Transport Access Program 3 | Footbridge St Marys MCC

150511-STM-PM-PLN-00015: Construction Traffic and Pedestrian Management Plan

revision and history

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Distribution and Authorisation

Distribution

The master-controlled plan will be held within Laing O'Rourke's document management system for access by personnel as required.

Issue, revision and re-issue

This plan has been prepared in accordance with the relevant requirements. The initial issue of this plan has been reviewed by the relevant discipline leader and endorsed for use on the TAP3 Station Upgrades Managing Contractor Contract. This plan will be submitted to Transport for New South Wales (TfNSW) before the start of work on site.

Revisions of this plan may be required throughout the duration of the contract to reflect changing circumstances or identified opportunities for improvement. Revisions will be proposed by the relevant personnel and reviewed, developed and finalised in conjunction with TfNSW.

Revisions of this plan must not reduce the scope or level of management control. Revisions may result from:

- Management review
- Changes to the standard system
- Internal or external audit
- TfNSW feedback or non-conformance reports
- Legislative changes
- Improvement initiatives and process changes within Laing O'Rourke
- Lessons learned.

Initial updates to this plan will be issued alphabetically for review. Once approved by TfNSW, subsequent updates will be numbered consecutively and transmitted to holders of controlled copies.

CTPMP Authorisation

This CTPMP has been prepared and approved by suitably qualified personnel holding the SafeWork NSW Prepare a Work Zone Traffic Management Plan accreditation, detailed as follows:

Prepared by –	– card no.
Approved by –	– card no.



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Abbreviations and definitions

Table 1: Abbreviations and definitions

Abbreviation	Expanded text			
AGTTM	Austroads Guide to Temporary Traffic Management			
CEMP	Construction Environmental Management Plan			
CoR	Chain of Responsibility			
CSSI	Critical State Significant Infrastructure			
СТРМР	Construction Traffic and Pedestrian Management Plan (This Document)			
CJM	Customer Journey Management			
CJP	Customer Journey Planning			
DDA	Disability Discrimination Act 1992			
DPE	Department of Planning and Environment			
EB	Eastbound			
EIS	Environmental Impact Statement			
FPA	Federal Planning Approval			
LTC	Local Traffic Committee (Councils)			
MCoA	Ministers Condition of Approval			
NB	Northbound			
OPLINC	Online Planned Incident System (ROLs)			
PMP	Pedestrian Management Plan			
RASS	Radar Activated Speed Signs			
REMM	Revised Environmental Management Measures			
ROL	Road Occupancy Licence			
ROP	Road Occupancy Permit (Councils)			
SB	Southbound			
SZA	Speed Zone Authorisation			
TCG	Traffic Control Group			
TfNSW	Transport for New South Wales			
TGS	Traffic Guidance Scheme			
TMC	Transport Management Centre			
TTLG	Traffic, Transport Liaison Group			
VMP	Vehicle Movement Plan			
VMS	Variable Message Sign			
VSLS	Variable Speed Limit Sign			



WB	Westbound
CMP	Contract Management Plan
PPE	Personal protective equipment
RMS	(TfNSW) Roads and Maritime Services
TAP3	Transport Access Program
TCAWS	Traffic Control at Work Sites (Technical Manual)



1. Introduction

1.1 Project Background

The Transport Access Program (TAP) 3 is a NSW Government initiative delivering safe, modern and accessible public transport infrastructure for the Sydney rail network. The initiative includes improvements to the public transport customer experience by providing equitable access and modern facilities in and around station precincts for persons with limited mobility, parents with prams, improvements to station amenities, as well as incorporating additional staff and customer facilities.

The Sydney Metro – Western Sydney Airport project comprises a new 23km railway line that will link the new Western Sydney Aerotropolis business hub and Airport to the south with the rest of Sydney's public transport network via St Marys to the north. The Project includes six new metro stations along the route, including one at the Western Sydney Aerotropolis, two at the new Airport site, one at Luddenham, Orchard Hills, and St Marys.

This project will deliver design, procurement, construction, commissioning and integration of upgrades to existing stations on the Sydney rail network, including at St Marys (see Figure 1 for the location of St Marys Station within the Sydney rail network).

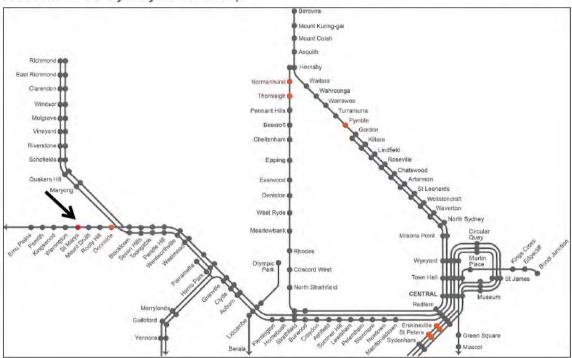


Figure 1 – St Marys station on the Sydney rail network

TAP3 works will provide facilities that:

- Are inviting and safe for customers to use
- Contribute to Commonwealth Disability Discrimination Act (DDA) related targets through Disability Standards for Accessible Public Transport (DSAPT) compliance upgrades (including associated customer benefits derived from DSAPT compliance)
- Are compliant with current standards of safety, access and amenity
- Are easy to operate and maintain by the Operator/Maintainer.

Provide safe, direct and continuous access paths within the site boundary between transportation mode change locations, accessible parking, passenger boarding points and other key facilities.



1.2 Proposed Scope of Work

The Footbridge St Marys package scope of works includes:

- Construction of a new intermodal footbridge at the eastern end of the station, connecting the existing Sydney Trains St Mary's Station to the proposed Sydney Metro St Marys Station, with a new Northern Portal providing access to Harris St to the north.
- Construction of four new 27-person lifts providing step-free access from the footbridge to the existing station platforms.
- Construction of four new escalators for access from the footbridge to the existing station platform.
- Construction of two new staircases for access to the existing station platforms.
- Construction of the Northern Portal, providing access from the footbridge to Harris St via a new staircase and one 33-person lift.
- Construction of a three-storey Sydney Trains facilities building adjacent to the Northern Portal, including a new electrical main switch room, HVAC, communications room, and station staff facilities.
- Provision of new fire safety systems for the facilities building, lifts and footbridge.
- Regrading of platforms for accessible paths, localised to the proposed works.
- Replacement of existing platform tactiles
- Installation of new canopies to the proposed stairs, escalators, and footbridge.
- Alterations and additions to the existing lighting on Harris St to suit the new entry.
- Hard and soft landscaping to the station entrance and surrounds.

Figure 2 overleaf shows the indicative layout of the proposed intermodal footbridge.



Figure 2 – Indicative layout of the new Intermodal Footbridge St Marys indicative proposed footbridge construction



1.2.1 Objectives

The primary objectives and principles of this CTPMP are to ensure that construction impacts are minimised and are within the scope permitted by relevant planning approvals. This includes:

- Keep traffic delays to a minimum
- Minimise disruption to businesses
- Minimise disturbance to the environment
- Ensure traffic impacts are within the scope permitted by Penrith City Council and Customer Journey Planning (CJP)
- Ensure the safety of employees, contractors, members of the public and all road users.

To achieve these objectives, Laing O'Rourke will:

- Ensure the design and operation of any proposed temporary traffic management measures are carefully planned, coordinated and implemented
- Meet pedestrians, cyclists and vehicle drivers' expectations with a high level of safety and service in using the existing road and pedestrian network
- This requires efficient, effective and reliable traffic management strategies to be in place that:
- Follow the Sydney Metro Western Sydney Airport Construction Traffic Management Framework (CTMF) hierarchy of access
- Achieve uniform traffic throughput
- Minimise changes to pedestrian and cycle routes and movement
- Ensure reliable and consistent travel times
- Provide clear information to allow drivers and other road users to make appropriate decisions in relation to their journey
- Minimise potential road safety risks, especially for pedestrians and cyclists
- Understand the impacts of the Project and identify appropriate methods to mitigate these impacts
- Strategic advanced planning of traffic management
- Taking an approach to traffic management that minimises traffic disruption
- Ongoing stakeholder engagement and communication.

1.2.2 Compliance

This plan has been prepared to be compliant with the following legislative and other requirements:

Legislation

The main legislation relevant to traffic management for the Project includes:

- Environmental Planning and Assessment Act 1979
- Roads Act 1993
- Road Transport (Safety and Traffic Management) Act 1999 No 20 (repealed version for 1 July 2012 to 30 June 2013)
- Roads Regulation 2018 (repealed on 1 September 2018 by section 10 (2) of the Subordinate Legislation Act 1989)
- Disability Discrimination Act 1992.

Guidelines and standards

The main guidelines, specifications and policy documents relevant to this CTPMP include the following:

- Transport for NSW Traffic Control at Worksites Manual version 6.1 (2022)
- Australian Standard 1742.3-2019 'Manual of Uniform Traffic Control Devices Part 3: Traffic control for works on roads



Other documents and data as referenced in this plan.

Contractual

The main contractual documents relevant to this CTPMP include:

- Sydney Metro Western Sydney Airport Conditions of Approval (CoA)
- Sydney Metro Western Sydney Airport Construction Traffic Management Framework.

In addition to the above, a table provided in Appendix 1 correlates relevant CoA addressed in relevant sections of this plan.



2. Existing Transport Conditions

2.1 General Site Description

St Marys Station is located on the T1 Western Line, approximately 47km west of Central Station, in the City of Penrith. The station is bound by Harris Street to the north and Station Street to the south. The station has a S170 heritage listing and comprises two island platforms with access from both sides of the station via an overbridge.

The subject site for the intermodal footbridge is located on the eastern side of the existing St Marys Station platforms. The overall site also includes 3 separate site compounds. Figure 3 below shows the TAP 3 site in red with TAP 3 site compounds in green colour. Details of the work compounds are discussed in Section 3.1 of this report.



Figure 3 – Site location and surrounding environs

2.2 Existing Road Network

Impacted roads on the existing road network are summarised in Table 2. The main impact on these roads is haulage only, with some minor short-term traffic management for access on some deliveries to the compound area.



Table 2: Existing road network summary.

Road	From	То	Classificatio n	Speed	Lanes
Harris Street	Glossop Street	Forrester Road	Local (Penrith)	50km/h	2-(1EB & 1WB)
Forrester Road	Harris Street	Glossop Street	Local (Penrith)	50km/h	Primarily 2 (1 NB & 1 SB with SB RTL)
Glossop Street	Great Western Highway	Forrester Road	Regional (7167)	60km/h	4 (2 NB & 2 SB divided)
Hobart Street	Glossop Street	Sydney Street	Local (Penrith)	50km/h	2 – (1 EB & 1 WB)
Australia Street	Hobart Street	Brisbane Street	Local (Penrith)	50km/h	2 – (1 NB & 1 SB)
Brisbane Street	Glossop Street	Australia Street	Local (Penrith)	50km/h	2 – (1 EB & 1 WB)

2.2.1 Harris Street

Harris Street is a local road that runs east-west and connects with both Glossop Street and Forrester Road. It is a two-way road with one lane in each direction and is an approved heavy vehicle route. Unrestricted parking is permitted on both sides of the road. It has a sign-posted speed limit of 50 km/h and an on-road cycle facility along its length. Adjacent land use is primarily commercial.

2.2.2 Forrester Road

Forrester Road is a Regional Road north of Glossop Street and a local road south of Glossop Street. It runs north-south, extending north from St Marys Station. The section from St Marys Station up to Glossop Street is a two-way undivided road with one traffic lane in each direction. Unrestricted parking is permitted along the eastern side of the road, and it has a sign posted speed limit of 50 km/h. Forrester Road is approved for haulage movement under the Sydney Metro- Western Sydney Airport Environmental Impact Statement (EIS).

A school zone area extends approximately from just north of the Harris Street intersection for 220m to #75 Forrester Road.

2.2.3 Glossop Street

Glossop Street is a Regional Road with intersections with both Harris Street and Forrester Road. Glossop Street functions as a collector road generally aligned in a north-south direction. It connects to the Great Western Highway in the south and Forrester Road in the north. Glossop Street is a divided carriageway with two lanes in each direction and has a sign-posted speed limit of 60 km/h. It is a public transport route with bus stops on both sides of the road.

2.2.4 Hobart Street

Hobart Street is a local road that runs east-west and connects with both Glossop Street and Australia Street. It is a two-way road with one lane in each direction. Unrestricted parking is permitted on both sides of the road. It has a sign-posted speed limit of 50 km/h and an on-road cycle facility along its length.



2.3 Rail

The only train line that services St Marys Railway Station is the T1 Western Line. Figure 4 shows the wider Sydney Trains Network and the location of St Marys Station serviced by T1 Western Line.

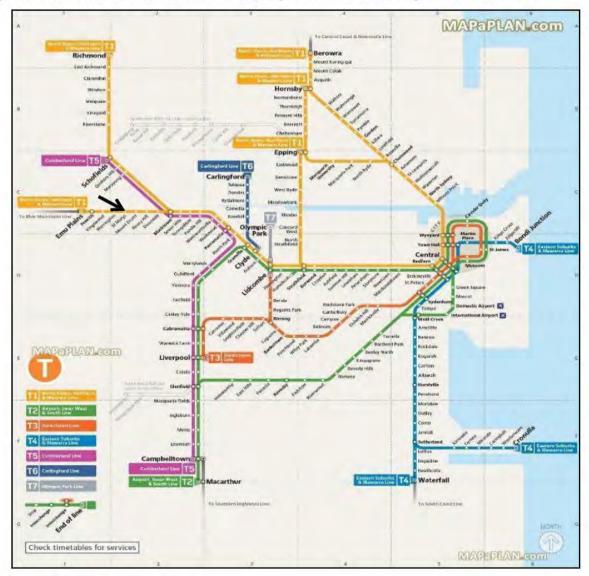


Figure 4 – Sydney Trains Network

A brief summary of the T1 western line is shown in Table 3 below.



Table 3: T1 Western Line Summary.

T1 Western Line					7	
Direction	Day	First Service (St Marys)	Weekday AM Peak 7AM-9AM	Weekday PM Peak 4PM-6PM	Last Service (St Marys)	General frequency
Emu Plans or Richmond to City	Mon-Fri	03:22	16 services	8 services	00:25	≈5-10min peak ≈10-15min off peak
	Sat	03:55			00:08	≈10-15mins
	Sun/Pub.Hol	03:55			23:38	≈15mins
City to Emu Plains or Richmond	Mon-Fri	04:51	8 services	9 services	02:10	≈5-10min peak ≈10-15min off peak
	Sat	05:57			02:13	≈10-15mins
	Sun/Pub.Hol	05:57			01:27	≈15mins

Data obtained from the "St Marys Station Commuter Car Park Expansion Traffic, Transport and Access Impact Assessment Prepared by Mott MacDonald for Transport for NSW" shows that:

- Approximately 10,000 passengers proceed through station entry/exits each weekday
- AM peak period of 6AM-10AM shows significant movement through the station
- Low movements through station between 8PM-5AM.

These movements are shown below in Figure 5 and Figure 6, also obtained from "St Marys Station Commuter Car Park Expansion Traffic, Transport and Access Impact Assessment Prepared by Mott MacDonald for Transport for NSW"

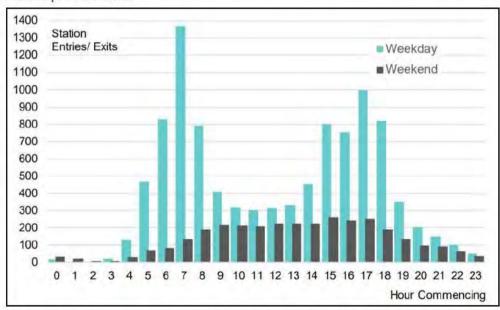


Figure 5 – T1 Hourly station entry/exit (Source: St Marys Station Commuter Car Park Expansion Traffic, Transport and Access Impact Assessment Prepared by Mott MacDonald for Transport for NSW)



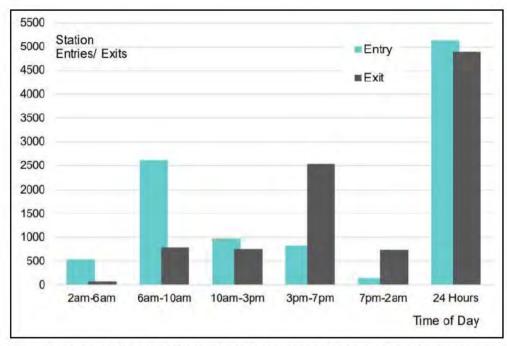


Figure 6 – Peak and Off-Peak station entry/exit (Source: St Marys Station Commuter Car Park Expansion Traffic, Transport and Access Impact Assessment Prepared by Mott MacDonald for Transport for NSW)

2.4 Buses

Thirteen (13) bus routes operate through the St Marys interchange, of which two (2) operate in the northern part of the interchange, which primarily provides local coverage and operates at low frequency, The two (2) northern interchange routes are summarised in Table 4 and Figure 7 below.

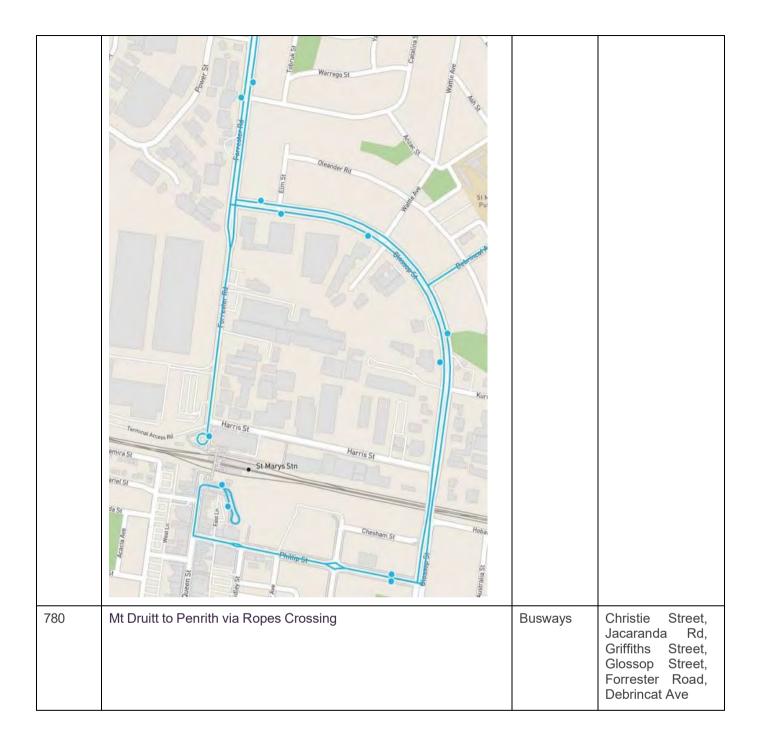
A taxi rank exists on Forrester Road south of the bus stop, which has the capacity for 3 ranked taxis. The current bus route has been checked in TfNSW busways in order to reflect the most updated bus route and road closures established by previous stakeholders.

All other routes and services are south of the station, and this project will have no effect on these services, stops or routes.

Table 4: Bus Routes, St Marys

Route	Description	Operator	Key Roads
759	St Marys via Mount Druitt via Ropes Crossing	Busways	Station Street, Lethbridge Street, Phillip Street, Glossop Street, Forrester Road, Gidley Street











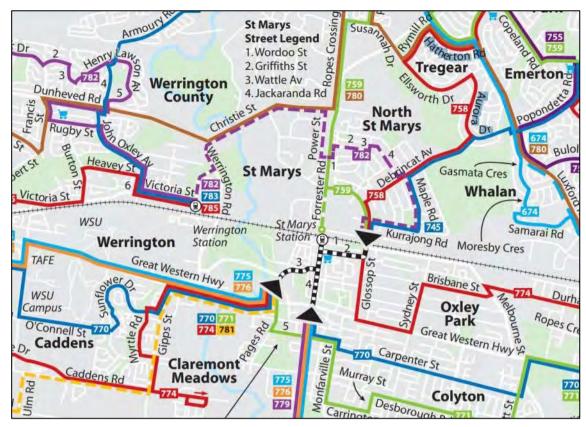


Figure 7 – Greater Western Sydney Bus Network Map - Busways. (Source: Transport NSW)

2.5 Pedestrian and cyclist routes

The primary focus on pedestrian and cyclist routes is along Harris Street and Forrester Road.

A sealed footpath is present only on the southern side of Harris Street, but pedestrian thoroughfare also uses the northern side. Forrester Road has sealed footpaths on both sides of the road.

Cyclist assessment shows no dedicated cycleways, but low to moderate difficulty by utilising existing roads north of St Marys Station as on-road shared lanes.

The existing bicycle network and pedestrian paths are shown in Figures 8 and 9 below.





Figure 8 - Existing pedestrian pathways

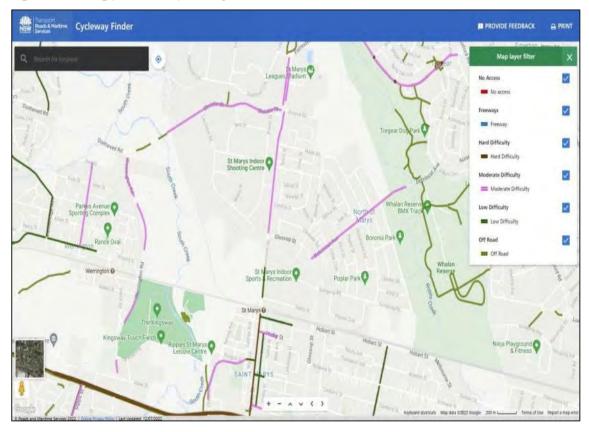


Figure 9 - Existing cyclist routes for St Marys Station



2.6 Parking

The existing parking areas and restrictions around St Marys Station are shown in Figure 10 below.



Figure 10 - Greater parking restrictions around St Marys Station (Source: EIS)



Table 5 below assesses the parking areas and restrictions north of St Marys Station, only around the proposed compound and work area on Harris Street.

Table 5 - Parking assessment north of St Marys Station

Street/Road	From	То	Side of St	Туре	Total
Harris Street	Glossop	Forrester Road	South	Unrestricted	54
	Street		North		55
St Marys Statio	n Commuter Car	Park	South	Various	≈750
Forrester Road	Harris Street	Glossop Street	East	Unrestricted	26
Hobart Street	Glossop Street	Sydney Street	South	Unrestricted	≈40
			North		≈60
Forrester	Harris Street St Marys Rail Perimeter		All	Bus Zone	2
Road				Taxi Zone	3
				P5 minute	9
			Mobility	1	
Area total					≈985
On Street Total					235
Note: Due Zone	Tovi zono DE n	ninute and mobility	nages are eve	luded from the tet	ol.

Note: Bus Zone, Taxi zone, P5 minute and mobility spaces are excluded from the total.



Proposed Construction Scheme 3.

3.1 Construction Site Layout

As discussed earlier in the plan, the intermodal footbridge site is located east of the St Marvs Railway Station's platform. However, to support the construction activities, a primary work compound is proposed on the southern side of Harris Street, adjacent to St Marys Railway Station's northern commuter car park. This TAP 3 work compound borders the T1 Western Line rail corridor along its southern boundary. It would also host the Northern Portal of the proposed footbridge, providing access from the footbridge to Harris Street.

The internal arrangement of the site layout is subject to change as the construction progresses. The work compounds will be protected with a chain wire fence and shed cloth. All construction activities related to St Marys Footbridge will be contained within the TAP 3 work compound.

Two separate laydown areas are also proposed within the railway corridor along Hobart Street. These laydown areas will be used for material storage only.

In addition to the above, the existing site at 19 Harris Street will be used for construction worker parking. It is understood that only a limited number of parking spaces (approx. 16 spaces) will be allocated to Laing O'Rourke construction workers.

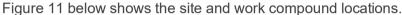




Figure 11 -Construction site and work compounds

3.2 Construction Hours

Construction of the Footbridge is likely to commence in November 2023 or as agreed with relevant stakeholders. Construction activities will occur during the approved construction hours under Sydney Metro Western Sydney Airport CoA E38 unless subject to variation under project Environmental and Community Controls:

7:00am to 6:00pm Monday to Friday



- 8:00am to 1:00pm Saturday
- No work Sundays and public holidays

Construction activities may be undertaken outside of the above hours subject to conditions outlined in clause E41 of the CoA.

Notification of construction activities outside of the permitted construction hours must be given to affected residents before undertaking the activities or as soon as is practical afterwards.

Laing O'Rourke shall ensure that all sub-contractors are aware of the permitted hours of operation and shall ensure that all activity occurs strictly within the hours stipulated by the Conditions of Consent.

Construction Worker Parking 3.3

As discussed above, approximately 16 construction worker parking spaces will be provided for Laing O'Rourke workers within the 19 Harris Street parking compound. All workers will be instructed to use public/active transport and not utilise the TfNSW commuter carpark and on-street parking along Harris Street and other surrounding streets. Laing O'Rourke would take appropriate action if informed of this activity occurring.

The site is in close proximity to well-established and high-frequency public transport services. Therefore, construction workers will be encouraged to use public transport to access the site. A tool drop-off and storage facility will be provided within the site office. This would allow tradespeople to drop off and store their tools and machinery, allowing them to use public transport to travel to/ from the site on a daily basis. This will be incorporated into the site induction program.

A Construction Worker Parking Strategy (see Appendix 2) has been prepared to minimise the demand for parking in nearby public and residential streets or public parking facilities.

All site staff related to the works who need to drive to/from the site are to park within the proposed ongrade carpark at 19 Harris Street. Figure 12 shows the carpark area anticipated to be used by Laing O'Rourke staff members.



Figure 12 -Worker parking area

On-Street Works 7 one 3.4

All construction activities will be contained within the TAP 3 compound. An on-street works zone would not be required for the construction-related works. Should a works zone be required, a separate application will be made to the Council to organise appropriate approvals for the proposed works zone prior to the start of works, as well as the parking and traffic changes.



Traffic Management Plan 4.

4.1 Traffic Management Strategy

Based on Section 3 of the TfNSW Traffic Control at Work Sites (TCAWS) manual. Temporary traffic management (TTM) is considered one of the highest-risk activities on a roadwork site. The traffic management planning process outlined in Figure 3-1 of the TCAWS manual (see below figure) shows the process of selecting an appropriate traffic management strategy and further developing a traffic management plan. However, it is important to note that this planning process is more relevant for a roadwork site than a site located within private boundaries.

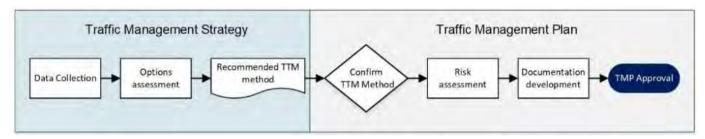


Figure 13 – Temporary traffic management process (Source: TfNSW TCAWS manual)

It is noted that the subject site under this CTPMP is not a roadwork site. In fact, the construction works in relation to the TAP 3 works would be contained within the site and associated work compounds.

Since the construction activities will occur within the site and associated compounds, the impact of construction works on surrounding roads will largely be limited to the movement of construction vehicles. Given consideration to the above, it is ascertained to implement a **Through** traffic management method in order to manage the impact of the proposed TAP 3 works. As such, the traffic operations along Harris Street and Hobart Street will largely remain unchanged, with general traffic allowed to pass along the site frontages. Nevertheless, temporary traffic management measures will be implemented near the site access points to ensure the safety of pedestrians and vehicles during construction truck access to site compounds. All trucks will enter and exit the site under the guidance of TfNSW accredited traffic controllers.

