protection of the 'Environment Operations Act 1997 and the NSW DECC Waste Classification Guidelines, Part 1: Classifying Waste (April 2008)'.

All construction work involving the removal and disposal of asbestos cement will be undertaken by appropriately qualified contractors duly licensed with SafeWork NSW, holding either a Friable (Class A) or a Non-Friable (Class B) Asbestos Removal License whichever applies.

During the removal of asbestos material from the site, signs containing the words 'DANGER ASBESTOS REMOVAL IN PROGRESS' will be erected in prominent visible positions on the site. The signs will be in accordance with AS1319-1994 Safety signs for the occupational environment for size, illumination, location and maintenance.

All trucks removing spoil from the site will be loaded to prescribed weight limits and loose material will be covered during transport from the site. Loose material will be removed from all vehicles and/or machinery before leaving the site and entering the road system.

All vehicles leaving the site will be cleaned. The construction contractor will be responsible for locating a truck wash facility or other appropriate cleaning mechanism adjacent to the construction access driveways. Any run-off from the washing down of vehicles will be directed to the sediment control system to be located within the site.

The loading of spoil onto trucks will be carried out on-site in an approved and controlled manner. The management of the on-site materials handling/loading area and the movement of trucks on and off the site will be the responsibility of the contractor.



### 5.15 Staff Induction

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

### 5.16 Emergency Vehicle Access

Any proposed road closures will require approval from Council and shall retain access for emergency vehicles. Appropriate traffic management measures (such as traffic controllers) are to be implemented to ensure access is maintained to closed roads in the event of an emergency. Work site access for emergency vehicles is via the driveway on Animoo Avenue or Noorebar Avenue.

### 5.17 Access to Adjoining Properties

Access to all adjoining and nearby properties, as well as operating sections of the hospital, will be maintained throughout the works. The adjacent landowners will be notified of works via letter box distribution and road signage to advised of anticipated truck movements in operation with access to adjoining properties being maintained at all times.

### 5.18 Occupational Health and Safety

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

The comprehensive Work Health & Safety Management Plan will be provided by the contractor and shall be constantly reviewed as the design and construction methodology progress.

### 5.19 Hazard and Risk Identification

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

- moving traffic
- queued traffic
- site vehicle access and egress points
- topographical constraints

A risk matrix has been prepared as shown in table 5.1 to assess the transport risks associated with the construction work. The definitions of the risk matrix are as follows:

#### Likelihood (L)

- Almost unprecedented: not expected to occur in the next 100 years.
- Very unlikely: expected to occur once every 10 to 100 years.
- Unlikely: expected to occur once every 1 to 10 years.

- Likely: expected to occur once during any given year.
- Very likely: expected to occur occasionally (1 to 10 times) during any given year.
- Almost certain: expected to occur multiple times (10 or more times) during any given year.

#### Consequence (C)

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

#### Risk Rating (R)

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

Table 5.1: Risk Matrix

		Consequence					
Likelihood		Insignificant C6	Minor C5	Moderate C4	Major C3	Severe C2	Catastrophic C1
	Almost certain L1						
	Very likely L2						
	Likely L3						
	Unlikely L4						
	Very unlikely L5						
	Almost unprecedented L6						

Table 5.2: Risk Matrix Detail

Risk	L/C/R	Mitigation	L/C/R
Construction vehicles unexpectedly stopping/slowing down when entering site from Animoo Ave possibly being rear-ended by other motorists	L4/C4/M	Provide adequate signage to forewarn other motorists to the presence of large construction vehicles.	L5/C5/L
Parked vehicles on Animoo Ave may leave/manoeuvre when a construction vehicle is exiting the site	L3/C5/M	TfNSW accredited traffic controllers will manage and monitor the existing parking to prevent conflict with exiting construction vehicles.	L5/C6/L
Pedestrian/cyclist activity around and on the hospital site may result in interaction between vulnerable users and construction vehicles	L4/C4/M	Implementation of fencing to separate pedestrians from construction vehicles, in addition to signage and traffic controllers to ensure pedestrian and traffic movements are not affected by the vehicles entering and exiting the site	L5/C5/L

The risk matrix above provides potential risks and suggested mitigation measures for the possible impacts to pedestrians, vehicles, and general traffic around the site as a result of the construction activity.

