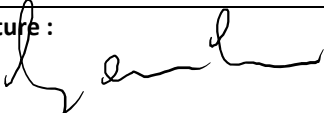




**SYDNEY METRO CITY & SOUTH WEST  
 CONSTRUCTION TRAFFIC MANAGEMENT PLAN  
 DEMOLITION OF WATERLOO STATION SITE**

JUNE 2017



DEVELOPMENT	VERIFICATION	VALIDATION
<b>Name:</b> S Lewis	<b>Name:</b> E Nuberg	<b>Name:</b> B Shum
<b>Signature :</b> 	<b>Signature :</b> 	<b>Signature :</b> 
RMS Card # 0022818927 Exp 12/06/18		

## Document Approval

REV	DATE	DESCRIPTION	PREPARED	REVIEWED	APPROVED
A-00	26 Mar 2017	Initial review	S. Lewis		
B-00	14 May 17	Sent to Road Safety Auditors	S Lewis		
B-01	22 May 2017	Sent to External Stakeholders	S Lewis	E Nuberg	B Shum
C-00	13 June 2017	Sent for approval	S Lewis	E Nuberg	B Shum
C-01	20 June 2017	Updated with City of Sydney comments	S Lewis	E Nuberg	B Shum

## Glossary

REQUIREMENT	REFERENCE
CTMF	Construction Traffic Management Framework
CoS	City of Sydney (Council)
CTMP	Construction Traffic Management Plan
RMS	Roads and Maritime Service
ROL	Road Occupancy License
SCO	Sydney Coordination Office
TCP	Traffic Control Plan
TfNSW	Transport for New South Wales

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## 1. Introduction

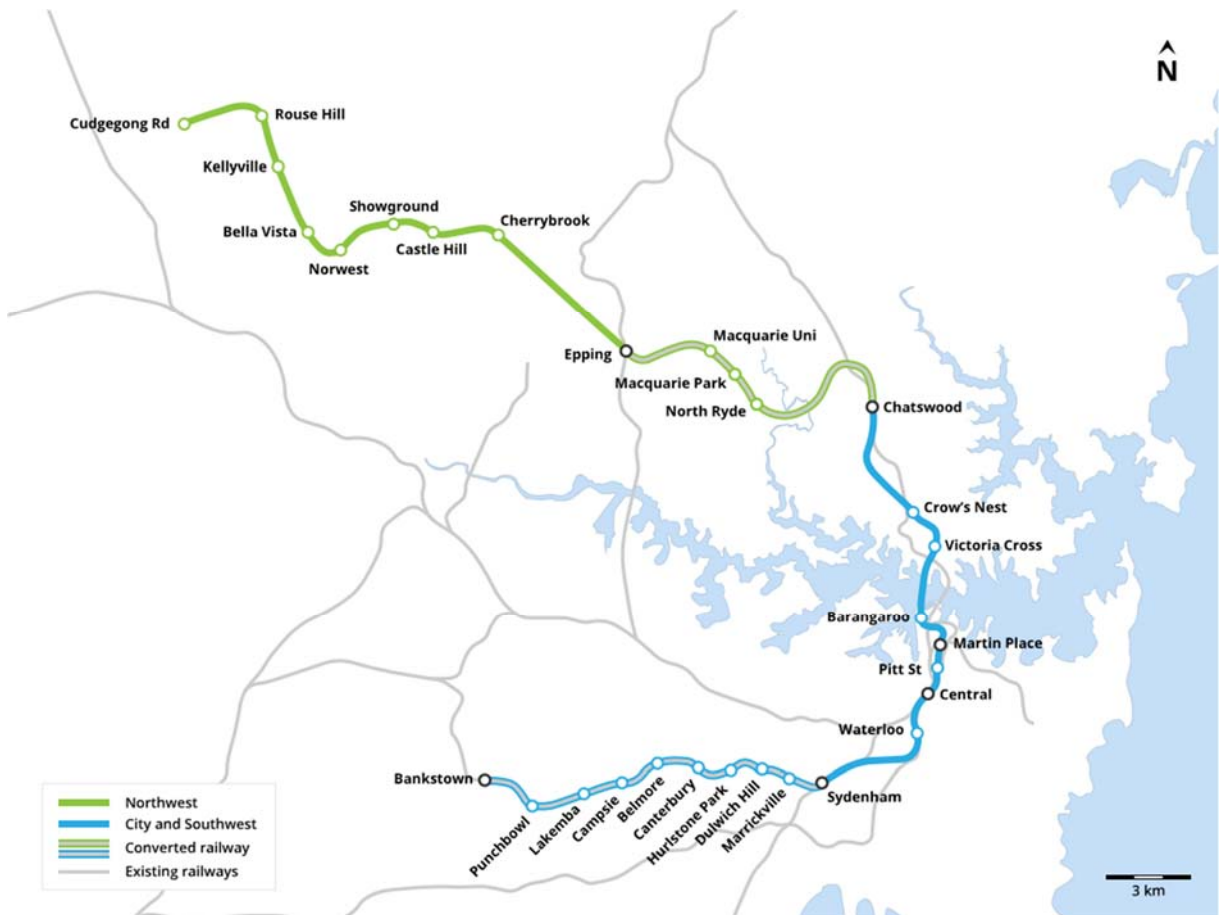
### 1.1. Project Overview

The Sydney Metro is Australia's biggest public transport project. The metro project currently consists of:

- Stage one is the Sydney Metro Northwest, formerly the North West Rail Link, connecting the north western suburbs of Sydney, through to Chatswood.
- Stage two is the City & South West project linking Chatswood through to Sydenham.
- Stage three includes the upgrade of the existing rail line between Sydenham and Bankstown.

Figure 1 shows the proposed Sydney Metro project and stages.

FIGURE 1 SYDNEY METRO PROJECT



### 1.2. Purpose of this Plan

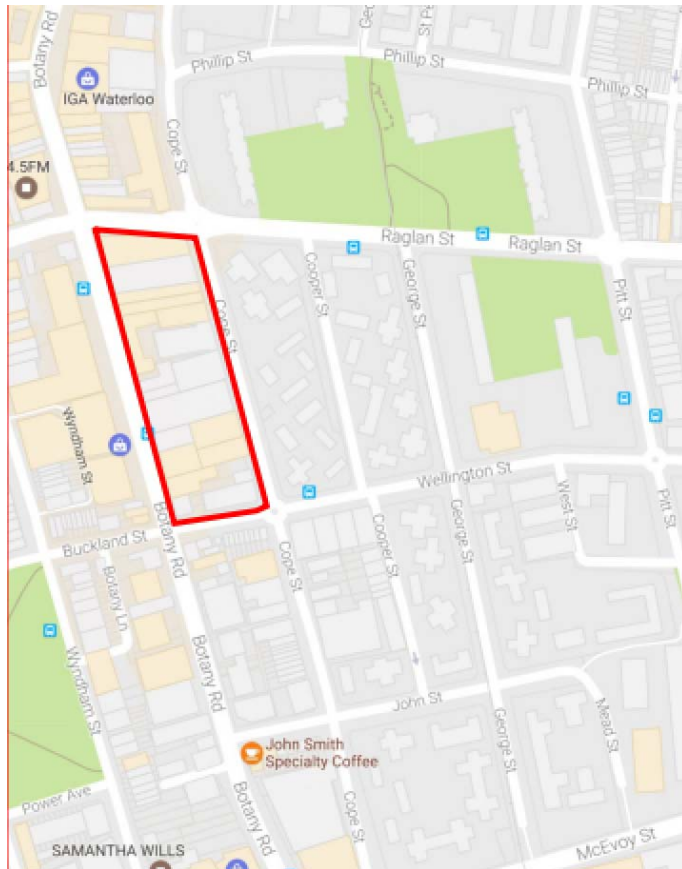
The purpose of this *Construction Traffic Management Plan (CTMP): DEMOLITION OF WATERLOO STATION SITE* is to detail the site operations for the demolition phase of the Sydney Metro City & South West project. This plan will set out the traffic management initiative that will be deployed to minimise disruption to, and ensure the safety of the wide range of stakeholders potentially affected by the works, including but not limited to:

motorists, pedestrians; cyclists; public transport users, local residents and property owners; business owners; and workers/staff engaged on the Project.

## 2. Locality and existing conditions

The Waterloo station site is bounded by Botany Road to the west, Raglan Street to the north, Cope Street to the east and Wellington Street to the south. The site is shown in Figure 2 below in red. The existing parking restrictions at the site are detailed below and are also included in Appendix 1.

FIGURE 2 WATERLOO STATION SITE



### 2.1.1. Botany Road

Botany Road is classified as a State road. It commences at Redfern Street and ends at Port Botany. The section of Botany Road north of the site is one way southbound. At the site location, Botany Road is four lane two way road. The speed limit on Botany Road is 50km/hr.

A bus stop exists on Botany Road southbound carriageway, north of the Wellington Street intersection. No Stopping Wedding, Funeral Vehicles excepted (10AM-3PM and 7PM-8PM Monday to Friday) is in place outside of the Church, which is the only building to be retained on the subject site. Clearways are in operation during the AM and PM peak hours (6AM-10AM and 3PM-7PM).

Designated loading zones (10AM-3PM M-F) exist at the southern end of the site, south of the bus stop. Outside of these hours the parking is unrestricted. 1P parking is available at all other locations between 10AM-3PM Monday to Friday).

A heritage mail box is located on Botany Road at its intersection with Raglan Street – a mail zone exists at this location.

There is no on road cycling facility. The footpaths are typically 3.8m wide with an effective pedestrian width of 2.6m due to the location of street furniture including the mail boxes. There are a number of driveways crossing the footpath. Signalised pedestrian crossings exist on all legs at the intersections with Wellington Street and Raglan Street/ Henderson Road.

#### 2.1.2. Wellington Street

Wellington Street is classified as a local road and is under the control of Council. Wellington Street commences in Waterloo to the east and ends at Botany Road. To the west of Botany Road Wellington Street is renamed Buckland Street. The speed limit on Wellington Street is 50km/hr. Roundabout control exist at the Cope Street intersection and traffic signals are installed at the Botany Road intersection.

Unrestricted parking exists on both the northern and southern side of Wellington Street between Botany Road and Cope Street.

The existing footpaths are approximately 3.7m wide and have numerous driveways crossing the northern path. There are no cycling facilities on this section of Wellington Street.

#### 2.1.3. Cope Street

Cope Street is a local road which connects Turner Street, Redfern to north of McEvoy Street, Waterloo. A speed limit of 50 km/hr is in place. Roundabouts are installed at intersections with Raglan Street and Wellington Street.

Unrestricted parking exists on both sides of Cope Street between Raglan and Wellington Streets.

The existing footpaths are approximately 3.7m wide but with an effective width for pedestrian usage of 2.8m. There are numerous driveways crossing the western path. There are no cycling facilities on this section of Cope Street.

A bus stop exists on the eastern side of Cope Street, immediately north of Wellington Street. This bus stop services route 355 – Bondi Junction to Marrickville Metro. There are no other bus stop on Cope Street as the 355 journey from Marrickville Metro uses an existing bus stop on Wellington Street, east of Cope Street.

