

Macquarie Corporate Holdings Pty
Limited

**Sydney Metro Martin Place
Station**

**Stage 1 SSD DA Construction
Pedestrian and Traffic Management
Plan**

SMMPS_ARP_00_XX_RP_T_19004

Rev 01 | 25 May 2017

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It is not intended for and should not be relied
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Job number 247838

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Contents

	Page
1 Introduction	1
1.1 Background	1
1.2 O’Connell Street – future underground pedestrian link	2
1.3 Site Description	3
1.4 Overview of the Proposal Development	5
1.5 Planning Approvals Strategy	6
1.6 Sydney Metro City & Southwest Chatswood to Sydenham - Conditions of Approval	7
2 Description of construction works	8
2.1 Construction programme	8
2.2 Vehicle types expected	9
2.3 Works zone	9
3 Impact Assessment	10
3.1 Vehicle movements and routes for EIS Approval compared with SSDA	10
3.2 Vehicle movements and routes for inclusion of the O’Connell Street pedestrian link compared with CSSI MOD	13
3.3 Road network performance	14
3.4 Parking	18
3.5 Pedestrians	18
3.6 Public transport services	19
4 Effects on existing and future developments	19
4.1 Sydney Light Rail	20
4.2 Sydney Metro	20
5 Emergency vehicle provisions	20
6 Measures to ameliorate impacts	20
6.1 Vehicle movements	21
6.2 Driver code of conduct	21
6.3 CBD Coordination Office discussions	21
7 Public transport services affected	21
8 Public consultation	22

1 Introduction

This report supports a State Significant Development (SSD) Development Application (DA) submitted to the Minister for Planning pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Macquarie Corporate Holdings Pty Limited (Macquarie) is seeking to create a World Class Transport and Employment Precinct at Martin Place, Sydney.

The application seeks Stage 1 approval for the establishment of building envelopes, maximum Gross Floor Areas and design parameters for two predominantly commercial office Over Station Development (OSD) towers, located above the site of the future Martin Place Metro Station (part of the NSW Government's Sydney Metro project).

This report provides a preliminary Construction Pedestrian and Traffic Management Plan (CPTMP) for the proposed Sydney Metro Martin Place Station (SMMPs) development (the site).

The plan has been created by Arup on behalf of Macquarie and addresses Issue number 8 of the Secretary Environmental Assessment Requirements (SEARs) which requires '*preliminary construction management statement addressing how future stages will manage impacts to pedestrians, rail users, bus services and taxis*'.

The purpose of the CPTMP is to assess the proposed access, operation and impacts of construction traffic associated with the proposed development with respect to safety and capacity. The CPTMP is to be submitted as part of the Stage 1 SSD Development Application.

This plan will detail the management needed to control construction activities, while minimising effects on the surrounding developments and allowing for appropriate access at all times. The Contractor (once appointed) will prepare a detailed CPTMP and associated Traffic Control Plans detailing specific methods of safely managing construction vehicle traffic within the surrounding area.

1.1 Background

The New South Wales (NSW) Government is implementing Sydney's Rail Future (Transport for NSW, 2012), a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers in the future.

Sydney Metro is a new standalone rail network identified in Sydney's Rail Future. The Sydney Metro network consists of Sydney Metro Northwest (Stage 1) and Sydney Metro City & Southwest (Stage 2).

Stage 2 of the Metro entails the construction and operation of a new Metro rail line from Chatswood, under Sydney Harbour through Sydney's CBD to Sydenham and eventually onto to Bankstown through the conversion of the

existing line to Metro standards. The project also involves the delivery of seven (7) new Metro stations, including Martin Place.

This step-change piece of public transport infrastructure once complete will have the capacity for 30 trains an hour (one every two minutes) through the CBD in each direction catering for an extra 100,000 customers per hour across the Sydney CBD rail lines.

On 9 January 2017 the Minister for Planning approved the Stage 2 (Chatswood to Sydenham) Metro application lodged by Transport for NSW (TfNSW) as a Critical State Significant Infrastructure (CSSI) project (reference SSI 15_7400).

TfNSW is also making provision for future Over Station Development (OSD) on the land it has acquired for the Stage 2 Sydney Metro project, including land acquired for the purposes of delivering Martin Place Station. The OSD development is subject to separate applications to be lodged under the relevant provisions of the EP&A Act.