## 5.20 Method of Communicating Traffic Changes

Traffic Guidance Schemes (TGS) in accordance with Australian Standards (AS 1742.3 – Traffic Control Devices for Works on Roads) and TCAWS manual will advise motorists of upcoming changes in the road network.

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

No deviation from the approved TGS shall be permitted, unless otherwise approved by Council and certified by an RMS accredited personnel.

The associated TGS road signage will inform drivers of works activities in the area including truck movements in operation.

Prior to commencement of works on site the contractor is to inform neighbouring properties of proposed works and provide site contact information by means of a letter box distribution. Additionally, a minimum fourteen (14) days notification must be provided to adjoining property owners prior to the implementation of any temporary traffic control measures.

## 5.21 Maintenance of Roads and Footpaths

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

## 5.22 Driver Code of Conduct

All heavy vehicle drivers are required to follow the ingress and egress routes in a “forward in, forward out” manner as described previously, whilst adhering to all road rules and regulations. This in conjunction with the Traffic Guidance Schemes (TGS) prepared in Appendix B, will be paramount in managing construction activity. In addition, all construction vehicles entering or exiting the site shall always operate under the direction of a TfNSW accredited traffic controllers.

## 5.23 Contact Details for On-Site Enquiries and Site Access

Josh Innes (Project Manager)

0401 666 282

## 5.24 CTMP Approval, Monitoring and Review

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

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

To ensure that this CTMP is kept up to date, the activities identified in Table 5.3 will be undertaken to facilitate review and continuous improvement

Table 5.3: CTMP Review Stages

Stage	Activity	Purpose	Qualification	Tools and checklists
Planning	TGS verification	To ensure that the TGS selected or designed is suitable for the works and location.	ITCP or PWZTMP	TCAWS Appendix E.2 TGS verification checklist
During TTM	Weekly TTM inspections (includes preopening inspection)	To ensure that the CTMP and relevant TGS are appropriate and operating safely, effectively and efficiently	PWZTMP	TCAWS Appendix E.3 Weekly TTM inspection checklist
	Shift TTM inspections	To ensure that the TGS is implemented as designed. This includes at a minimum, twice per shift and when: <ul style="list-style-type: none"> <li>• A TGS is installed, changed or updated.</li> <li>• At regular frequency afterwork commences, recommended every 2 hours; and</li> </ul>	ITCP or PWZTMP	TCAWS Appendix E.4 Shift / Daily TTM inspection checklist



		<ul style="list-style-type: none"> <li>Once after care arrangements have been installed if required</li> </ul>		
	CTMP review	To ensure that CTMP controls are achieving the required outcomes.	PWZTMP	Not provided
	Client inspections	Verification of TTM through the Transport Traffic Engineering Services, Work Health and Safety Branch, Surveillance Officers or other client representatives.	Divisionally determined	Not provided
<b>Post Completion</b>	Post-completion inspection	To ensure that the site has been demobilised as planned and is safe for opening to traffic	ITCP or PWZTMP	Appendix E.5 Post completion inspection checklist

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

---

## 6 Traffic Guidance Schemes

The Traffic Guidance Scheme (TGS) shown in Appendix B outlines the proposed traffic management to inform road users of the changed traffic conditions in the vicinity of the works site. The TGS must be set out in accordance with Issue 6.1 of the Traffic control at work sites Technical Manual, 2022 (TCAWS).

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

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

### 6.1 TGS Verification

The concept TGSs prepared are based on TCAWS v6.1. Site confirmation must be undertaken via the completion of the TGS verification.

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

### 6.2 TGS Approval

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

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

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

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

## 7 Summary

This CTMP has been prepared to outline the construction traffic measures to improve site safety to the public and workers during the construction process of the Early and Enabling Works phase.

With the measures described in this CTMP in place, the construction activity is anticipated to have minimal disruption to the daily activities within the vicinity of the site.

It is envisaged that this document be reviewed during the construction stage and amended if required, due to changes in design, council, TfNSW, or any other authority requirements.