#### 2.1.4. Raglan Street

Raglan Street is a local road which connects Elizabeth Street, Waterloo to Henderson Road, Alexandria. A speed limit of 50 km/hr is in place.

1P parking is available for the site's frontage. The existing footpaths are approximately 2m wide. There is roundabout control at the intersection with Cope Street.

The existing footpaths are approximately 3.7m wide with an effective pedestrian width of 2.8m. There are no driveways on this section of Raglan Street. There are no cycling facilities on this section of Raglan Street. Signalised pedestrian crossings exist on all legs at the intersections with Botany Road/ Henderson Road/ Raglan Street.



## 2.2. Preliminary Works

*Timing:* Intended to commence 19<sup>th</sup> June 2017 to Site Operations Commencement

### 2.2.1. Works and Operations

Prior to the commencement of demolition works within the site, Delta Group will need to disconnect/ isolate existing utilities and undertake HAZMAT removal. These works will be undertaken within the site using existing driveways. Only light vehicles will be required for these works.

## 2.3. Site operations

*Duration:* 5 months

*Timing:* July 2017 to November 2017

### 2.3.1. Works Required

The installation of scaffolding and hoarding will be required prior to the commencement of any demolition works. Isolation of the Church from the rest of the site will also be done. The current parking restrictions will be retained along the site frontages. The awning along the Raglan Street frontage and a small part of the Botany Road frontage, associated with the small shopping area, will be demolished during the day with pedestrian management in place including closure of the kerbside lane, which is currently used for 1P parking. Works adjacent to the signalised intersection will be undertaken outside of peak periods.

Class A and B hoarding will be installed on site – refer to Appendix 2 for details on the proposed hoarding arrangements. Access and egress is proposed from Botany Road. This access/ egress will utilise existing driveways. The use of the local surrounding streets is not proposed due to the possible impact on the community as this would require routing of trucks on local roads with significant changes required to existing infrastructure. The use of Botany Road would ensure that the trucks used at the site would be maintained on the arterial road system.

Demolition of the existing buildings within the site, will occur during normal construction hours of 0700-1800 Monday to Friday and 0800-1300 on Saturday.

### 2.3.2. Operating Conditions

The main access/ egress is proposed on Botany Road using existing driveways, that previously serviced industrial uses at the site. Existing driveways to be used are for buildings 83/ 85 and 93. The driveway at 83/85 is a dual driveway so during Clearway hours, the trucks will be able to turn into the site from the kerbside lane. There is minimal impact on existing traffic arrangements for this site as the vehicle numbers are relatively low, with approximately 240 truck movements per month, averaging 10 truck movements per day. There will be minimal truck numbers during the peak periods (AM and PM).

#### 2.3.2.1. Scaffolding and hoarding placement

Scaffolding will generally be within the site at the project boundary, however, Class B hoarding will be installed along the frontages of Raglan Street and Botany Road, Class A hoarding will be used on Cope and Wellington Streets frontages. A typical scaffolding arrangement is included within Appendix 2. The hoarding will have lighting to provide a safe walkway for pedestrians and will have available a minimum of 2m clearance as a pedestrian thoroughfare. Access to the bus stop on the southbound carriageway will be maintained.

### 2.3.3. Impact on Traffic Flows

The operation of the site will have minimal impact on existing traffic conditions as the traffic generation is typically low and vehicles will be restricted to left in/ left out. Post the arrival of machinery on site, traffic generation at this site will typically be in the order of 250 truck movements per month, with an average of 10 truck movements per day. There will be minimal truck numbers during the peak periods (AM and PM).

### 2.3.4. Impact on Public Transport

The existing bus stop on Botany Road will be retained for the demolition works.

### 2.3.5. Impact on Pedestrians and Cyclists

The installation of hoarding will be mainly within the site. Where Class B hoarding is installed, the existing footpath widths will be reduced by approximately 600mm. There are currently no cycling facilities at this location.

### 2.3.6. Staff parking and transportation to site

During the demolition works, it is anticipated that there will be 10-12 personnel on site. There will be no car parking spaces on site. The workforce for the actual demolition will be encouraged to arrive by site using public transport, with most likely to use Redfern Station, a 9 minute walk (650m) from site. All personnel will be informed that no parking is available within the local street system or on site.

### 2.3.7. Cumulative impacts

City of Sydney Council website does not have any major developments near the site. The Green Square redevelopment is approximately 1km south of the subject site.

### 2.3.8. Special Events

In reviewing City of Sydney Council's website for special events near the site, there are no special events listed, which would be impacted by the works.

### 2.3.9. Traffic Control Plan (TCP) / Road Occupancy License (ROL) Identified Works

Works that have been identified as requiring a Traffic Control Plan are detailed below. Appendix 3 provides details on expected durations, timing for implementation, the works being undertaken and the expected traffic impacts.

1. Installation of hoarding and pedestrian management
2. Pedestrian management during access/ egress
3. Mobile crane works
4. Removal of awnings

### 2.3.10. Sydney City Council required approvals

Works that have been identified as requiring Council approval include:

1. Hoarding and scaffolding installation
2. Permit to stand plant/ crane
3. Road closure application (where required) and
4. Over mass over size vehicle permit (where required)

### 3. Fleet Management

Trucks to be used on the project will be compliant with NSW legislation and standards including the Heavy Vehicle National Legislation. A combination of truck types will be used during the demolition works. These trucks may be Truck and Dogs, bin trucks and 5t tippers. Table 1 provides an estimation of materials to be removed over the life of the works, whilst Table 2 provides a comparison of the EIS and DELTA traffic movements at the site.

**TABLE 1 MATERIAL (TONNES) ESTIMATE FOR WATERLOO SITE**

BRICK	CONCRETE	STEEL	DEMOLITION WASTE
18,060	10,955	795	855

**TABLE 2: AVERAGE VEHICLE MOVEMENTS PER HOUR**

TIME	EIS LIGHT VEHICLES	DELTA LIGHT VEHICLES	EIS HEAVY VEHICLES	DELTA HEAVY VEHICLES
0700-1000	2	2	6	5
1000-1200	10	1	12	4
1200-1400	10	1	12	3
1400-1600	10	1	8	3
1600-1800	2	1	6	1
1800-0700	0-2	0	0-6	0

#### 3.1. Logistics Routes

Generally, the haulage routes will be via arterial roads/ freeway or Tollway. Where possible the routes have taken into account the requirements of the Environmental Impact Statement (EIS). It is noted that the EIS for this site access shows access via Botany Road with egress onto Botany Road, as one of the Primary Inbound, Primary Outbound routes. The routes within this CTMP are in accordance with the EIS.

Material will be removed from site using a combination of vehicles. These trucks will range in size from 5.5m to 19.0m and taken to authorised disposal sites around Sydney. Refer to Appendix 4 for details on the proposed routes.

#### 3.2. Permits/ Over Dimensional Vehicles

Permit issue for vehicles greater than 45.5 tonnes is through the National Heavy Vehicle Regulator (NHVR). This applies to particular special purpose vehicles (SPV) such as mobile cranes and other oversize/overmass vehicles (OSOM). At present, RMS is currently undertaking this permit issue.

For over dimensional vehicles, generally vehicles that are greater than 25m length or 3.5m width require a pilot(s). Extremely long or wide vehicles will require an escort (fee payable). Permits will be applied for by the transport operator.

It is not anticipated that oversize or over mass vehicles will be required at this site.

### 3.3. Environmental Considerations

All vehicles used on the Project will comply with national and state regulations for exhaust emissions and noise and:

- Switch off their engines when idle, particularly in residential areas
- Avoid the use of their engine brakes in residential areas at night
- Have their load covered prior to leaving site to reduce dust
- Be fitted with broadband reverse beepers.

Refer to our Construction Environmental Management Plan (CEMP) for further details

### 3.4. Drivers and Operators

Operator selection will be based on safety performance criteria. Operators and drivers will be required to have general construction industry induction cards and will be required to attend ongoing general project and site specific inductions.

All operators will be comprehensively trained with regard to community expectations and impacts from haulage operations. The induction will have a particular focus on operator behaviour. Operator competency and standards of behaviour will be continually assessed and discipline procedures will be put in place to maintain compliance.

Queuing of trucks in local streets around the demolition sites will not occur as there will be sufficient designated area within site for trucks to wait. It is noted that there are minimal truck movements required during the demolition phase. Trucks will arrive post the site start times.

The primary access point into the Waterloo Site will be via existing driveways on Botany Road.

## 4. Other Considerations

### 4.1. Road Safety Audits

Road safety audits will be undertaken during the development of the CTMP.

### 4.2. Police and Emergency Services

The Police and relevant Emergency Services will be informed in a timely manner of relevant activities proposed within this CTMP. The initial communication to these stakeholders will be via the Traffic and Transport Liaison Group (TTLG). Regular updates will be provided to emergency services, including changes to road network configurations, changes to road conditions and worksite access locations, through emails and face to face discussions.

### 4.3. Communications and the community

TfNSW will be responsible for the dissemination of information to the community including affected residents, relevant Councils, businesses and the public. Refer to Sydney Metro Community Consultation Strategy – Early Works.

Any enquiries, complaints and/ or compliments should be directed to the TfNSW’s Sydney Metro Project Information line - **1800 171 386** or via mail to: [sydneymetro@transport.nsw.gov.au](mailto:sydneymetro@transport.nsw.gov.au) or Sydney Metro City & Southwest, PO Box K659, Haymarket, NSW 1240 or [Sydney Metro City & Southwest Website](#).

#### 4.3.1. Travelling public

Public transport interruptions will be communicated via on site signage. The motoring public will be forewarned of any changes, including road closures, road changes and lane closures well in advance using appropriate signage, including variable message signs (VMS).

#### 4.3.2. Stakeholders consulted

TABLE 3 identifies the stakeholders consulted during the development of this CTMP:

TABLE 3 STAKEHOLDER CONSULTATION

STAKEHOLDER	DATE	CONSULTATION	MAIN CONTACT PEOPLE
City of Sydney	15 <sup>th</sup> Feb 2017	Meeting	Mark Hannan
TCG	2 <sup>nd</sup> May 2017	TCG Discussion	TCG members

### 4.4. Inspections and monitoring

The site will be monitored by the site supervisor. Any changes as noted in this CTMP, to signs/ lines that impact on the public will be monitored daily during site operating hours.

Traffic control used for pedestrian management, lane closures etc will need to provide records of the traffic control implemented. Any changes required to the traffic control set up will be by a qualified person holding an RMS “Prepare a Work Zone Traffic Management Plan” or equivalent.

### 4.5. Environmental Maintenance

All works associated with the temporary traffic arrangements proposed within this plan will conform to the Construction EMP.

