Marrickville Metro Shopping Centre Redevelopment - Stage 1B

Construction Traffic Management Plan

Prepared for:

AMP Capital Investors

13/10/2017

The Transport Planning Partnership

E: info@ttpp.net.au

Marrickville Metro Shopping Centre Redevelopment - Stage 1B

Construction Traffic Management Plan

Client: AMP Capital Investors

Version: Final

Date: 13/10/2017

TTPP Reference: 16065

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
Final	13/10/17	Lalaine Malaluan	Michael Lee	Michael Lee	

Table of Contents

Tables

Figures

APPENDICES

1 Introduction

1.1 Background

This construction traffic management plan (CTMP) has been prepared by The Transport Planning Partnership (TTPP) on behalf of AMP Capital Investors (AMP) in support of a Section 75W Modification Application of the Major Project Approval MP09_0191, for the expansion of the Marrickville Metro Shopping Centre (the Site).

Marrickville Metro Shopping Centre (Centre) is an existing sub-regional shopping centre located within the Inner Sydney suburb of Marrickville. The existing Centre is located at 34 Victoria Road, Marrickville with a land area of approximately 3.57 hectares.

This CTMP has been prepared to assess the traffic and transport implications of the proposed Stage 1B construction works including the proposed road works on Edinburgh Road and Smidmore Street.

It is noted that a Principal Contractor has not yet been appointed and therefore, details provided in this CTMP may change. Any changes proposed by the appointed contractor will require further approval from the relevant consent authorities.

1.2 Purpose of this CTMP

This CTMP addresses the traffic and transport implications during the Stage 1B construction phase of the development. The overall principles of traffic management during construction include:

- manage access to/from adjacent properties,
- restrict construction vehicle movements to designated routes to/from the site,
- manage and control construction vehicle activity in the vicinity of the site,
- provide an appropriate and convenient environment for pedestrians and cyclists,
- minimise the impact on pedestrian movements,
- maintain appropriate capacity for pedestrians at all times on footpaths adjacent to the site,
- maintain appropriate public transport access, and
- carry out construction activity in accordance with the approved work hours.

The report has been prepared and checked by engineers who hold the RMS Select/ Modify Traffic Control Plans (Red Card) and Design and Inspect Traffic Control Plans (Orange Card) certification that are currently titled as Prepare a Work Zone Traffic Management Plan (PWZTMP).

2 Existing Conditions

2.1 Description of the Site

Marrickville Metro is a sub-regional shopping centre located at 34 Victoria Road, Marrickville which is approximately 7km from the Sydney CBD. The Centre can be accessed via vehicle parking ramps on Smidmore Street and Murray Street, and pedestrian entries on Victoria Road and Smidmore Street.

The expansion to the shopping centre involves the construction of a new four level building on the site at 13-55 Edinburgh Road, Marrickville. This site is located on the opposite side of Smidmore Street to the south. The site is presently occupied by a two-storey factory/warehouse building.

The location of the subject site and its surrounding environs is shown in Figure 2.1.

Figure 2.1: Subject Site Location

Source: Google Maps Australia

2.2 Surrounding Road Network

The subject site is surrounded by a number of local roads including Edinburgh Road, Victoria Road, Murray Street and Smidmore Street.

A brief description of these roads is provided below.

Edinburgh Road

Edinburgh Road is a two-way, local road with typically one lane in each direction with kerbside parking (combined unrestricted and time restricted parking), excepting auxiliary lanes at intersections via "No Stopping" restrictions and turning bays. It is located to the south and south-west of the Edinburgh Road site. It is signposted as 50km/h and carries up to approximately 800 vehicles per hour (vph) during the peak periods.

Victoria Road

Victoria Road, adjacent to the site is a two-way, local road. It aligns in an east-west direction along the northern boundary of the existing site. It is configured with one lane in each direction with kerbside parking (combined unrestricted and time restricted parking). Victoria Road near the western boundary of the existing Centre forms two cul-de-sacs. Only emergency vehicles are permitted to travel through the cul-de-sacs. Victoria Road is 50km/h road.

Murray Street

Murray Street is a local road aligned in a north-south direction and is situated along the eastern boundary of the site. It is a two-way road with kerbside parking (combined unrestricted and time restricted parking). Access into the existing site's car park and loading area is available from Murray Street. Murray Street is a 50km/h road.

Smidmore Street

Smidmore Street is a local road aligned in an east-west direction. It is located between the existing Marrickville Metro site and proposed Stage 1B building. It is configured as a two-way local road with unrestricted kerbside parking. Smidmore Street provides an access into the existing car park. Smidmore Street is a 50km/h road.