In order to protect the traffic controllers (workers on foot), a 40km/h 'Road Work' speed zone will be adopted on Harris St & Hobart St eastbound/westbound lanes. Traffic Guidance Schemes (TGS) in Appendix 3 show the proposed temporary traffic management arrangements along the access roads to the work compounds.

Construction Site Access 4.2

TAP 3 Main Work Compound (Access via Harris Street)

Site access to the TAP 3 main work compound is proposed via a gate off Harris Street. This is in an existing gate with approx. 7m wide driveway crossing. This access will be used for both ingress and egress truck movements. Construction trucks over 6.4m long Small Rigid Vehicle (SRV) will turn right in to enter and left out to exit the site via this access gate. Trucks up to 6.4m long SRV will be able to access the site from both directions of Harris Street. Trucks will enter and exit the site in a forward direction. Figure 15 shows the truck entry/exit directions via the site gate off Harris Street.





Figure 14 - TAP 3 main work compound access

TAP 3 Laydown Compound (Access via Hobart Street)

The access to the TAP 3 laydown compounds along Hobart Street is proposed via existing gates to the railway corridor off Hobart Street. The gates are approx. 6m wide and will be used for both ingress and egress truck movements.

Trucks will enter and exit the site by turning left-in and right-out accordingly. Figure 15 shows the truck entry/exit directions via the gates off Hobart Street.





Figure 15 - TAP 3 laydown compound access

4.3 Pedestrian Access

Pedestrian access to the main work compound along Harris Street will be provided via a security-controlled gate on the northeastern corner of the site. All personnel entering the site will be required to undertake an induction program. Trained on-site personnel will be present at the site access to manage pedestrian movements and assist with vehicle ingress and egress.

4.4 Construction Traffic Haulage Route

Generally, construction vehicles will have origins and destinations from a wide variety of locations throughout Sydney. However, all construction vehicles will be restricted to the State and Regional Road network as much as practically possible.

The proposed construction vehicle routes to and from the TAP 3 main work compound are primarily based on the approved truck routes under the Sydney Metro West CTMF. In addition, as per the existing road restriction, it is noted that a left turn from Glossop Street to Harris Street is only permitted for up to 7m long vehicles. As such, construction vehicles above 7m would only access the main work compound by turning left from Forrester Road onto Harris Street.

It is expected that construction trucks relevant to the TAP 3 main compound will predominantly use Glossop Street with access to/from Great Western Highway.

In addition to the above, the construction trucks with TAP 3 laydown compound as their primary destination would use southbound Glossop Street, turn left onto Brisbane Street and further travel to the compound via local streets. Figure 16 and Figure 17 show the truck arrival and departure routes to and from the TAP 3 work compounds.

The project team also anticipates truck movements between the TAP 3 main compound on Harris Street and the TAP 3 laydown compounds on Hobart Street. As such, the construction trucks up to 12.5m long Heavy Rigid Vehicle (HRV) would travel between these two site compounds using Forrester Road,



Glossop Street and local roads. The truck route from the TAP 3 main work compound to the TAP 3 laydown compounds is fairly simple and illustrated in Figure 18. However, the trucks travelling from the laydown compounds to the main work compound may be able to use two separate routes, as shown in Figure 19 and Figure 20.

The truck route defined in Figure 19 is short and simple, however due to the narrow road width at the priority-controlled intersection of Australia St and Adelaide Street, the truck driver needs to take extra care while turning left from Australia Street onto Adelaide Street. At times, the truck tires may also need to be mounted over the refuge island along Adelaide Street.

The truck route shown in Figure 20 allows the truck driver to avoid narrow local streets and use Sydney Street to access Great Western Highway before making its way to the TAP 3 main work compound.

The truck route from the lavdown compound to the main work compound will be firmed up after consultation with TCG and TTLG.

Swept path assessment of relevant construction trucks accessing the site compounds via proposed truck routes is provided in Appendix 4 of this plan.

The Planning Secretary shall approve all truck routes via local roads.

Truck drivers will be advised of the designated truck routes to/ from the site. No queuing or marshaling of trucks will be permitted on public roads in the vicinity of the site. In addition, construction vehicle movements will be minimised during school zone hours (i.e., 8:00am to 9:30am and 2:30pm to 4:00pm).

Accredited traffic controllers will ensure they are in radio contact with truck drivers, thus ensuring each vehicle's arrival is anticipated and planned. Such a process will be important in managing truck activity to ensure access to the construction site is available at all times and to remove any such likelihood of construction vehicles queuing and waiting along Harris Street or Hobart Street to enter the site, causing delays on surrounding roads.

A Heavy Vehicle Load Report (HVLR) assessing local roads for providing access to the site and work compounds is provided in Appendix 5 of this plan. The HVLR report has been prepared in response to the CoAs e105-106s.



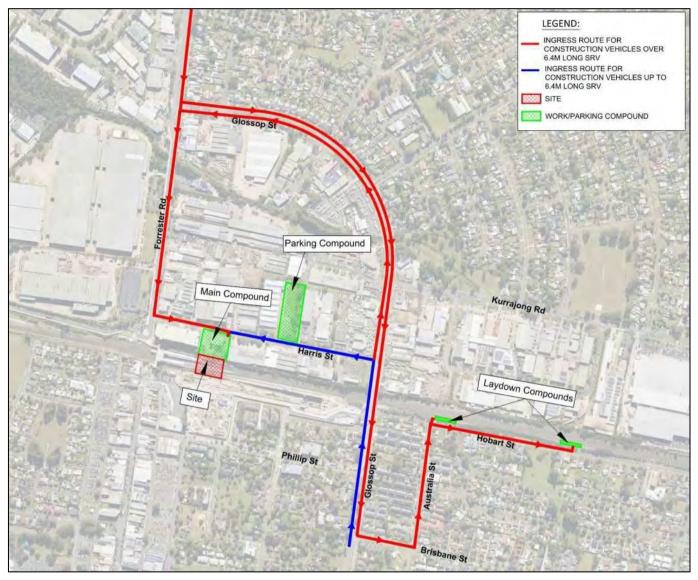


Figure 16 - Truck arrival route into TAP 3 main and laydown compound





Figure 17 - Truck departure route from TAP 3 main and laydown compound



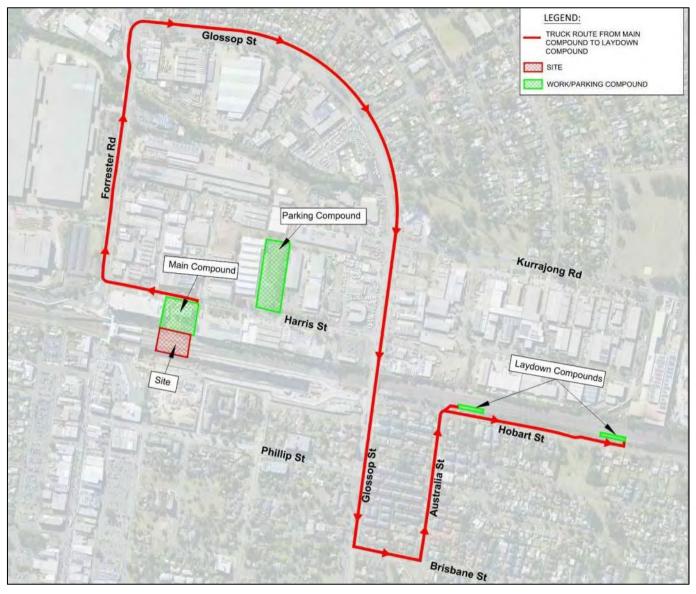


Figure 18 - Truck route from TAP 3 main compound to laydown compound



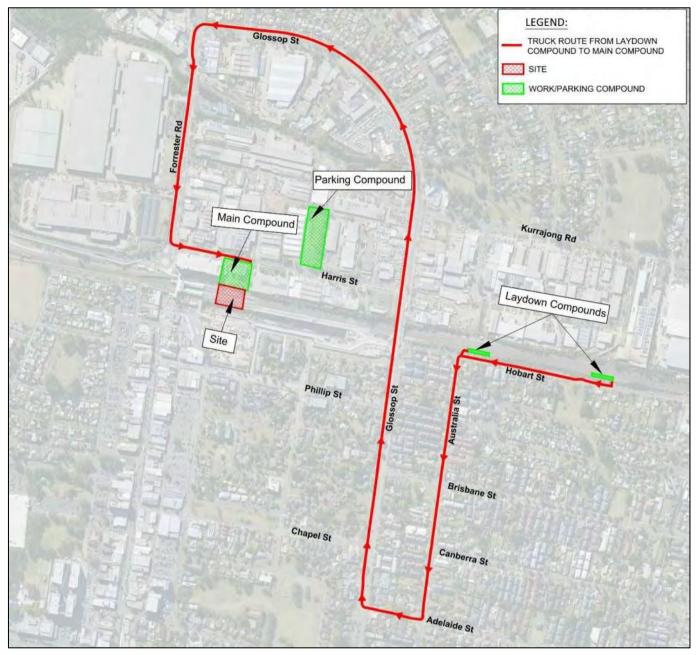


Figure 19 – Truck route from TAP 3 laydown compound to the main compound

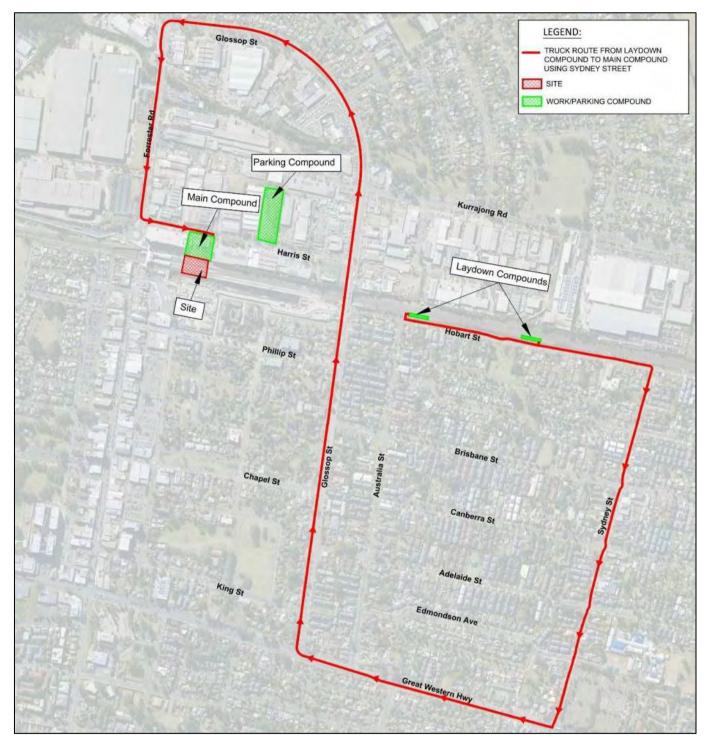


Figure 20 – Truck route from TAP 3 laydown compound to the main compound (using Sydney Street)

4.5 Driver Code of Conduct

Impacts of Earthworks and Construction

Laing O'Rourke is committed to protecting the environment and preventing air, water and noise pollution. The operators of all construction-related vehicles are subject to environmental regulations relating to vehicle emission and product spill and to minimise the impacts of earthworks and construction on the local and regional road network.



Laing O'Rourke also understands and appreciates the seriousness of polluting the environment and the consequences of this. Any carelessness or neglect of responsibilities may cause personal injury, loss of life, property damage, substantial fines, and adverse publicity for the company.

All drivers of vehicles transporting loose materials will be required to ensure the entire load is covered using a tarpaulin or similar impervious material. The vehicle driver will need to take all precautions to prevent any excess dust or dirt particles from depositing onto the roadway during travel to and from the site. The truck cattle grid and wheel wash station shall be positioned at the exit point of all gates. The respective trades will be inducted by the head contractor into the above procedures and will monitor all trucks exiting the site to ensure the procedures are met.

Laing O'Rourke will monitor the roadways leading to and from the site on a daily basis and take all necessary steps to rectify any adversely impacted road deposits caused by site vehicles.

Conflicts with Other Road Users

The road is there to share, and therefore, Laing O'Rourke requires that the heavy vehicle operators display courtesy and restraint towards other road users to minimise conflicts with other road users.

Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances. All deliveries and works will be carried out within the site compounds. If there is a requirement to operate any material handling machinery on public access roads, Laing O'Rourke will seek separate Council/Police/TfNSW approval prior to the event.

Road Traffic Noise

Generating excessive noise is governed by legislation and is an offense. Heavy trucks generate a higher level of noise than light vehicles. The amenity of surrounding road users/residents is to be maintained as far as practical during the construction process. Vehicles traveling to, from and between the site compounds shall not create unreasonable or unnecessary noise or vibration to minimise interference to adjoining building operations. No tracked vehicles will be permitted or required on any paved roads. All heavy vehicle operators are required to adhere to the following during the course of their duty:

- If possible, minimise road traffic noise by not using engine brakes near residences and built-up areas.
- All vehicles must be fitted with audible reversing alarms. These are essential for the safety of all personnel. Reversing alarms are, however, the source of potential noise complaints from neighbouring residents, so all drivers should be aware of this and try to minimise reversing when possible.
- Avoid loading and unloading of materials/deliveries outside of daytime hours.
- Trucks should not idle near residential receivers.
- Stationary sources of noise, such as generators, should be located away from sensitive receivers.
- Project personnel, including relevant sub-contractors, to acquaint themselves with noise and vibration requirements and the location of sensitive receivers during inductions and toolbox talks.
- Delivery vehicles should be fitted with straps rather than chains for unloading, wherever possible.
- Truck drivers should avoid compression braking as far as practicable.
- Where night-time works is required, trucks should use broadband reversing alarms.

Construction Traffic Generation 4.6

Vehicles of various sizes are expected to attend the worksite, including but not limited to light vehicles, tipper trucks, and concrete trucks during construction hours. The largest vehicle regularly accessing the site will be a 12.5m heavy rigid truck. In addition, a 19 m-long semi-trailer will also be used for larger deliveries, although these movements will be infrequent and may only occur once or twice a day. Oversize and Over-mass vehicles may also access the site to deliver construction equipment and will be subject to obtaining a permit from the National Heavy Vehicle Regulator (NHVR) prior to accessing the site. Proposed EIS construction vehicle ingress/egress for the proposed work zone area is estimated as per to



be 216 light vehicles (utes/staff) and 10 heavy vehicles (MRV, HRV and AVs) per day. TAP 3 – Laing O'Rourke project estimates that 50 light vehicles and 10 heavy vehicles will be accessing the site in a day. Figure 21 below shows the anticipated construction trucks and worker vehicles accessing the site compounds.



Figure 21 - Proposed construction vehicle access distribution

All construction vehicles associated with this project are required to adhere to specific criteria relating to conditions of approval.

This criterion includes:

- That all construction vehicles would enter and exit construction sites in a forward direction, where feasible and reasonable. Where this is not possible, traffic management must be in place under approved CTPMP's, TGS's and Road Occupancy approvals.
- Construction vehicles will be managed to minimise movements during peak periods and in school zones. HV deliveries will be instructed via toolbox /prestart to ingress/egress on the proposed site during non-peak hours and current school times.
- Any construction vehicles that are required to move around the site will not be permitted to park or queue within the surrounding road network unless permission has been approved. Arrival of vehicles will be staggered to prevent queuing of vehicles related to the Project.
- Construction vehicles must not continuously idle or queue on any roads and any marshalling required will also avoid sensitive land users which will be advised in site inductions.

In addition:

- Vehicles must have rotating beacons that must be activated on approach and departure from work sites
- Heavy vehicles used for spoil must be identified / marked with project number and company.
- Radio or phone ahead to ensure works sites are open and accessible
- Always give way to pedestrians
- Clearly signal intentions by indicating to traffic streams to enter or depart work sites.
- Construction traffic records in real-time will be implemented as part of Laing O'Rourke's proposed strategies
- Monitoring records will be maintained as part of Laing O'Rourke construction traffic generation



Delivery of material that is required to be delivered outside of standard construction hours in Condition E41 to directly support tunnelling activities can be executed except between the hours 10:00 pm and 7:00 am to/ from the Orchard Hills ancillary facility.

4.7 Barrier Selection & Design

The TfNSW-approved barriers selected for future compounds and laydown areas are concrete. Laing O'Rourke will only use TfNSW approved barriers for any works proposed within the road reserve.

4.8 Site Induction and Occupational Health and Safety

All workers and visitors employed on the site by the Laing O'Rourke (including sub-contractors) will be required to undergo a formal 'site induction' process, and all the inductions will be performed specifically to each trade according to the occupational health and safety requirements of the New South Wales Work Cover Authority requirements.

The induction will include details of approved access routes to and from the construction site for site staff and delivery vehicles, parking arrangements, and standard environmental, WHS, driver protocols and emergency procedures. The agreed work hours must be included as part of this induction.

4.9 Over-size and Over-mass Vehicles (OSOM)

No OSOM vehicles will be required for general construction works. If an OSOM vehicle is required to access the site, Laing O'Rourke will be responsible to obtain prior approval for the passage from NHVR, TfNSW for State Roads, or Council for Regional or Local Roads.

4.10 Road Serviceability

Laing O'Rourke will be responsible for monitoring and ensuring the road and footpath along Harris Street and Hobart Street will remain in a serviceable state during the course of the construction. Under the direction of the Council, Laing O'Rourke will restore any roadside facilities affected by the construction works, being footpaths, road pavement, etc., to the Council's satisfaction, at no cost to Council.

4.11 Spoil Management

To ensure that soil/excavated material is not transported on wheels or tracks of plants and deposited on surrounding roadways, the truck cattle grid and wheel wash station will be positioned at the site entry/exit point. Any run-off from the rumble grid will be directed to the sediment control system within the site.



Assessment of Construction Impacts **5**.

5.1 Impact on Traffic Flow

As articulated in the preceding section, the construction works will involve a variety of construction vehicles ranging between an HRV and a normal utility vehicle. The envisaged construction traffic movements vary from time to time, depending on a range of factors, including:

- **Processes**
- Weather
- Time of day

Peak vehicle volumes would be in the order of 10 vehicle trips per day. Laing O'Rourke aims to minimise the construction truck movements during peak traffic and school zone hours (i.e., 8:00am to 9:30am and 2:30pm to 4:00pm) as much as practically possible. This would allow to improve the safety of traffic within school zones and minimise the traffic impacts and associated network delays when possible.

As such, with the proposed number of construction vehicle trips and traffic control strategy at the site access points, the project works would likely to have minimum impact on the surrounding road network

5.2 Impact on Pedestrians

During construction, pedestrian movements along Harris Street will be maintained at all times. Trained personnel will be made available as needed during construction hours to manage construction vehicle entry and exit and pedestrian movements at the site access, noting that pedestrian priority would be given. In addition, during the truck access to main work compound, it is proposed to place 'Be Truck Aware' decals on either side of the driveway to provide a final warning to pedestrians on the possible presence of heavy vehicles before stepping into the roadway.

To minimise disruption to pedestrian movements, it is advised that truck movements are managed, wherever possible, to occur outside of peak pedestrian periods.

During the project lifetime, any changes or impacts on the current pedestrian footpath/ service will be analysed and presented to CJP via TTLG and CTPMP submission.

5.3 Impact on Cyclists

There are no bicycle routes along the site's frontages. As such, the construction activities will not have any impact on cyclists.

5.4 Impact on Public Transport

There is no impact expected for bus services as a part of this CTPMP implementation. Any proposed Bus stop closure/ relocation or bus route change will be consulted in advance with relevant stakeholders and CJP.

5.5 Impacts on Parking

There will be a loss of at least 1on-street parking space along Harris Street (adjacent to main work compound access) to accommodate 19m long semi-trailer truck movements out of TAP 3 main work compound (for location of on-street parking space see N273-TGS01 in Appendix 3).

As discussed earlier in the plan, workers parking for Laing O'Rourke workers will be provided in limited numbers within the Parking compound off Harris Street. Since the project site is located right at St Marys Station with good public transport connectivity, all workers will be instructed to use public transport. Workers will not be allowed to park within on-street parking.



As part of Laing O'Rourke's strategy, use of public transport and carpool/ridesharing will be encouraged among workers. These options will be explained to the workforce in order to avoid the use of on-street parking. Previously mentioned commute options will be reminded during the toolbox/prestart meetings during the construction phase of the TAP3 project.

Based on the above, it is anticipated that the project will have minimal impact on the on-street parking and commuter carpark.

Any changes on current on-site and multi-deck parking conditions will require approval from the council, with local stakeholders/ residents also being consulted with TfNSW /CJP prior to activities commencing.

5.6 Impact on Existing Local Access

The proposed construction works are likely to have no significant impact on surrounding property accesses. Access to all residents and businesses will be maintained at all times. Any changes to local access will be made in consultation with relevant stakeholders.

Should any construction activity require blocking or interrupting access to surrounding property, Laing O'Rourke will be responsible for providing temporary alternate access to the affected property until the primary access is reinstated at no cost to the owner of the affected property.

5.7 Management of cumulative impacts

Cumulative traffic impacts will be assessed, ensuring vehicle management from surrounding developments and station sites. Laing O'Rourke will interface with a number of other contractors and stakeholders who may have works impacting the roads at the same time.

Through interface meetings, Laing O'Rourke will work to minimise cumulative impacts and combine traffic management sites where possible.

In addition, other cumulative impacts may include, but are not limited to:

- Bus stop and associated facilities relocation and service rerouting
- Short and long-term work zones on roads adjacent to the construction site
- Mail zone and associated facilities relocation
- Short and long-term works within the road reservation
- Regulatory, advisory and other signage changes and modifications
- Parking management, including on and off-street and remote parking and access
- Heavy vehicle movements
- Special event management.
- Liaison with adjacent projects/stakeholders will be coordinated for any proposal.

Impact on Emergency Services 5.8

Laing O'Rourke will ensure no truck parking or holding will occur on surrounding streets. The trucks will not block access to surrounding properties. As such, emergency vehicle access to surrounding properties will remain available as per existing conditions.

Access to the site by emergency vehicles would not be affected by the proposed construction works. Emergency protocols on the site would indicate a requirement for the traffic controller to assist with emergency access from Harris Street and Hobart Street. All truck movements to the site and the incident point would be suspended and cleared. Consequently, any potential impacts on emergency access would be effectively managed throughout the works.

The liaison would be maintained with the police and emergency services agencies throughout the construction period, and a 24-hour contact would be made available for 'out-of-hours' emergencies and



access. Thus, there would be no adverse impacts on the provision of existing emergency vehicle access to the site or other neighbouring properties as a result of the proposed construction activities.

5.9 Impact on Major Events

There is no impact expected for major events as a part of this CTPMP implementation. If any special events are planned, works will be coordinated with those events and any specific road closures. Any modifications required to haulage routes due to special events, emergencies, or road closures will be made in consultation with relevant stakeholders /CJP.

5.10 Road Safety Audits (impacts)

A road safety audit has been conducted for this CTPMP by a suitably qualified and independent auditor with a Level 3 certification and another auditor with a Level 2 or higher certification.

The TGS is designed to assist the construction traffic movements address the deficiencies/impacts as identified in the Road Safety Audit. The road safety audit is provided in Appendix 6 of this CTPMP.

5.11 Section 138 Approval from Council

Based on the proposed TGSs provided in Appendix 3, it is noted that as part of temporary traffic management, 40 km/hr speed zones are adopted along Harris Street and Hobart Street. It is understood that under s138 of the Roads Act 1993, all proposed works within a road reserve require Council approval. As such, for the proposed temporary traffic management implementation on the local road network, Laing O'Rourke will be responsible for submitting the S138 Roads Act Application Form to Council and attaining Council's approval prior to the commencement of works.



6. Traffic Control Devices

6.1 Signage and Line marking

Laing O'Rourke will provide and install temporary traffic management signage as per the Traffic Guidance Scheme presented in Appendix 3 of this CTPMP.

The Site Manager/Supervisor will ensure:

- All road signs are used with approved stands or erected on posts set into the ground, where permitted by the relevant authorities
- All signs are placed in the most advantageous position, having regard for the nature of the hazard and the warning being conveyed to provide the maximum visual impact for approaching drivers.

Where signs are erected on posts set into the ground, the following applies:

- On kerbed roads, signs should be located back from the face of the kerb, not less than 300mm and no more than 1m. On urban roads that are not kerbed, the distances given for rural areas above should apply. The height of the sign should be about 2.5m above the kerb or footpath to reduce the interference from parked cars
- Where the signs are erected on temporary stands for short-term work, they should be erected on the road shoulder in un-kerbed areas no closer than 600mm to the running lane. In kerbed areas, the provisions outlined above for post-mounted signs shall be followed.

6.2 Intelligent Transport System Devices

As part of the Laing O'Rourke / TAP 3 planning process, a variable message strategy (if required) has been included as part of this CTPMP implementation. The proposed VMS strategy is presented in Appendix 7.

6.3 Traffic Signal Modifications

No impact is expected on traffic signals as a part of this CTPMP implementation.



7. Mitigation

Table 6 below identifies traffic risks and mitigation strategies to be implemented as part of this CTPMP. Table 6: Traffic Risks.

Risks	Mitigation Strategy
Emergency Service Access	Emergency Service Access will be available. UHF channels are clearly visible at site access gates.
Worker safety risk with mobile compounds/ passing vehicles	Laing O'Rourke safety essentials (live traffic) are to be reinforced in prestart/toolbox meetings.
Motorists unaware of the proposed Footbridge St Marys works	Compliant retroreflective street signage will be installed to highlight site operation. A proposed VMS strategy will be implemented (if required) in order to inform motorists driving on Glossop St and Forrester Rd.
Public members trying to enter into the site compounds.	At entry points into the construction access, supplementary "authorised vehicles excepted" and "no entry" signs will be installed as part of this implementation. At entry points into the work site, the access gate shall always remain closed and managed by a traffic controller or spotter when construction vehicles are required to access the site.
Movement of plant and equipment in and out of the proposed construction access.	Vehicle Management Plan in place with swept path compiled for vehicles to show adequate vehicle travel paths. A clear line of sight to be always maintained around the proposed construction access. Advance truck warning /construction signs are to be installed close to the proposed construction gates in order to warn motorists of the proposed entry/exit of construction vehicles. Traffic Controller present at gates to assist with the truck movements during construction works as required. Construction vehicle movement decals will be implemented on-site in order to inform pedestrians of construction vehicle movements at the designated ingress/access construction gates.



8. Communication Strategy

A comprehensive campaign will be launched to inform the public of the Laing O'Rourke /TAP 3 works and to try and influence travel behaviour and trip planning. The TAP3 engagement strategy aims to inform and engage the community and relevant stakeholders (CJP /TfNSW & Council) in a constructive, transparent and fair process. To ensure this occurs, detailed and timely information will be provided to the TfNSW comms team to assist with fulfilling the consultation and notification requirements and incorporation into similar notifications for any relevant, adjoining works. This communication strategy has been created following appendix B1 (Overarching Community Communication Strategy).

Prior to undertaking any works associated with a partial closure of any road or footpath or any other interaction with transport infrastructure, the following stakeholders must be appropriately considered for consultation in relation to the road occupancy to ensure that all requirements are addressed.

As part of the dissemination of the CTPMP to the greater travelling public, the Laing O'Rourke Communication team will provide TfNSW content to be distributed for the media forms outlined in Table 7.