An Unsolicited Proposal submission has been lodged by Macquarie to the NSW Government for the delivery of a single fully integrated station/OSD solution for the new Sydney Metro Martin Place Station.

1.2 O'Connell Street – future underground pedestrian link

The Chatswood to Sydenham Submissions and Preferred Infrastructure Report, October 2016, provides further information on investigations for a proposed underground pedestrian connection and station entry for Martin Place metro station at 33 Bligh Street (now referred to as the O'Connell Street site).

The key activities that would be carried at the O'Connell Street site to construct Martin Place Station would include:

- Excavation of a shaft to provide a future station entry / exit and vertical transport
- Excavation of underground pedestrian connections from the shaft using a mined technique
- Excavation of the Martin Place Station caverns using two road headers.

Excavation for the pedestrian link is expected to generate 54,000 cubic metres of spoil. This would be in addition to the 175,000 cubic metres identified in the Environmental Impact Statement. Construction access would be left-in from O'Connell Street and left-out to Bligh Street.

Construction works would occur for about 12 months, and would take place at the same time as excavation for Martin Place Station is being undertaken. This is expected to occur from the fourth quarter of 2017 until the third quarter of 2019.

1.3 Site Description

The Sydney Metro Martin Place Station Precinct (the Precinct) project relates to the following properties (refer to **Figure 1**):

- 50 Martin Place, 9 – 19 Elizabeth Street, 8 – 12 Castlereagh Street, 5 Elizabeth Street, 7 Elizabeth Street, and 55 Hunter Street (North Site);
- 39 – 49 Martin Place (South Site); and
- Martin Place (that part bound by Elizabeth Street and Castlereagh Street).

The land the subject of this application relates only to the North and South Site (refer to **Figure 2**). Each site will accommodate one OSD tower above the future Sydney Metro Martin Place Station (representing the northern and southern entries/gateways to the Sydney Metro station). The land acquired for the Sydney Metro Martin Place Station is the same as for the Macquarie proposal, except that the Macquarie proposal includes the two properties north of Martin Place owned by Macquarie, namely 50 Martin Place and 9-19 Elizabeth Street.

Both the North and South Sites are regular in shape and have area of approximately 6,022m² and 1,897m² respectively, totalling 7,919m².