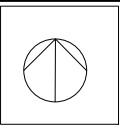
## **Appendix A: Swept Path Analysis**





Road Name:	ANIMOO AVE
Location of Work:	GRIFFITH BASE HOSPITAL
Suburb:	GRIFFITH
Map Reference:	-
Duration:	-
Road Configuration:	-
Speed Limit:	50 KM/H
ROL Approved:	-
SZA Approved:	-

REV	DATE	COMMENT / DESCRIPTION	DRAWN	REVIEWED
1	08.02.22	Traffic Guidance Scheme	JAJ	-



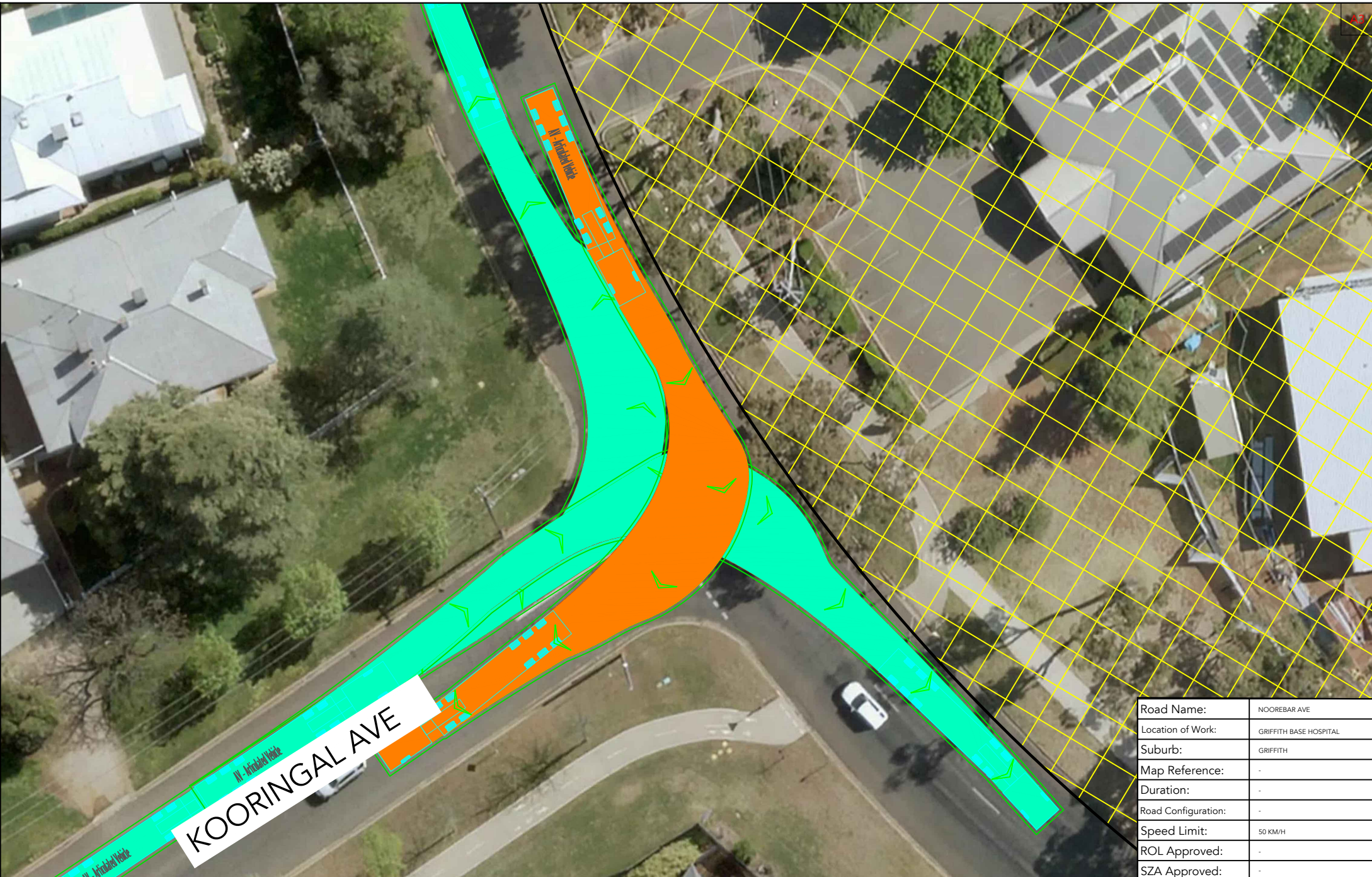
PROJECT
GRIFFITH BASE HOSPITAL: STAGE 2
DRAWING TITLE
ARTICULATED VEHICLE INGRESS/EGRESS ANIMOO AVE SITE ACCESS