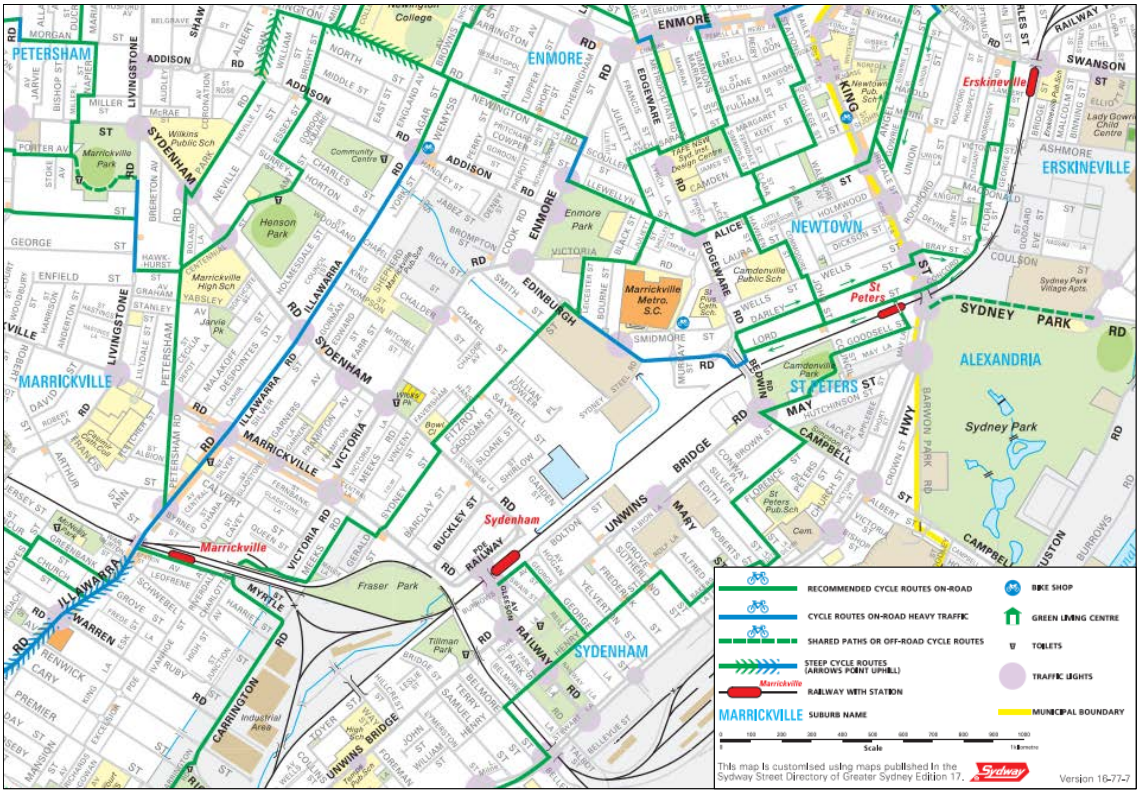
2.3 Pedestrian and Cycling Facilities

A well-established pedestrian network is provided within the vicinity of the subject site. Paved footpaths are provided on both sides of the roads within the vicinity. Pedestrian cross walk lines, zebra crossing and median refuge islands are also observed around the site area.

Existing cycling facilities around the site includes bicycle parking racks located on Smidmore Road at adjacent to the existing bus stop along Marrickville Metro.

Cycling routes to the site are generally on-road on local roads as shown in Figure 2.2.

Figure 2.2: Cycle Network



Source: https://www.marrickville.nsw.gov.au/en/community/transport-and-infrastructure/cycling/, accessed 04/09/17

2.4 Public Transport Services

The Centre is within close proximity to frequent bus and train services. A bus stop located at the Centre's doorsteps on Smidmore Street along the southern boundary of the existing site. St Peters Railway Station is located within a 10-minute walk to the east and Sydenham Railway Station which is located within a 15-minute walk to the south.