Table 7: Proposed communication

Communication Method	Footbridge St Marys	
Community notice (including notification to local businesses and residents)	V	
Precinct update – e update		
Email	✓	
Internet or livetraffic.com.au)		
Community information centre		
On-site brief		
Newspaper (Local)		
Radio advertising		
Variable Message Signs (if required)	✓	
Advanced warning signs	✓	
Local business open signs		

Penrith Council/CJP being a key stakeholder, will be forwarded a copy of this CTPMP and will be routinely consulted via TCG /TTLG Sydney metro meeting and informed of upcoming works, any expected site access changes, and temporary lane occupation or road closures.



Emergency Details

9.1 Key Contacts

Table 8 below provides a listing of key contacts available for this CTPMP.

Table 8: Emergency contact details

Name	Role	Contact Details
	Project Leader	
	Project Manager	
	Community and Stakeholder Manager	
	Environmental Manager	
	Site WHS/Safety Manager	
	Site Manager by Laing O'Rourke	
	Nominated Traffic Control Site Manager by Trafek (sub-contractor of Laing O'Rourke)	

9.2 Site Access Emergency Procedure - General

In the event of an emergency occurring on-site, the Site Manager and Safety Manager will respond to the issue as per the Emergency Response Plan. Further details, including the location of the incident response plant and materials on site, emergency services access routes, work site evacuation routes and muster points, will be covered in the Construction Method Statement for each work area/ site.

When traffic controllers are on site, they will assist in the response to the best of their ability and as directed by the Area/ Safety Manager.

9.3 Traffic Incident Management and Reporting

Any traffic incidents occurring on roadways adjacent to the licensed construction area will be managed in accordance with the project Traffic Incident Response Plan. Where a breakdown or emergency services are required to attend the site, it is proposed that TfNSW Field Operations will assist with the management of incidents, within the licensed area once construction begins, as required by the CJM or Emergency Services. Future non-compliance/actions (CSSI) will be notified and reported to relevant stakeholders as part of Laing O'Rourke's communication strategy and incident management /reporting.

It is proposed that TfNSW Field Operations will provide support to emergency service agencies and road authorities in the management of emergencies and unplanned incidents on roadways approaching and within the licensed area and will assist in the restoration of normal traffic conditions. The types of emergencies or unplanned incidents that may occur include, but are not limited to, traffic incidents, vehicle breakdown, motor vehicle fire, adverse weather, hazards within the road reserve, traffic congestion, pavement failure, contraflow vehicle, pedestrian and cycle incident and anti-social behaviour. In the event of a traffic and transport related incident, the primary (first) point of contact for incident management is CJM. CJP will also be informed of the incident via CJM.

9.4 NSW Police and Emergency Services

The NSW Police and relevant Emergency Services are invited to comment on the initial submission of this



Transport Access Program 3 | Footbridge St Marys MCC 150511-STM-PM-PLN-00015: Construction Traffic and Pedestrian Management Plan

CTPMP. Emergency access will always remain available for emergency responders under lights and sirens.



Appendices



Appendix 1 – Compliance with CoA and Mitigation Measures

Table 9: Ministers Conditions of Approval (CoAs)

Condition Classification	Reference	Description	Document Reference
Independent Environmental Audit	A36	Independent Audits of the CSSI must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (DPIE, 2020).	This document
Incident and Non- compliance Notification and Reporting – Non- compliance Notification	A45	A non-compliance notification must identify the CSSI (including the application number for it), set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be undertaken to address the non-compliance. Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Section 9.3
Identification of Workforce	A46	All Heavy Vehicles used for spoil haulage must be clearly marked on the sides and rear with the project name and application number to enable immediate identification by a person viewing the Heavy Vehicle standing 20 metres away.	Section 4.6 & Appendix 5
Provision of Electronic Information	B1	The Overarching Community Communication Strategy as provided in the documents listed in Condition A1, or updated Strategy must be implemented for the duration of the work. Should the Overarching Community Communication Strategy be updated, a copy must be provided to the Planning Secretary for information.	Section 8
Noise and Vibration - Construction Work Hours	E38	Work must only be undertaken during the following hours: (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; (b) 8:00am to 1:00pm Saturdays; and (c) at no time on Sundays or public holidays.	Section 3.2
Noise and Vibration - Variation to Work Hours	E41	Notwithstanding Conditions E38 and E39 work may be undertaken outside the hours specified in the following circumstances: (a) Safety and Emergencies, including: (i) for the delivery of materials required by the NSW Police Force or other authority for safety	Section 3.2



reasons; or

- (ii)where it is required in an emergency to avoid injury or the loss of life,to avoid damage or loss of property or to prevent environmental harm; or
- (b)Low impact, including:
- (i)construction that causes LA eq(15 minute) noise levels:
- •no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and
- •no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and
- (ii)construction that causes:
- •continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or
- •intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC,2006); or (c)By Approval, including:
- (i)where different construction hours are permitted or required under an EPL in force in respect of the CSSI; or
- (ii)works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E42; or (iii)negotiated agreements with directly affected
- residents and sensitive and user(s); or
- (d)By Prescribed Activity, including:
- (i)tunnelling and ancillary support activities (excluding cut and cover tunnelling and surface works not directly supporting tunnelling) are permitted 24 hours a day, seven days a week; or
- (ii) grout batching at the Orchard Hills construction site is permitted 24hours per day, seven days per week; or
- (iii) delivery of material that is required to be delivered outside of standard construction hours in Condition E38 to directly support tunnelling activities, except between the hours 10:00 pm and 7:00 am to/ from the Orchard Hills ancillary facility; or
- (iv) haulage of spoil generated through tunnelling is permitted 24 hours per day, seven days per week except between the hours of 10:00 pm and 7:00 am to / from the Orchard



		Hills construction site; or (v) works within an acoustic enclosure are permitted 24 hours a day, seven days a week where there is no exceedance of noise levels or intermittent vibration levels under Low impact circumstances identified in Condition E41(b), unless otherwise agreed with the Planning Secretary; or (vi) tunnel and underground station box fit out works are permitted 24hours per day, seven days per week. On becoming aware of the need for emergency work in accordance with (a)(ii) above, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. The Proponent must use best endeavours to notify as soon as practicable all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work. Notes: 1. Tunnelling does not include station box excavation. 2. Tunnelling ancillary support activities includes logistics support and material handling and delivery	
Traffic and Transport	E103	Construction Traffic Management Plans (CTPMs) must be prepared in accordance with the Construction Traffic Management Framework. A copy of the CTPMPs must be submitted to the Planning Secretary for information before the commencement of any construction in the area identified and managed within the relevant CTMP.	This document
Traffic and Transport – Management of Heavy Vehicle Movements	E104	The locations of all Heavy Vehicles used for spoil haulage must be monitored in real time and the records of monitoring be made available electronically to the Planning Secretary and the EPA upon request for a period of no less than one (1) year following the completion of construction.	Section 2.3.1 & Appendix 5
Traffic and Transport – Management of Heavy Vehicle Movements	E105	Local roads proposed to be used by Heavy Vehicles to directly access ancillary facilities / construction sites that are not identified in the documents listed in Condition A1 must be approved by the Planning Secretary and be included in the CTMP.	Section 4.4 Appendix 5



Traffic and Transport – Management of Heavy Vehicle Movements	E106	All requests to the Planning Secretary for approval to use local roads under Condition E105 above must include the following: (a)a swept path analysis; (b) demonstration that the use of local roads by Heavy Vehicles for the CSSI will not compromise the safety of pedestrians and cyclists of the safety of two-way traffic flow on two-way roadways; (c) details as to the date of completion of the road dilapidation surveys for the subject local roads; and (d) measures that will be implemented to avoid where practicable the use of local roads past schools, aged care facilities and child care facilities during their peak operation times; and (e)written advice from an appropriately qualified professional on the suitability of the proposed Heavy Vehicle route which takes into consideration items (a) to(d) of this condition.	Section 4.4 Appendix 5 Appendix 7
Traffic and Transport – Road Dilapidation	E107	Before any local road is used by a Heavy Vehicle for the purposes of construction of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the Relevant Road Authority(s) within three (3) weeks of completion of the survey and at no later than one (1) month before the road being used by Heavy Vehicles associated with the construction of the CSSI.	Appendix 5
Traffic and Transport – Road Dilapidation	E108	If damage to roads occurs as a result of the construction of the CSSI, the Proponent must either (at the Relevant Road Authority's discretion): (a) compensate the Relevant Road Authority for the damage so caused; or (b) rectify the damage to restore the road to at least the condition it was in pre-work as identified in the Road Dilapidation Report.	Appendix 5
Traffic and Transport - Parking and Access Management	E109	Vehicles associated with the project workforce (including light vehicles and Heavy Vehicles) must be managed to (a)minimise parking on public roads; (b) minimise idling and queueing on state and regional roads; (c) not carry out marshalling of construction vehicles near sensitive land use(s);	Section 3.3 Section 4.4 Section 4.3 Section 4.5 Section 4.6 Appendix 2 Appendix 5



Traffic and Transport - Property Access	E110	(d) not block or disrupt access across pedestrian or shared user paths at any time unless alternate access is provided; and (e) ensure spoil haulage vehicles adhere to the nominated haulage routes identified in the CTPMP. Access to all utilities and properties must be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier.	Section 5.6 Appendix 3
Traffic and Transport - Property Access	E111	The Proponent must maintain access to properties during the entirety of works unless an alternative access is agreed in writing with the landowner(s) whose access is impacted by the CSSI works.	Section 5.6 Appendix 3
Traffic and Transport - Property Access	E112	Where construction of the CSSI restricts a property's access to a public road, the Proponent must, until their primary access is reinstated, provide the property with temporary alternate access to an agreed road decided through consultation with the landowner, at no cost to the property landowner, unless otherwise agreed with the landowner.	Section 5.6
Traffic and Transport - Property Access	E113	Any property access physically affected by the CSSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier. Property access must be reinstated within one (1) month of the work that physically affected the access is completed or in any other timeframe agreed with the landowner or occupier.	Section 5.6
Traffic and Transport - Property Access	E114	During construction, all reasonably practicable measures must be implemented to maintain pedestrian, cyclist and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be avoided, alternative pedestrian, cyclist and vehicular access, and parking arrangements must be developed in consultation with affected businesses and landowners and implemented before the disruption. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption.	Section 5.2 Section 5.3 Section 5.6
Traffic and Transport - Pedestrian	E115	Safe pedestrian and cyclist access must be maintained around the St Marys construction site during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction	Section 5.2 Section 5.3



and Cyclist Access		activities, a proximate alternate route which complies with the relevant standards, must be provided and signposted before the restriction or removal of the impacted access.	
Traffic and Transport - Road Traffic and Safety	E116	A Traffic and Transport Liaison Group(s) must be established in accordance with the Construction Traffic Management Framework to inform the development of CCTPMP.	Section 8

Table 10: Revised Environmental Mitigation Measures (REMMs)

Condition Classification	Reference	Description	Document Reference
Traffic and Transport - Construction	TT1	Construction Traffic Management Plans would be prepared in accordance with the Construction Traffic Management Framework. A copy of the CTPMPs must be submitted to the Planning Secretary for information before the commencement of any construction in the area identified and managed within the relevant CTPMP.	This document
Traffic and Transport - Construction	Π2	The Construction Traffic Management Plan for St Marys would be developed to ensure existing transport interchange infrastructure continues to operate effectively within the St Marys station precinct would be developed in consultation with the Traffic and Transport Liaison Group.	This document Section 8
Traffic and Transport - Construction	TT4	Road Safety Audits would be carried out to address vehicular access and egress, and pedestrian, cyclist and public transport safety. Road Safety Audits would be carried out as per the guidelines outlined in Section 10 of the Construction Traffic Management Framework	Section 5.10
Traffic and Transport - Construction	TT5	Maintain access for pedestrians and cyclists around construction sites as per the guidelines outlined in the Construction Traffic Management Framework. Appropriate signage and line marking would be provided to guide pedestrians and cyclists past construction sites and on the surrounding network to allow access to be maintained	Section 5.2 Section 5.3 Appendix 3
Traffic and Transport - Construction	TT6	Access for construction vehicles to be planned as per the guidelines outlined in the Construction Traffic Management Framework. Construction site traffic would be managed to minimise movements during peak periods.	Section 4.4

	<u> </u>	Vehicle access to and from construction sites would be managed to maintain pedestrian, cyclist and motorist safety.	
Traffic and Transport - Construction	ТТ9	A construction worker car parking strategy for St Marys would be prepared in consultation with Penrith City Council and Transport for NSW prior to the commencement of construction. The strategy would seek to: • minimise overall demand for construction worker car parking through initiatives such as use of other project construction worksites in combination with shuttle buses, car-pooling and encouraging the use of public transport • minimise potential use of on-street car parking by construction workers The construction worker car parking strategy would be implemented throughout construction	Section 3.3 Appendix 2

Table 11: Environmental Impact Statement (EIS)

Condition Classification	Reference	Description	Document Reference
Chapter 8	8.9.7	The proposed indicative access to the construction sites are shown in the site layout figures presented in Section 8.7 . The indicative temporary access and egress to constructions sites would be subject to confirmation by the construction contractor(s) through the Construction Traffic Management Plans which would be prepared in accordance with the Construction Traffic Management Framework (refer Appendix G (Construction Traffic Management Framework)). Further information relating to construction traffic impacts and mitigation is provided in Chapter 9 (Transport).	Section 4.2 Section 4.4 Appendix 5
Chapter 8	8.9.7	Table 8-6 St Marys In minor temporary localised modifications to Harris Street to facilitate access for construction vehicles entering and exiting the Harris Street construction site In permanent removal of the at-grade commuter car park on Harris Street (around 130 to 140 car park spaces). This car park would be retained during the start of construction and would be permanently closed when the extension of the existing multi-deck commuter.	Section 4.3 Appendix 3



		,	<u></u>
		car park (subject to separate approval) is completed At St Marys, works to extend the existing multideck commuter car park are proposed (subject to separate approval) and would be completed prior to the occupation of the at-grade	
		commuter car park on Harris Street for the purposes of construction of the project. Commuter parking spaces removed by the project during construction would be accommodated nearby in conjunction with the extension of the multi-deck commuter car park. Some construction vehicles may need to temporarily use Lethbridge Street to access Phillip Street until heavy vehicle routes have been established within the construction footprint. existing footpath on Harris Street would be temporarily affected by the movement of construction vehicles into the proposed construction site access point. Pedestrian access would be maintained through local traffic controls • pedestrian access to Station Street would be temporarily blocked during construction. Pedestrian access to St Marys Station would be maintained through diversions via Queen Street • pedestrian access to residential properties on Station Street would be maintained through local traffic controls.	
Chapter 9	9.5.1	During construction of the project, it is anticipated that access would generally be maintained for local vehicles, pedestrians and cyclists, however, some temporary diversions may be required, and space may be constrained. Some temporary delays may also be experienced due to obstruction by construction vehicles. These potential impacts would be experienced by pedestrians, cyclists and vehicles accessing properties within the local network. Access to the existing St Marys Station would be maintained during construction. Access to properties near the project would be maintained	Section 5.1 Section 5.2 Appendix 4
		at all times except where properties are proposed to be acquired or used for the project. In St Marys, access to East Lane would be	



		maintained during construction. Access under normal conditions would be maintained along Chesham Street. Access would also be maintained for emergency, delivery and waste collection vehicles during the construction period of the project albeit that in some locations waste bins may need to be temporarily relocated to areas accessible for collection by the waste collection service.	
Chapter 9	9.5.1	On-street and off-street parking During construction, some on-street parking would be temporarily or permanently unavailable. In particular, the St Marys town centre is likely to experience potential impacts during construction. In total, about 435 car parking spaces are temporarily impacted within the St Marys precinct and the road network immediately surrounding the station during the construction period. This includes about 310 off-street parking spaces and 125 on-street parking spaces, comprising both restricted and unrestricted spaces. These car parking spaces are generally used for on-street parking by the retail and commercial establishments in this area as well as by commuters using the St Marys Station. At St Marys additional parking would be provided by extending the existing multi-level commuter car park on Harris Street by two additional levels (subject to separate approval) and is proposed to be in place prior to the removal of the Harris Street at-grade commuter car park. These spaces would replace the commuter car parking spaces lost as a result of the construction of the project. The car parking survey undertaken by Sydney Metro in 2019 indicates there is existing on- street and off-street capacity within the town centre at St Marys to accommodate the temporary loss of car parking spaces. Outside of the St Marys precinct, construction of the project is not anticipated to impact on-	Section 2.6 Section 5.5 Appendix 2



		street parking arrangements, given the existing land uses in the remaining precincts largely comprise greenfield and rural lands. In these precincts, available on-street car parking is limited and largely consists of informal parking. Construction worker parking Some construction worker parking would be provided at construction sites however it will not meet the demand based on the construction workforce. Construction worker parking would be managed in accordance with the Construction Traffic Management Framework (Appendix G).	
Chapter 9	9.5.1	The introduction of additional heavy vehicles to the network during construction has the potential to result in safety impacts to pedestrians, cyclists and other motorists, especially where there is an increased likelihood for interaction. Existing pedestrian and cycle infrastructure within the traffic study area is primarily limited to areas adjacent to construction sites at St Marys, Claremont Meadows and Orchard Hills. Pedestrian access to St Marys Station would be maintained at all times during construction. During rail possessions, access may be temporarily altered to facilitate construction activities. Construction works may potentially restrict access to pedestrian facilities and cycle routes surrounding the station but in these circumstances access to the station would be maintained through temporary diversions. These temporary diversions may result in increased travel distances for pedestrians and cyclists seeking to access the station. Pedestrian access to residential properties along Station Street would be maintained via local traffic control measures. Construction vehicle access to the new Harris Street construction site may potentially impact the existing footpath on Harris Street and local traffic control measures would be provided to maintain pedestrian access.	Section 4.3 Section 5.2 Section 5.3 Appendix 5



Appendix 2 – Construction Worker Parking Strategy



Transport Access Program 3 | Footbridge St Marys MCC

Construction Workers Parking Strategy

revision and history

Document details		
Title	Construction Worker Parking Strategy	
Client	Transport for New South Wales	
Planned commencement date	November 2024	
Estimated completion date	November 2027	

Document revision history and sign off

Revision	Date	Revision Description	Prepared	Reviewed	Approval
A	06/11/2023	In response to TfNSW and Council comments			



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Abbreviations and definitions

Table 1: Abbreviations and definitions

Abbreviation	Expanded text	
AGTTM	Austroads Guide to Temporary Traffic Management	
CEMP	Construction Environmental Management Plan	
CoR	Chain of Responsibility	
CSSI	Critical State Significant Infrastructure	
CCTMP	Construction Traffic Management Plan (This Document)	
CJM	Customer Journey Management	
CJP	Customer Journey Planning	
DDA	Disability Discrimination Act 1992	
DPE	Department of Planning and Environment	
EB	Eastbound	
EIS	Environmental Impact Statement	
FPA	Federal Planning Approval	
LTC	Local Traffic Committee (Councils)	
MCoA	Ministers Condition of Approval	
NB	Northbound	
OPLINC	Online Planned Incident System (ROLs)	
PMP	Pedestrian Management Plan	
RASS	Radar Activated Speed Signs	
REMM	Revised Environmental Management Measures	
ROL	Road Occupancy Licence	
ROP	Road Occupancy Permit (Councils)	
SB	Southbound	
SZA	Speed Zone Authorisation	
TCG	Traffic Control Group	
TfNSW	Transport for New South Wales	
TGS	Traffic Guidance Scheme	
TMC	Transport Management Centre	
TTLG	Traffic, Transport Liaison Group	
VMP	Vehicle Movement Plan	
VMS	Variable Message Sign	
HVLR	Heavy Vehicle Local Road Report	
WB	Westbound	



WSIA	Western Sydney International Airport
CMP	Contract Management Plan
PPE	Personal protective equipment
RMS	(TfNSW) Roads and Maritime Services
TAP3	Transport Access Program
TCP	Traffic Control Plan
TfNSW	Transport for New South Wales
TMC	(TfNSW) Transport Management Centre
CCTMP	Construction Traffic Management Plan
UV	Ultraviolet



1. Introduction

1.1 Project Background

The Transport Access Program (TAP) 3 is a NSW Government initiative delivering safe, modern and accessible public transport infrastructure for the Sydney rail network. The initiative includes improvements to the public transport customer experience by providing equitable access and modern facilities in and around station precincts for persons with limited mobility, parents with prams, improvements to station amenity, as well as incorporating additional staff and customer facilities.

The Sydney Metro – Western Sydney Airport project comprises a new 23km railway line that will link the new Western Sydney Aerotropolis business hub and Airport to the south, with the rest of Sydney's public transport network via St Marys to the north. The Project includes six new metro stations along the route, including one at the Western Sydney Aerotropolis, two at the new Airport site, one at Luddenham, Orchard Hills, and St Marys.

This project will deliver design, procurement, construction, commissioning and integration of upgrades to existing stations on the Sydney rail network, including at St Marys (Figure 1).

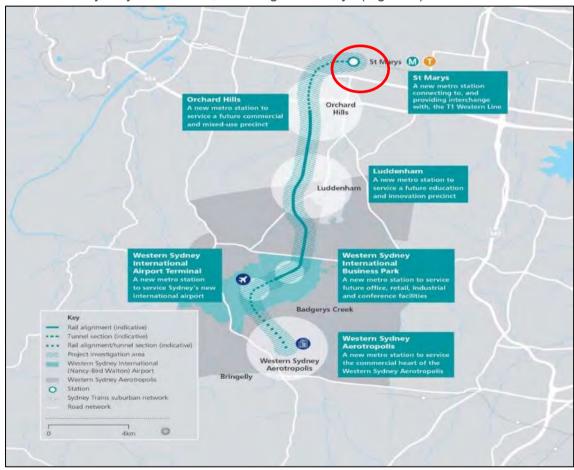


Figure 1 – St Marys station (TAP 3) on the Sydney rail network

TAP3 works will provide facilities that:

Are inviting and safe for customers to use



- Contribute to Commonwealth Disability Discrimination Act (DDA) related targets through Disability Standards for Accessible Public Transport (DSAPT) compliance upgrades (including associated customer benefits derived from DSAPT compliance)
- Are compliant with current standards of safety, access and amenity
- Are easy to operate and maintain by the Operator/Maintainer.

Provide safe, direct and continuous access paths within the site boundary between transportation mode change locations, accessible parking, passenger boarding points and other key facilities.

1.2 Proposed Scope of Work

The Footbridge St Marys package scope of works includes:

- Construction of a new intermodal footbridge at the eastern end of the station, connecting the existing Sydney Trains St Mary's Station to the proposed Sydney Metro St Marys Station, with a new Northern Portal providing access to Harris St to the north.
- Construction of four new 27-person lifts providing step-free access from the footbridge to the existing station platforms.
- Construction of four new escalators for access from the footbridge to the existing station platform.
- Construction of two new staircases for access to the existing station platforms.
- Construction of the Northern Portal, providing access from the footbridge to Harris St via a new staircase and one 33-person lift.
- Construction of a three-storey Sydney Trains facilities building adjacent to the Northern Portal, including a new electrical main switch room, HVAC, communications room, and station staff facilities.
- Provision of new fire safety systems for the facilities building, lifts and footbridge.
- Regrading of platforms for accessible paths, localised to the proposed works.
- Replacement of existing platform tactiles
- Installation of new canopies to the proposed stairs, escalators, and footbridge.
- Alterations and additions to the existing lighting on Harris St to suit the new entry.
- Hard and soft landscaping to the station entrance and surrounds.

Figure 2 overleaf shows the indicative layout of the proposed intermodal footbridge.





Figure 2 – Indicative layout of the new Intermodal Footbridge St Marys indicative proposed footbridge construction

1.3 Purpose

The purpose of this report is to provide a comprehensive Construction Workers Transportation Strategy, in order to minimise the impact of construction workers parking on the surrounding road to the site and its compounds.



2. Strategies

Construction Workers Parking Strategy 2.1

As identified in the CTPMP, approximately 16 construction worker parking spaces will be provided for Laing O'Rourke (LOR) workers within the 19 Harris Street parking compound (see below figure for LOR worker parking compound). It is understood that the proposed parking spaces would not be able to fulfil the overall worker parking demand relevant to the proposed works. As such, the available parking spaces will only be allocated to limited number of staff and trade contractors (who reside in areas with very limited public transport connectivity).

Given the limited off-street parking availability and location of the site as right on the St Marys Station, all workers will be instructed to use public transport and not utilise the TfNSW commuter carpark and on-street parking along Harris Street and other surrounding streets.



Figure 3 -Worker parking area

A tool drop-off and storage facility will be provided within the site office. This would allow tradespeople to drop off and store their tools and machinery, allowing them to use public transport to travel to/ from the site on a daily basis.

In order to minimise the impact on the on-street parking, the workers, who needed to drive to work due to limited public transport availability, would be required to locate the nearest TfNSW commuter carpark (excluding the commuters carpark on Harris Street) from their residences and utilise the facility to access the site via public transport network.

The above strategies will be communicated to construction workers during employment interviews, site inductions and regular toolbox talks, ensuring construction workers are aware of the construction worker transportation strategy.

Further to employee assistance, the following sections provide details of the available public transport options near the site.

2.2 Train

As discussed above, the subject site is located at St Marys Train Station, which is about 2-minute walk to the Main Work Compound. St Marys Station is serviced by T1 Western Line. Services along the T1 Western Line operate every 5 to 10 minutes during peak commuting periods. It interchanges with the T5 and T1 Richmond Line at Blacktown, the T2 Inner West Line at Parramatta, the T2 Leppington at Granville, the T3 Lidcombe and T7 Olympic Park Line at Lidcombe, the T9 Northern Line at Strathfield and to all available lines at Central Station. Details of the existing train services are provided in Appendix A.



2.3 Buses

The nearest bus stop to the site is St Marys Temporary Bus Interchange, located to the south of St Marys Train Station. There are 13 bus routes operating or passing through the Temporary Bus Interchange and connecting the site to various locations within Greater Sydney. Out of 12, 2 bus routes operate through the north, and 10 operate through the south of St Marys Station. The table below outlines the current bus routes servicing the St Marys Temporary Bus Interchange with detailed bus routes provided in Appendix 2.