### 4.6. On Site Contacts

TABLE 4 ON SITE CONTACTS

NAME	POSITION	CONTACT #
Ben Shum	Project Director	0423 796 946
Elliot Nuberg	Project Manager	0437 833 005
Bert Clarke	Site Supervisor	0424 559 336
Kevan Zulu	Safety Manager	0411 092 898
Matthew Stephenson	Environment and Sustainability Manager	0418 284 226

### 4.7. References

The following documents were used in the development of this CTMP:

- Construction Traffic Management Framework – TfNSW, v.4.4 provided by TfNSW 4<sup>th</sup> March 2017
- Principal’s General Specification G10 Traffic and Transport Management, v2.0

- Roads and Maritime Service Traffic Control at Worksites Manual v 4.0
- Relevant AustRoads Guides and RMS Supplements
- Sydney Metro Principal Contractor Health and Safety Standard

## Appendix 1    Parking restrictions

DRAWING NUMBER	DESCRIPTION
DD-SYDM-DWG-0005-01	Existing parking restrictions



- METERED PARKING
- NO STOPPING
- BUS ZONE
- MAIL ZONE
- LOADING ZONE
- UNRESTRICTED

DRAWN BY:		LS	
DRW CHECK:		SS	
APPROVED:		SL	
IND REVIEW:		N/A	
A-00	LS	02/04/2017	INITIAL DRAFT
REV	BY	DATE	DESCRIPTION
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:

PROJECT CLIENT

SYDNEY METRO

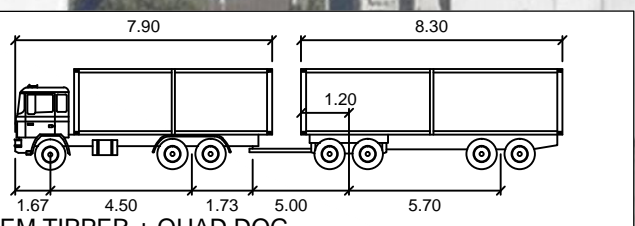
DELTA GROUP AUSTRALIA WIDE  
WATERLOO  
EXISTING PARKING RESTRICTIONS

DRAWING No:		DD-SYDM-DWG-0005-01	
SHEET	1	OF	1
REVISION	A-00		



## Appendix 2 Proposed site operations including hoarding arrangements

DRAWING NUMBER	DESCRIPTION
DD-SYDM-DWG-0005-02	Botany Road proposed access/ egress arrangements including swept path
DD-SYDM-DWG-0005-03	Site Establishment layout including hoarding arrangements
DD-SYDM-TYP-0000-03	Typical Hoarding arrangement over footpath – SECTION
DD-SYDM-TYP-0000-04	Typical Hoarding arrangement over footpath - ELEVATION

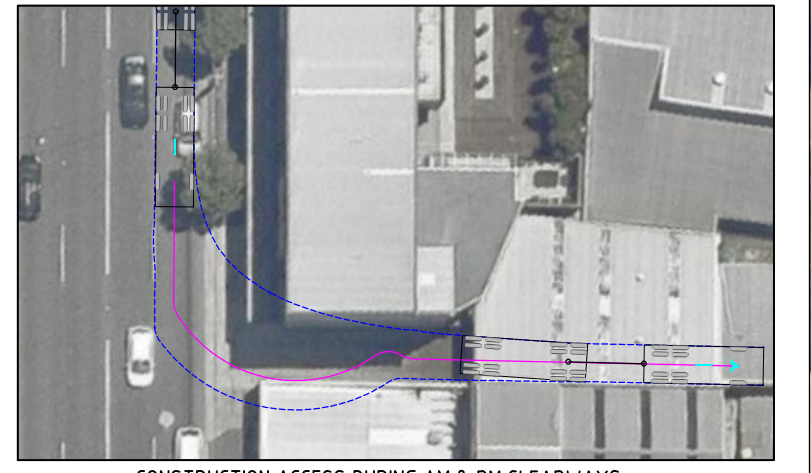


**TANDEM TIPPER + QUAD DOG**  
meters

First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 30.0
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		



COP



CONSTRUCTION ACCESS DURING AM & PM CLEARWAYS

BOTANY RD

CONSTRUCTION ACCESS

CONSTRUCTION EGRESS

BUS ZONE UNAFFECTED BY CONSTRUCTION SWEPTPATHS

A  
B  
C  
D  
E  
F  
G  
H

DRAWN BY:	LS
DRW CHECK:	SS
APPROVED:	SL
IND REVIEW:	N/A

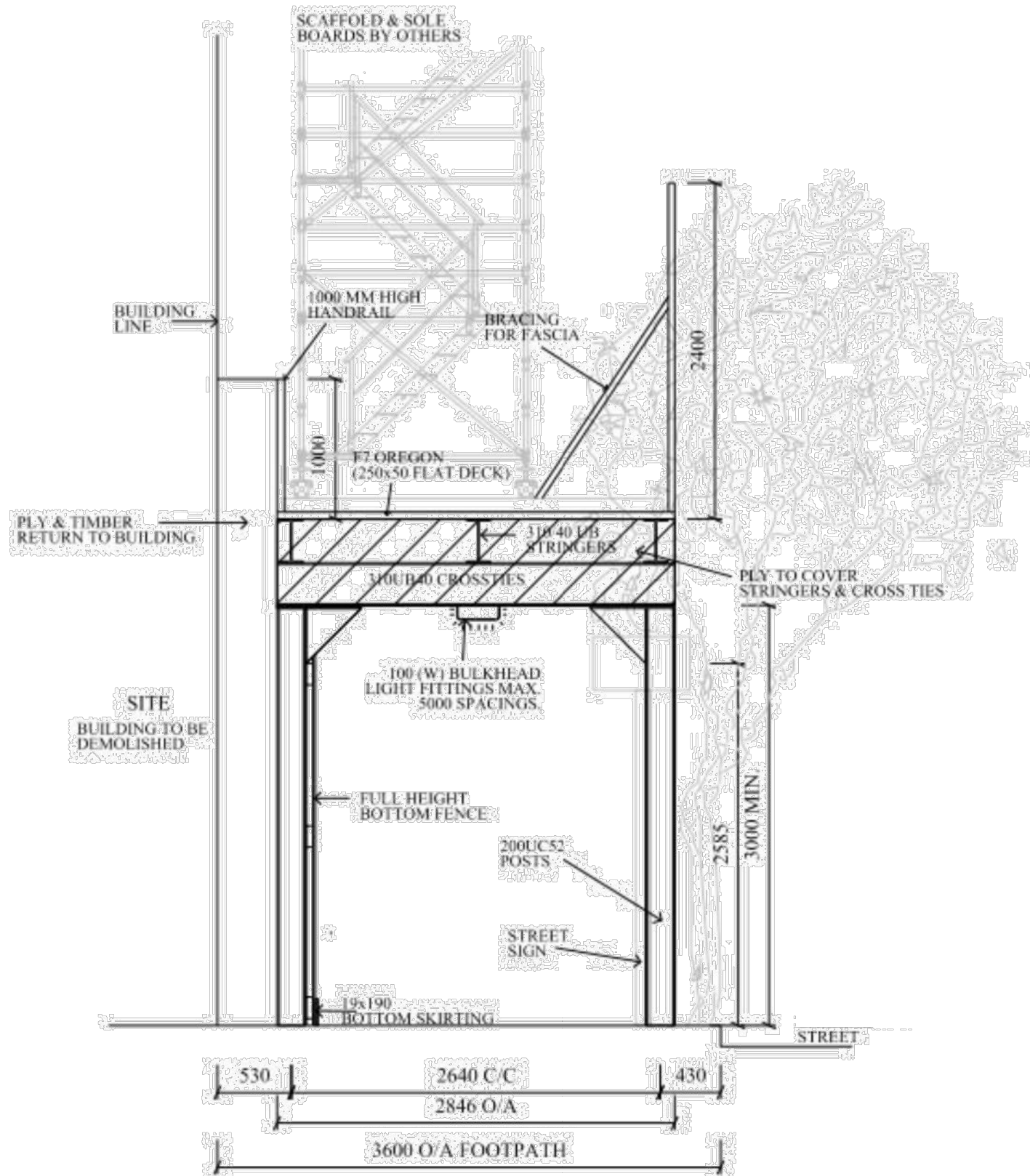


**SYDNEY METRO**

DELTA GROUP AUSTRALIA WIDE  
WATERLOO  
PROPOSED SITE ACCESS & EGRESS

DRAWING No:	DD-SYDM-DWG-0005-02	
SHEET	1	OF 1
REVISION	D-00	





SECTIONAL VIEW THROUGH B-CLASS HOARDING OVER FOOTPATH

(DEMOLITION EXTENT, STREET FEATURES, TRUCK BAYS, STRUCTURAL SIZE AND CONNECTIONS ARE INDICATIVE ONLY)

DRAWN BY:		LS	
DRW CHECK:		SS	
APPROVED:		SL	
IND REVIEW:		N/A	
REV	BY	DATE	DESCRIPTION
A-00	LS	19/03/2017	INITIAL DRAFT
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:



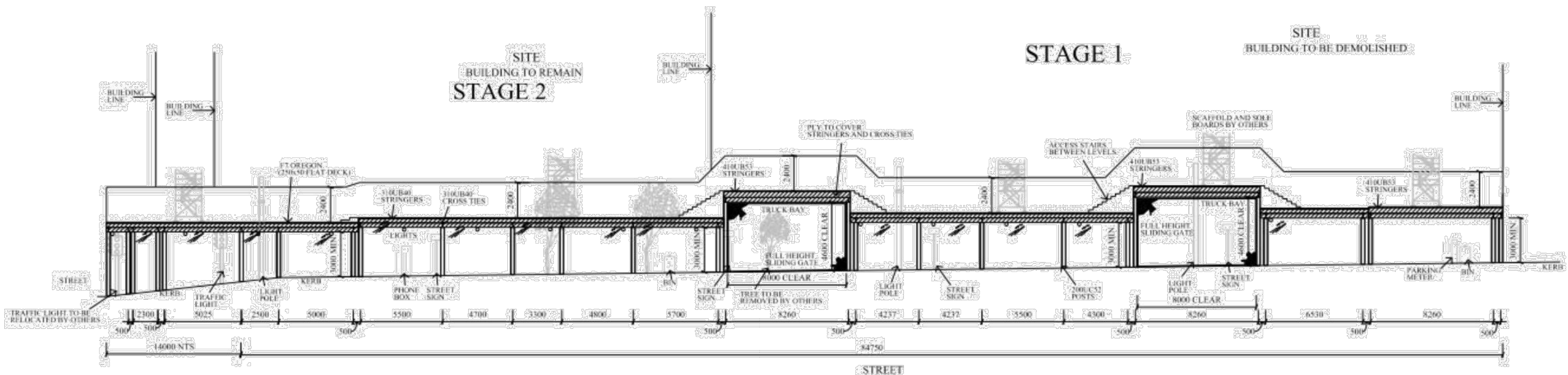
SYDNEY METRO

DELTA GROUP AUSTRALIA WIDE  
TYPICAL DRAWING  
CLASS B HOARDING SECTION

DRAWING No: DD-SYDM-TYP-0000-03

SHEET 1 OF 1

REVISION A-00



**ELEVATION OF B-CLASS HOARDING**

**(DEMOLITION EXTENT, STREET FEATURES, TRUCK BAYS, STRUCTURAL SIZE AND CONNECTIONS ARE INDICATIVE ONLY)**

DRAWN BY:	LS
DRW CHECK:	SS
APPROVED:	SL
IND REVIEW:	N/A



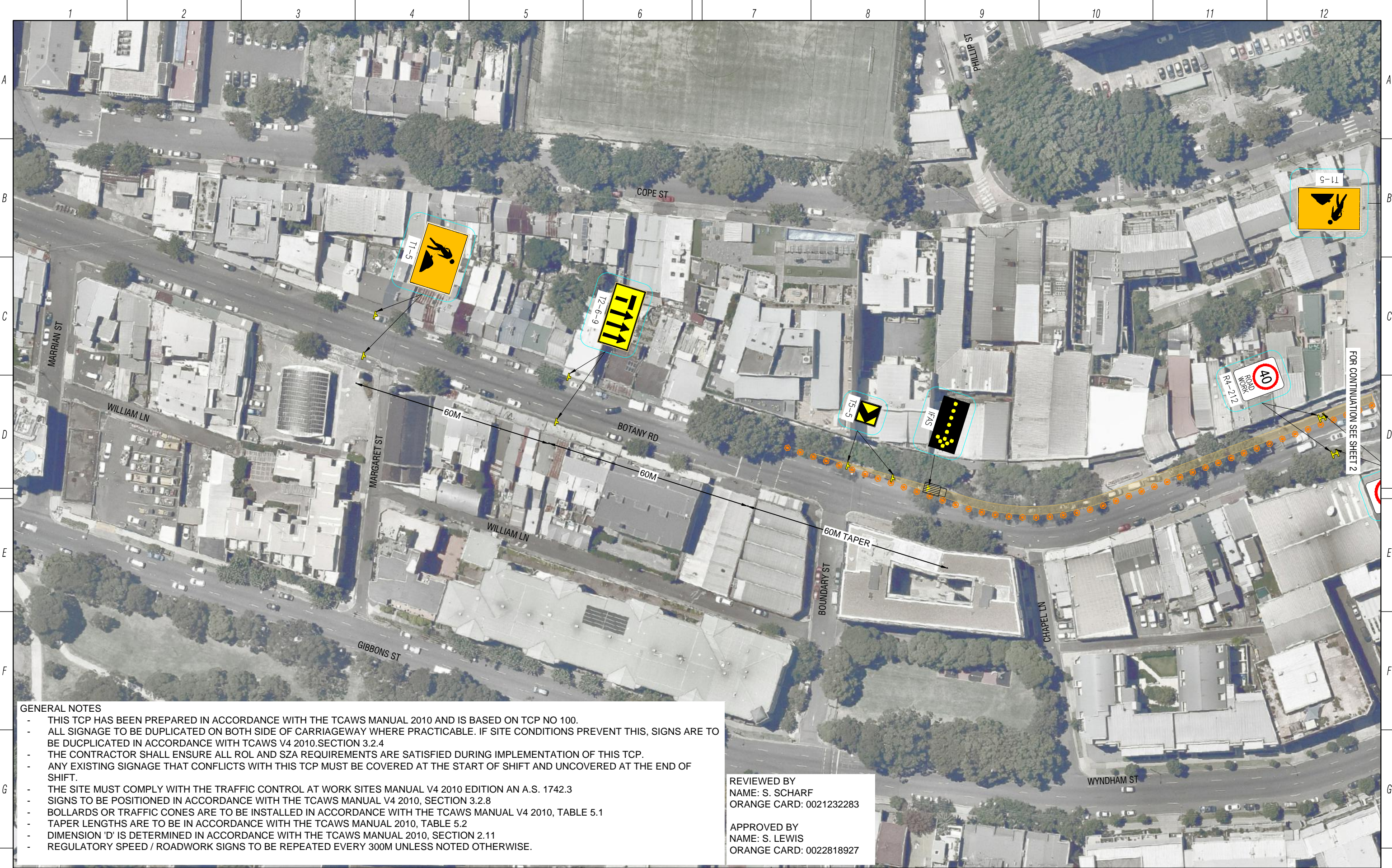
**SYDNEY METRO**

DELTA GROUP AUSTRALIA WIDE  
TYPICAL DRAWING  
CLASS B HOARDING ELEVATION

DRAWING No:	DD-SYDM-TYP-0000-04		
SHEET	1	OF	1
REVISION	A-00		

## Appendix 3 Traffic control plans

TCP #	LOCATION	FROM	TO	TIMING	TRAFFIC CONTROL	WORKS	IMPACTS
0005-04	Botany Road	Raglan Street	Wellington Street	Nights	Kerbside lane closure including pedestrian detour to western footpath (includes bus stop closure during works)	<ul style="list-style-type: none"> <li>Awning removal</li> <li>Hoarding/ Scaffold installation</li> <li>Plant delivery/ removal</li> </ul>	<p>Minimal impacts to traffic as taken outside of peak periods</p> <p>Minimal impact to parking as the works occur at night, post the PM peak Clearway restrictions</p>
0005-05	Raglan Street	Botany Road	Cope Street	Outside of peak periods	Kerbside lane closure including pedestrian detour to northern footpath	<ul style="list-style-type: none"> <li>Awning removal</li> <li>Hoarding/ Scaffold installation</li> </ul>	Parking lane to be used to separate traffic from the site. Existing parking restrictions will be temporarily removed during these works
0005-06	Cope Street	Raglan Street	Wellington Street	Days/ nights	Kerbside lane closure including pedestrian detour to eastern footpath	<ul style="list-style-type: none"> <li>Scaffold installation</li> </ul>	Parking lane to be used to separate traffic from the site. Existing unrestricted parking will be temporarily removed during these works
0005-07	Wellington Street	Botany Road	Cope Street	Outside of peak periods	Kerbside lane closure including pedestrian detour to southern footpath	<ul style="list-style-type: none"> <li>Scaffold installation</li> </ul>	Parking lane to be used to separate traffic from the site. Existing unrestricted parking will be temporarily removed during these works



**GENERAL NOTES**

- THIS TCP HAS BEEN PREPARED IN ACCORDANCE WITH THE TCAWS MANUAL 2010 AND IS BASED ON TCP NO 100.
- ALL SIGNAGE TO BE DUPLICATED ON BOTH SIDE OF CARRIAGEWAY WHERE PRACTICABLE. IF SITE CONDITIONS PREVENT THIS, SIGNS ARE TO BE DUPLICATED IN ACCORDANCE WITH TCAWS V4 2010, SECTION 3.2.4
- THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIREMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TCP.
- ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TCP MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
- THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V4 2010 EDITION AN A.S. 1742.3
- SIGNS TO BE POSITIONED IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, SECTION 3.2.8
- BOLLARDS OR TRAFFIC CONES ARE TO BE INSTALLED IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, TABLE 5.1
- TAPER LENGTHS ARE TO BE IN ACCORDANCE WITH THE TCAWS MANUAL 2010, TABLE 5.2
- DIMENSION 'D' IS DETERMINED IN ACCORDANCE WITH THE TCAWS MANUAL 2010, SECTION 2.11
- REGULATORY SPEED / ROADWORK SIGNS TO BE REPEATED EVERY 300M UNLESS NOTED OTHERWISE.

REVIEWED BY  
 NAME: S. SCHARF  
 ORANGE CARD: 0021232283

APPROVED BY  
 NAME: S. LEWIS  
 ORANGE CARD: 0022818927

DRAWN BY:		LS
DRW CHECK:		SS
APPROVED:		SL
IND REVIEW:		N/A

PROJECT CLIENT




**SYDNEY METRO**

DELTA GROUP AUSTRALIA WIDE  
 WATERLOO  
 BOTANY RD LANE CLOSURE

DRAWING No:		DD-SYDM-DWG-0005-04	
SHEET	1	OF	2
REVISION	C-00		



**GENERAL NOTES**

- THIS TCP HAS BEEN PREPARED IN ACCORDANCE WITH THE TCAWS MANUAL 2010 AND IS BASED ON TCP NO 100.
- ALL SIGNAGE TO BE DUPLICATED ON BOTH SIDE OF CARRIAGEWAY WHERE PRACTICABLE. IF SITE CONDITIONS PREVENT THIS, SIGNS ARE TO BE DUPLICATED IN ACCORDANCE WITH TCAWS V4 2010, SECTION 3.2.4
- THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIREMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TCP.
- ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TCP MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
- THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V4 2010 EDITION AN A.S. 1742.3
- SIGNS TO BE POSITIONED IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, SECTION 3.2.8
- BOLLARDS OR TRAFFIC CONES ARE TO BE INSTALLED IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, TABLE 5.1
- TAPER LENGTHS ARE TO BE IN ACCORDANCE WITH THE TCAWS MANUAL 2010, TABLE 5.2
- DIMENSION 'D' IS DETERMINED IN ACCORDANCE WITH THE TCAWS MANUAL 2010, SECTION 2.11
- REGULATORY SPEED / ROADWORK SIGNS TO BE REPEATED EVERY 300M UNLESS NOTED OTHERWISE.

REVIEWED BY  
NAME: S. SCHARF  
ORANGE CARD: 0021232283

APPROVED BY  
NAME: S. LEWIS  
ORANGE CARD: 0022818927

DRAWN BY:		LS
DRW CHECK:		SS
APPROVED:		SL
IND REVIEW:		N/A

REV	BY	DATE	DESCRIPTION	APPD.
C-00	LS	12/06/2017	UPDATED SIGNAGE	
B-00	LS	05/04/2017	UPDATED AS PER RSA 0577	
A-00	LS	04/02/2017	INITIAL DRAFT	SL