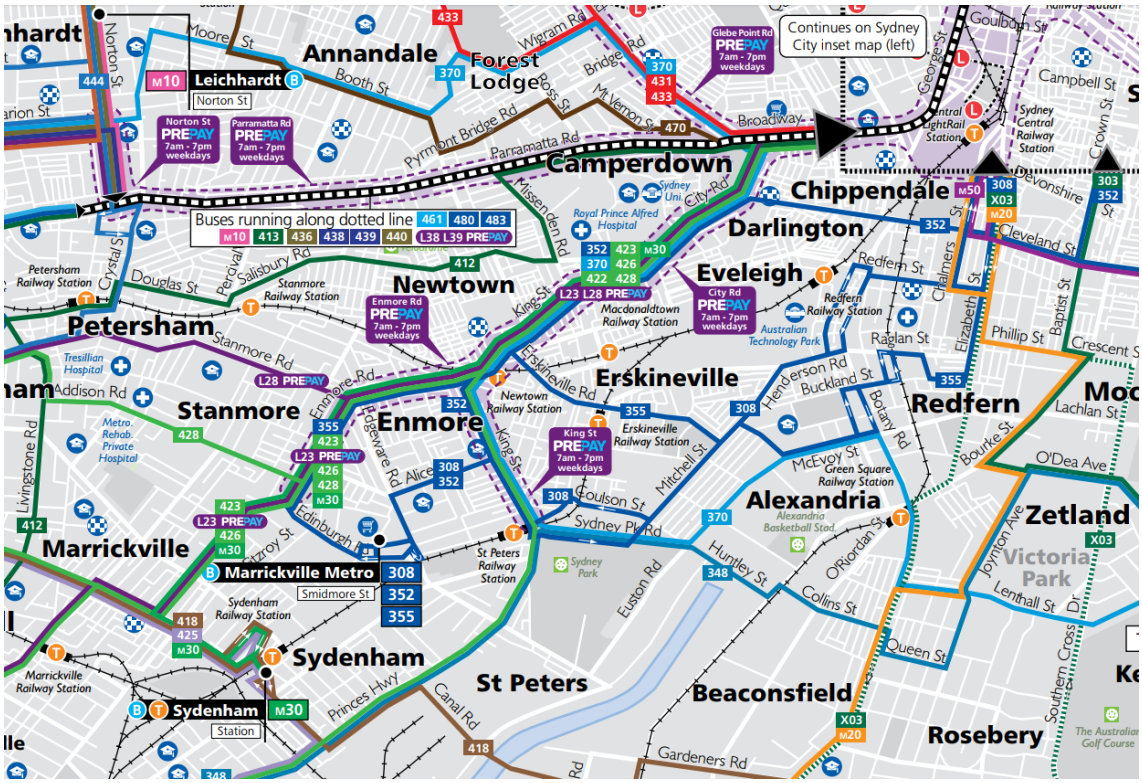
St Peters Railway Station is serviced by the T3 Bankstown Line and provides services every ten to 15-minutes in both directions. Sydenham Railway Station provides services along the T2 Airport, Inner West and South Line, T3 Bankstown Line, and T4 Eastern Suburbs and Illawarra line, with frequencies of five to 15-minutes during the peaks.

The routes serviced by the bus stop on Smidmore Street include:

- 308 Marrickville Metro to City Gresham Street via Redfern
- 352 Marrickville Metro to Bondi Junction via Oxford Street, Crown Street & King Street, and
- 355 Marrickville Metro to Bondi Junction via Moore Park & Erskineville.

These bus services are provided at approximately 15 to 30-minutes intervals. The bus network surrounding the site is shown in Figure 2.3.

Figure 2.3: Bus Network



Source: https://transportnsw.info/document/1694/region-guide-sydney-inner-west-south.pdf, accessed 25/08/17

3 Proposed Construction Activities

This section of the report outlines the proposed construction methodology and details for the Stage 1B works of Marrickville Metro Shopping Centre redevelopment.

3.1 Description of Construction Activities

The proposed works for the Stage 1B redevelopment would involve the following:

- piling and earthworks,
- construction of the new four-storey building,
- internal fit-outs and finishing works, and
- public domain works.

3.2 Duration and Staging of Works

The staging, description and estimated duration of the work activities are summarised in Table 3.1.

Table 3.1: Construction Staging and Duration

Construction Activities	Description	Duration
Early Works	Piling and concrete pour of piles Excavation and removal of soil for foundation	3 months
Building Structure Works	Form and pour the ground floor slab Progressive erection of building perimeter scaffold Form and pour the structure of the building Typical concrete pouring cycle for each level of the structure Façade works	6 months
Internal Finishing Works	Installation of services Installation of partition walls Installation of joinery and doors Waterproof membranes to wet areas Floor and wall tiling Install floor finishes Internal painting	6 months
Public Domain and Landscaping	Installation of hard landscaping Installation of soft landscaping Construction of right turn lane on Edinburgh Road Road works along Smidmore Street	3 months
Total		**18 months**

Note: The above duration is preliminary only and assumes that there will be some overlapping of construction activities.

The construction works are anticipated to take approximately 18 months to complete. It is noted that this duration may be changed upon appointment of the Principal Contractor.

3.3 Construction Details

3.3.1 Construction Vehicle Type

The construction vehicles likely to be generated by the proposed construction activities include:

- large trucks to remove demolished materials from the site and import construction materials,
- concrete truck mixers,
- small rigid vehicles, vans and utility-type vehicles for smaller deliveries.

It is expected that approximately 80 per cent of all construction vehicles would be heavy or medium rigid vehicles and approximately 20 per cent will be small rigid vehicles, vans and couriers.

3.3.2 Work Hours

Construction activities will only be undertaken during the approved work hours. No works will be undertaken outside of the approved work hours. It is noted that the work hours are not known at this stage. However, it is expected that these would be consistent with the recommendations set out in the NSW Interim Construction Noise Guideline. These are as follows:

- Monday to Friday – 7:00am to 6:00pm
- Saturday – 8:00amto 1:00pm, and
- No work to be undertaken on Sundays or Public Holidays.