Table 2: Bus Routes, St Marys Temporary Bus Interchange

Route	Description	Peak Frequency
745	St Marys to Norwest Private Hospital via Stanhope Gardens	1 hour
758	St Marys to Mount Druitt via Tregear & Shalvey	30 mins
759	St Marys to Mount Druitt via Ropes Crossing	30 mins
770	Mount Druitt to Penrith via St Marys	30 mins
771	St Marys to Mount Druitt via Colyton	30 mins
774	Mount Druitt to Penrith via Nepean Hospital	30 mins
775	Mount Druitt to Penrith via Erskine Park	10 to 15 mins
776	Penrith to Mount Druitt via St Clair	20 mins
779	St Marys to Kemps Creek via Erskine Park	1 hour
780	Mount Druitt to Penrith via Ropes Crossing	20 mins
781	St Marys to Penrith via Glenmore Park	45 mins
782	St Marys to Penrith via Werrington	45 mins – 1 hour
835	WSU Penrith to Prairiewood	20 mins – 30 min



Appendices



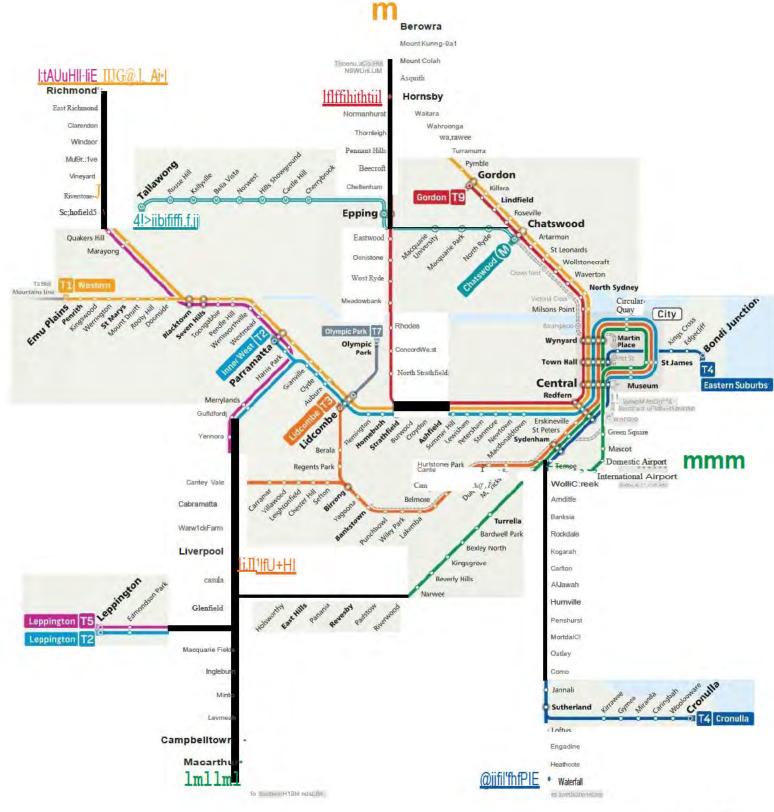
Appendix 1 Train Services



Sydney rail network



Metro Trains













Ea-sternSuburbs
q MovorroUne
Eastern SuburtIs
Itlawarn
Cronulla



Check timetables and trip planners for train services and connections

Visit transportnsw.info







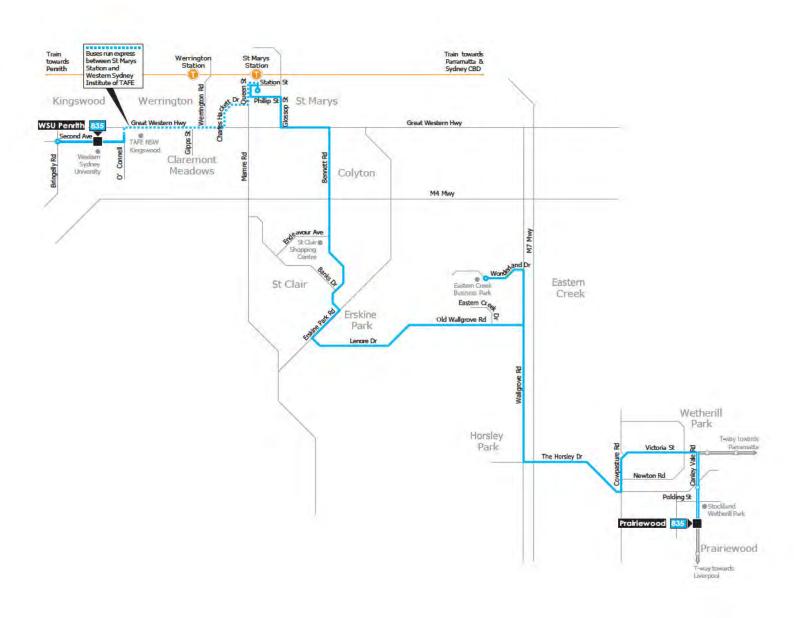


Appendix 2 Bus Routes



Route 835







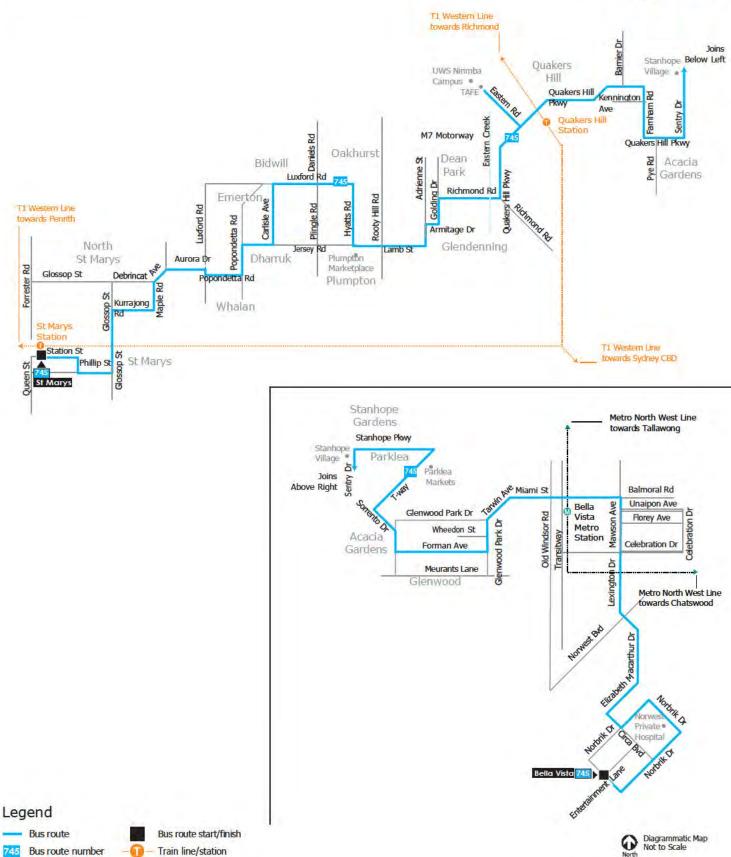






Route 745

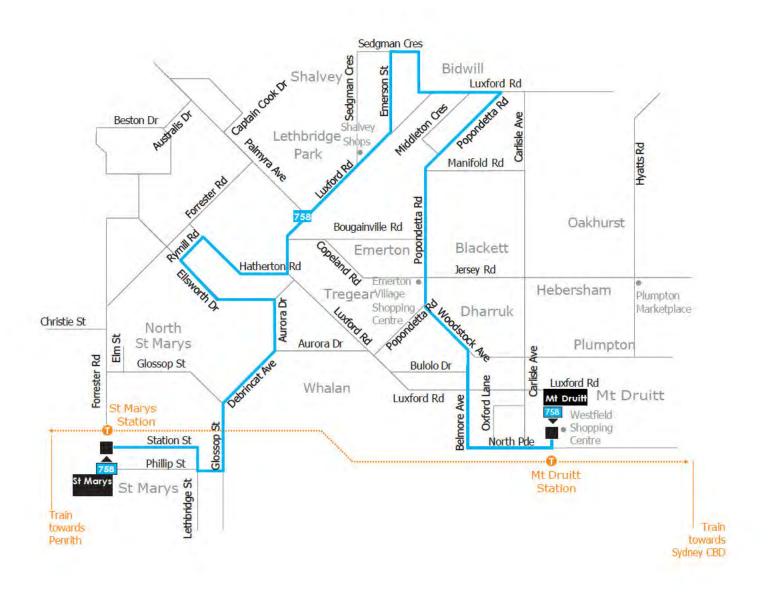






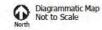










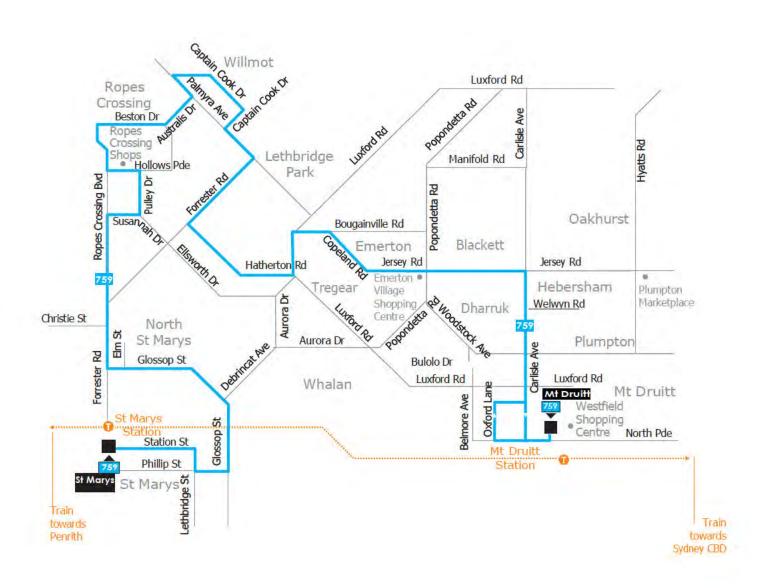




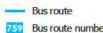


Route 759

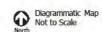










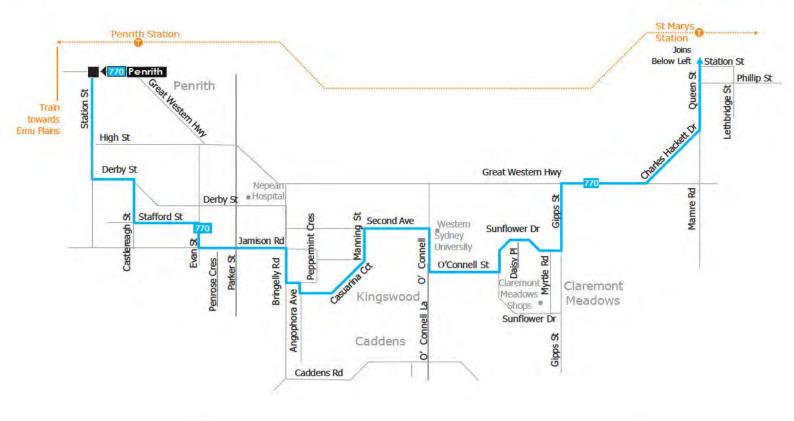


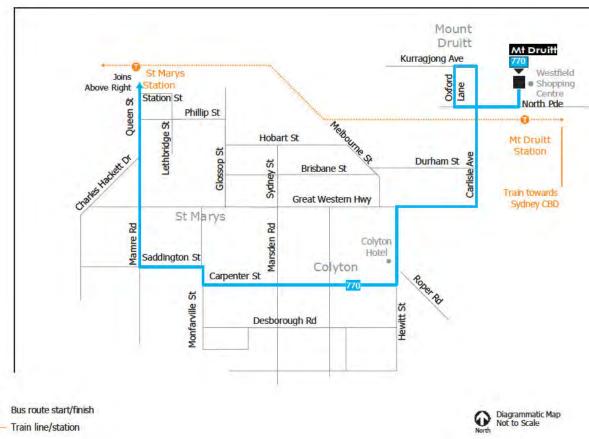




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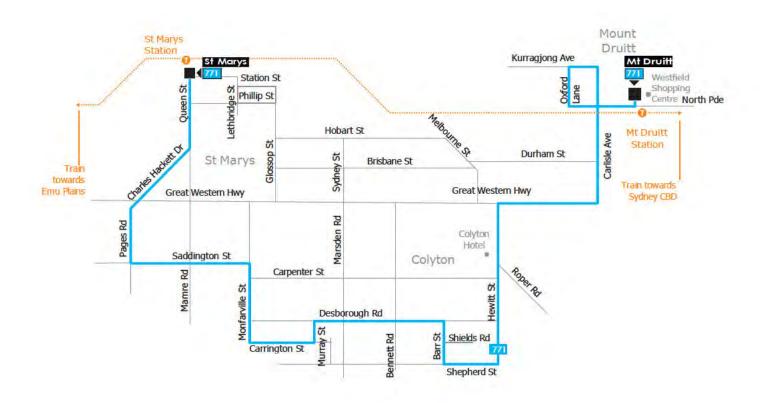
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Bus route

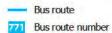
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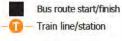


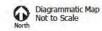




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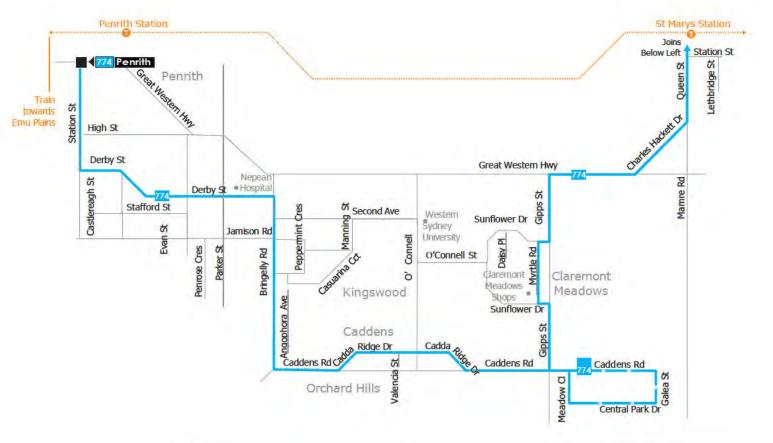


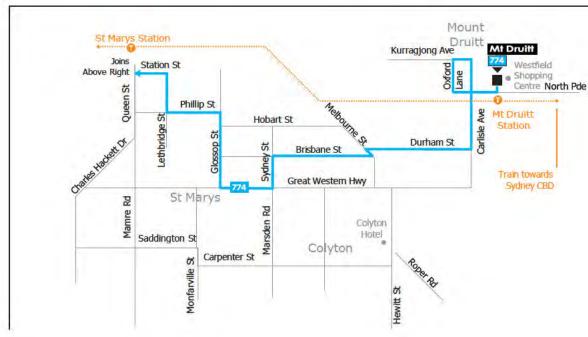








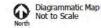






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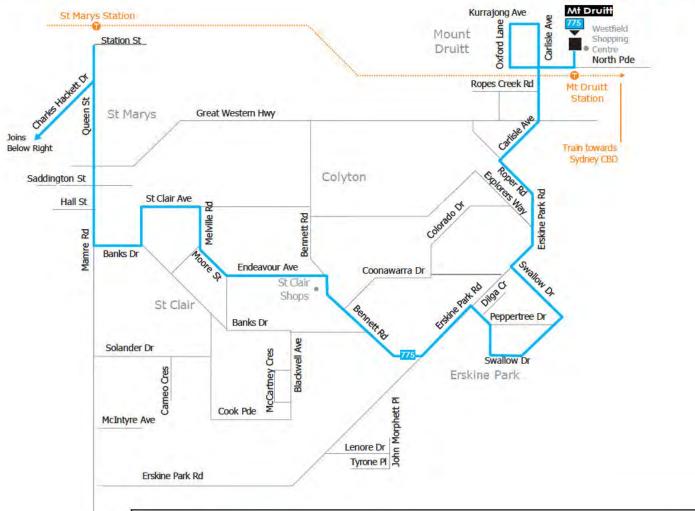
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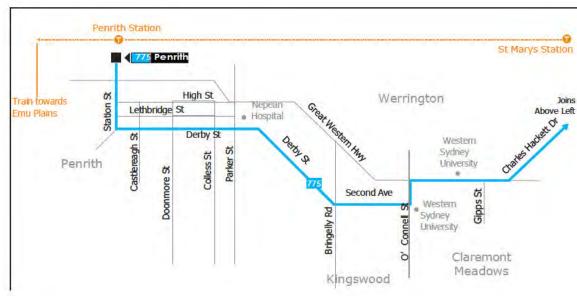






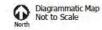








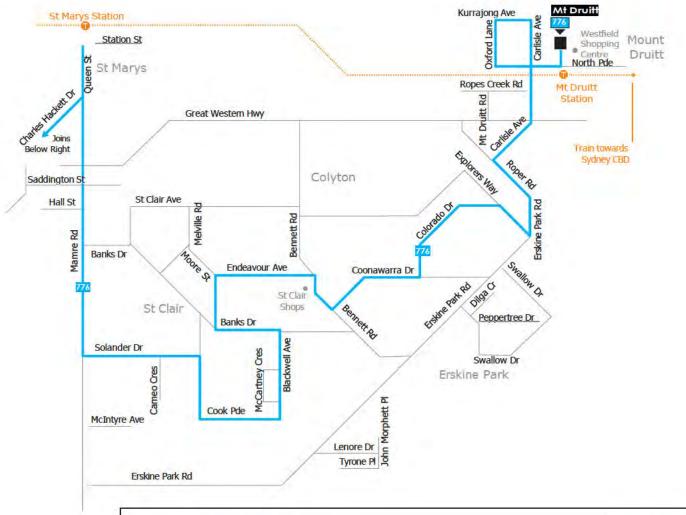


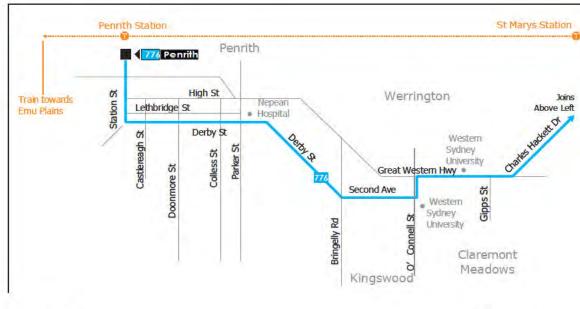












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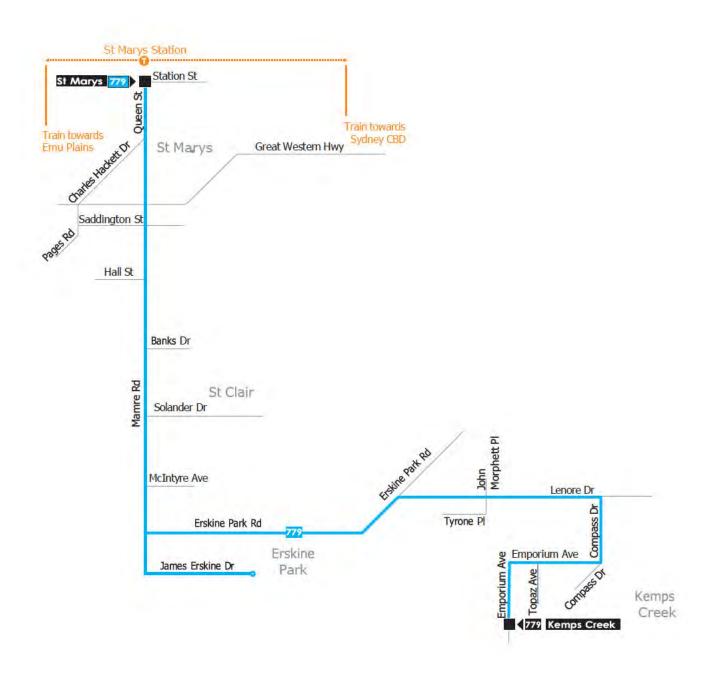
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Diagrammatic Map Not to Scale

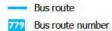


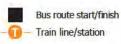


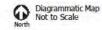








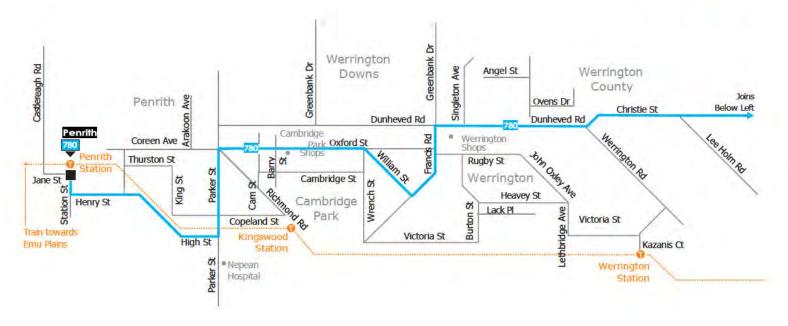


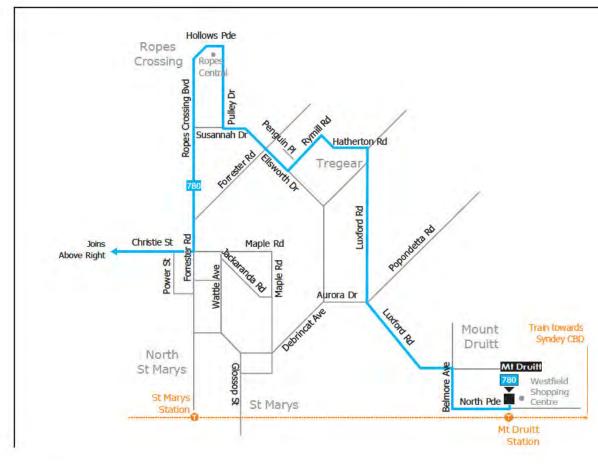




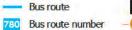


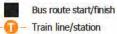


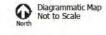








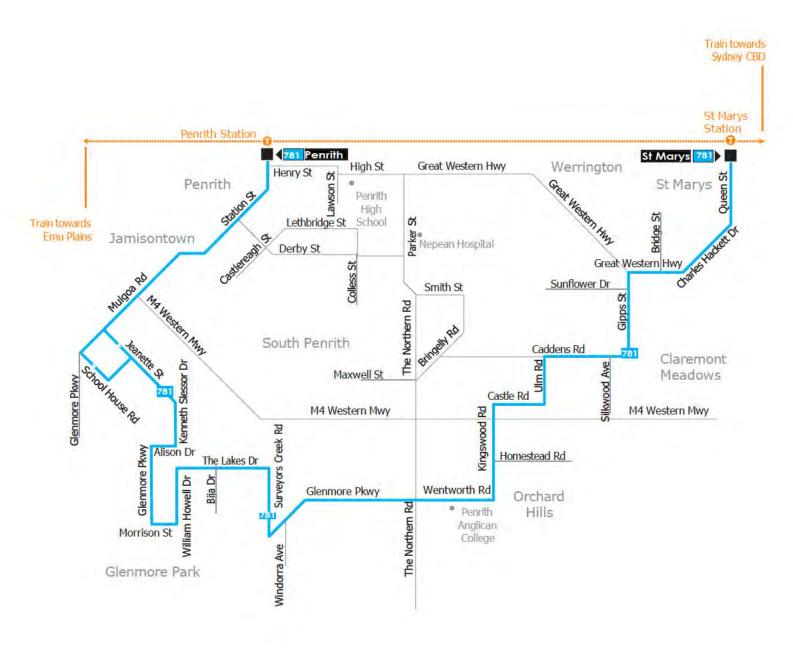




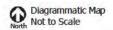








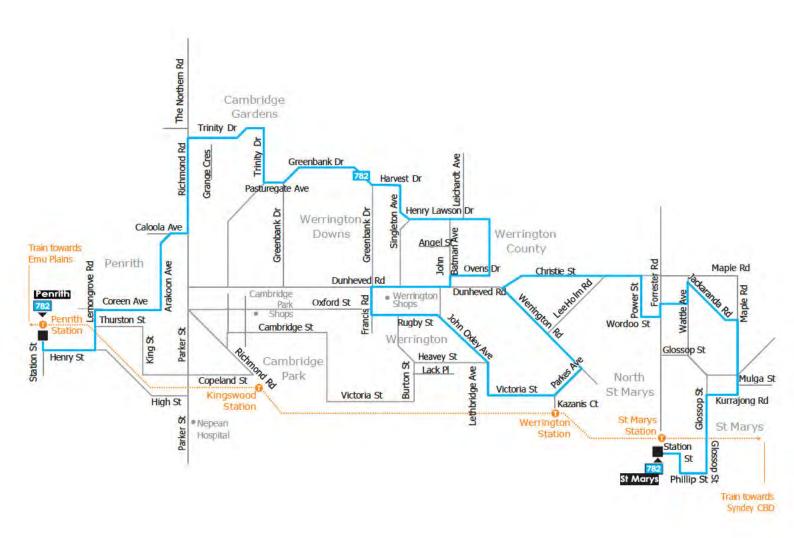








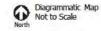






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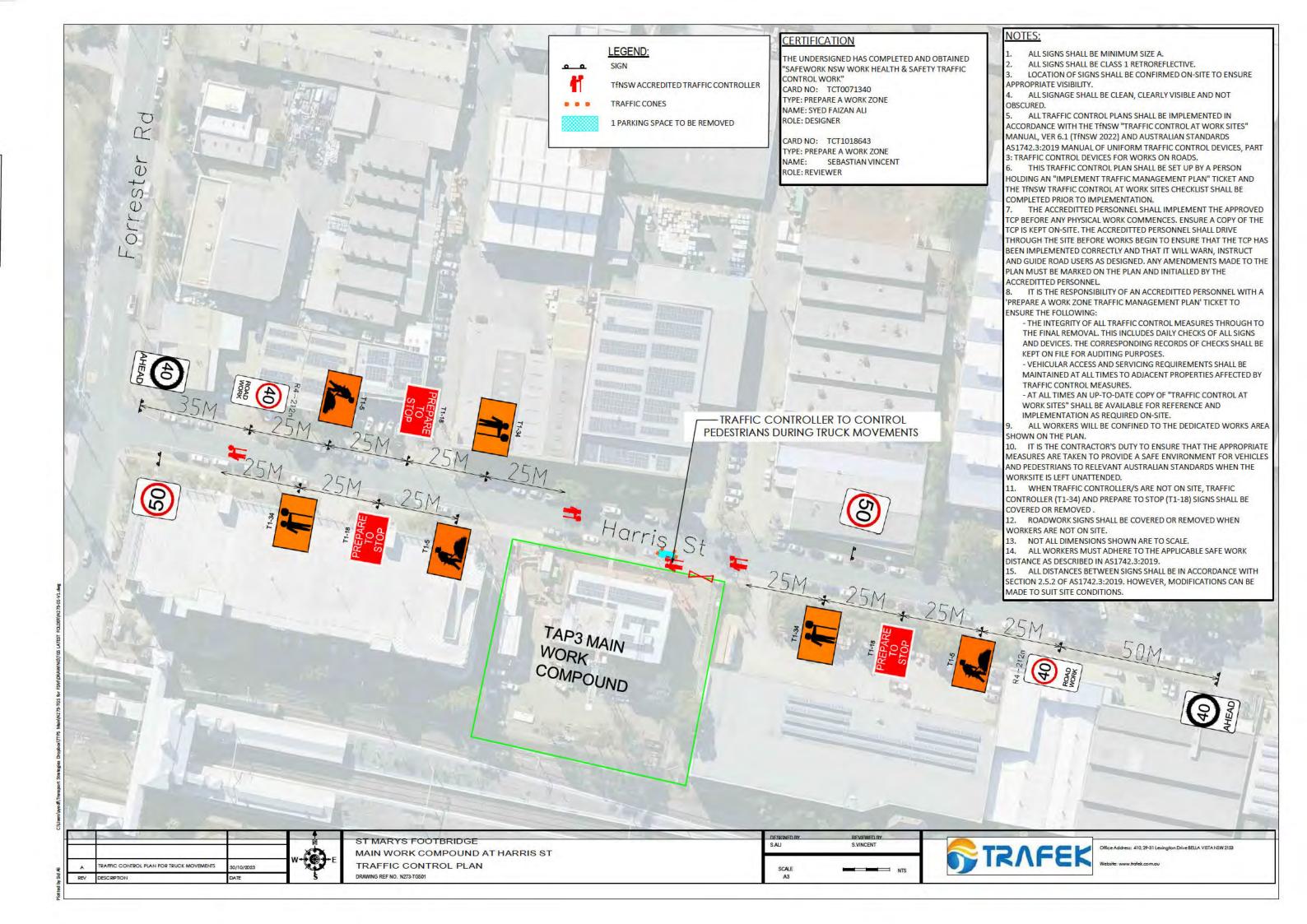