Designed by:	JAJ
Requested by:	DB
Approved by:	-
Delegation:	-

CLIENT	ADCO
DRAWING #	PTC005
PROJECT #	22-0065
SCALE	1:400 @A3

PRELIMINARY
REV 1



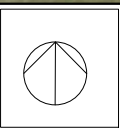


Road Name:	NOOREBAR AVE
Location of Work:	GRIFFITH BASE HOSPITAL
Suburb:	GRIFFITH
Map Reference:	-
Duration:	-
Road Configuration:	-
Speed Limit:	50 KM/H
ROL Approved:	-
SZA Approved:	-



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

REV	DATE	COMMENT / DESCRIPTION	DRAWN	REVIEWED
1	08.02.22	Traffic Guidance Scheme	JAJ	-



PROJECT  
GRIFFITH BASE HOSPITAL: STAGE 2

DRAWING TITLE  
ARTICULATED VEHICLE INGRESS/EGRESS  
NOOREBAR AVE / KOORINGAL AVE

Designed by: JAJ

Requested by: DB

Approved by: -

Delegation: -

CLIENT ADCO

DRAWING # PTC006

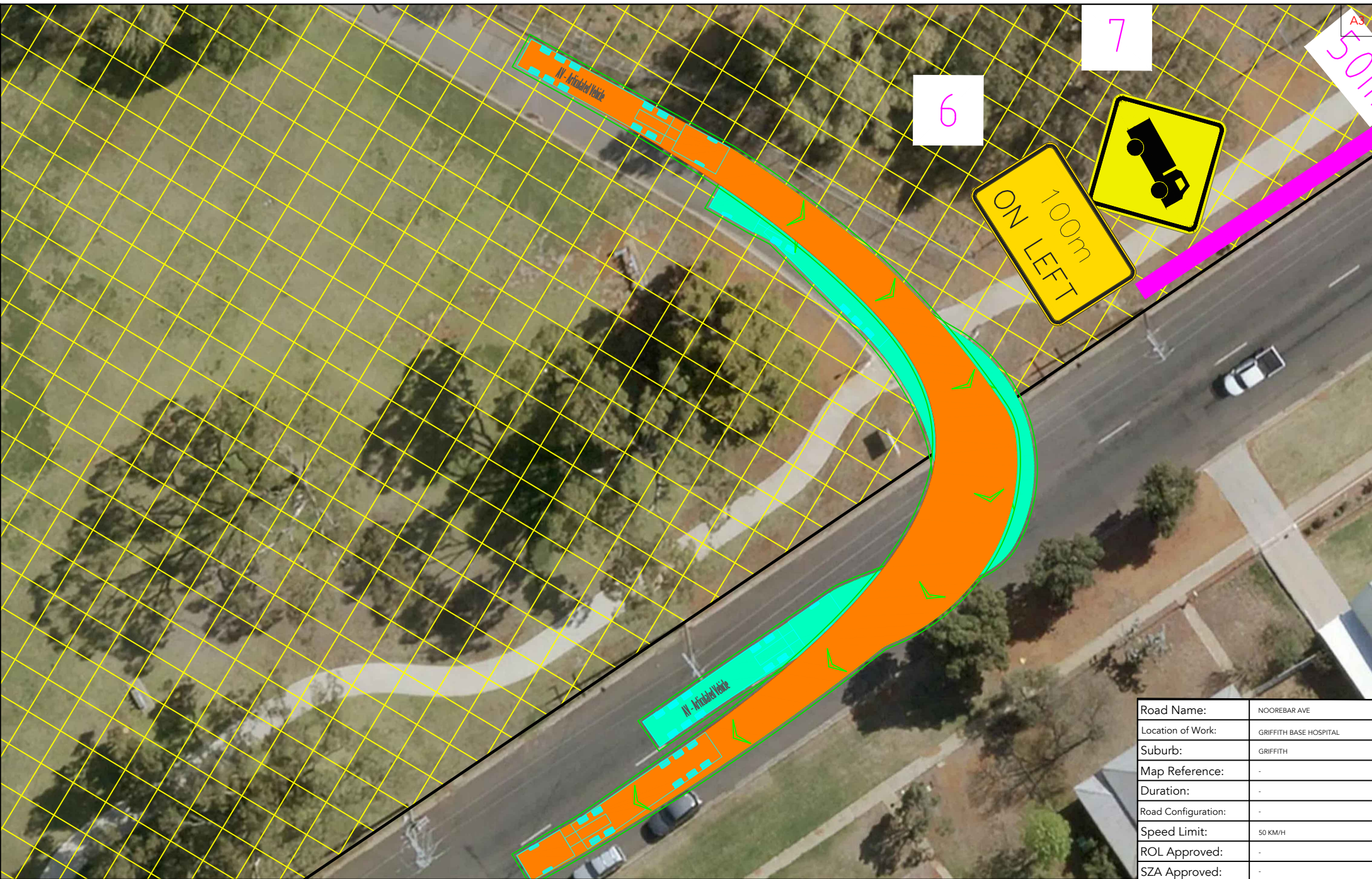
PROJECT # 22-0065

SCALE 1:400 @A3

PRELIMINARY

REV 1





Road Name:	NOOREBAR AVE
Location of Work:	GRIFFITH BASE HOSPITAL
Suburb:	GRIFFITH
Map Reference:	-
Duration:	-
Road Configuration:	-
Speed Limit:	50 KM/H
ROL Approved:	-
SZA Approved:	-

**ptc.**

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North Sydney NSW 2060  
t +61 2 8920 0800  
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REV	DATE	COMMENT / DESCRIPTION	DRAWN	REVIEWED
1	08.02.22	Traffic Guidance Scheme	JAJ	-



PROJECT  
GRIFFITH BASE HOSPITAL: STAGE 2  
DRAWING TITLE  
ARTICULATED VEHICLE INGRESS/EGRESS  
NOOREBAR AVE SITE ACCESS

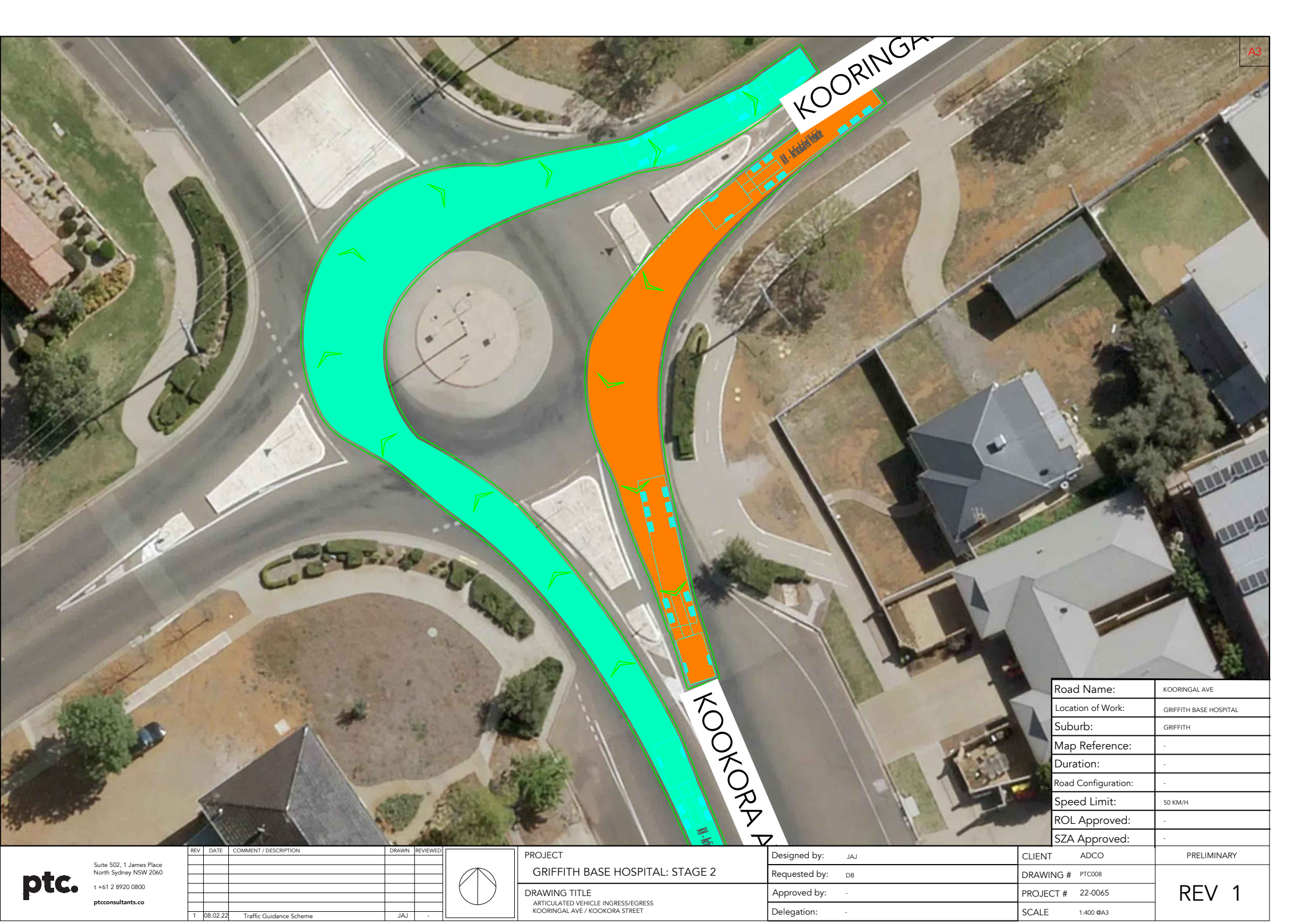
Designed by: JAJ  
Requested by: DB  
Approved by: -  
Delegation: -