Figure 1 Location map of Precinct

Source: Google maps and JBA

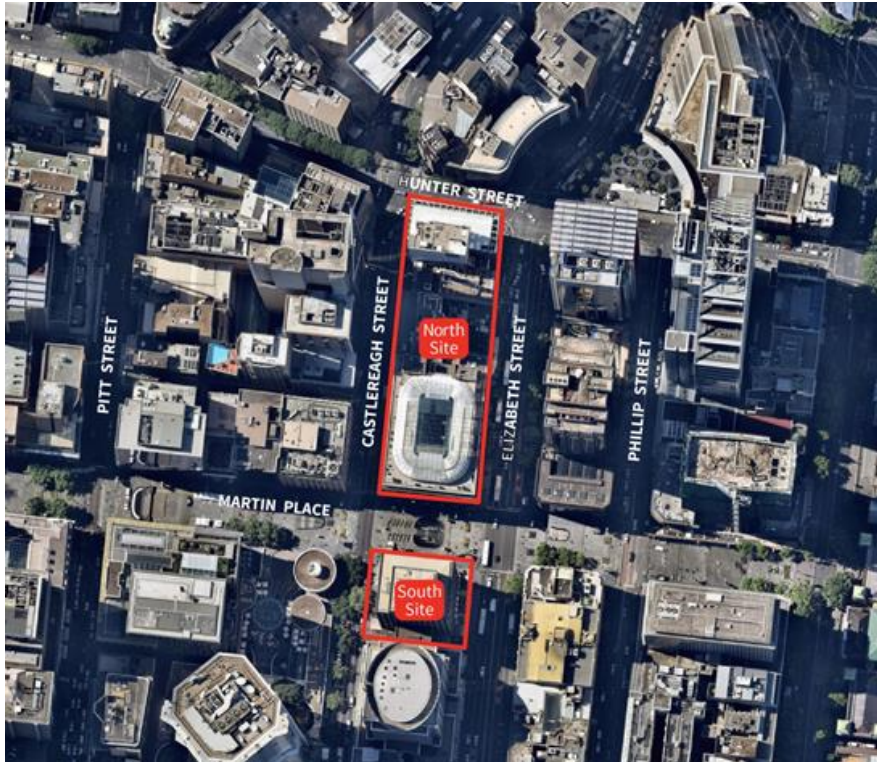


Figure 2 Aerial photo of the North and South Site

Source: Nearmap and JBA

Located close to the centre of the Sydney CBD, the Precinct comprises of the entire City block bounded by Hunter Street, Elizabeth Street, Martin Place and Castlereagh Street; that portion of Martin Place located between Elizabeth Street and Castlereagh Street and the northern most property in the block bounded by Martin Place, Elizabeth Street, Castlereagh Street, and King Street. Together it constitutes an above ground site area of approximately 9,400 square metres, with a dimension from north to south of approximately 210 metres and from east to west of approximately 45 metres. It incorporates a significant portion of one of Sydney's most revered public spaces – Martin Place.

Martin Place is recognised as one of Central Sydney's great public, civic and commemorative spaces, as well as being a historically valued commercial and finance location of Sydney's CBD. Martin Place and a large number of buildings on, or in close proximity to, Martin Place are identified as heritage items, either as items of National, State or Local significance. Number 50 Martin Place, which forms part of the Macquarie North Site, is one of these major heritage items.

There has been a number of redevelopment and refurbishment proposals in recent years along Martin Place to improve existing assets and recapture their premium commercial status (e.g. 5 Martin Place, 50 Martin Place, 20 Martin Place, upgrades of the MLC Centre, and 60 Martin Place). The City of Sydney Council has also identified a need to reinvigorate Martin Place and upgrade the public spaces.

The surrounding locality is characterised by a variety of built forms and architectural styles, with many of the buildings, including those of relatively

recent years, not complying with the current planning controls with respect to building heights, setbacks and street wall heights.

In terms of land use the area is characterised by a predominance of office uses, with some ground floor retailing, cafés, or restaurants and hotels (most notably the Westin and the Wentworth) to support its primary business centre function.

1.4 Overview of the Proposal Development

The proposal by Macquarie is unique and innovative in aligning the aspirations for public transport, civic amenity and the long-term sustainability of Sydney as a financial centre. This will be achieved through a development designed to maximise the opportunities for an improved Metro Station, integration of the existing and new public transport infrastructure, integration of that infrastructure with modern commercial office towers and world class retailing, along with rejuvenating and complimenting some of Sydney's most revered public spaces, and substantially improving station access and connectivity.

More specifically the development will comprise a concept proposal (under section 83B of the EP&A Act) for the OSD for the North and South Sites. It will be designed as a fully integrated Station and OSD project that, subject to approval, will be built and delivered as one integrated project for opening at the same time as the Sydney Metro is commissioned.

The concept proposal establishes the vision and planning and development framework which will be the basis for the consent authority to assess future detailed development proposals (Stage 2 DAs).

1.4.1 The North Site

The Concept Proposal for the North Site is for a new 40+ storey, predominately commercial office building. The proposal seeks to integrate with the existing 50 Martin Place building, supporting large commercial floor plates. No connections to 50 Martin Place are proposed for the basement levels of that building, including the level of the significant heritage Safe Deposit Vault.

1.4.2 The South Site

The Concept Proposal for the South Site is for a new 28+ storey predominately commercial office building.

The detailed design of the OSD is still in its preliminary stages. Critically it requires an integrated design approach to be adopted between the commercial OSD components classified as SSD, and the Station components, which are classified as CSSI and have already been approved. This is to ensure:

- all the operational needs of the Metro Station are accommodated in accordance with TfNSW requirements and the structural and other requirements of the OSD are accommodated within the Station building beneath, in what is essentially one building; and
- a cohesive public domain and built form outcome is achieved for Sydney.

In this regard, OSD uses and structural elements are located within the below ground and lower podium levels, as conceptually approved under the CSSI consent for the Martin Place Station.

The Staged DA will seek consent for, amongst other things, land uses, gross floor area, building envelopes, and vehicle access arrangements.

A more detailed and comprehensive description of the proposal is contained in the Environmental Impact Statement (EIS) prepared by JBA.

1.5 Planning Approvals Strategy

The *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD) identifies development which is declared to be State Significant. Under Schedule 1 and Clause 19(2) of SEPP SRD, development within a railway corridor or associated with railway infrastructure that has a capital investment value of more than \$30 million and involves commercial premises is declared to be State Significant Development (SSD) for the purposes of the EP&A Act.