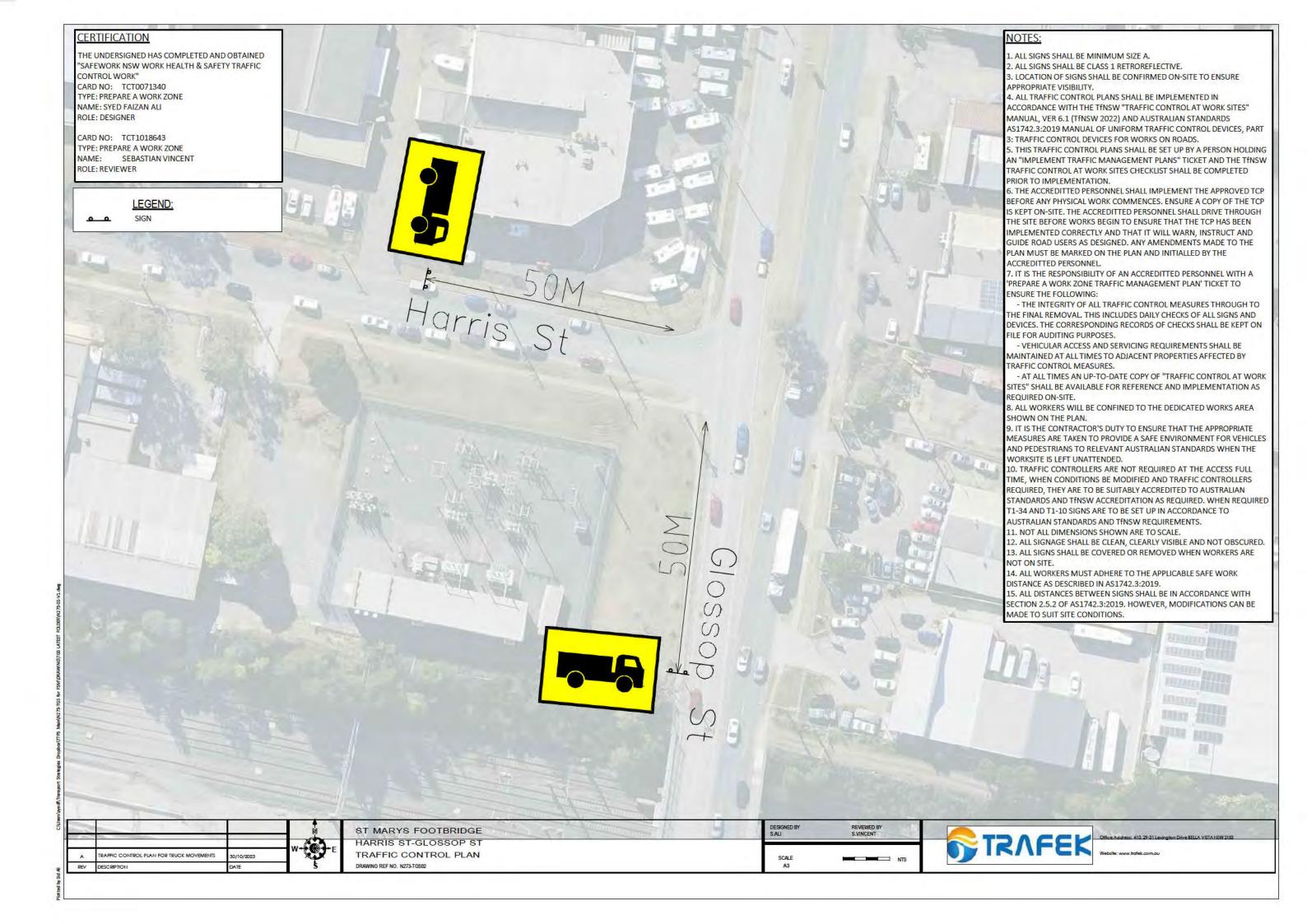


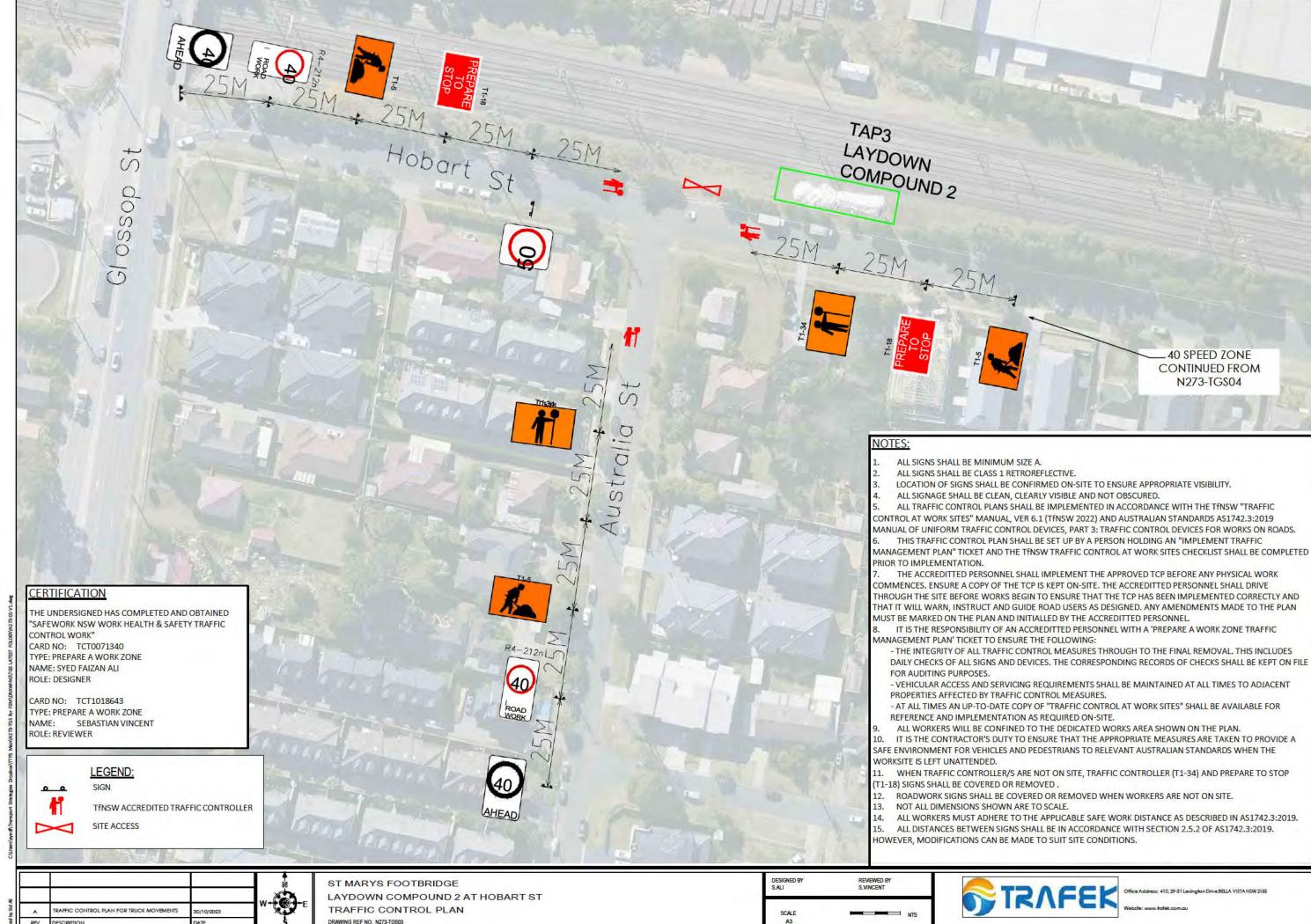


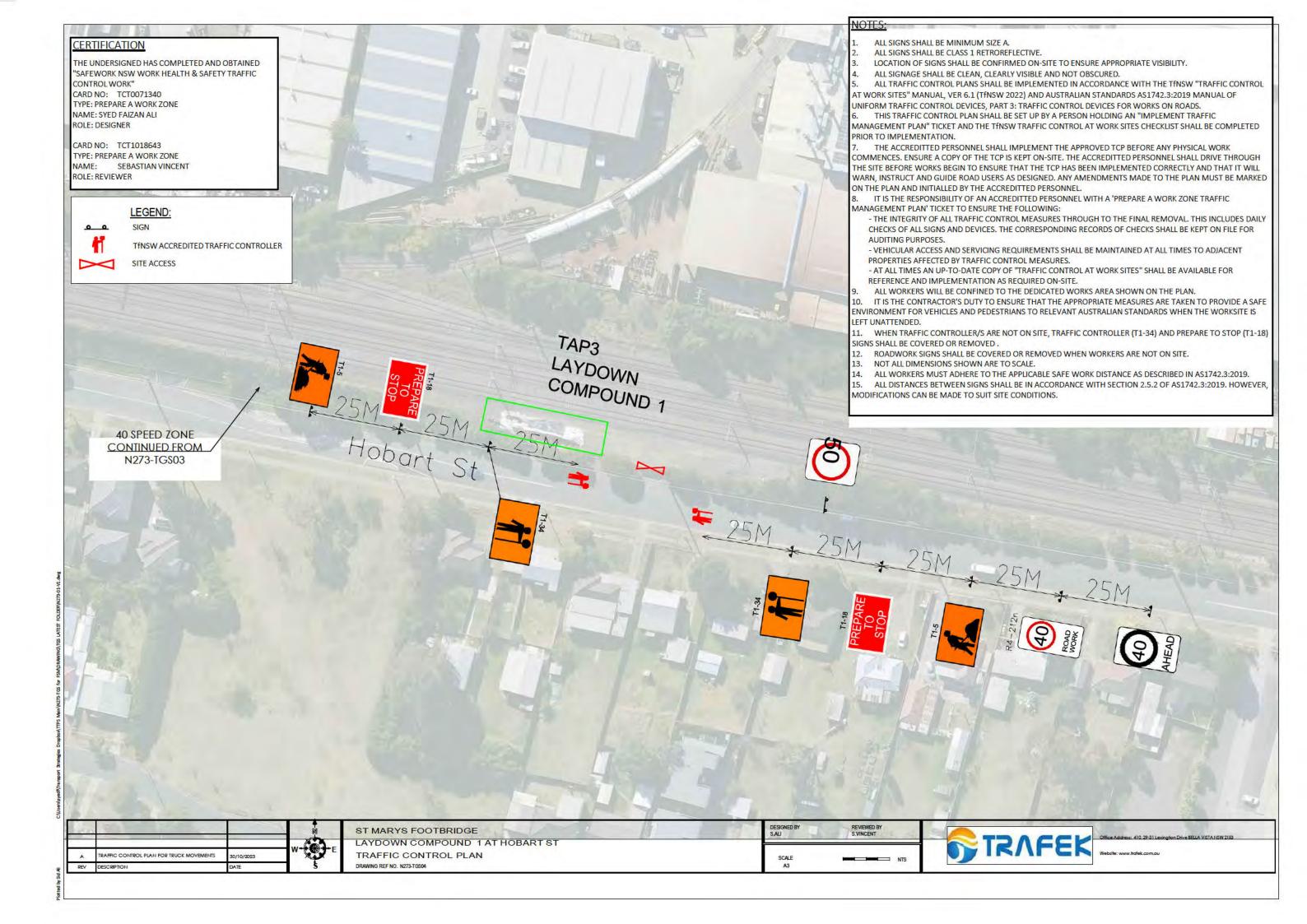
Appendix 3 – Traffic Guidance Scheme

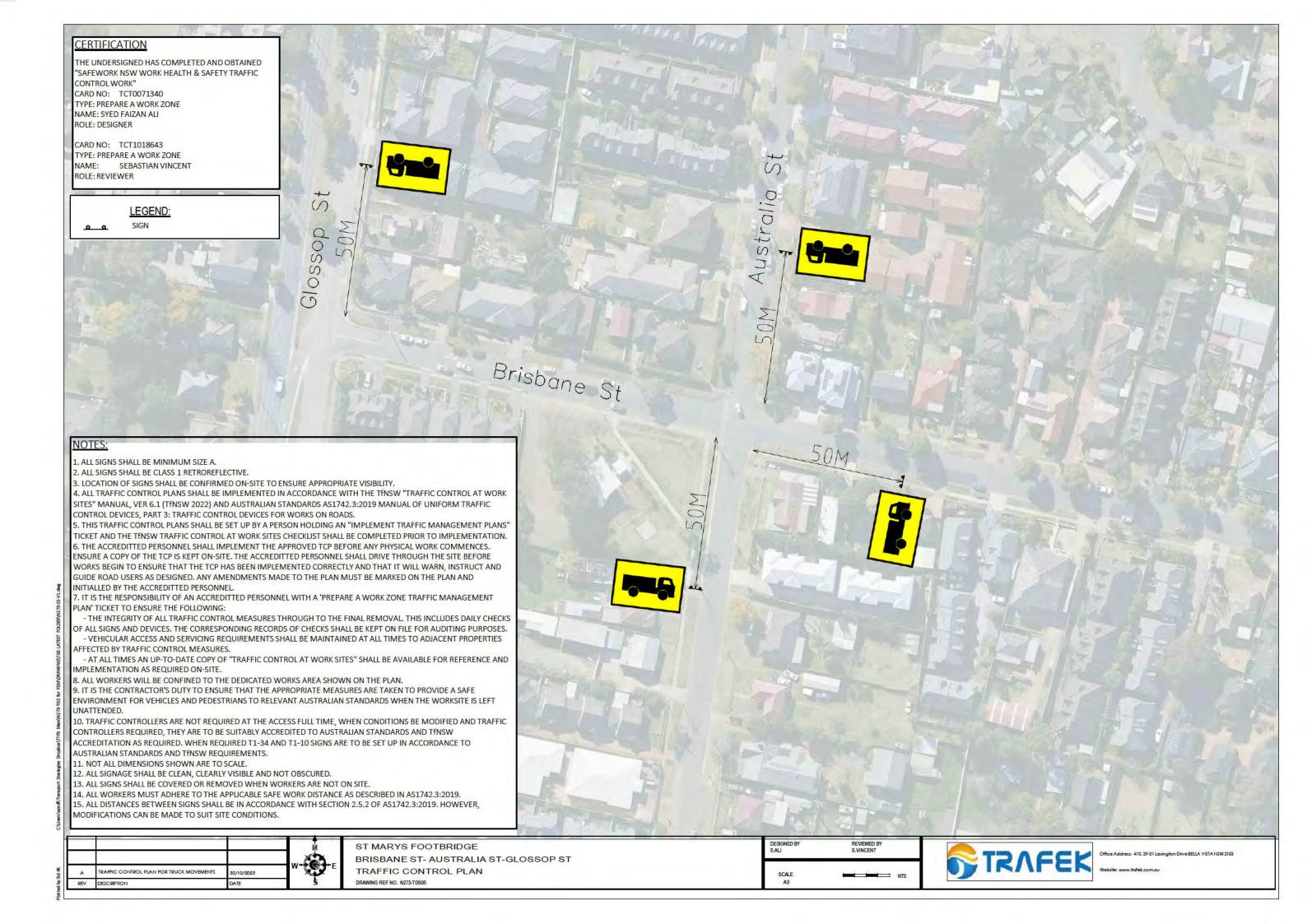


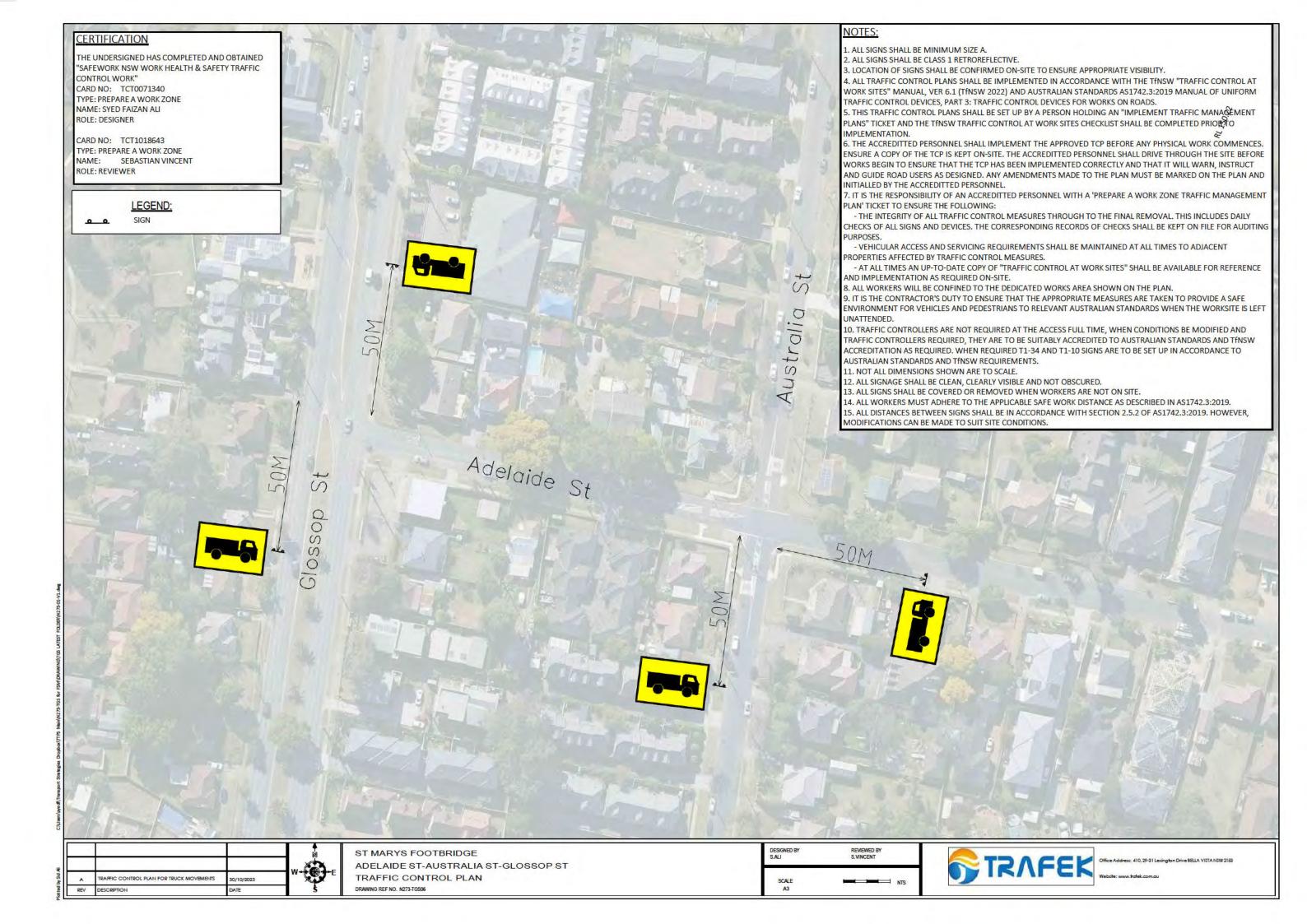


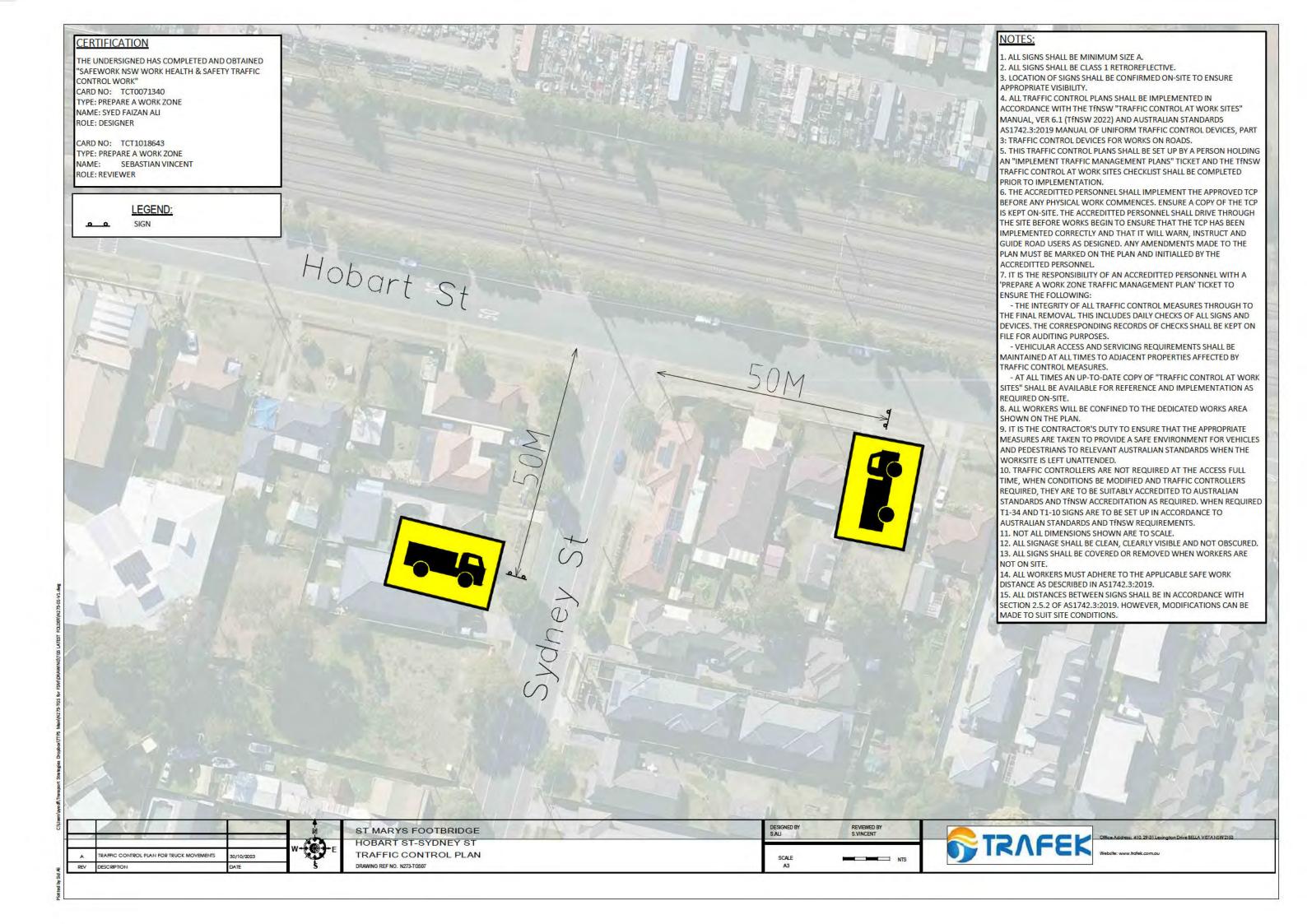






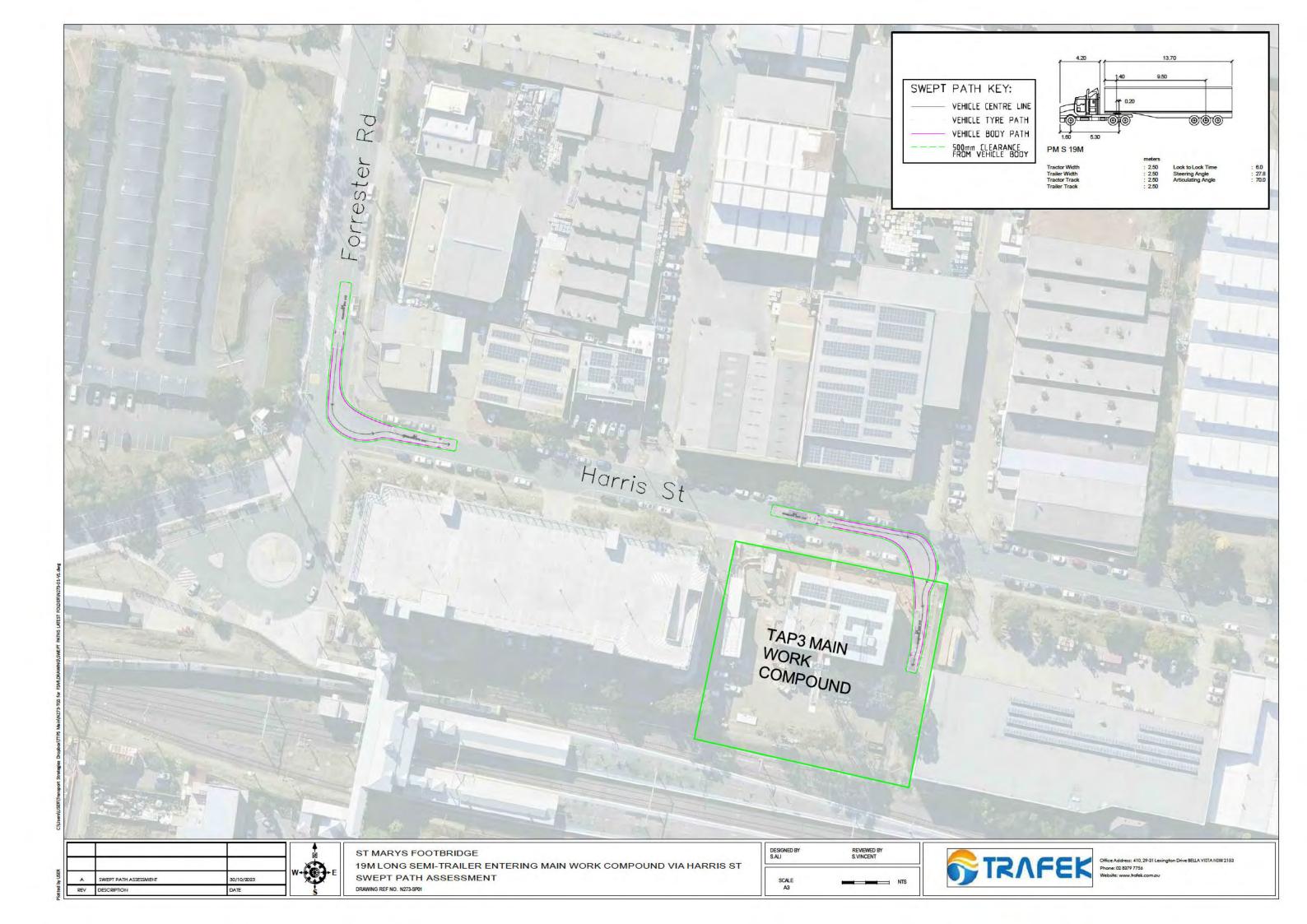


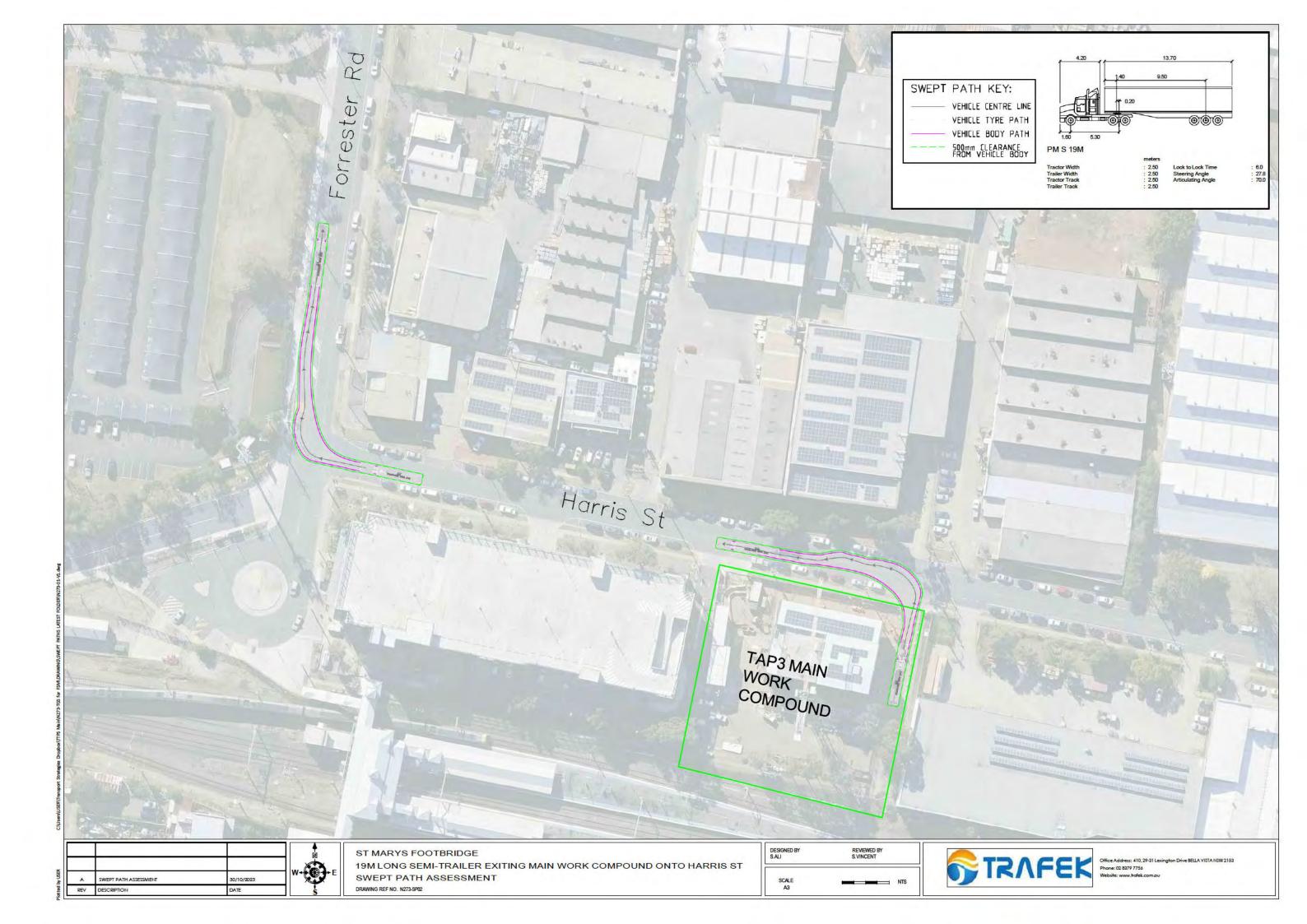


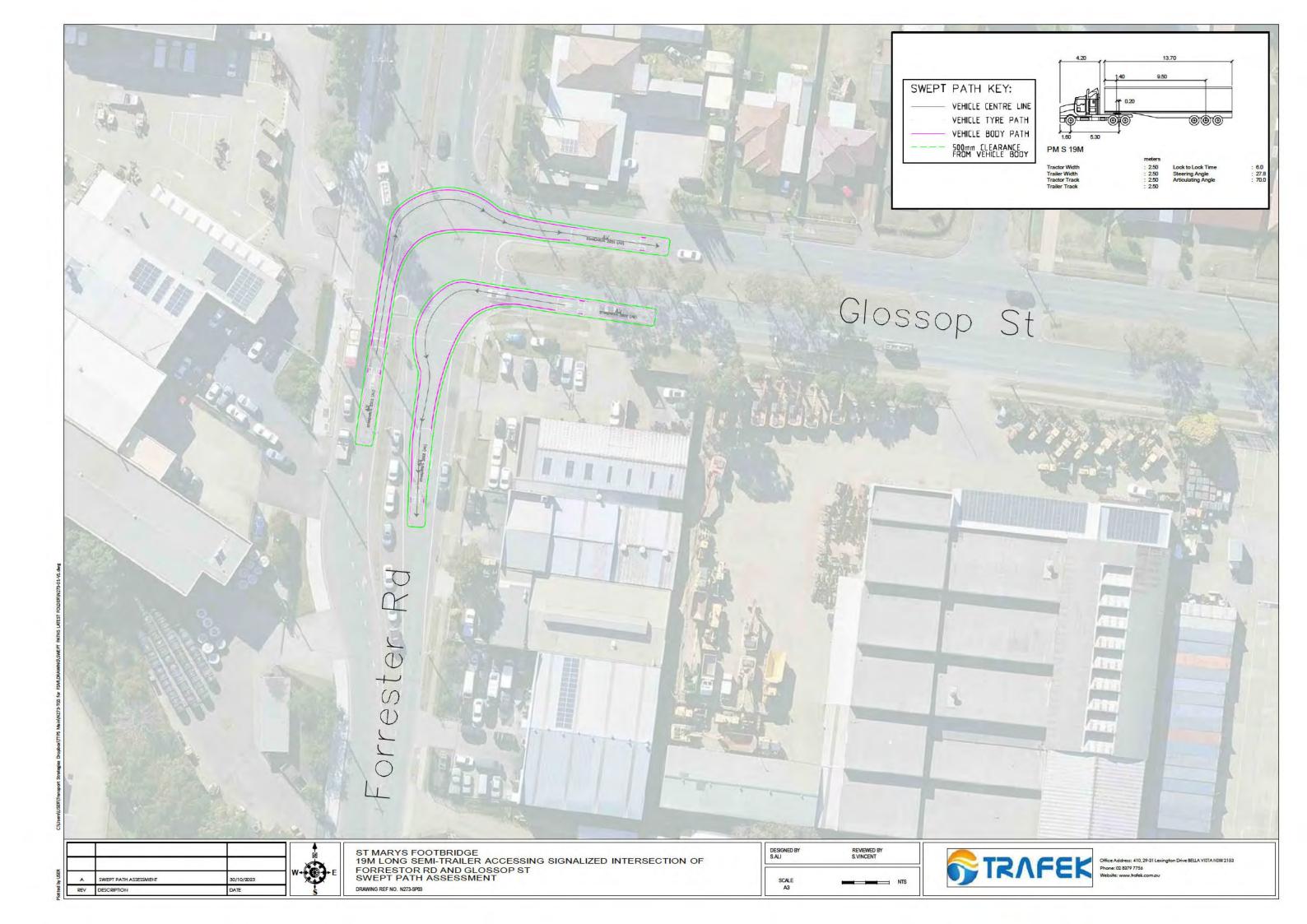


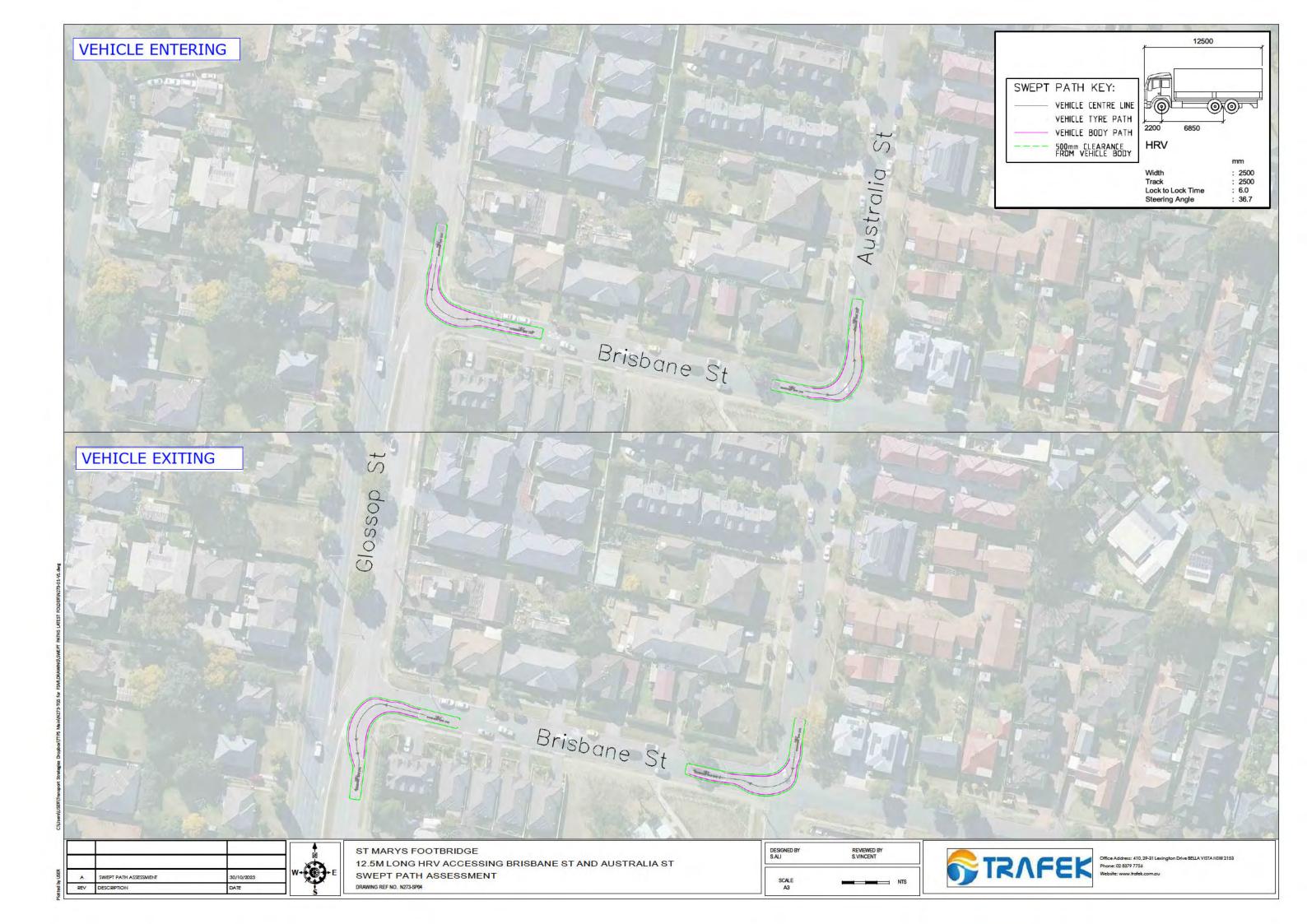
Appendix 4 – Swept Path Assessment

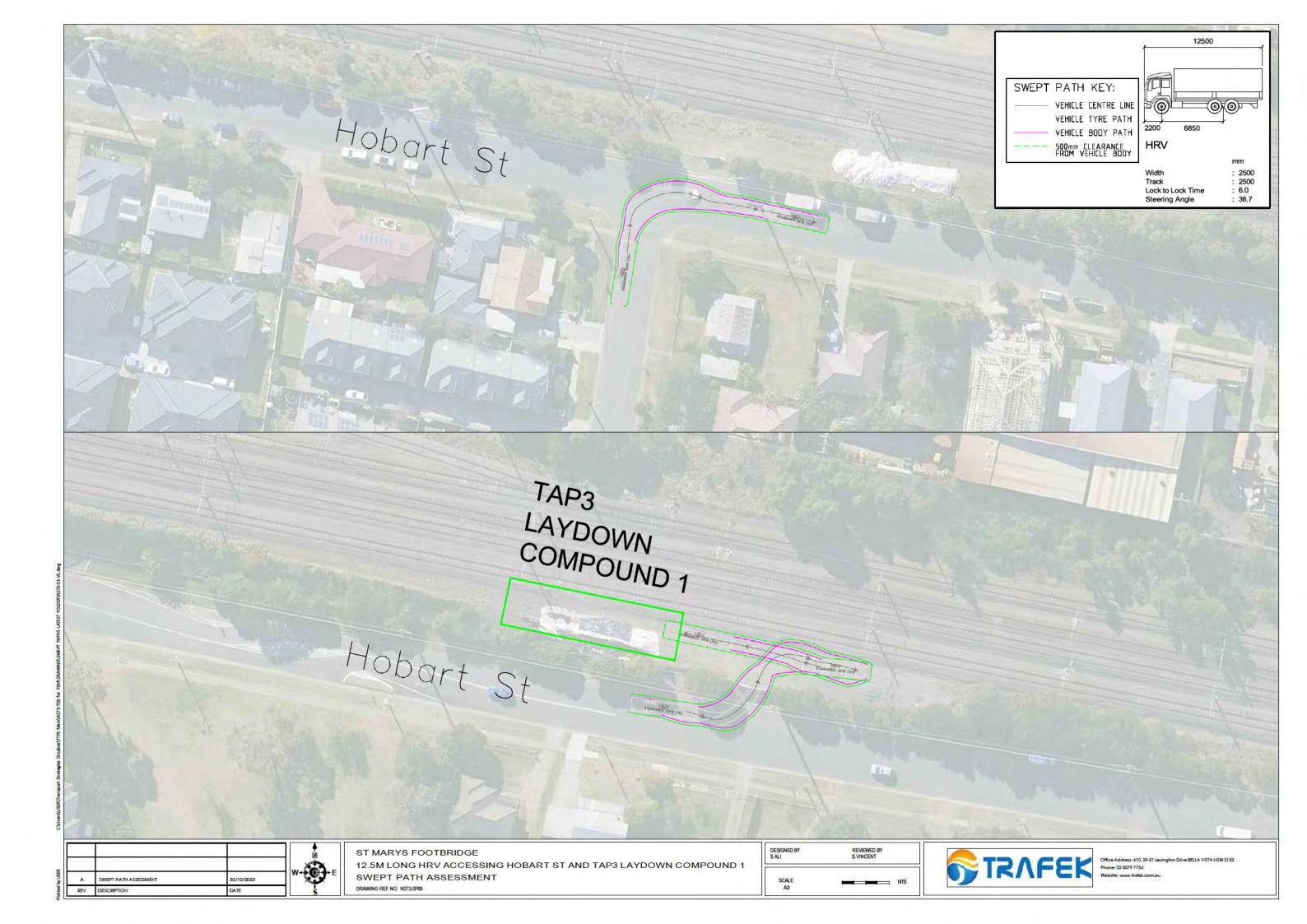


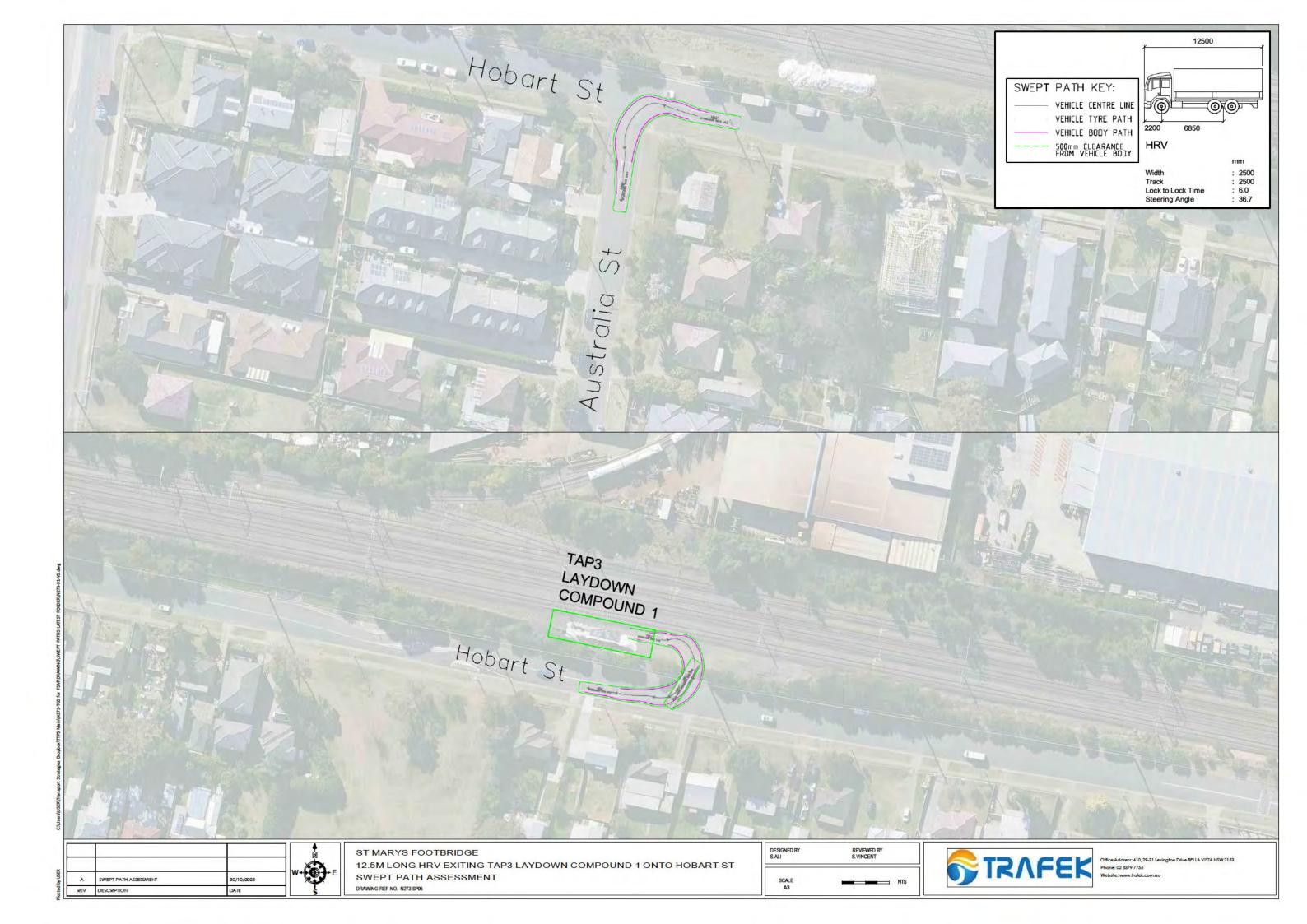


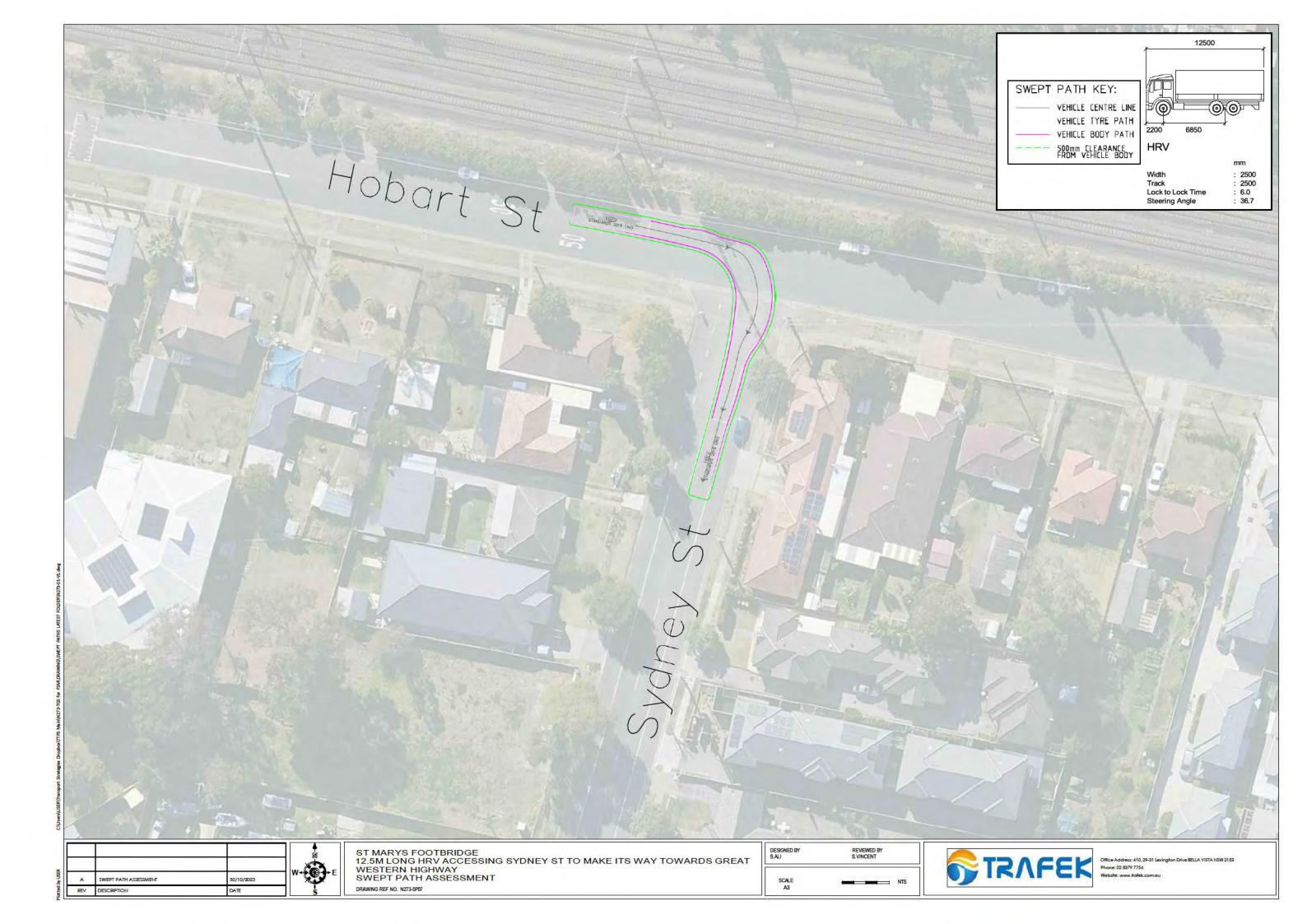


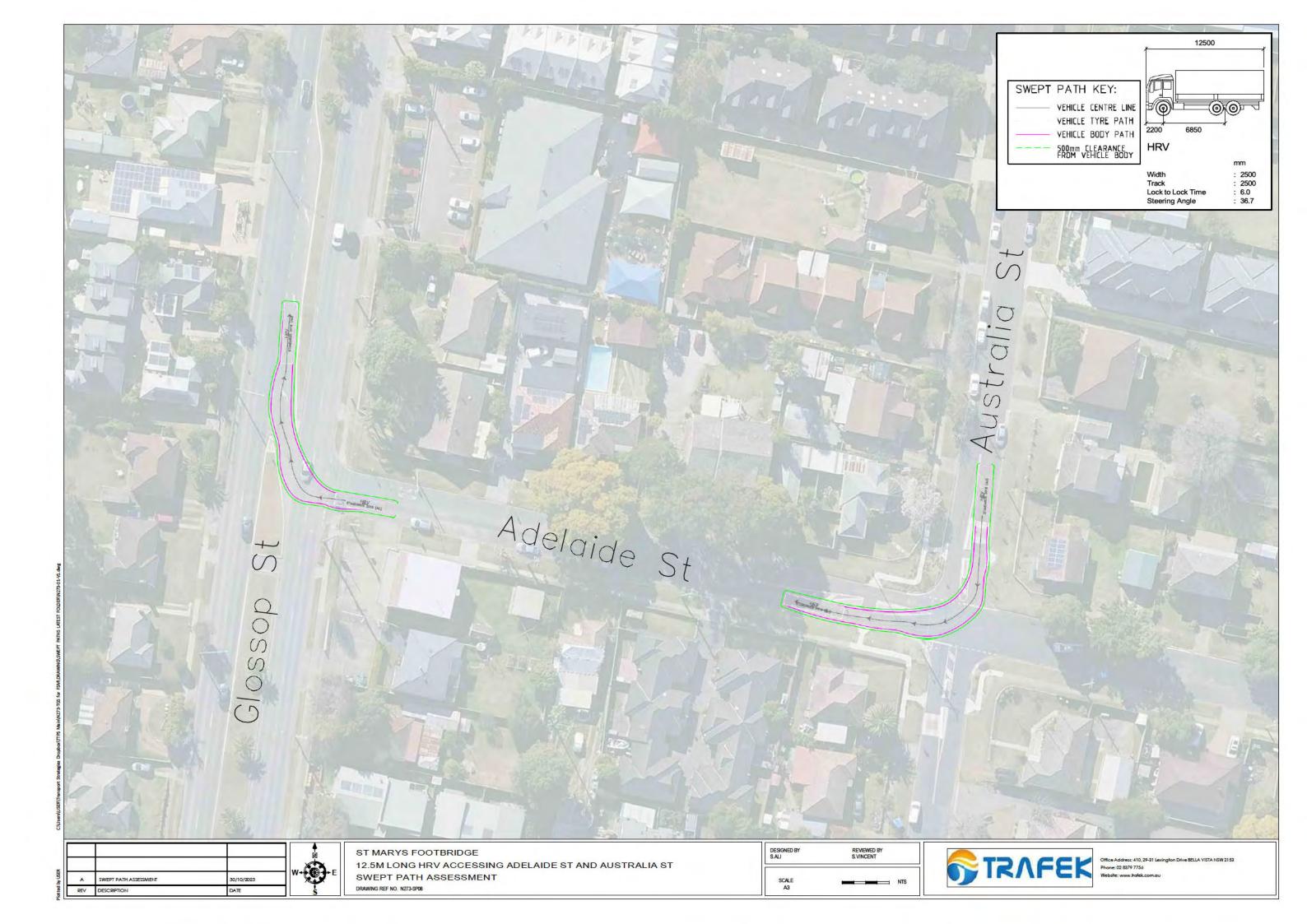