CLIENT ADCO  
DRAWING # PTC007  
PROJECT # 22-0065  
SCALE 1:400 @A3

PRELIMINARY

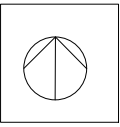
REV 1





Road Name:	KOORINGAL AVE
Location of Work:	GRIFFITH BASE HOSPITAL
Suburb:	GRIFFITH
Map Reference:	-
Duration:	-
Road Configuration:	-
Speed Limit:	50 KM/H
ROL Approved:	-
SZA Approved:	-

REV	DATE	COMMENT / DESCRIPTION	DRAWN	REVIEWED
1	08.02.22	Traffic Guidance Scheme	JAJ	-



PROJECT
GRIFFITH BASE HOSPITAL: STAGE 2
DRAWING TITLE
ARTICULATED VEHICLE INGRESS/EGRESS KOORINGAL AVE / KOOKORA STREET

Designed by:	JAJ
Requested by:	DB
Approved by:	-
Delegation:	-

CLIENT	ADCO
DRAWING #	PTC008
PROJECT #	22-0065
SCALE	1:400 @A3

PRELIMINARY
REV 1



## Appendix B: TGS







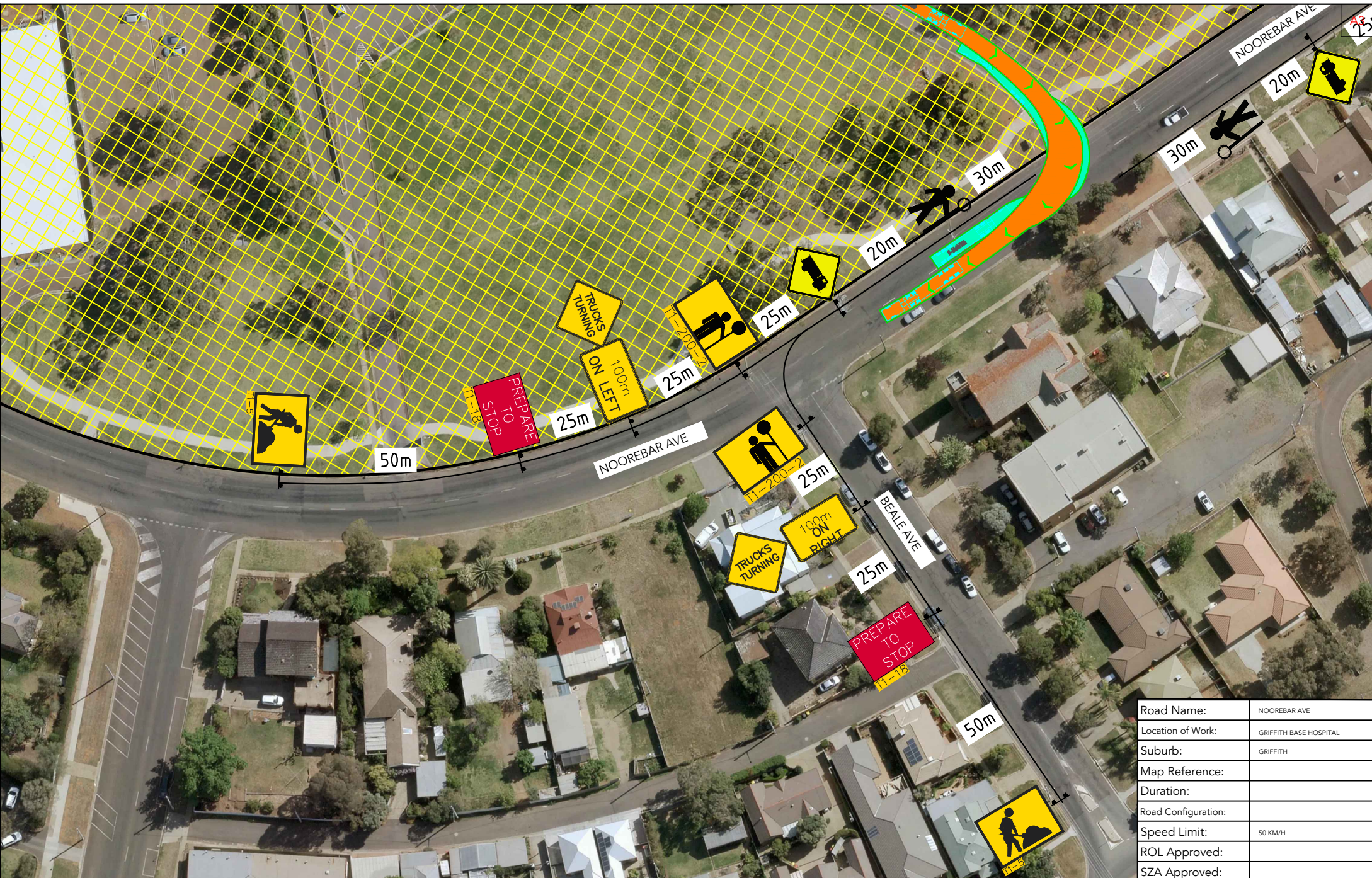


A3

Road Name:	NOOREBAR AVE
Location of Work:	GRIFFITH BASE HOSPITAL
Suburb:	GRIFFITH
Map Reference:	-
Duration:	-
Road Configuration:	-
Speed Limit:	50 KM/H
ROL Approved:	-
SZA Approved:	-

 Suite 502, 1 James Place North Sydney NSW 2060 t +61 2 8920 0800 ptcconsultants.co	REV		DATE	COMMENT / DESCRIPTION	DRAWN	REVIEWED		PROJECT	Designed by:	JAJ	CLIENT	ADCO	REV 1
								GRIFFITH BASE HOSPITAL: STAGE 2	Requested by:	DB	DRAWING #	PTC003	
								DRAWING TITLE	Approved by:	-	PROJECT #	22-0065	
								TGS FOR NOOREBAR AVE SITE ACCESS	Delegation:	-	SCALE	1:1000 @A3	
1		08.02.22	Traffic Guidance Scheme		JAJ	-							





Road Name:	NOOREBAR AVE
Location of Work:	GRIFFITH BASE HOSPITAL
Suburb:	GRIFFITH
Map Reference:	-
Duration:	-
Road Configuration:	-
Speed Limit:	50 KM/H
ROL Approved:	-
SZA Approved:	-

ptc.

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t +61 2 8920 0800  
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REV	DATE	COMMENT / DESCRIPTION	DRAWN	REVIEWED
1	08.02.22	Traffic Guidance Scheme	JAJ	-