PROJECT CLIENT

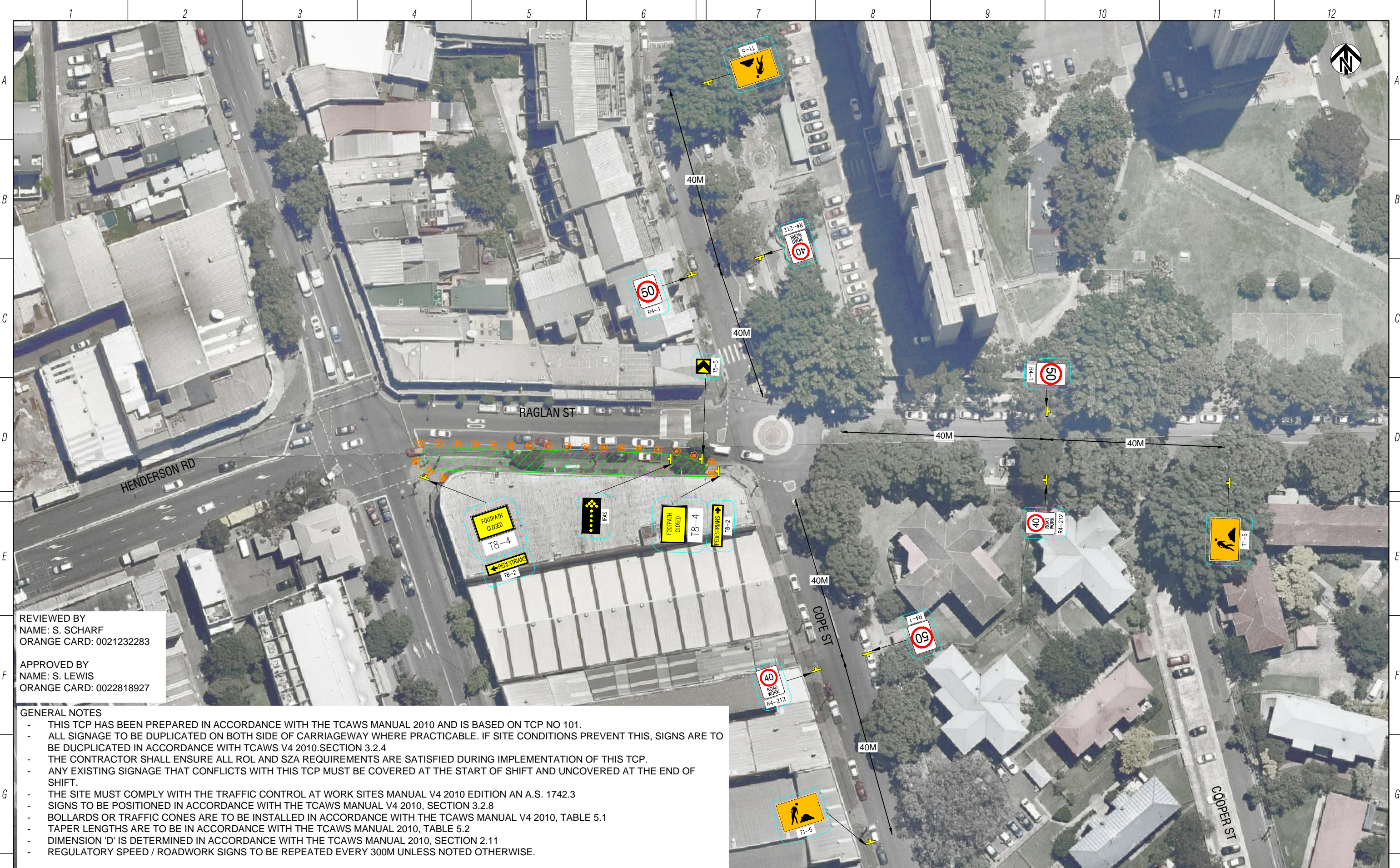



**SYDNEY METRO**

DELTA GROUP AUSTRALIA WIDE  
WATERLOO  
BOTANY RD LANE CLOSURE

DRAWING No:		DD-SYDM-DWG-0005-04
SHEET	2	OF 2
REVISION	C-00	





REVIEWED BY  
NAME: S. SCHARF  
ORANGE CARD: 0021232283

APPROVED BY  
NAME: S. LEWIS  
ORANGE CARD: 0022818927

- GENERAL NOTES**
- THIS TCP HAS BEEN PREPARED IN ACCORDANCE WITH THE TCAWS MANUAL 2010 AND IS BASED ON TCP NO 101.
  - ALL SIGNAGE TO BE DUPLICATED ON BOTH SIDE OF CARRIAGEWAY WHERE PRACTICABLE. IF SITE CONDITIONS PREVENT THIS, SIGNS ARE TO BE DUPLICATED IN ACCORDANCE WITH TCAWS V4 2010, SECTION 3.2.4
  - THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIREMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TCP.
  - ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TCP MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
  - THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V4 2010 EDITION AN A.S. 1742.3
  - SIGNS TO BE POSITIONED IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, SECTION 3.2.8
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  - REGULATORY SPEED / ROADWORK SIGNS TO BE REPEATED EVERY 300M UNLESS NOTED OTHERWISE.

DRAWN BY:		LS
DRW CHECK:		SS
APPROVED:		SL
IND REVIEW:		N/A

PROJECT CLIENT

**SYDNEY METRO**  
DELTA GROUP AUSTRALIA WIDE  
WATERLOO  
RAGLAN ST LANE CLOSURE

DRAWING No:		DD-SYDM-DWG-0005-05
SHEET	1	OF 1
REVISION	B-00	



**GENERAL NOTES**

- THIS TCP HAS BEEN PREPARED IN ACCORDANCE WITH THE TCAWS MANUAL 2010 AND IS BASED ON TCP NO 101.
- ALL SIGNAGE TO BE DUPLICATED ON BOTH SIDE OF CARRIAGEWAY WHERE PRACTICABLE. IF SITE CONDITIONS PREVENT THIS, SIGNS ARE TO BE DUPLICATED IN ACCORDANCE WITH TCAWS V4 2010, SECTION 3.2.4
- THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIREMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TCP.
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- REGULATORY SPEED / ROADWORK SIGNS TO BE REPEATED EVERY 300M UNLESS NOTED OTHERWISE.

REVIEWED BY  
 NAME: S. SCHARF  
 ORANGE CARD: 0021232283

APPROVED BY  
 NAME: S. LEWIS  
 ORANGE CARD: 0022818927

DRAWN BY:		LS
DRW CHECK:		SS
APPROVED:		SL
IND REVIEW:		N/A
REV	BY	DATE
B-00	LS	12/06/2017
A-00	LS	05/04/2017
COORDINATE SYSTEM:		HEIGHT DATUM:
		SCALE:

PROJECT CLIENT




**SYDNEY METRO**

DELTA GROUP AUSTRALIA WIDE  
 WATERLOO  
 COPE ST LANE CLOSURE

DRAWING No:		DD-SYDM-DWG-0005-06
SHEET	1	OF 1
REVISION	B-00	



**GENERAL NOTES**

- THIS TCP HAS BEEN PREPARED IN ACCORDANCE WITH THE TCAWS MANUAL 2010 AND IS BASED ON TCP NO 101.
- ALL SIGNAGE TO BE DUPLICATED ON BOTH SIDE OF CARRIAGEWAY WHERE PRACTICABLE. IF SITE CONDITIONS PREVENT THIS, SIGNS ARE TO BE DUPLICATED IN ACCORDANCE WITH TCAWS V4 2010, SECTION 3.2.4
- THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIREMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TCP.
- ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TCP MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
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REVIEWED BY  
 NAME: S. SCHARF  
 ORANGE CARD: 0021232283

APPROVED BY  
 NAME: S. LEWIS  
 ORANGE CARD: 0022818927

DRAWN BY:		LS
DRW CHECK:		SS
APPROVED:		SL
IND REVIEW:		N/A

PROJECT

CLIENT

**SYDNEY METRO**

DELTA GROUP AUSTRALIA WIDE  
 WATERLOO  
 WELLINGTON ST LANE CLOSURE

DRAWING No:		DD-SYDM-DWG-0005-07
SHEET	1	OF 1
REVISION	B-00	

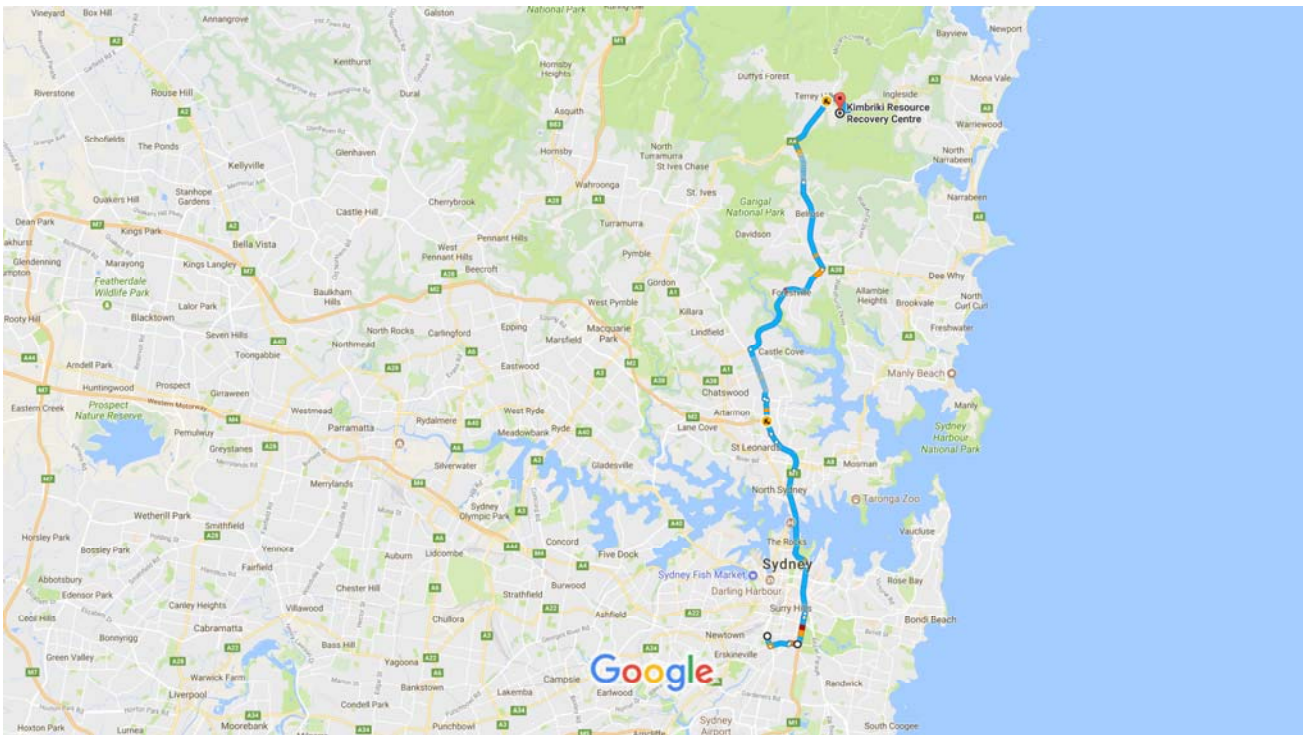
## Appendix 4 Haulage routes

DRAWING NUMBER	DESCRIPTION
DD-SYDM-DWG-0005-08	Logistics route – Waterloo to Terrey Hills
DD-SYDM-DWG-0005-09	Logistics route – Terrey Hills to Waterloo
DD-SYDM-DWG-0005-10	Logistics route – Waterloo to Eastern Creek
DD-SYDM-DWG-0005-11	Logistics route – Eastern Creek to Waterloo



-33.8975456, 151.1997359 to Kimbriki Resource Recovery Centre

Drive 31.7 km, 46 min



Map data ©2017 Google 2 km

-33.8975456, 151.1997359



### Get on Eastern Distributor/M1 in Surry Hills from McEvoy St and S Dowling St

9 min (3.2 km)



- ↑ 1. Head south on Botany Rd towards Buckland St  
450 m
- ↶ 2. Turn left onto McEvoy St  
800 m
- ↶ 3. Use the right lane to turn left onto Bourke St  
88 m
- ↷ 4. Turn right onto Lachlan St  
450 m
- ↶ 5. Turn left onto S Dowling St  
1.2 km
- ⤴ 6. Use the right lane to merge onto Eastern Distributor/M1 via the slip road to City/Western Subs/Newcastle  
⚠ Partial toll road  
210 m

### Follow M1 to Willoughby Rd in Naremburn. Take the Willoughby Rd exit from M1


7 min (8.8 km)