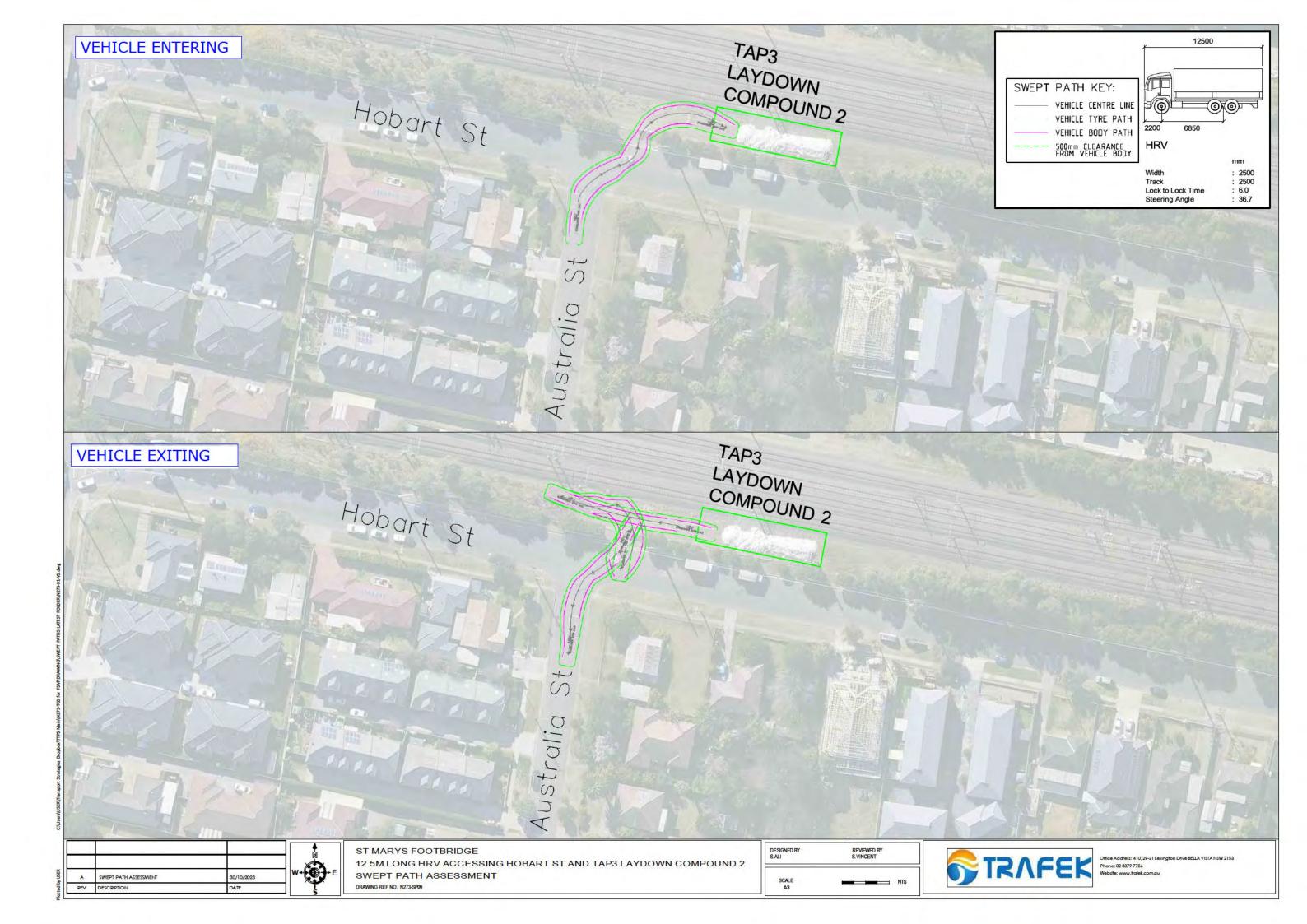












Appendix 5 - Heavy Vehicle Load Report





Footbridge St Marys

Harris Street & Forrester Road Dilapidation Survey

Inspection Date: 21st May 2023

Rev. 0



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1. Introduction

This dilapidation survey report is prepared for Transport for NSW and Sydney Metro Western Sydney Airport on the Penrith City Council assets of Harris Street and Forrester Road. The scope of the dilapidation survey report includes an unobtrusive visual inspection of the road assets. Photographic records of the visible defects are included in the Appendices of this report.