The proposed development (involving commercial development that is both located within a rail corridor and associated with rail infrastructure) is therefore SSD.

Pursuant to Section 83B of the EP&A Act a Staged DA may be made setting out concept proposals for the development of a site (including setting out detailed proposals for the first stage of development), and for which detailed proposals for separate parts of the site are to be the subject of subsequent DAs. This SSD DA is a staged development application made under Section 83B of the EP&A Act.

A detailed development application(s) (Stage 2 DAs) will accordingly follow, seeking approval for the detailed design and construction of all or specific aspects of the proposal in accordance with the approved staged development application.

Submitted separately to this SSD DA are applications to modify the CSSI approval together with a Planning Proposal relating to the North Site (FSR only) and South Site (height and FSR).

For clarity, **Figure 3** below is a diagrammatic representation of the suite of applications proposed by Macquarie, to show the relationship of the SSD DA (the subject of this report) to the Planning Proposal and the Martin Place Metro CSSI.

The Department of Planning and Environment have provided Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement for the proposed development. This report has been prepared having regard to the SEARs as relevant.

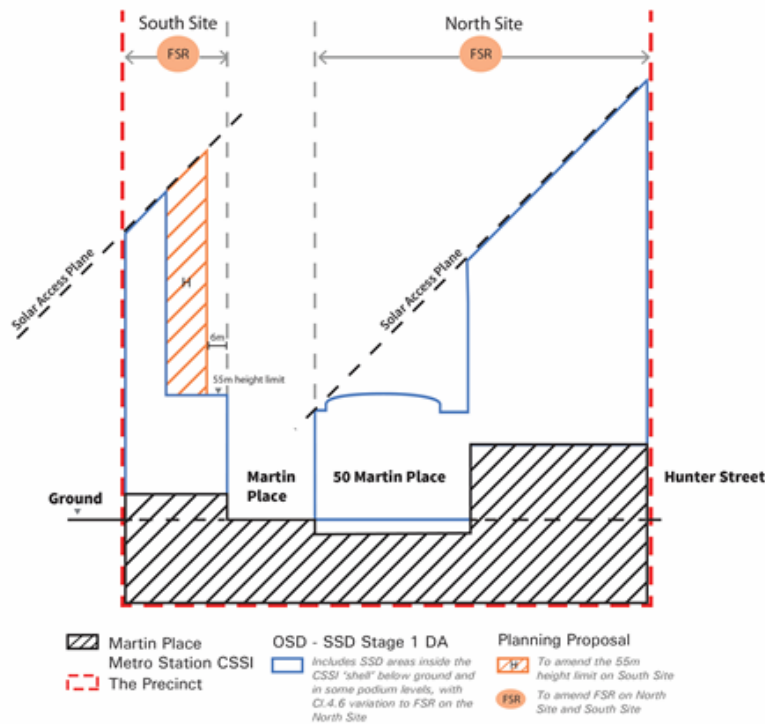


Figure 3 Relationship of planning applications

Source: JBA

1.6 Sydney Metro City & Southwest Chatswood to Sydenham - Conditions of Approval

The Minister for Planning issued Infrastructure Approval for Sydney Metro City & Southwest Chatswood to Sydenham, Critical State significant infrastructure (CSSI), on 9 January 2017.

Condition E77 of the approval requires the Proponent to establish a Traffic and Transport Liaison Group(s) (TTLGs) to inform traffic and transport management measures during construction and operation of the CSSI. Management measures must be coordinated with and approved by the RMS following endorsement by the Sydney Coordination Office and consultation with the Relevant Roads Authority.

The TTLG must comprise representatives from the Relevant Road Authority(ies) (including the RMS, relevant Councils, and the Barangaroo Delivery Authority as appropriate), transport operators (including bus and taxi operators), emergency services and Port Authority of NSW as required. The TTLG must be consulted on to inform the preparation of the Construction Traffic Management Plan(s) and Interchange Access Plan(s).

The approval includes a series of conditions under Construction Transport and Access that will need to be addressed in future detailed CPTMPs for the development.

2 Description of construction works

2.1 Construction programme

The indicative construction timeframe for Martin Place Station was provided in the EIS Chapter 7 (Table 7-13) and is replicated here in **Figure 4**. There may be a requirement for these timeframes to be adjusted as the Contractor is not yet appointed and the construction programme is not yet finalised.