PROJECT  
GRIFFITH BASE HOSPITAL: STAGE 2  
DRAWING TITLE  
TGS FOR NOOREBAR AVE SITE ACCESS

Designed by: JAJ  
Requested by: DB  
Approved by: -  
Delegation: -

CLIENT ADCO  
DRAWING # PTC004  
PROJECT # 22-0065  
SCALE 1:1000 @A3

PRELIMINARY  
REV 1





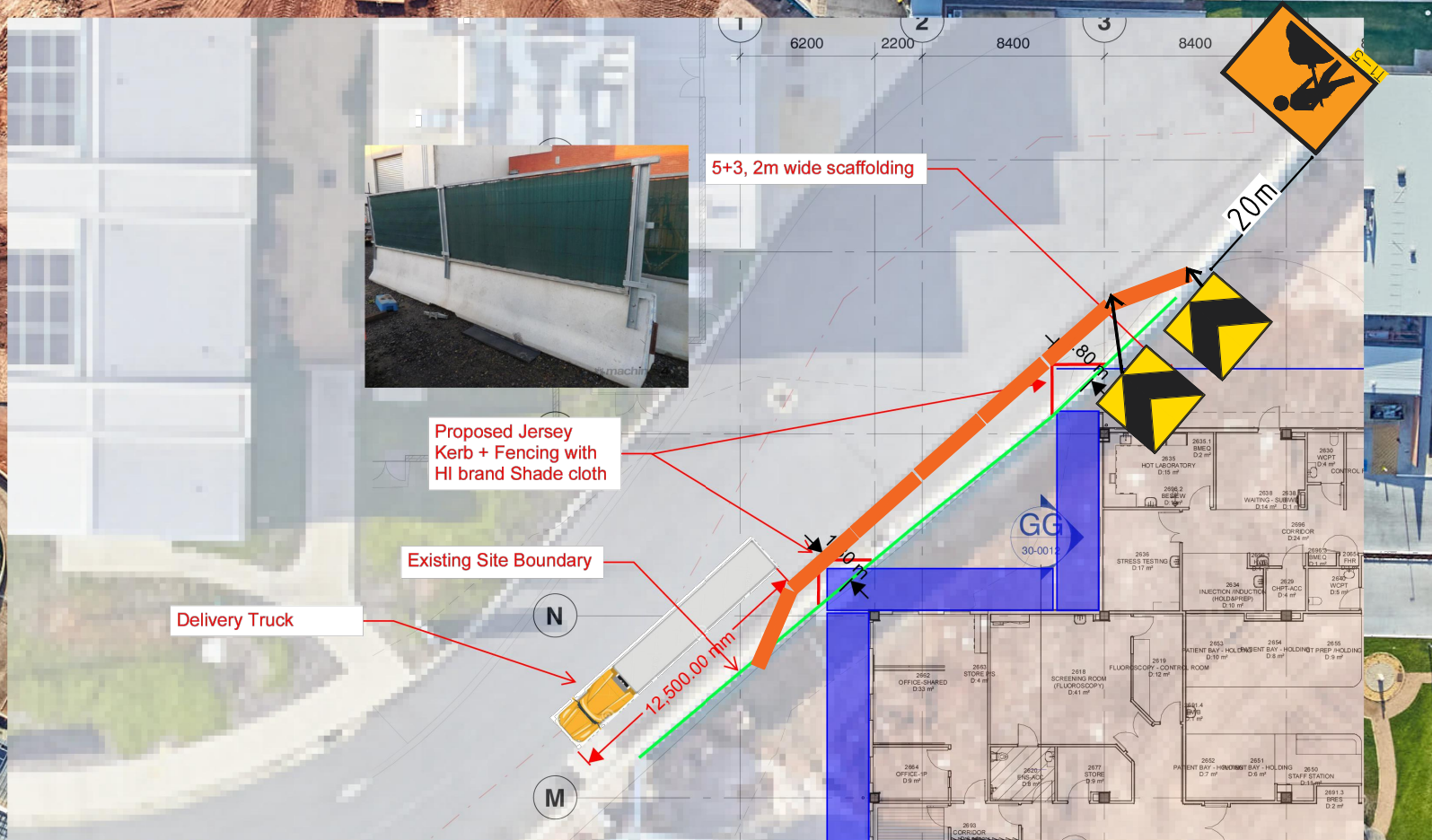
## WATER FILLED BARRIER



CHEVRON (D4-6)



WORKER SYMBOLIC  
(T1-5)



Road Name:	INTERNAL ROAD
Location of Work:	GRIFFITH BASE HOSPITAL
Suburb:	GRIFFITH
Map Reference:	-
Duration:	-
Road Configuration:	-
Speed Limit:	
ROL Approved:	-
SZA Approved:	-

REV	DATE	COMMENT / DESCRIPTION	DRAWN	REVIEWED
1	22.08.22	Traffic Guidance Scheme	JAJ	DB
1	08.02.22	Traffic Guidance Scheme	JAJ	-



PROJECT

GRIFFITH BASE HOSPITAL: STAGE 2

DRAWING TITLE

TGS IS FOR REFERENCE ONLY. ALL TGS TO BE SET UP IN ACCORDANCE WITH TCAWS V6.1.

Designed by: JAJ - TCT1027562

Requested by:

Approved by:	DB - TCT0016805
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Delegation:	
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CLIENT	ADCO
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DRAWING #	PTC - TGS HOARDING EXTENSION
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PROJECT #	22-0065
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SCALE	NOT TO SCALE
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PRELIMINARY

REV 1



## Appendix C: Contractor Parking