Further dilapidation surveys will be undertaken at Hobart Street, Brisbane Street, Australia Street and Sydney Street prior to the use of any Heavy Vehicles in conjunction with the Project.

2. Methodology

The following methodology was used to compile this condition report.

- Segment the area into workable areas.
 - o Area 1: Council Assets Harris Street eastbound (north)
 - Area 2: Council Assets Harris Street westbound (south)
 - o Area 3: Council Assets Forrester Road entrance to ACFS facility
- Photograph the areas and identify any defects or cracks
- Where appropriate and possible use a crack width gauge
- Photograph the issues and provide a description.

3. Condition Summary

The inspections were undertaken in Harris Street where the full length of the street was documented on both sides, commencing from the north-western corner at the intersection with Forrester Road. There is typical wear and minor damage to the bitumen surface and consistent with normal use on the eastbound side, with the majority of damage being found within the parking bays or at entrances to properties. There is evidence of more significant damage on the westbound side, including the entrance to the hardstand carpark.

In some locations there have been resurfacing which has resulted in cracks at the join of those works to that of the pre-existing surface, particularly at Forrester Road.

The area in Forrester Road was inspected including the footpaths and roundabout. There is typical wear on surfaces as documented.

Particulars are noted against each photograph in the Appendices and colour coded orange where a detailed description of damage is provided.

4. Report Scope

4.1 Standards

This report is based on a Standard Property inspection as defined in Australian Standard AS 4349.2-2018.

The report is completed within the Limitations of the Standard (Clause 1.2) which states A report prepared in accordance with this Standard is not a certificate of compliance of the property within the requirements of the Act, regulation, ordinance, local law or by-law.

Purpose of Inspection (Clause 2.2), which states 'the purpose of the inspection is to provide technical information to the client, an owner prospective purchaser or other interested party regarding the condition of the property at the time of inspection.'

Scope of Inspection (Clause 2.3) which states Clause 2.3.1 – 'the inspection shall comprise visual assessment of the agreed areas of the property to identify all defects at the time of inspection.'



Areas for Inspection (Clause 2.3.2), states 'Safe and reasonable access may be a limiting factor in the definition of the scope of the inspection.'

Areas to be inspected (Clause 3.2) (3.2.1 General) which states 'the inspection shall include the building elements in accessible areas of the property, or as otherwise agreed in the inspection agreement.'

This report is not a warranty that defects do not exist in concealed areas.

4.2 Reliance on Visual Inspection

This Report is based on the results of a visual inspection, and we cannot therefore comment on faults, if any, which are below ground level, covered up, not fully accessible or which had not become apparent at the time of this inspection. The main areas of concern are noted in this report. We have not listed items which are considered petty or minor, nor have we commented where defects do not appear to exist.

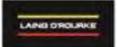
The inspection did not include breaking apart, dismantling, removing or moving objects including personal possessions. The inspector cannot see other areas that are concealed or obstructed.

The inspector did not dig, gouge, force or perform any other invasive procedures.

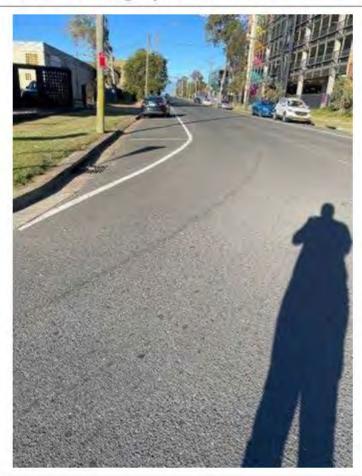
This report does not and cannot make comment upon:

- defects that may have been concealed;
- the assessment or detection which may be subject to the prevailing weather conditions;
- whether or not services have been used for some time prior to the inspection and whether this
 will affect the detection other defects;
- site drainage (apart from surface water drainage);
- durability of exposed finishes;
- any area(s) or item(s) that could not be inspected by the contractor.

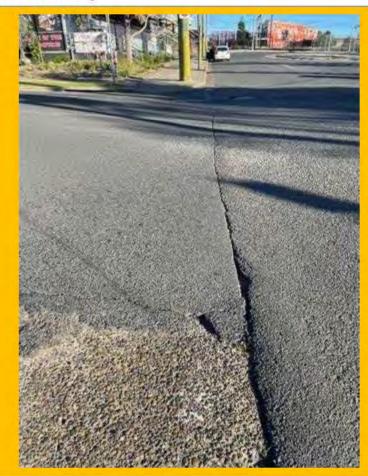
Accordingly, this report is not a guarantee that defects and/or damage does not exist in any inaccessible or partly accessible areas or sections of the property. It must be appreciated that this visual inspection and report can only address defects present and evident at the time of inspection and cannot extend to matters which subsequently materialise at a later stage or occur under different conditions or circumstances.



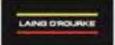
Appendix A – Photographic Record Area 1 – Harris Street (eastbound)



No. 001: Overview of Harris Street from the north-west corner at the intersection to Forrester Road. Survey began from this corner at 10m intervals, which are marked for distance reference.



No. 002: Western end of Harris Street as it abuts Forrester Road. There is a crack at the join in road surfaces at this intersection and minor damage present.

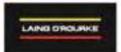




No. 003: View of building and footpath area on the northwest corner. The layback and kerbing are cracked and damaged



No. 004: 10m

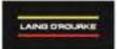




No. 005: Gouge marks on the road surface



No. 006: 20m

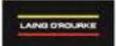




No. 007: Gouge marks on the road surface



No. 008: 25m

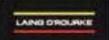




No. 009: 30m. Gouge marks on the road surface



No. 010: 40m





No. 011: Gouge marks on the road surface at approx. 45m



No. 012: 50m. Gouge marks to road surface

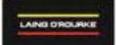




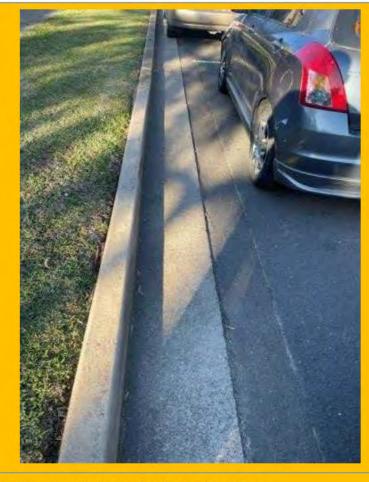
No. 013: 60m. Repairs to road surface across width of street at approx. 62m



No. 014: 70m

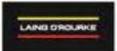






No. 015: 70m

No. 016: 75m. Repairs to road surface at kerbline

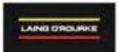




No. 017: Repairs to road surface across width of street at approx. 78m



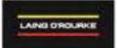
No. 018: 80m







No. 019: 90m No. 020: 100m







No. 021: local repair to road surface from 103m to 108m

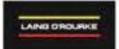
No. 022: 110m

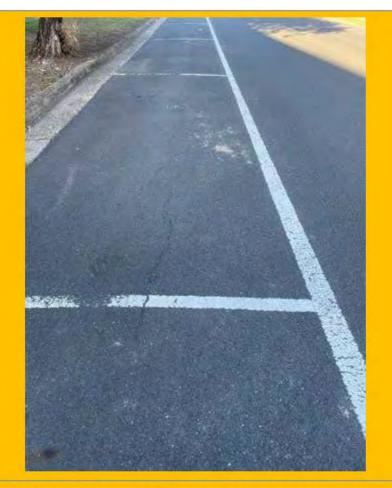






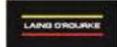
No. 023: 120m No. 024: 130m



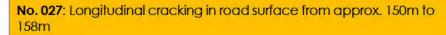


No. 025: Longitudinal cracking in road surface from approx. 135m to 140m

No. 026: 140m

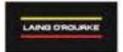




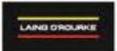




No. 028: Longitudinal cracking in road surface from approx. 158m to 163m



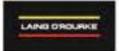






No. 031: Lateral cracking from the kerb toward the centre of the road at approx. 168m

No. 032: 170m

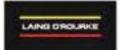






No. 033: damage at entrance to 25 Harris St (180m)

No. 034: 180m

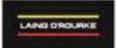






No. 035: 190m

No. 036: cracking in surface at approx. 194, 195m





No. 037: damage radiating out from the layback at entrance to 21 Harris St (197m)



No. 038: 200m



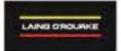








No. 041: 230m No. 042: 240m

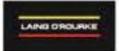






No. 043: 250m

No. 044: depression in surface at approx. 251m

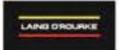




No. 045: gouge marks in road surface at entrance to 19 Harris St (255m)



No. 046: 260m

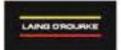






No. 047: cracking at repair to road surface from 261 m to 265m

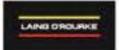
No. 048: cracking in surface at approx. 268m





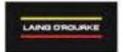
No. 049: 270m

No. 050: cracking in surface from approx. 279m to 283m





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No. 053: 290m

No. 054: longitudinal cracking from 293m to 300m

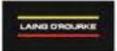






No. 055: longitudinal cracking from 298m to 310m

No. 056: 300m

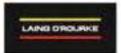




No. 057: longitudinal cracking and damage at entrance to 19 Harris Street (from 298m to 310m)



No. 058: 310m

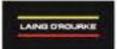


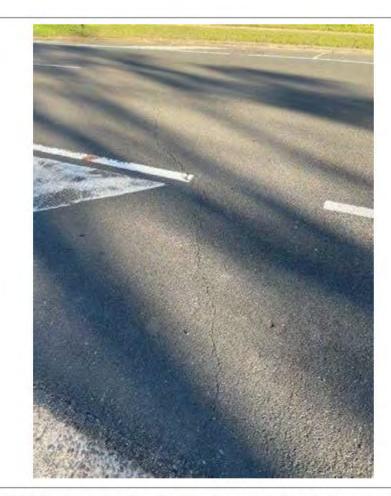




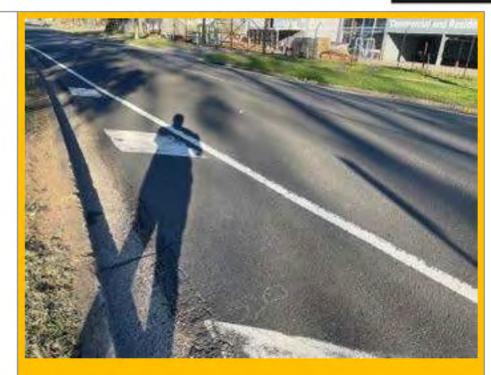
No. 059: lateral cracking at 315m

No. 060: 320m

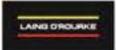








No. 062: 330m. Lateral cracking at kerbline

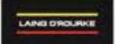




No. 063: 340m. lateral cracking at approx. 341m



No. 064: cracking from centre of road leading toward kerbline at approx. 344m to 352m

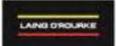






No. 065: 350m

No. 066: continuation of cracking leading to driveway

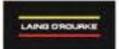




No. 067: damage to road surface at layback to 17 Harris St (356m to 364m)



No. 068: 360m. continuation of damage to road surface at driveway







No. 069: 370m

No. 070: 380m. Pothole in road at approx. 383m







No. 071: 390m No. 072: 400m





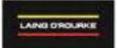
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No. 075: 430m No. 076: 440m

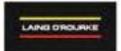






No. 077: cracking parallel to layback at 7 Harris St

No. 078: 450m

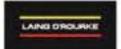






No. 079: cracking in road surface at approx. 456m

No. 080: 460m







No. 081: 470m

No. 082: Repairs to road surface across width of street at approx. 474m

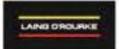






No. 083: 480m

No. 084: 490m





No. 085: 500m. Gouging to road surface at approx. 499m

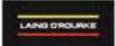
No. 086: 510m

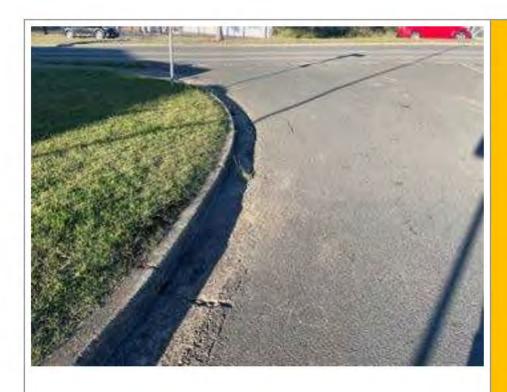






No. 087: 520m No. 088: 530m

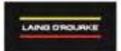






No. 089: 540m

No. 090: Cracking and damage to kerb line at corner at approx. 545m

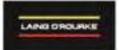




No. 091: longitudinal cracking commencing approx. 3m from intersection at Glossop St



No. 092: Eastern end of Harris Street as it abuts Glossop St. There is a crack at the join in road surfaces at this intersection and minor damage present.



Appendix B – Photographic Record Area 2 – Harris Street (westbound)



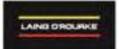
No. 001: Overview of Harris Street from the southeast corner at the intersection to Glossop Street. Survey began from this corner at 10m intervals which are marked for distance reference.



No. 002: varying cracks to the road surface 5m from southeast corner





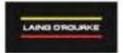




No. 005: 30m

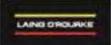


No. 006: general deterioration at 30m and beyond, and gouge marks at approx. 35m

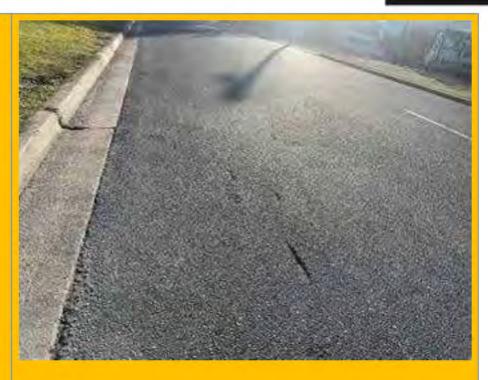




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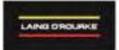






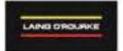
No. 009: gouge marks at 45-50m

No. 010: 50m. varying gouge marks between 50m and 60m





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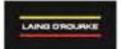






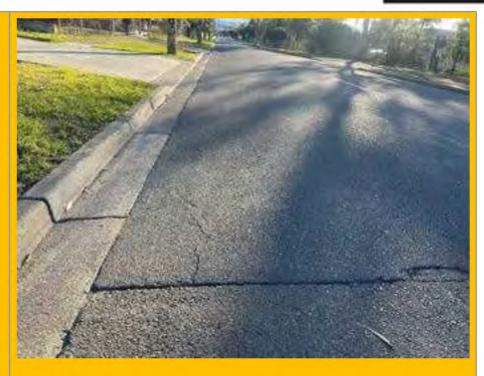
No. 013: 70m

No. 014: repairs to road surface across width of street at approx. 78m

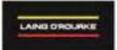




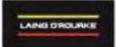




No. 016: 80m. crack adjacent to kerb line





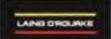




No. 019: multiple longitudinal cracks from approx. 92m and beyond

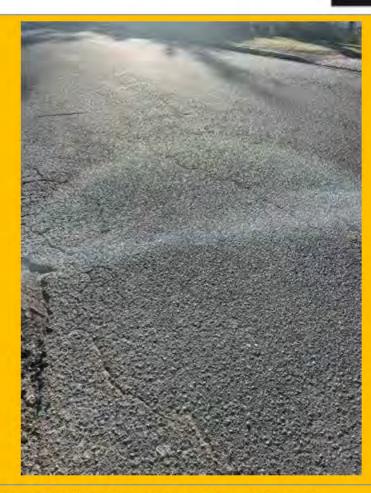


No. 020: 100m. continuation of cracking. Significant damage to road surface and layback at 6 Harris St

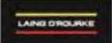


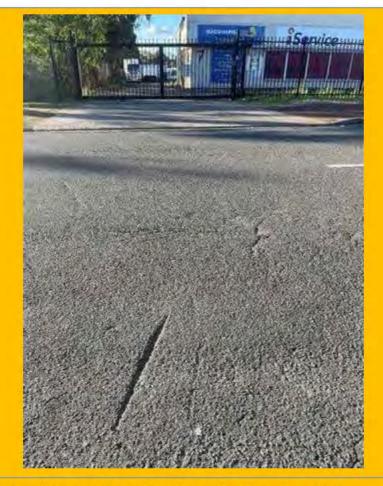


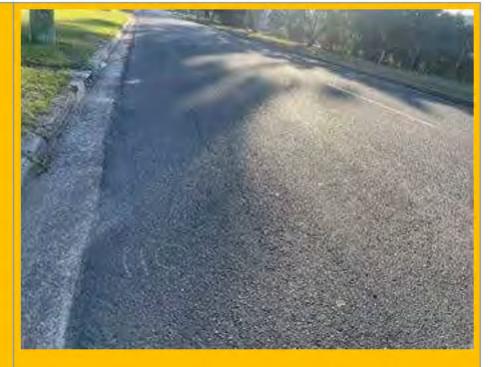
No. 021: damage at 6 Harris St



No. 022: continuation of cracking from 100m and beyond

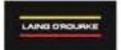






No. 023: multiple gouge marks and cracking at approx. 104m

No. 024: 110m. longitudinal cracking continues



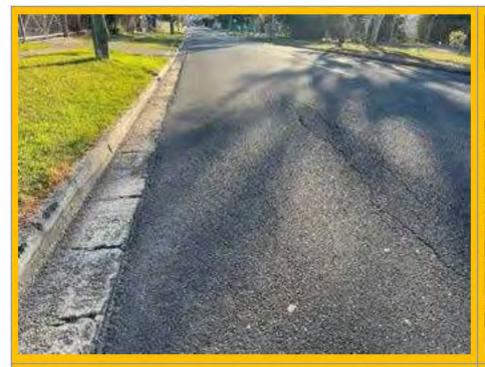




No. 025: continuation of cracking from 110-120m

No. 026: 120m. multiple cracks continuing from 120m and beyond

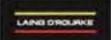




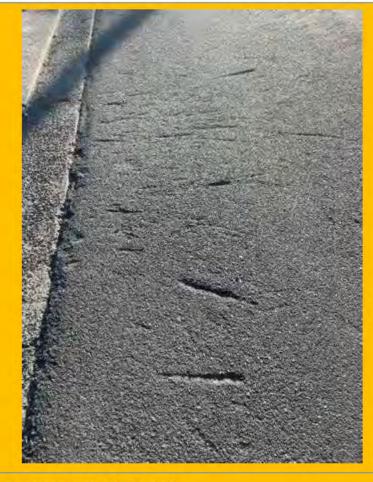


No. 027: 130m. indentation to road surface and cracking continues

No. 028: 140m. continued cracking

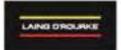






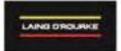
No. 029: multiple gouge marks from layback at 8 Harris St (approx. 145m)

No. 030: gouge marks at 8 Harris St





Footbridge St Marys Harris Street & Forrester Road Dilapidation Survey

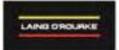




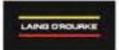
Footbridge St Marys Harris Street & Forrester Road Dilapidation Survey









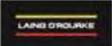


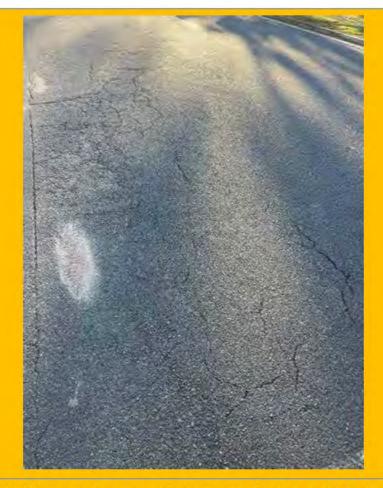


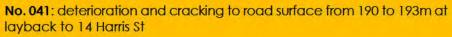


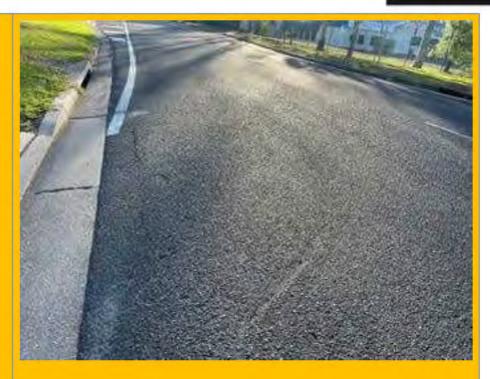
No. 039: damage at layback to 12 Harris St (approx. 183m)

No. 040: 190m

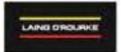








No. 042: 200m. Gouge marks adjacent to eastern layback at 14-16 Harris St

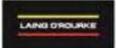






No. 043: longitudinal cracking at road centre at approx. 208m

No. 044: 210m

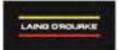




No. 045: cracking and deterioration of road surface from 210m to approx. 217m



No. 046: cracking and deterioration of road surface from 210m to approx. 217m

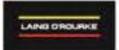






No. 047: 220m

No. 048: road surface repairs and pothole at approx. 229m

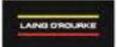




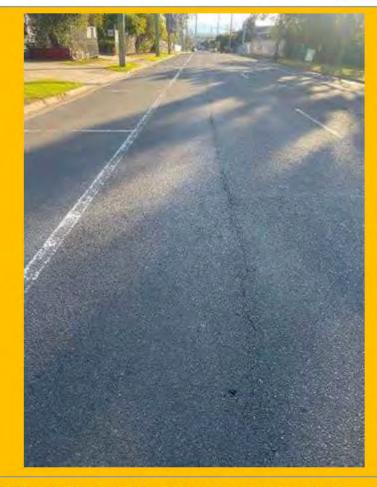


No. 049: 230m

No. 050: cracking to road surface at 239m

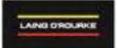






No. 051: 240m

No. 052: longitudinal crack in road centre at join in materials commences from approx. 240m and continues through to approx. 290m

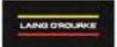






No. 053: continuation of crack in road centre. Minor gouging in parking bay at approx. 245m

No. 054: 250m

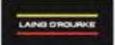


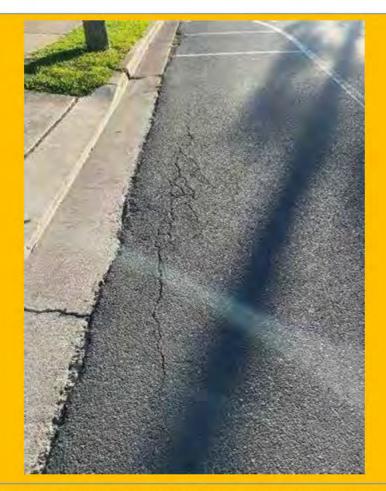




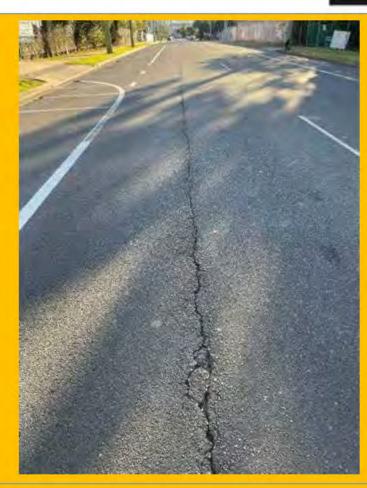
No. 055: continuation of crack in road centre

No. 056: 260m

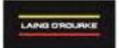




No. 057: cracking and deterioration of road surface at western layback to 14-16 Harris St



No. 058: continuation of crack in road centre

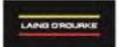




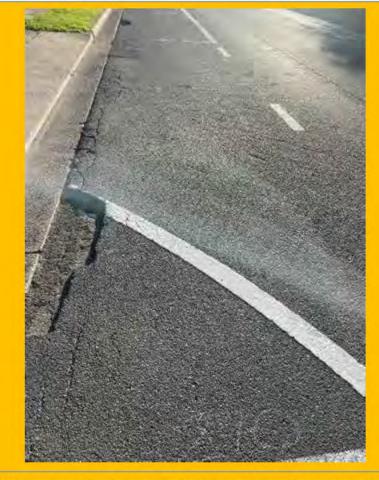
No. 059: continuation of crack and gouging in road surface at approx. 265m



No. 060: deterioration of road surface adjacent to kerb line from 265m to 270m

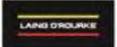






No. 061: 270m

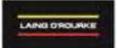
No. 062: damage to road surface at eastern layback to 24 Harris St





No. 063: continuation of crack in road centre

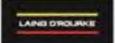
No. 064: gouge marks and damage to road surface at eastern layback to 24 Harris St (photo facing northeast)