It is proposed that the development for the OSD for the North and South Sites will be designed as a fully integrated Station and OSD project that, subject to approval, will be built and delivered as one integrated project for opening at the same time as the Sydney Metro is commissioned.

Table 7-13 Martin Place Station indicative construction program

Construction activity	Indicative construction timeframe															
	2017				2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Enabling works and site establishment	●	●														
Station excavation					●	●	●	●	●	●	●	●				
TBM pass through station									●	●						
Station structural works									●	●	●	●	●	●		
Station fit out													●	●	●	●
Station testing and commissioning															●	●

Figure 4 Indicative construction timeframe (Source: Sydney Metro City & Southwest EIS)

The general construction operating hours for the majority of the station fit-out and other aboveground construction activities would be carried out during the following hours to comply with the conditions of consent of the CSSI Approval:

- 7:00am to 6:00pm (Monday-Friday)
- 8:00am to 1:00pm (Saturday)
- No work on public holidays or Sundays.

However, there are other substantial activities that would need to be carried out outside these hours 24 hours per day, seven days per week:

- Tunnelling
- Underground excavation at station and ancillary sites
- Tunnel and station fit-out (underground)

Condition E44 also allows works outside of standard hours for specific purposes. Condition E80 of the approval requires that the Proponent must minimise truck

movements during peak periods within commercial centres. Peak periods are 7am to 10am and 4pm to 7pm Monday to Friday.

There will be closures required during special events (e.g. New Year's Eve and Vivid) that will need to be coordinated with TfNSW and City of Sydney. The site will be closed down and kept clear for safe pedestrian movements during these events.

2.2 Vehicle types expected

The following types of 2890.2 Australian Standard trucks are proposed and have been used for design purposes during the project:

- Medium Rigid Vehicles (MRVs) – includes 8-wheeler concrete agitators
- Heavy Rigid Vehicles (HRVs)

Most of the large construction materials are proposed to be transported by a 12.5m Heavy Rigid Vehicle (the maximum sized truck). SRVs and small utes/vans (and occasional MRVs as a maximum sized vehicle) will also be required to access the site.

All heavy goods such as machinery plant, excavators, piling rigs and tower cranes will need to be delivered during night hours on weekends. It is envisaged that a number of mobile crane nights will be required during the construction stage of the program, with limited lifting operations on weekends. These operations would be subject to a separate application for partial road closure with the Roads and Maritime Services and City of Sydney Council as required. These closures will be consulted with both Sydney Light Rail as necessary.

2.3 Works zone

The approval requires construction vehicles to access both the southern and northern sites by a left turn movement from Castlereagh Street and to egress by a left turn movement into Elizabeth Street. This method could be used initially to assist with excavation however for construction of the over station development it will be necessary to utilise on-street or indented construction zones. Castlereagh Street provides a good opportunity for this with existing indented parking being able to be utilised without impacting on the bus lanes.

For excavation, the preferred truck route is through the 33 Bligh Street site with entry from O'Connell Street and exit to Bligh Street with this connection also requiring excavation.

3 Impact Assessment

3.1 Vehicle movements and routes for EIS Approval compared with SSDA

3.1.1 Vehicle movement forecasts SSDA

The tower construction activity for the over station development scheme will overlap with the station fitout. The tower construction will occur from level 5 upwards following the station construction works and hence not overlap with the early peak excavation and construction activity.

The level of traffic activity for the combined construction of the two towers could be expected to be in the order of 50 trucks per day or 3 peak hour trucks (6 truck movements) on average, with some increased activity on concrete pour days. The over station development is therefore expected to generate approximately 6 truck movements in the peak hour.

3.1.2 Cumulative vehicle movements

The proposed mod increases the level of construction activity by increasing the extent and size of above and underground works above the works contemplated by the CSSI approval. The truck activity identified in the approved CSSI will increase proportionally based on spoil removal and materials handling for construction.

- Station excavation and fit-out involves an increase of between 30% and 50% in activity owing to the enlarged site. This will extend the period of excavation but is not anticipated to increase the level of vehicle activity at any one point in time.
- Demolition activity will increase by the inclusion of 9-19 Elizabeth Street, however the timing of demolition for this building is expected to occur after demolition of the other buildings and hence activity associated with this will not increase demolition truck movements at any point in time.
- Tunnel excavation has remained the same.