Works outside of approved work hours shall only occur with the approval from the relevant authorities prior to the commencement of any works. The Principal Contractor shall be responsible to liaise with the relevant consent authorities to obtain all relevant permit approvals.

3.3.3 Construction Works Zone

A works zone will be required along Edinburgh Street for the construction of the new four-level retail building. Existing on-street parking on the eastbound lane between Smidmore Street and Sydney Steel Road will be utilised as works zone to eliminate adverse impact along Edinburgh Street.

It is noted that a separate works zone application will be submitted to the Council for approval. The Principal Contractor shall be responsible for obtaining all relevant permits and approvals.

3.3.4 Access Arrangement

All vehicles are to enter and exit the construction site in a forward direction. Truck drivers will be advised of the designated truck routes to/from the site and be required to adhere to the nominated routes.

No queuing or marshalling/parking will be permitted on public street. Construction vehicles are to radio or call on approach to ensure adequate access to the site is made available.

3.3.5 Staff Parking

There will be no on-site car parking provided within the work site.

Whilst no on-site car parking will be available during construction period, the site is in close proximity by a number of public transport services. All workers will be encouraged and expected to use public transport to travel to/from the site. This will be incorporated in the workers induction program to ensure minimal parking impact on the surrounding streets and existing Centre public car parking.

Taking into consideration the above, it is proposed to implement the following measures to encourage workers to use public transport:

- provide an on-site tool drop-off and storage facility to allow tradespeople to drop off and store their specific machinery for the project,
- inform staff during the induction and regular management meetings that no on-site car parking will be available and there is limited on-street car parking surrounding the site,
- instruct staff to use public transport to access the site during the induction and regular management meetings,
- staff will be encouraged to car pool wherever possible, and
- display public transport timetable information at key locations within the work site and ensure that it is easily accessible by staff.

3.3.6 Materials and Handling Area

All materials handling equipment are to be stored wholly within the work site. If temporary use of any public road is required for such purpose, especially for Smidmore Street and Edinburgh Road construction works, prior consultation with Council shall be undertaken. All relevant permit approvals would also be obtained prior to the commencement of such activities.

3.3.7 Construction Workers

The number of construction workers is expected to fluctuate throughout the construction period. It is anticipated at the busiest time, the site would employ up to 100 workers.

4 Concurrent Construction Projects

A number of infrastructure projects are currently being undertaken within the vicinity of the subject site including:

- Sydney Metro City & South West - Marrickville Dive Site, and
- WestConnex New M5 – St Peters Site.

These are described further below.

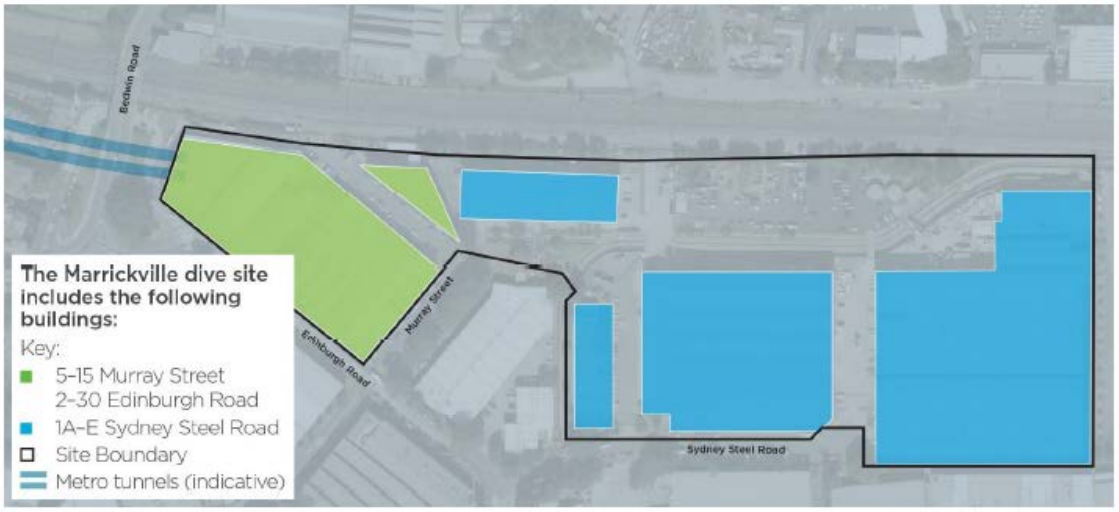
4.1 Sydney Metro City & Southwest - Marrickville Dive Site

Sydney Metro is currently Australia's biggest public transport project. It has two core components, namely:

- Stage 1: Sydney Metro Northwest connecting the north-western suburbs of Sydney to Chatswood, and
- Stage 2: Sydney Metro City & Southwest extending the end of Sydney Metro Northwest at Chatswood to Bankstown

Marrickville Dive Site will be utilised to launch the Stage 2 tunnelling works and to support the construction of the Sydney Metro Trains Facility South. The site is located north of Sydenham rail corridor, bounded by Edinburgh Road, Murray Street and Bedwin Road. The work site is shown in Figure 4.1.