-  7. Merge onto Eastern Distributor/M1  
 Toll road  


---

2.1 km
-  8. Keep right to continue on M1  
 Partial toll road  


---

4.6 km
-  9. Keep left to stay on M1  

---

1.7 km
-  10. Take the Willoughby Rd exit towards Roseville  


---

400 m
-  11. Use the right lane to continue towards Willoughby Rd  


---

40 m


**Follow Willoughby Rd and Penshurst St to Boundary St/A38 in Roseville**

- 
- 8 min (4.0 km)
-  12. Turn right onto Willoughby Rd  



---

1.6 km
  -  13. Use the left 2 lanes to turn left onto Mowbray Rd  

---

140 m
  -  14. Use the right 2 lanes to turn right onto Penshurst St  


---

2.3 km
  -  15. Turn right onto Boundary St/A38  
 Continue to follow A38  


---

7 min (5.6 km)


**Follow Forest Way to Mona Vale Rd/A3**

- 
- 8 min (6.0 km)
-  16. Use the left 2 lanes to turn left onto Forest Way  

---

4.1 km
  -  17. Continue straight to stay on Forest Way  


---

1.9 km
  -  18. Use any lane to turn right onto Mona Vale Rd/A3  


---

4 min (3.5 km)



**Drive to your destination**

- 
- 2 min (550 m)
-  19. Turn right onto Kimbriki Rd  

---

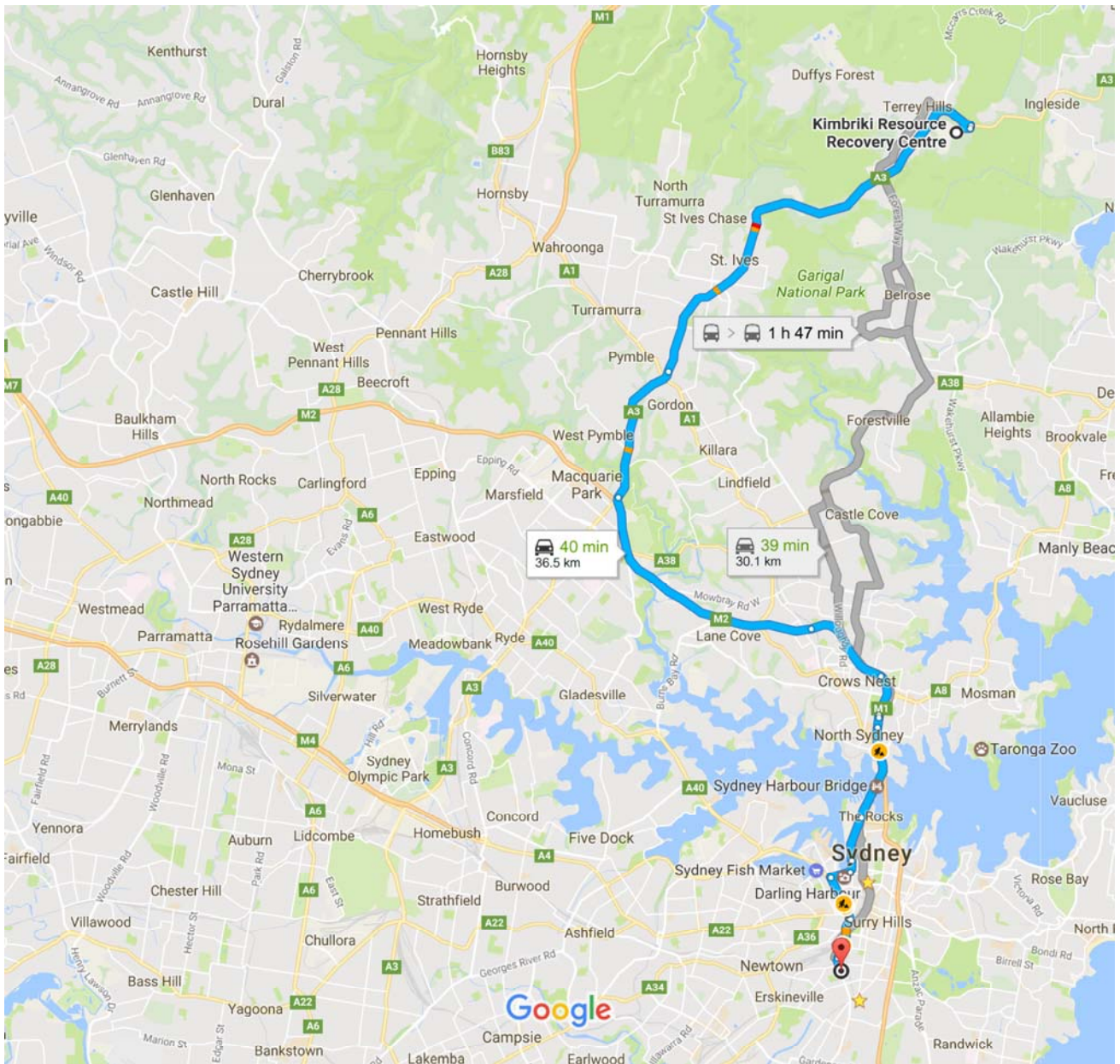
82 m
  -  20. Slight right  

---

400 m
  -  21. Turn left  
 Destination will be on the left  

---

27 m



Map data ©2017 Google 2 km

### Kimbriki Resource Recovery Centre


















Kimbriki Road, Off Mona Vale Road, Terrey Hills NSW 2084

#### Continue to Mona Vale Rd/A3

- ↑ 1. Head north 1 min (550 m)
- ↻ 2. Turn right towards Kimbriki Rd 30 m
- ↻ 3. Slight left onto Kimbriki Rd 400 m
- 82 m







## Continue on A3. Take M2 and M1 to Western Distributor in Sydney

31 min (32.6 km)

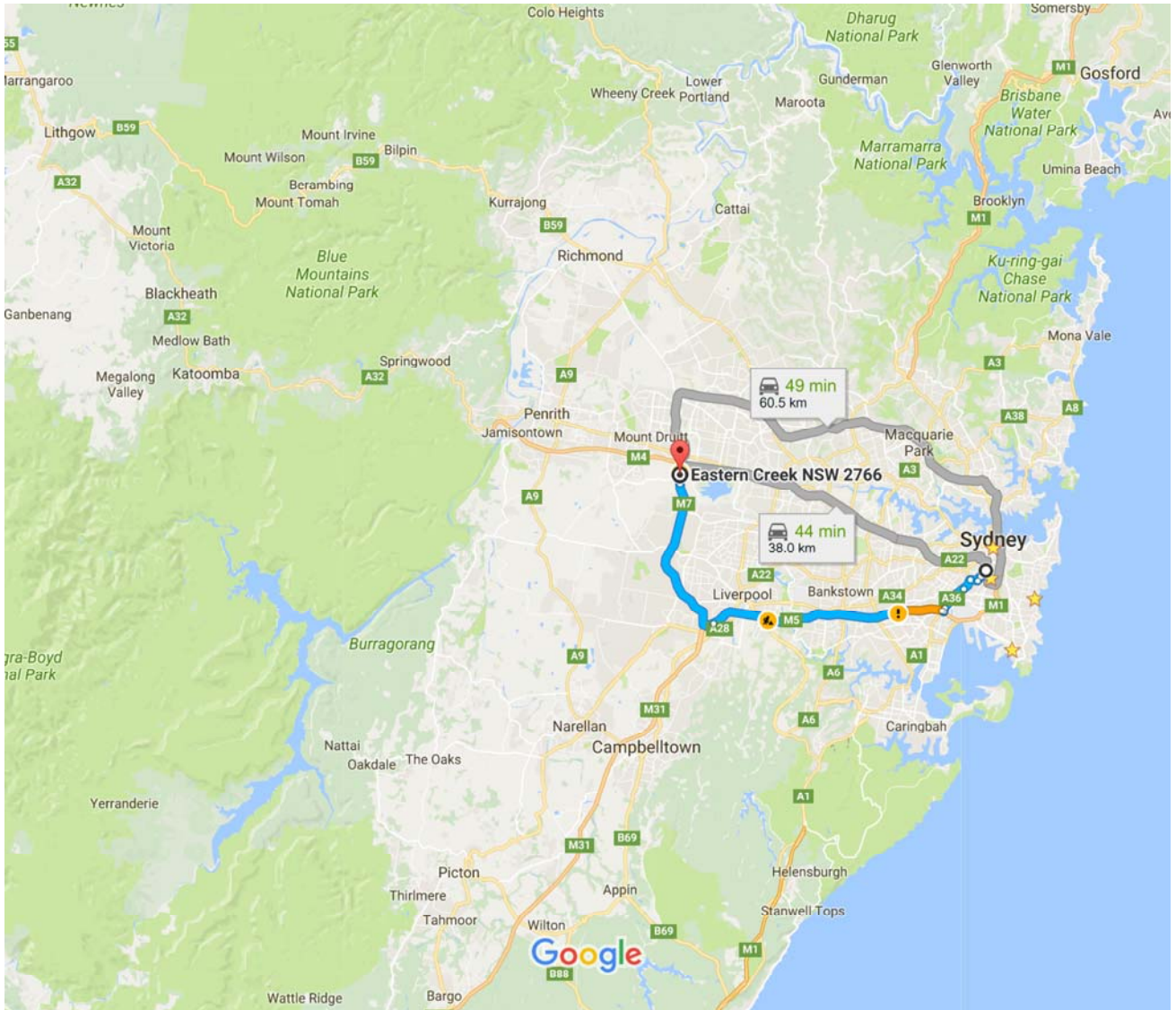
-  4. Turn left onto Mona Vale Rd/A3  
12.8 km
-  5. Keep right to continue on Ryde Rd/A3  
 Continue to follow A3  
4.1 km
-  6. Use the left lane to merge onto M2 via the slip road to Sydney  
 Toll road  
7.4 km
-  7. Continue onto M1  
2.6 km
-  8. Keep right to stay on M1  
1.2 km
-  9. Take the exit towards A4/Bridge/City/Western Suburbs  
67 m
-  10. Merge onto Warringah Fwy  
280 m
-  11. Keep right to stay on Warringah Fwy  
 Partial toll road  
650 m
-  12. Continue onto Bradfield Hwy  
 Partial toll road  
2.0 km
-  13. Keep right to continue on Western Distributor  
 Toll road  
1.2 km
-  14. Continue straight to stay on Western Distributor  
 Partial toll road  
350 m

## Take Harris St and Regent St to Botany Rd in Waterloo

8 min (3.4 km)

-  15. Use the right 2 lanes to turn slightly right to stay on Western Distributor  
550 m
-  16. Use the left 2 lanes to turn left onto Harris St  
1.1 km
-  17. Continue straight onto Regent St  
170 m
-  18. Use the right 3 lanes to turn right to stay on Regent St  
1.2 km
-  19. Continue onto Botany Rd  
 Destination will be on the left  
350 m





Map data ©2017 Google 10 km

-33.8982583, 151.2000812

Get on M5 in Arncliffe from Princes Hwy/A36

- ↑

1. Head south on Botany Rd towards Buckland St

---

14 min (7.4 km)

350 m
- ↗

2. Turn right onto McEvoy St

---

800 m
- ↑

3. Continue onto Euston Rd

---

500 m
- 📍

4. At the roundabout, take the 2nd exit onto Sydney Park Rd

---

800 m

- ↩ 5. Use the left 2 lanes to turn left onto King St/Princes Hwy/A36  
i Continue to follow Princes Hwy/A36  