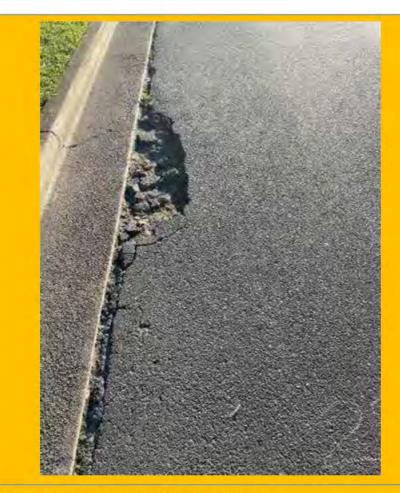




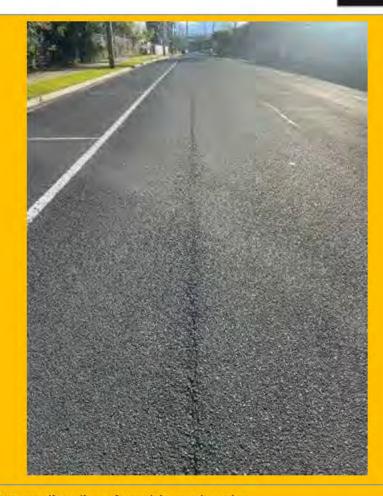
No. 065: gouging toward road centreline at eastern layback to 24 Harris St (approx. 274m)

No. 066: 280m. Damage to road surface at kerb line at 281m

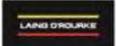




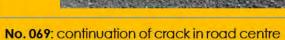
No. 067: Damage to road surface at kerb line

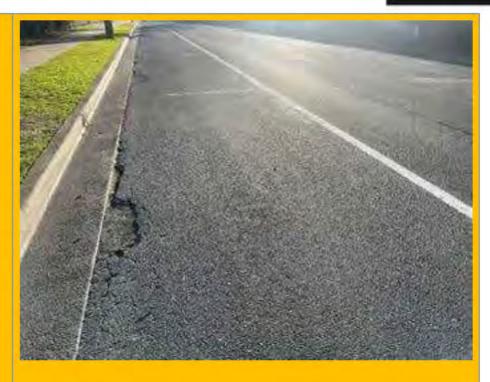


No. 068: continuation of crack in road centre

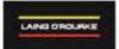








No. 070: damage to road surface at kerb line at approx. 287m

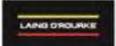




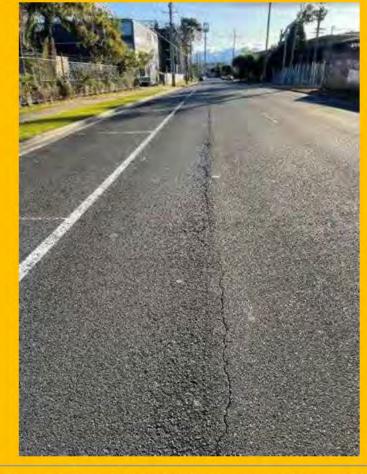
No. 071: 290m



No. 072: cracking at repair to road surface at 290m (further detail included in photo No. 047 of Area 1)

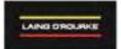






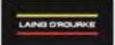
No. 073: damage to road surface at kerb line at approx. 293m

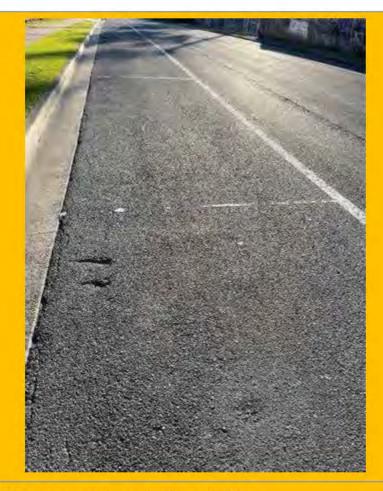
No. 074: cracking in road join materials commences at approx. 297m





Footbridge St Marys Harris Street & Forrester Road Dilapidation Survey

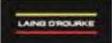




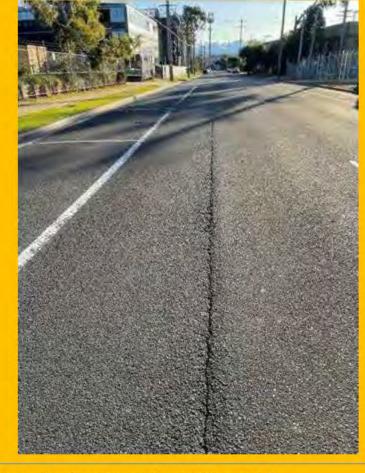
No. 077: gouge marks in road surface at 304m



No. 078: various longitudinal cracking in parking bay road surface from 305m through to approx. 345m

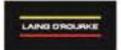






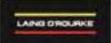
No. 079: 310m. continuation of parking bay surface cracks

No. 080: continuation of crack in road join materials

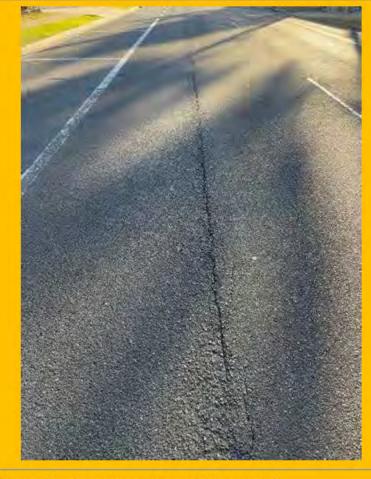




Footbridge St Marys Harris Street & Forrester Road Dilapidation Survey

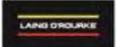




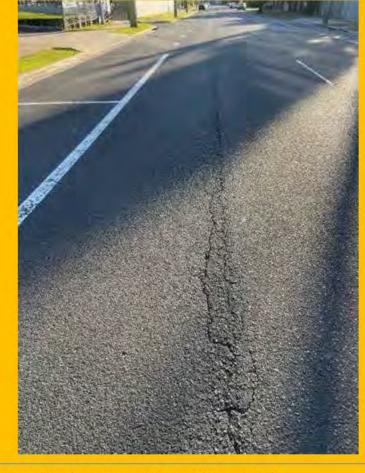


No. 083: repairs undertaken to damage on kerb line at 320m

No. 084: continuation of crack in road join materials

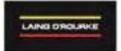






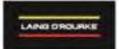
No. 085: 330m. continuation of parking bay surface cracks

No. 086: continuation of crack in road join materials





Footbridge St Marys Harris Street & Forrester Road Dilapidation Survey









No. 090: 350m

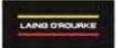






No. 091: damage and surface cracks at 355m

No. 092: overview of entry to the at grade station car park

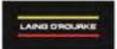






No. 093: 360m. Deterioration from the join in materials leading to car park

No. 094: significant damage to car park entrance

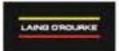




No. 095: deterioration of road surface repairs



No. 096: 370m. deterioration to road surface radiating west from car park entrance

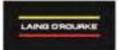






No. 097: lateral cracking to road centreline at 375m

No. 098: 380m

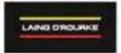






No. 099: 390m

No. 100: depression at manhole cover at 395m

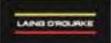




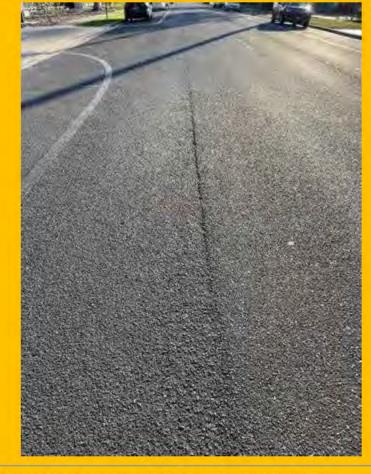


No. 101: crack in road join materials

No. 102: 400m

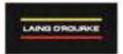






No. 103: 410m. deterioration of road surface in parking bays

No. 104: crack commences at join in road materials at 415m

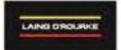






No. 105: 420m

No. 106: 430m

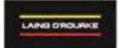






No. 107: deterioration of road surface in parking bays at 436m

No. 108: 440m

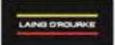


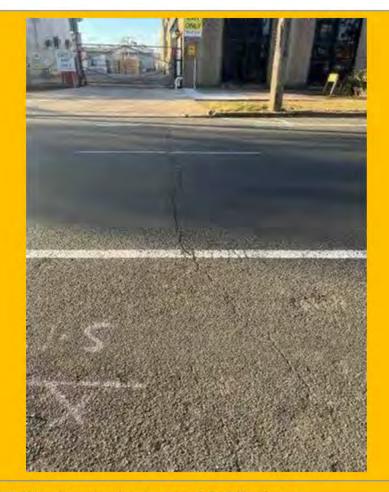




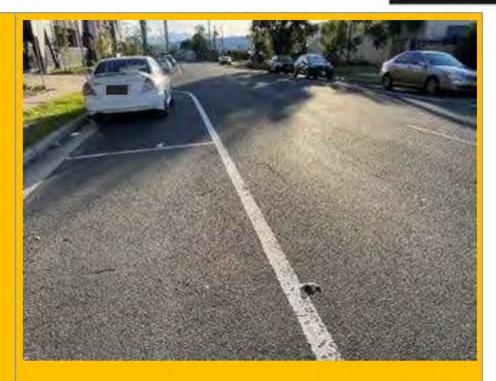
No. 109: various cracks parallel to kerb line from approx. 445m

No. 110: 450m. lateral crack extends across full width of road

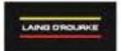




No. 111: lateral crack extends across full width of road



No. 112: 460m. crack in road surface toward parking bay at approx. 463m

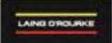




No. 113: continuation of crack in parking bay road surface at approx. 465m

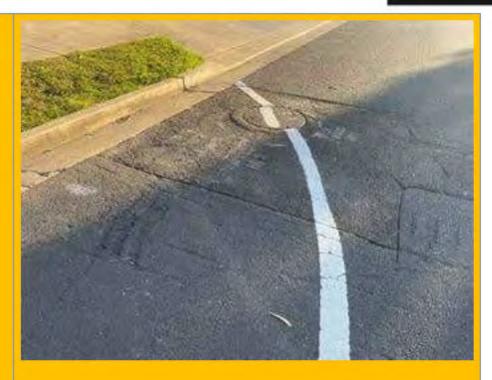


No. 114: 470m

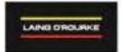




No. 115: depressions and cracking in road surface repairs extending across full width of road at 472m



No. 116: deterioration of road surface at repair joints at 472m

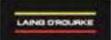






No. 117: gouging to road surface at 476m

No. 118: 480m

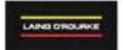






No. 119: 490m

No. 120: cracking and repairs to road surface extending across full width of road at 491 m

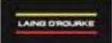






No. 121: 500m

No. 122: indentation in parking bay road surface at 503m

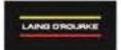






No. 123: 510m

No. 124: damage to road surface and kerb line at 512m

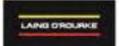






No. 125: 520m. repairs to road surface in parking bay

No. 126: 530m

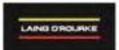




No. 127: 540m

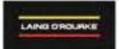


No. 128: cracking to road surface parallel to stormwater drain and at joins in road materials for previous repairs





No. 129: depression and cracking to road surface at joins in road materials for previous repairs



Appendix C – Photographic Record Area 3 – Forrester Road



No. 001: Deterioration to road surface from intersection to Harris Street across full width of Forrester Road, viewed from Harris St.



No. 002: Deterioration to road surface from intersection to Harris Street across full width of Forrester Road, viewed from ACFS/Pacific National facility entrance (2 Forrester Rd)



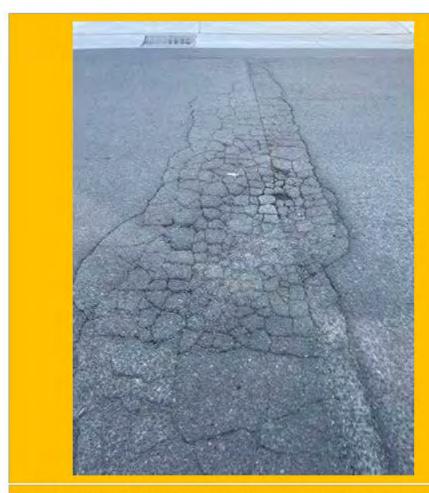




No. 003: damage to road surface at manhole cover

No. 004: deterioration and cracking of previous repairs to road surface





No. 005: deterioration and cracking of previous repairs to road surface

Appendix 6 – Road Safety Audit







Sydney Metro West Sydney Airport Enabling Works – St Marys TAP 3 Pedestrian Footbridge

Design CTMP Road Safety Audit Report

February 2023

SAMSA CONSULTING

TRANSPORT PLANNING & TRAFFIC ENGINEERING

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EXECUTIVE SUMMARY

This report details an independently undertaken road safety audit of the design CTMP for the Sydney Metro West Sydney Airport Enabling works, specifically the TAP 3 pedestrian footbridge at St Marys rail station.

While a number of minor risk road safety issues were identified, the principal concern of the audit team relates to the following issue:

• For both left-in and left-out movements at the construction site access as well as the leftturn movement into Harris Street from Glossop Street, longer vehicles will need to utilise the opposite travel lanes, which is undesirable.

Introduction 1.

1.1 **Background**

The Sydney Metro – Western Sydney Airport project comprises a new 23-km railway line that will link the new Western Sydney Aerotropolis business hub and Airport to the south, with the rest of Sydney's public transport network via St Marys to the north. The Project includes six new metro stations along the route including one at the Western Sydney Aerotropolis, two at the new Airport site, and one each at Luddenham, Orchard Hills and St Marys.

Enabling works at the existing St Marys railway station are required to prepare for the for the construction of the new Metro Station at St Marys. The Enabling Works component has been awarded to, and will be undertaken by, Transport for Tomorrow (TfT). Case Traffic Solutions (CTS) are preparing construction traffic management plan (CTMP) documentation for the works

1.2 **Subject Project Works**

The St Marys footbridge package scope of works includes:

- Construction of a new intermodal footbridge at the eastern end of the station, connecting the existing Sydney Trains St Marys Station to the proposed Sydney Metro St Marys Station, with a new Northern Portal providing access to Harris St to the north.
- Construction of four new 27-person lifts providing step-free access from the footbridge to the existing station platforms.
- Construction of four new escalators for access from the footbridge to the existing station platform.
- Construction of two new staircases for access to the existing station platforms.
- Construction of the Northern Portal, providing access from the footbridge to Harris St via a new staircase and one 33-person lift.
- Construction of a three-storey Sydney Trains facilities building adjacent to the Northern Portal, including a new electrical main switch room, HVAC, communications room, and station staff facilities.
- Provision of new fire safety systems for the facilities building, lifts and footbridge.
- Regrading of platforms for accessible path, localised to the proposed works.
- Replacement of existing platform tactiles
- Installation of new canopies to the proposed stairs, escalators, and footbridge.
- Alterations and additions to the existing lighting on Harris St to suit the new entry.
- Hard and soft landscaping to station entrance and surrounds.

The location of the subject project area is shown in *Figure 1* following.



Figure 1: St Marys TAP 3 Project Area

The primary objectives and principles of the CTMP are:

- Keep traffic delays to a minimum.
- Minimise disruption to businesses.
- Minimise disturbance to the environment.
- Ensure traffic impacts are within the scope permitted by Local Council and CJP.
- · Ensure the safety of employees, contractors and road users.

This road safety audit report details an independently undertaken road safety audit of the design CTMP for the Sydney Metro West Sydney Airport Enabling works, specifically the TAP 3 pedestrian footbridge at St Marys rail station. The road safety audit was undertaken by Samsa Consulting Pty Ltd, Transport Planning & Traffic Engineering Consultants.

1.3 Report Structure

The remainder of this report is presented as follows:

Chapter 2 describes details of the audit undertaken including the methodology, administration and documentation audited.

Chapter 3 details the road safety issues identified and audit findings.

Chapter 4 provides a formal audit statement.

2. Audit Details

2.1 Audit Methodology

A road safety audit is "... a formal examination of a future road or traffic project or an existing road, in which an independent, qualified team reports on the project's crash potential and safety performance" (Austroads 2009).

This audit followed a standard practice in identifying road safety related issues of a design CTMP. It involved a desktop assessment of the design CTMP documents with reference to any background issues on site during previous day and night inspections.

The road safety audit focussed on road safety issues such as temporary warning signage and linemarking, delineation, work site accesses, pedestrian facilities, sight distances, appropriateness of traffic control for the predicted traffic volumes, and overall road legibility adjacent and through proposed work zones (amongst other issues).

The scope of the audit is in accordance with the requirements in Austroads' "Guide to Road Safety, Part 6" and is structured around prompt lists provided in that manual as well as RTA's "Accident Reduction Guide – Part 2: Road Safety Audits".

An audit entry meeting was held with the CTS Senior Traffic Engineer prior to the audit, where background information on the design CTMP and project area were discussed.

The site inspections were undertaken on Friday 17 February 2023. An audit exit meeting was held at the completion of the road safety audit report.

2.2 Audit Administration

CTS Project Director:

CTS Senior Traffic Engineer:

Road Safety Auditors:

2.3 References & Documentation Audited

- Austroads "Guide to Road Design Part 3: Geometric Design (Edition 3.4)", February 2021
- Austroads "Guide to Road Design Part 4: Intersections and Crossings General (Edition 2.1)", February 2021
- Austroads "Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Edition 3.1)", February 2021
- Austroads "Guide to Road Safety, Part 6: Road Safety Audit (Edition 6.0)", January 2022
- RTA "Accident Reduction Guide Part 2: Road Safety Audits", 2005
- RTA "Road Safety Audit Technical Direction TD2003/RS03, Version 2", August 2005
- RTA "Delineation Guidelines: Parts 1 to 19 & Appendices A & B", assorted dates

- RTA "Guidelines for Road Safety Audit Practices Part 1: Road Safety Audit", July 2011
- Standards Australia "AS 1742.1 2003: Manual of uniform traffic control devices, Part 1: General introduction and index of signs", 2003
- Standards Australia "AS 1742.3 2009: Manual of uniform traffic control devices, Part 3: Traffic control for works on roads", 2009
- Transport for NSW "Traffic Control at Work Sites, Technical Manual Issue 6.0", 14
 September 2020
- Transport for Tomorrow / Case Traffic Solutions "Harris Street Between Glossop Street to Forrester Road, Package 01 TAP 3 – Pedestrian Footbridge, Temporary Works, Traffic Plan (Dwg No's STM-LORCASE-TW-DRG-0000 to 0002)", 15/02/2023
- Transport for Tomorrow / Case Traffic Solutions "Harris Street Between Glossop Street to Forrester Road, Package 01 TAP 3 Pedestrian Footbridge, Temporary Works Turning Paths, Traffic Plan (Dwg No's STM-LORCASE-TW-DRG-0001 to 0002)", 15/02/2023

3. Identified Road Safety Issues

The audit of the design CTMP focussed on providing an independent identification of potential safety hazards, regardless of current practices, standards and operations, to allow *CTS* and *TfT* to identify remedial measures as part of the Project preparation.

In categorising and prioritising identified road safety issues, a risk assessment process was adopted. Risk assessment is the overall process of risk identification, analysis and evaluation. Preliminary risk ratings for each identified road safety issue are assessed based on subjective professional judgement by the Road Safety Audit team with guidance from Section 10.5 of Austroads "Guide to Road Safety, Part 6: Road Safety Audit". The Austroads' document provides an indication of the level of risk and what response may be appropriate. The identified road safety issue is first categorised based on its likely frequency of occurrence and severity ('likelihood' and 'consequence' of crash potential) – refer to Figures 3.1 and 3.2 below (extracted from the Austroads' document).

Crash frequency	Description
Frequent (F)	Once or more per week
Probable (P)	Once or more per year but less than once per week
Occasional (O)	Once every five to ten years
Improbable (I)	Less than once every ten years

Figure 3.1: Likely Frequency of Issue

Severity	Description	Examples		
Catastrophic (C)	Likely multiple deaths	High-speed, multi-vehicle crash on a freeway Car runs into crowded bus stop Bus and petrol tanker collide Collapse of a bridge or tunnel		
Serious (S)	Likely death or serious injury	High or medium-speed vehicle / vehicle collision High or medium-speed collision with a fixed roadside object Pedestrian struck at high speed Cyclist is hit by a car.		
Minor (M)	Likely minor injury	Some low-speed vehicle collisions Cyclist falls from bicycle at low speed Left-turn rear-end crash in a slip lane		
Limited (L)	Likely trivial injury or property damage only	Some low speed collisions Pedestrian walks into object (no head injury) Car reverses into post		

Figure 3.2: Likely Severity of Issue

An appropriate risk rating is then selected from the risk categories in the risk matrix with a preferred treatment approach for each risk rating (refer to *Figures 3.3* and *3.4* below, both extracted from Austroads).



Figure 3.3: Risk Matrix

Risk	Suggested treatment approach
Intolerable (I)	Must be corrected
High (H)	Should be corrected or the risk significantly reduced, even if the treatment cost is high
Medium (M)	Should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high
Low (L)	Should be corrected or the risk reduced, if the treatment cost is low

Figure 3.4: Treatment Approach

This report may provide recommendations about possible remedial measures in response to identified deficiencies. Any remedial actions recommended are based on current standards and practices. However, it should be noted that it is ultimately the responsibility of *CTS / TfT* to determine how to respond to each identified road safety deficiency.

The audit of the design CTMP identified a number of potential road safety issues. The safety audit process requires that the road safety issues identified during an audit be acknowledged by the Audit Team and accordingly responded to by *CTS / TfT*. The issues are characterised according to their risk, and detailed in *Table 3.1* following.

It should be noted that not all road safety issues identified may necessarily be within the scope of the design area. This is because while the scope of the audit is generally within the project area described earlier, to complete a full audit of the project, the approaches and transitions to the project area were also audited to identify potential issues that may affect road safety within the project area. Therefore, some road safety issues that are outside the project area may be the responsibility of the relevant controlling road authority.

Table 3.1: Identified Road Safety Issues

	Description of Road Safety Issue	Risk Rating	For completion by CTS / TfT		
No.			Response	Action by	Close- Out Date
1.	For both left-in and left-out movements at the construction site access as well as the left-turn movement into Harris Street from Glossop Street, longer vehicles will need to utilise the opposite travel lanes, which is undesirable and may require controlled traffic management.		Traffic controllers will assist with the proposed ingress and egress of construction vehicles into the proposed work zone area/compound. Laing O'Rourke / nominated traffic control company will coordinate future deliveries and HV movements close to the close traffic intersection.	Laing O'Rorke /TAP3	20/02/20 23
	SACRES ST				

	Description of Road Safety Issue	Risk Rating	For completion by CTS / TfT		
No.			Response	Action by	Close- Out Date
2.	For the eastbound approach along Harris Street, the advance 'construction vehicles turning' sign incorrectly indicates '60 m on Right' with the site access being significantly less than 50 m downstream. Moreover, this signage may be superfluous because the drawings appear to indicate left-in / left-out only movements from the site access, which would not affect eastbound travel.	Low	Noted. Drawing updated showing signage relocated.	CASE	20/02/20 23

			For completion by CTS / TfT		
No.	Description of Road Safety Issue	Risk Rating	Response	Action by	Close- Out Date
3.	The issue of sun-glare during certain periods of the year at sunrise and sunset may be applicable to the general east-west alignment along the Harris Street approaches to the subject work site access. Consequently, the temporary traffic conditions including signage and delineation may be difficult to sight due to sun glare.	Low - Medium	Laing O'Rourke /TAP3 will assess and check if further line marking refresh / RRPM installation and signage maintenance are required in order to avoid sun-glare issues on site.	Laing O'Rorke /TAP3	20/02/20 23

4. Formal Audit Statement

This road safety audit has been undertaken by Samsa Consulting Pty Ltd, using the references and documentation detailed previously and site inspections of the subject project area during daylight and night conditions.

While the road safety audit may provide recommendations about possible remedial measures in response to identified road safety issues, it is ultimately the responsibility of *CTS / TfT* to determine how best to respond to each identified safety issue.

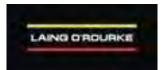
The road safety audit has been undertaken for the sole purpose of identifying any safety-deficient features and road safety risks of the design CTMP. Every effort was made to ensure that all relevant road safety issues were considered and the findings are the opinion and judgement of the audit team.



Transport Access Program 3 | Footbridge St Marys MCC 150511-STM-PM-PLN-00015: Construction Traffic and Pedestrian Management Plan

Appendix 7 – VMS Strategy





Portable VMS Strategy

TAP 3 footbridge works / St Marys

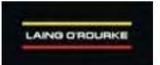
Project manager/ engineer:

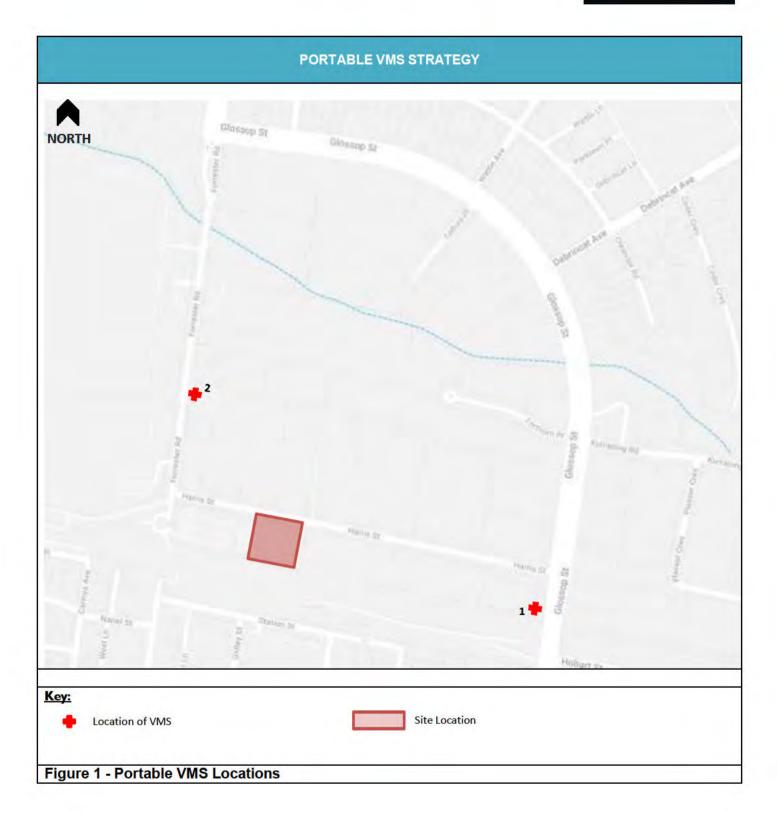
Traffic Engineer:

Rev #: 00

Date: 23/02/2023

Strategy Dates: TBC







1. Glossop St northbound lanes

Pre-Occupation: 0:00AM DATE to 0:00AM DATE

Message 1 Message 2

HARRIS ST (DAY)
ROAD (DATE)
WORKS (TIME)

During-Occupation: 0:00AM DATE to 0:00AM DATE

Message 1 Message 2

HARRIS ST USE
ROAD CAUTION
WORKS

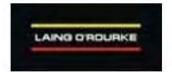
Location Photo:



Notes:

To be located on the western shoulder of Glossop St facing northbound traffic. After Glossop St rail bridge.

Size C VMS Board to be provided.



2. Forrester Rd southbound lanes

Pre-Occupation: 0:00AM DATE to 0:00AM DATE

Message 1 Message 2

HARRIS ST (DAY)
ROAD (DATE)
WORKS (TIME)

During-Occupation: 0:00AM DATE to 0:00AM DATE

Message 1 Message 2

HARRIS ST USE
ROAD CAUTION
WORKS

Location Photo:



Notes:

To be located on the eastern shoulder / parking spot of Forrester Rd facing southbound traffic. After 65-67 Forrester driveway.

Size C VMS Board to be provided.