Figure 4.1: Marrickville Dive Site



Source: https://www.sydneymetro.info/station/marrickville-dive-site, accessed 11/10/17

Demolition and early works have scheduled from September to December 2017. Standard work hours are Monday to Friday between 7:00am to 7:00pm, and Saturday from 8:00am to 1:00pm. Highest heavy vehicle movements per hour is estimated to reach 12 veh/hr based on the Environmental Impact Statement (EIS), and 5 veh/hr

based on the CTMP prepared by DELTA Group[1]. Access to the site is via Sydney Steel Road and Murray Street.

It is expected the head contractor appointed to undertake the works at the Marrickville Metro site would consult with John Holland-CPB-Ghella Joint Venture to ensure traffic control measures on these projects will not adversely impact each other and other road users as well as the local residents.

4.2 WestConnex New M5 – St Peters Site

WestConnex is a 33-kilometre motorway that is intended to link Sydney western suburbs with the airport and the Port Botany precinct. WestConnex program of works are divided into major components:

- M4 Widening
- M4 East
- New M5
- King Gorges Road Interchange Upgrade
- M4-M5 Link
- Sydney Gateway

The New M5 project will provide underground tunnels from Kingsgrove to the future St Peters Interchange. The former Alexandria landfill facility is currently being used as a construction site for the New M5 project. The site will facilitate mainline tunnel excavation and ramp construction to connect St Peters Interchange with the M4-M5 Link mainline tunnels. Other construction activities will also take place on this site including local road upgrades, utility works and building of permanent structures.

The extent of the construction activities for St Peters Site is shown in Figure 4.2. It is noted that the construction footprint of St Peters Site works does not overlap with the Marrickville Metro construction site area.

[1] *Source: Sydney Metro City & South West Construction Management Plan: Marrickville Dive Site – Delta Group (May 2017)*

Figure 4.2: New M5 St Peters Site Construction Footprint

Source: New M5 Environmental Impact Statement (November 2015)

Vehicles are to enter and exit the site from Albert Street with the new signalised intersection on Campbell Road. It is anticipated that 133 heavy vehicles would enter and exit the site daily.[2]

Construction works at St Peters site and the new M5 Tunnels started in 2016 and is anticipated to be completed by 2019.

[2] *Source: https://www.westconnex.com.au/M4-M5LinkEISStPeters, accessed 11/10/17*

5 Construction Traffic Assessment and Implications

5.1 Construction Vehicle Traffic Generation

Based on past experiences, construction activities would generate up to 10-15 two-way movements per hour and up to 100-150 two-way vehicle movements per day.

All construction vehicle activities will be minimised, where possible, during peak periods. A full-time site logistics manager shall be assigned to oversee all deliveries to/from the site using a record/booking system with relevant sub-contractors to ensure minimal impact on the surrounding road network as a result of the construction works.

In addition, the construction activities relating to the WestConnex and Sydney Metro Projects are expected to generate an additional 25 two-way vehicle movements per hour on average.

Therefore, the overall cumulative traffic generation arising from all construction projects would be in the other of 40 vehicle movements per day.

It is noted that the expected hourly flows generated by construction activities are significantly lower than the development traffic arising from the approved development.

Thus, the anticipated construction traffic associated with the construction works are not expected to result in any adverse impact on the surrounding road networks, nor any significant operation or safety issues. Notwithstanding this, management measures shall be put in place to mitigate any potential impact resulting from the construction works.