---

1.2 km
- ↑ 6. Continue straight to stay on Princes Hwy/A36  


---

2.9 km
- ↙ 7. Slight left onto W Botany St  


---

450 m
- ⤴ 8. Use the left lane to merge onto M5 via the slip road to Liverpool/Canberra  


---

350 m

**Follow M5 and M7 to Wallgrove Rd in Eastern Creek. Take the Wallgrove Rd exit from M7**

29 min (43.7 km)

- ⤴ 9. Merge onto M5  
⚠ Partial toll road  


---

25.0 km
- ↙ 10. Use the left 2 lanes to merge onto M7 towards Blacktown/Newcastle  
⚠ Partial toll road  


---

18.3 km
- ↙ 11. Take the Wallgrove Rd exit towards Eastern Ck  
⚠ Toll road  


---

450 m

**Continue on Wallgrove Rd. Take Wonderland Dr to Wallgrove Rd**

4 min (1.3 km)

- ↘ 12. Use any lane to turn right onto Wallgrove Rd  


---

750 m
- ↩ 13. Turn left onto Wonderland Dr  


---

160 m
- 📍 14. At the roundabout, take the 3rd exit and stay on Wonderland Dr  


---

250 m
- ↘ 15. Use any lane to turn right onto Wallgrove Rd  

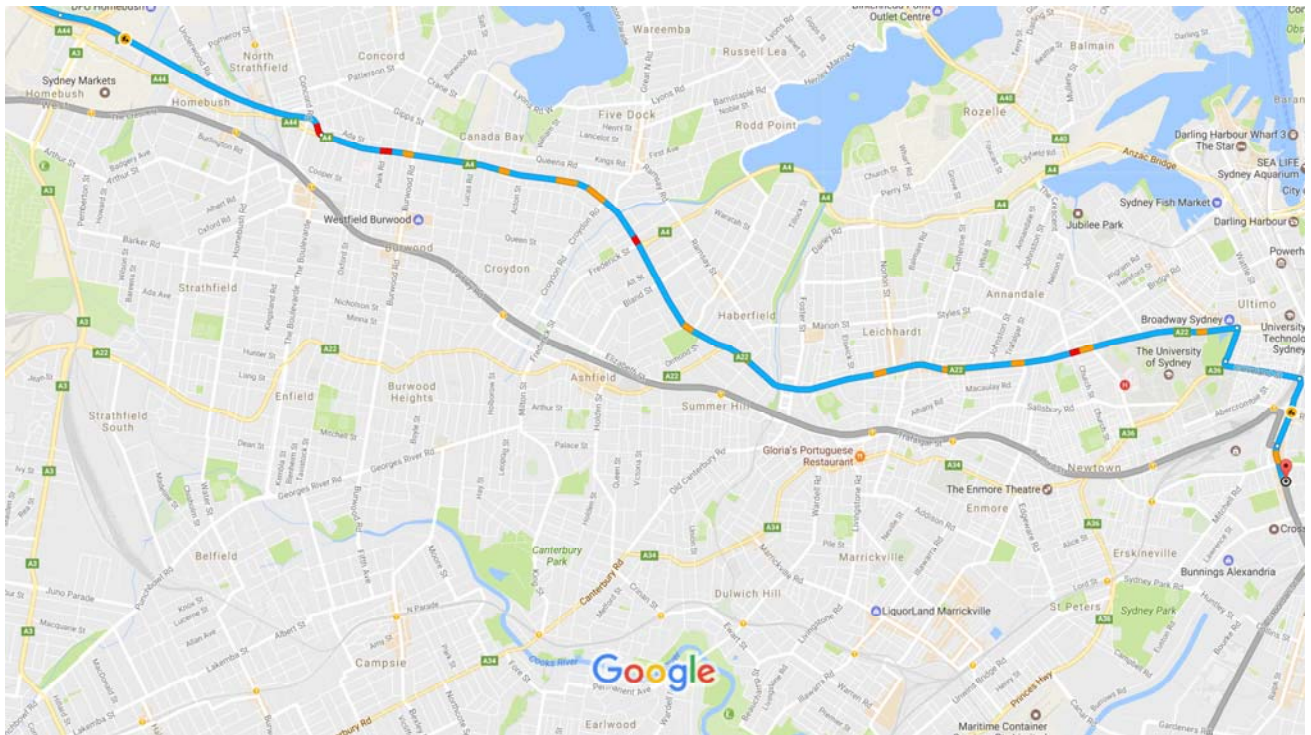

---

190 m

## Eastern Creek

New South Wales 2766

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



Map data ©2017 Google 500 m

## Eastern Creek

New South Wales 2766

### Get on M7

- 2 min (1.0 km)
- ↑ 1. Head south on Wallgrove Rd

---

- 550 m
- ↙ 2. Turn left to merge onto M7 towards Blacktown/NewCastle
- 450 m
- ⚠ Toll road

### Follow M4 to Great Western Hwy/Parramatta Rd/A4 in Concord

- 19 min (25.5 km)
- ↙ 3. Merge onto M7
- 500 m
- ⚠ Toll road
- ↙ 4. At the Light Horse junction, Use the left lane to follow signs for M4 towards Blacktown/Sydney
- 15.0 km
- ⚠ Partial toll road
- ↘ 5. Keep right to stay on M4
- 7.1 km

➤ 6. Keep right to stay on M4

2.9 km

**Continue on Great Western Hwy. Drive to Botany Rd in Waterloo**

24 min (12.5 km)

➤ 7. Use any lane to turn slightly left onto Great Western Hwy/Parramatta Rd/A4

[i Continue to follow Great Western Hwy](#)

10.3 km

➤ 8. Use the right 2 lanes to turn right onto City Rd/Princes Hwy/A36

400 m

➤ 9. Turn left onto Cleveland St

800 m

➤ 10. Turn right onto Regent St

750 m

↑ 11. Continue onto Botany Rd

[i Destination will be on the left](#)

350 m

**-33.8982583, 151.2000812**

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

## Appendix 5 Road safety audit

## ROAD SAFETY AUDIT FINDINGS AND RECOMMENDATIONS

**Audit Stage:** Desktop Traffic Management (CTMP)

**Title of package:** Waterloo Station Excavation Site

**Description of works:** Building Construction

**Plans / documents:** DD-SYDM-TMP-0005 Rev B-00

**Client:** Delta Group (Sue Lewis Consulting)

**Audit company:** Road Safety Audits P/L

**Senior auditor/s:** Peter Harris / Raj Muthusamy (Level 3 SRSA NSW)

**Report date:** 22/05/2017

**RSA P/L reference:** RSA-0577

**Notes:** - Nil.

Point No.	Issue	Suggestion	Delta Group (Sue Lewis Consulting) Response	
			Accept / Reject	Comment / Status
1.	It is noted that the existing bus stop near the church along the southbound lanes of Botany Road is to be removed or relocated during the works.	Ensure that there is adequate signage at the closed or relocated bus stop to advise passengers of its status and to direct them to the appropriate stop.	Reject	Bus stop to remain in current location
2.	It is noted from the construction vehicle swept path plot that some parked vehicles along the eastern side of Botany Road will interfere with the left turn movement into access for Stage 1 & 2.	Remove parking spaces that interfere with construction vehicle left turn swept path.	Reject	No change to drawing
3.	Similar to point 2, some parked vehicles will interfere with the left turn out of the Stage 1 egress on Cope Street.	Remove parking spaces that interfere with construction vehicle left turn swept path.	Reject	Egress not required
4.	Noted that B class hoarding is proposed along the eastern side of Botany during Stage 1. Traffic will be present in the adjacent lane during the clearway periods and the gantry legs are not shielded at this stage.	Review. It is acknowledged that operating speeds in the adjacent lane during clear way periods will be low due to the high level of congestion.	Accept	Hoarding design to take into account

Point No.	Issue	Suggestion	Delta Group (Sue Lewis Consulting) Response	
			Accept / Reject	Comment / Status
5.	Proposed CTMP is generally good and no significant issues are raised as a concern from a road safety perspective. However, the kerbside lane merge on Botany Road on a curve does not have an arrow board.	It is suggested that an arrow board be included along the merge taper on the straight to improve conspicuity of the lane merge.	Accept	Drawing amended



Notes: -



## Appendix 6    Review comments

## COMMENTS REGISTER

Report Name:	CTMP Waterloo Station Excavation Site		
Author:	Sydney Metro Chatswood to Sydenham		
Version:	B-01		
Date:	29/05/17		
Section	Issue	Stakeholder Comment	Metro/ Contractor Response
2.3.4	Impacts to Public Transport	RMS/SCO prefer for the Bus Stop to be relocated, there is need to deal with STA regarding its relocation.	The drawing has been adjusted to allow the current bus stop to remain
2.3.9	Mobile Crane works	There is need to provide details on mobile crane work well ahead of execution. Do not consider Botany Road to stand a crane as it would be highly unlikely that a crane closure would be approved along this corridor.	Noted
Appendix 2	Turning paths	Stage 2 site entry, during clearway periods turning from lane 2 has the potential to be hazardous. Stage 2 site exit, vehicles exiting the site crossing the centre line of Botany Rd is unacceptable, there is need to ensure vehicles coming out of the driveway do not encroach onto oncoming traffic.	Noted – turning circles are very conservative when placed on a plan – as was recognised in the exercise undertaken in Chatswood. The trucks will always turn into the appropriate carriageway

## CTMP Review Comments Sheet

**Project Title**
**Sydney Metro City & south west – Demolition Contract**

CTMP Title: Waterloo Site

Document Number:

DD SYDM CTMP 0005 B 01

Reviewer: City of Sydney

Responder: S Lewis

 Date: 9<sup>th</sup> June 2017

 Date: 11<sup>th</sup> June

Item	Section/ Page	Comments	Response
1	Title page	As this CTMP is specifically for the demolition of the Waterloo Station site, the title on the front page must read as: "Sydney Metro City & South West, Construction Traffic Management Plan, <b>Demolition of Waterloo Station Site</b> ".	Document amended
2	1.2	Amend "The purpose of this Construction Traffic Management Plan (CTMP): <b>DEMOLITION OF WATERLOO STATION SITE</b> is to detail the site operations for the demolition phase of the Sydney Metro City & South West project for the Waterloo Station site only."	Document amended
3	2.1.1	The speed limit in this section of Botany Road is 50km/hr	Document amended
4	2.1.1	Further information is required about which existing driveways will be used, travel routes and provide dimensions of the largest vehicle to be used.	Document amended in Section 2.3.2 for driveways to be used, Appendix 4 for routes. Section 3.1 already contains dimensions of vehicles to be used.
5	2.3.1	The installation of hoarding and scaffolding requires an <i>Application for Approval – Temporary Structures</i> and payment of associated fees - <a href="http://www.cityofsydney.nsw.gov.au/data/assets/pdf_file/0008/118673/Application-for-Approval-Temporary-Structures-Hoardings,-Scaffolding.pdf">http://www.cityofsydney.nsw.gov.au/data/assets/pdf_file/0008/118673/Application-for-Approval-Temporary-Structures-Hoardings,-Scaffolding.pdf</a>  Hoarding and scaffolding must be installed in accordance	Noted and as per Section 2.3.10