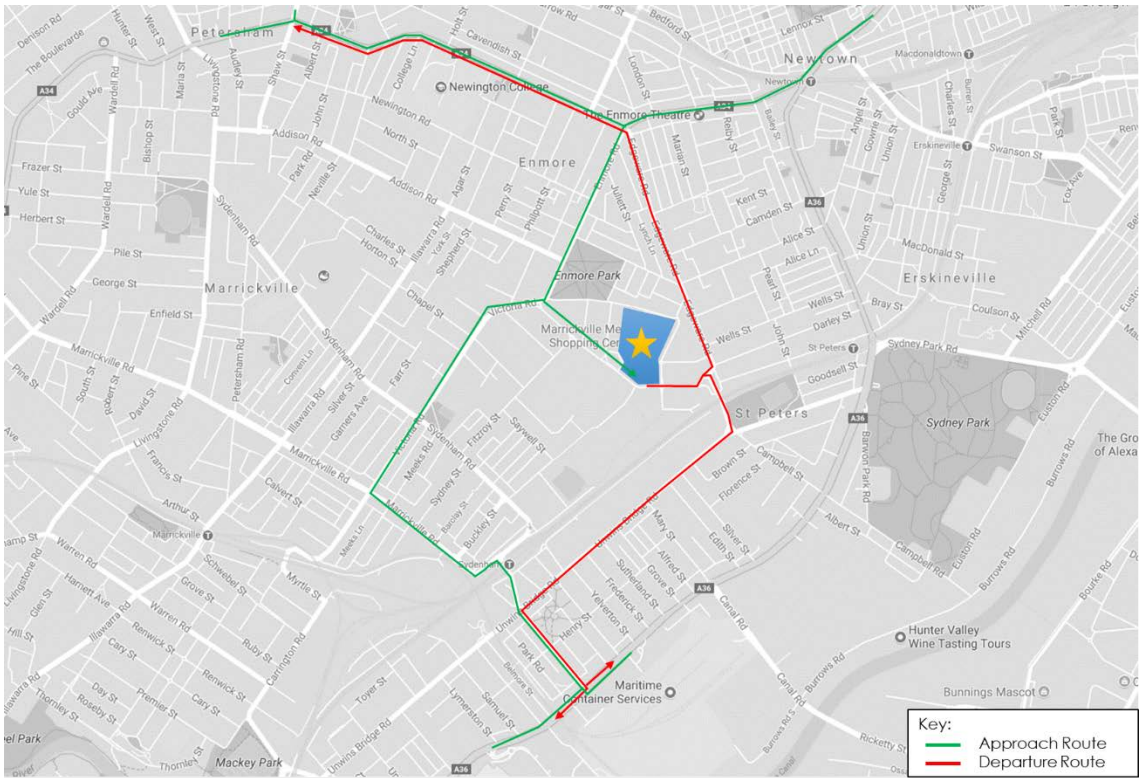
5.2 Site Access and Construction Vehicle Routes

Construction vehicles generally have origins and destinations throughout Sydney, with an extensive network of roads made available for such trips.

To minimise the impact of construction traffic on local streets, dedicated construction routes have been developed to provide the shortest distances to/from the arterial road network.

Truck drivers will be advised of the designated construction vehicle routes are shown in Figure 5.1.

Figure 5.1: Construction Vehicle Routes



Source: Google Maps Australia.

5.3 Pedestrian and Cycle Access

Pedestrian access shall generally be maintained via existing pedestrian facilities surrounding the work site. All relevant site hoarding and fencing shall be installed to ensure pedestrian safety from the work site. Should any lifting and/or loading and unloading need to be undertaken over a public road reserve, Class B hoarding will be installed to ensure pedestrian safety. All relevant permit approvals will be obtained from Council prior to the commencement of such construction works.

With the proposed works along Smidmore Street, the existing bicycle racks may be temporarily relocated for safety and convenience. It is recommended that the new place for bicycle racks be close to bus stop and pedestrian entries.

5.4 Public Transport

Existing bus stop and taxi stand on Smidmore Street are potentially to be relocated upon the start of public domain works along Smidmore Street. Ideally, if the new position would be in a short walking distance from Centre's pedestrian access points.

Construction activities, other than the Smidmore Street works, is not expected to result in any likely impact on existing public transport services. Consultation with all key stakeholders shall be undertaken prior to the commencement of any construction works to ensure minimal disruption to the surrounding road network.

5.5 Emergency Vehicle

The proposed construction activities are not expected to create any adverse impacts to emergency vehicle access. As such, no special provisions for emergency service vehicles would be required as part of the proposed construction works. Emergency vehicle access shall be maintained at all times.

6 Construction Traffic Management Measures

6.1 Traffic Management Measures

Site-specific Traffic Control Plans (TCP) should be prepared upon establishment of construction site plan. Standard Traffic Control Plans (TCP) that could be applicable for the proposed works are contained in Appendix A of this report.

Advisory road signage shall be installed in accordance with AS 1742.3 Manual of Uniform Traffic Control Devices - Traffic Control Devices for Works on Roads and the RMS Traffic Control at Worksites Manual. Signs shall be installed and maintained throughout the construction period where it applies.

6.2 Vehicle Access

All vehicles are to enter and exit the site and works zone in a forward direction. Vehicles accessing the works zone will be assisted by a RMS accredited traffic controller. Traffic controllers will also be appointed at the access points to the site to assist trucks entering and leaving the site.

All loading and unloading shall be undertaken within the site during works for the new retail building. During all stages of works, safe circulation of construction vehicles within the site shall be maintained.

If there are any materials spilt onto the road, site personnel and equipment shall rectify, subject to appropriate OH&S provision.

6.3 Truck Routes

Protocols must be in place to ensure:

- site induction to include procedures for accessing the site,
- drivers adhere to the nominated truck routes, as shown in Figure 5.1,
- drivers are aware that pedestrians and cyclists are in the vicinity of the site, and
- drivers are aware of the sign posted speed limit.

6.4 Site Inspections and Record Keeping

The construction operation would be monitored to ensure that it proceeds as set out in the Contractor's Construction Management Plan provided by the Head Contractor. A daily inspection before the start of construction activity shall take place to ensure that conditions accord with those stipulated in the plan and that there are no potential hazards. Any possible adverse impacts shall be recorded and dealt with as they arise.

6.5 Site Induction

All staff employed on the site by the Principal Contractor and its sub-contractors shall be required to undergo a site induction.

The induction shall include permitted access routes to and from the construction site for site staff and delivery vehicles as well as standard environmental, OH&S, driver protocols and emergency procedures.

The workers are to be advised that wherever possible they are to access the site using public transport during the induction, and that on-site parking will not be available to workers.

7 Conclusion

This CTMP has been prepared to document the proposed construction activities and associated construction traffic management measures necessary to facilitate the construction of the Marrickville Metro Shopping Centre Redevelopment Stage 1B.

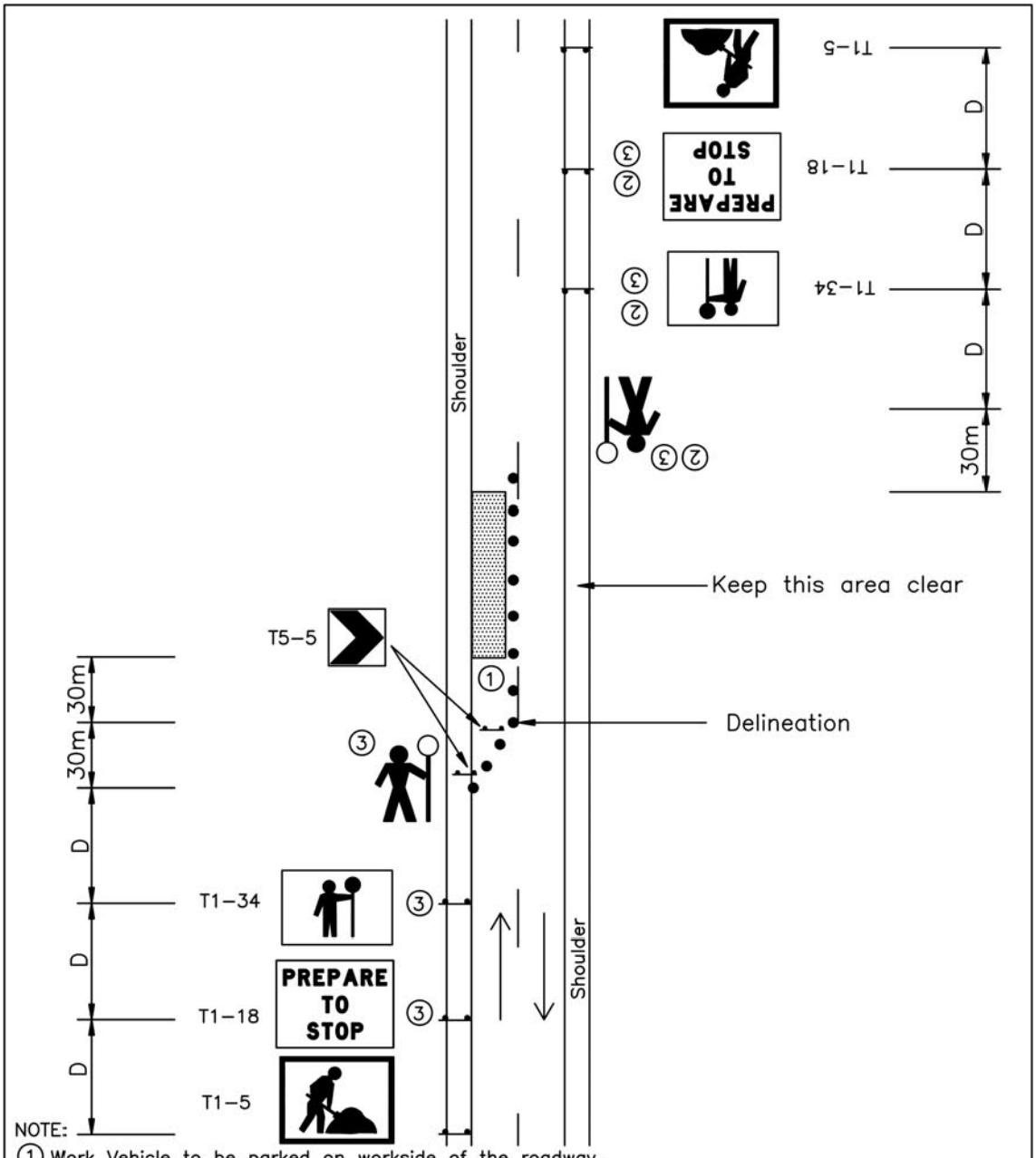
Based on the findings contained in this CTMP, it is concluded that:

- The construction vehicle movements would not likely to results any adverse impact on the surrounding traffic.
- No pedestrian facilities would be impacted as a result of the construction activities. Temporary relocation of bicycle racks on Smidmore Street may be required upon the start of road works.
- Truck drivers are to be instructed to use the designated truck routes to/from the site.
- All construction vehicles are to enter and leave the site in a forward direction only.
- A number of driver protocols will be established as part of the site induction procedure for drivers to ensure the safety of motorists, pedestrians and cyclists.