Item	Section/ Page	Comments	Response
		6with City's <i>Hoarding and Scaffolding Policy</i> - <a href="http://www.cityofsydney.nsw.gov.au/data/assets/pdf_file/0008/279548/Hoardings-and-Scaffolding-Policy-2017-final.pdf">http://www.cityofsydney.nsw.gov.au/data/assets/pdf_file/0008/279548/Hoardings-and-Scaffolding-Policy-2017-final.pdf</a>	
6	2.3.4	The City would support the temporary relocation of the Bus Stop to a near location during construction. The existing bus shelter will need to be relocated to the temporary location of the Bus Stop	Relocation is now not required.
7	2.3.6	It must be clearly stated that vehicles associate with the construction site must not park in any on-street parking spaces.	Document amended
8	3	No dog trailers or articulated vehicles (AV) are to be used (unless specific approval for a one-off occasion is obtained from the City's Construction Regulation Unit).	The use of truck and dogs is valid at this site as it significantly reduces truck numbers associated with the works. Green Square, used truck and dogs during their main excavation works. Furthermore, the law does not restrict the use of truck and dogs – no change to document
9	3.1	No dog trailers or articulated vehicles (AV) to be used (unless specific approval for a one-off occasion is obtained from the City's Construction Regulation Unit).	As per response to Item 8
10	3.2	The City can approved access for oversize and/or over mass vehicles on the City's roads following the submission of <i>Oversize &amp; Over Mass Vehicle Permit Application</i> and payment of associated fees – <a href="http://www.cityofsydney.nsw.gov.au/data/assets/pdf_file/0007/238075/Oversize-And-over-mass-vehicle-permit-application.pdf">http://www.cityofsydney.nsw.gov.au/data/assets/pdf_file/0007/238075/Oversize-And-over-mass-vehicle-permit-application.pdf</a> .	Noted and included in Section 2.3.10
11	4.3.1	Road closures, road changes and lane closures may require approval from the City depending on the location of the activity. Should the activity require the City's approval, the Applicant must submit an application, pay all associated fees and comply with all requirements.	Noted and included in Section 2.3.10
12	Appendix 2	Section 2.3.1. states that "The current parking restrictions will be retained along the site frontages". Drawing No. DD- SYDM-	Noted, drawing amended

Item	Section/ Page	Comments	Response
		<p>DWG-0005-02 shows the installation of No Stopping signs to remove parking in Cope Street. The City does not support the parking change.</p> <p>Section 2.3.1. states that “The use of the local surrounding streets is not proposed due to the possible impact on the community as this would require routing of trucks on local roads with significant changes required to existing infrastructure.”. Drawing No. DD-SYDM-DWG-0005-02 shows a swept path of a vehicle exiting the site into Cope Street. Access to and from the site should be from Botany Road.</p>	<p>Noted drawing amended</p>
13	Appendix 4	<p>Drawing No. DD-SYDM-DWG-0005-08 shows travel routes on local roads. Construction vehicles on Botany Road must turn left into McEvoy Street, left into Bourke Street and right into Lachlan Street to access the M1. Trucks must not use Epsom or Link Roads.</p>	<p>Drawings amended</p>

## CTMP Review Comments Sheet

<b>Project Title</b>	<b>Sydney Metro City &amp; south west – Demolition Contract</b>
----------------------	---

CTMP Title: Waterloo Site

Document Number:

DD SYDM CTMP 0005 B 01

Reviewer: Alan McNamara TfNSW

Responder: Sue Lewis

Date: 5 June 2017

Date: 5 June 2017

Item	Section/ Page	Comments	Response
1	2.1.1	Botany Road ends at Port Botany. Botany Road is a four lane two-way road or two lanes in each direction	Document amended
2	2.3.1	Define the northern and southern ends of the site. The diagram in Appendix 2 indicates three stages so the delineation is not clear	Hoarding layout has been amended – 1 layout only
3	2.3.7	Does the Green Square redevelopment have any potential impacts as the proposed truck routes go through Green Square	The truck route has been revised as required by City of Sydney
4	3.2	Permit issue for overmass/ oversize vehicles greater than 4.5 tonnes?	Document amended
5	3.4	Third paragraph, last sentence – should this read “trucks will arrive post the site start time”?	Document amended
6	4.4	Second paragraph last sentence should be “by a qualified person holding an RMS “Prepare a Work Zone Traffic Management Plan”	Document amended
7	Appendix 2	Access from Botany Road will need to occur from Lane 2 during Clearway times. This will need to be shown	Drawing and document amended

Item	Section/ Page	Comments	Response
8	Appendix 2	The egress swept path of the truck appears to cross over the centreline	Note that swept paths tend to be overly conservative as was shown at the Chatswood site exercise. All truck movements will remain within the same carriageway.
9	Appendix 3	The roadworks 40km/hr speed limit signs should be R4-212	Drawings amended

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## Delta Group - CTMP - Waterloo Metro Station

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Sue Lewis <siouxzie.lewis@gmail.com>

Tue, Jun 20, 2017 at 11:10 AM

Draft To: Van Le <vle@cityofsydney.nsw.gov.au>

Cc: RAMIREZ Giovanni <Giovanny.RAMIREZ@tmc.transport.nsw.gov.au>, Mark Hannan <mhannan@cityofsydney.nsw.gov.au>, "Kenneth.Hind@transport.nsw.gov.au" <Kenneth.Hind@transport.nsw.gov.au>, "Brogan, Philip" <Philip.Brogan@transport.nsw.gov.au>

On Tue, Jun 20, 2017 at 10:45 AM, Van Le <vle@cityofsydney.nsw.gov.au> wrote:

Hi Gio

Delta Group's *Sydney Metro City & South West – Construction Traffic Management Plan – Demolition of Waterloo Station Site – June 2017 Rev C-00* (attached) is acceptable subject to the following:

- Section 2.3.9. and 3. has **"Error! Reference source not found."**

- Document amended

Appendix 4 - DD-SYDM-DWG-0005-08 – Vehicles must turn right into Lachlan Street and not Crescent Street from Bourke Street. Construction vehicles must utilise State Roads over Regional and Local Roads

Drawing amended

- An updated CTMP with new swept paths must be submitted for approval should truck and dogs be used. Swept paths must show how vehicles enter and exit in a forward direction and turnaround within the site.

Drawings amended

Kind regards

Van Le  
Traffic Manager - North  
City Infrastructure & Traffic Operations



**From:** McNamara, Alan  
**To:** [Alan McNamara](#)  
**Subject:** FW: CTMP Approval - Waterloo Station  
**Date:** Thursday, 6 July 2017 12:50:07 PM

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**From:** RAMIREZ Giovanni  
**Sent:** Monday, 3 July 2017 12:42 PM  
**To:** Sue Lewis; Ben Shum; O'Leary, Peter  
**Cc:** ISSA Steven C; MCNEILL Paul A  
**Subject:** CTMP Approval - Waterloo Station

Ben / Sue / Peter

In accordance with clause 2.3 (c) of the General Conditions, Schedule E3-Project Planning Approval and Conditions & the SMR E – Sydney Metro City and Southwest Demolition Contract the Roads and Maritime Service of NSW and the Sydney Coordination Office approve the Sydney Metro City & South West Construction Traffic Management Plan Demolition of Waterloo Station Site June 2017 Rev C-01 for demolition and related removal works for the Waterloo Site subject to the following requirements:

- Traffic control for awning removal and hoarding installation to be implemented as outlined in Appendix 3 TCP Strategy
- Obtaining Road Occupancy Licences (ROLs) from the Transport Management Centre for as required;
- Obtaining an approved hoarding installation certificate from the City of Sydney Council
- Complying with haulage routes as approved by SCO/RMS and described in Appendix 4 of the CTMP
- Addressing any safety issues identified within the Road safety Audit review of the Construction Traffic Management Plan;
- Addressing any issues raised by Council, residents/business and/or Emergency Services in the CTMP approval process;
- The Construction Traffic Management Plan being updated as required prior to construction commencing to ensure consistency with the final Construction Traffic Management Framework when it is approved
  
- Promptly addressing any CBD Taskforce and/or TMC and/or RMS issue that eventuates during the works

Regards

Giovanny Ramirez  
Principal Manager Taskforce Operations  
CBD Transport Taskforce | Sydney Coordination Office  
Transport for NSW  
T 02 8396 1460 M 0403 098 060  
[www.transport.nsw.gov.au](http://www.transport.nsw.gov.au)

**Transport for NSW**  
CBD Transport Taskforce  
25 Garden St | Bio Medical Bldg | Eveleigh 2015

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Mr Stuart Hodgson  
Principal Manager,  
Program Sustainability Environment & Planning  
Sydney Metro  
Transport for NSW  
PO Box 588  
NORTH RYDE BC NSW 1670

27 July 2017

Ref: CTMP- Waterloo

Dear Stuart

**RE: Endorsement of Construction Traffic Management Plan – Waterloo Station Site, Sydney Metro City & Southwest**

Thank you for providing the following documents for Environmental Representative (ER) review and endorsement as required by the Condition of Approval E82 of the Sydney Metro City & Southwest project (SSI – 15\_7400 January 9 2017).

- Construction Traffic Management Plan – Demolition of Waterloo Station Site, (Revision C-01 dated 20 June 2017).
- Email dated 3 July 2017 stating *“In accordance with clause 2.3 (c) of the General Conditions, Schedule E3-Project Planning Approval and Conditions & the SMR E – Sydney Metro City and Southwest Demolition Contract the Roads and Maritime Service of NSW and the Sydney Coordination Office approve the Sydney Metro City & South West Construction Traffic Management Plan Waterloo Station Site Rev C-01 for demolition and related removal works for the Waterloo site.”*

It is noted that the Roads and Maritime Service of NSW and the Sydney Coordination Office approval above is conditional on the following:

- Traffic control for awning removal and hoarding installation to be implemented as outlined in Appendix 3 TCP Strategy
- Obtaining Road Occupancy Licences (ROLs) from the Transport Management Centre for as required;
- Obtaining an approved hoarding installation certificate from the City of Sydney Council
- Complying with haulage routes as approved by SCO/RMS and described in Appendix 4 of the CTMP
- Addressing any safety issues identified within the Road safety Audit review of the Construction Traffic Management Plan;
- Addressing any issues raised by Council, residents/business and/or Emergency Services in the CTMP approval process;

- The Construction Traffic Management Plan being updated as required prior to construction commencing to ensure consistency with the final Construction Traffic Management Framework when it is approved
- Promptly addressing any CBD Taskforce and/or TMC and/or RMS issue that eventuates during the works.

As an approved ER for the Sydney Metro City & Southwest project, I have reviewed the above documents. The review did not comprise a technical review, as the ERs are not traffic experts. It is noted the document has had consultation as described in Table 3 and includes review comments and responses.

It is considered that the plan is generally consistent with Condition E82 and the Sydney Metro Construction Traffic Management Framework (CTMF) as referenced in Condition E81 of the Project Approval (subject to the above conditions being complied with).

Yours sincerely



Michael Woolley  
Environmental Representative – Sydney Metro – City and South West