Overall, the construction traffic arrangements are considered acceptable for this project.

Appendix A

Standard Traffic Control Plan



NOTE:

(1) Work Vehicle to be parked on workside of the roadway.

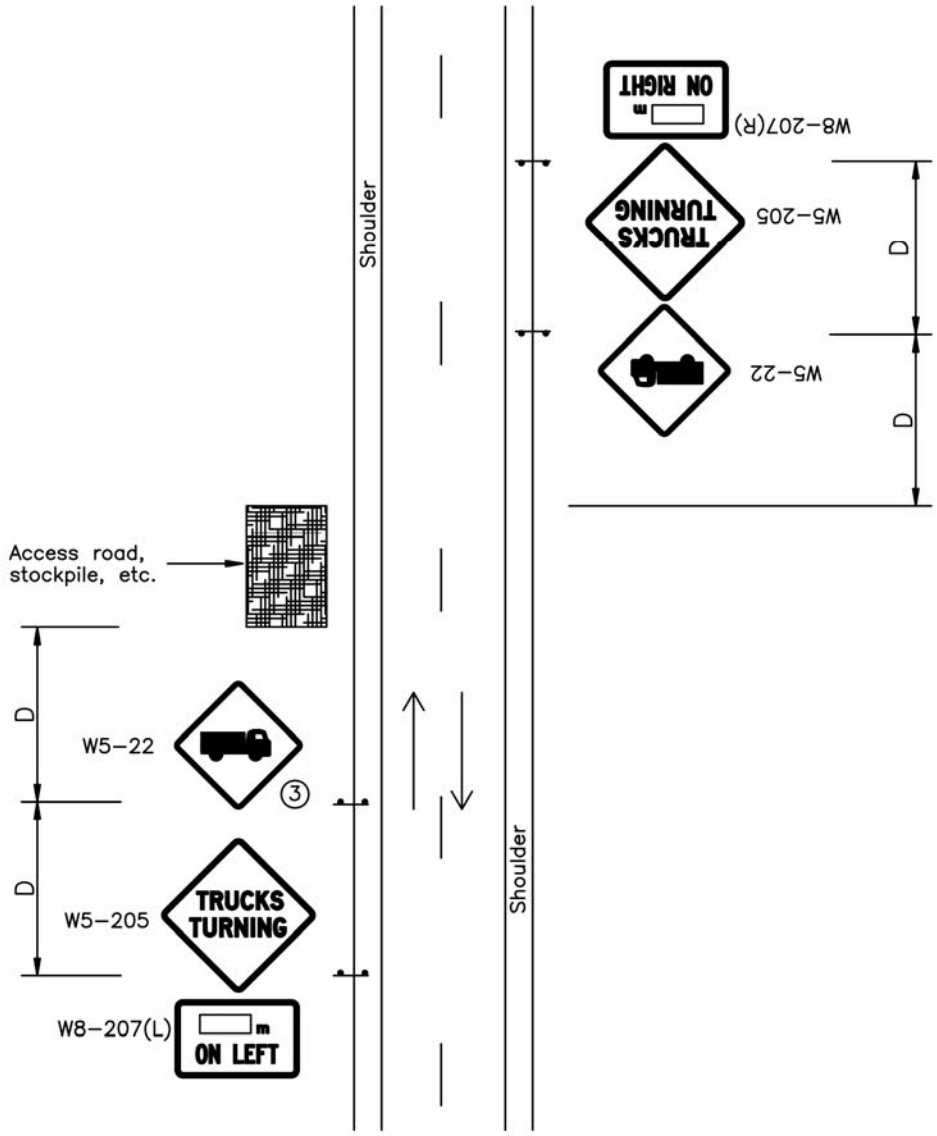
(2) Traffic Controller and T1–34 and T1–18 signs not required on unobstructed lane if ADT is less than 1,500 vehicles per day provided that the work area is shorter than 250m and sight distance between the Traffic Controller and traffic from the opposite direction exceeds the minimum shown in ***Traffic Control at Work Sites,*** Table 8·1.

(3) T1–5, T1–34 and T1–18 signs must be covered when Traffic Controllers are absent.

SHORT TERM WORK
2 LANE / 2 WAY
ADT < 6,000

T000084

TCP 84



NOTE:

① For use where roadside is generally undeveloped, ADT is more than 1,500 vehicles per day, sight distance is restricted and there are more than 20 truck movements per shift.

② See ***Traffic control at work sites,*** Section 7.7, ***Signs for depots, stockpiles, quarries, gravel pits etc.***

③ For short term works use T2–25.

ACCESS TO DEPOT, STOCKPILE, QUARRY, GRAVEL PIT ETC.
ALL ROADS
LONG TERM USE

T000195

TCP 195

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@ttpp.net.au

www.ttpp.net.au