The level of traffic activity for the tower construction sits within the total of up to 25 trucks expected at the site in any given hour in the busier construction periods as shown in **Figure 5**. The peak heavy vehicle truck activity, as shown in **Figure 5** from the Sydney Metro City & Southwest EIS, is therefore not expected to change.

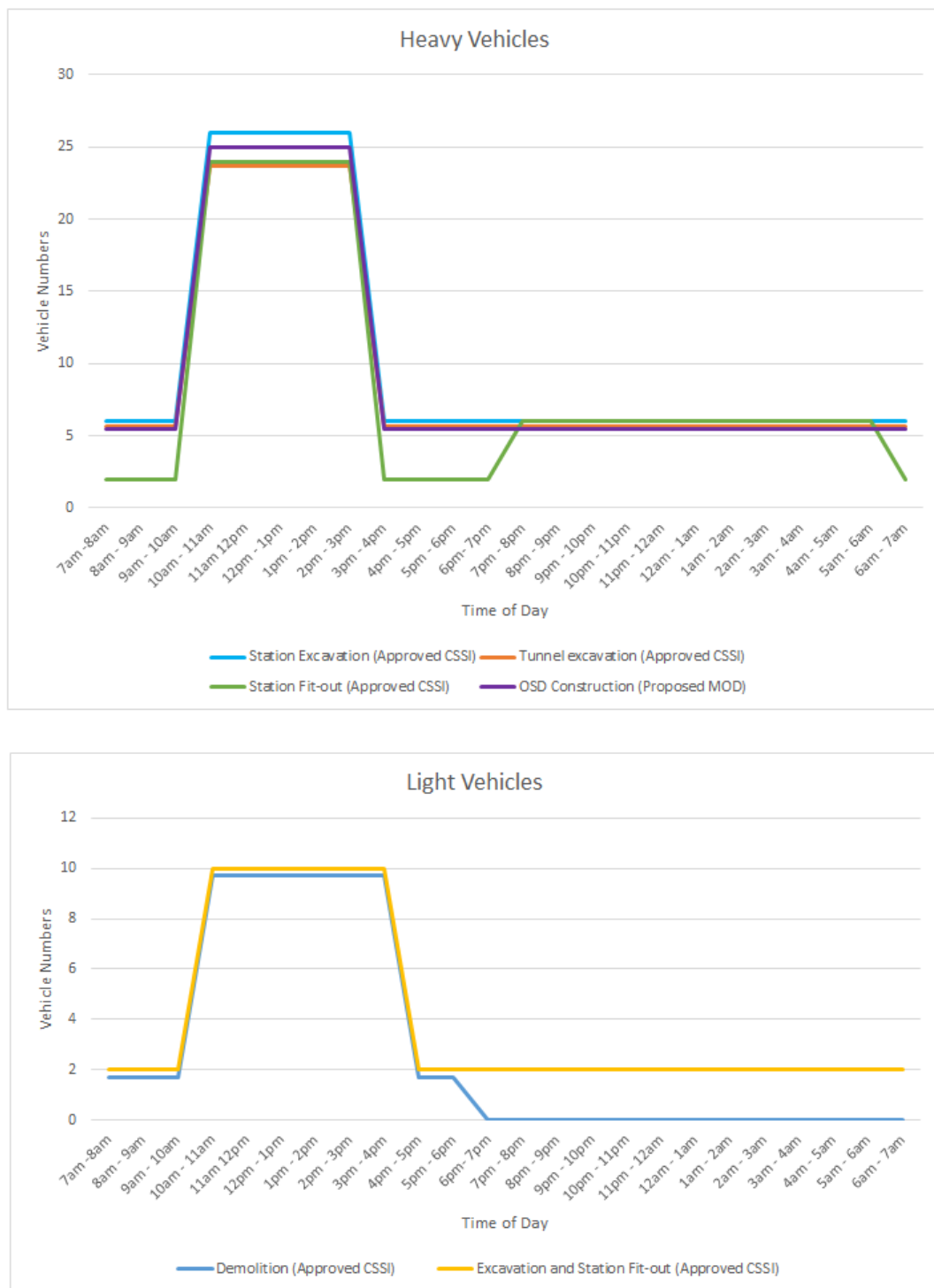


Figure 5: Anticipated light and heavy construction vehicle activity for the station works (inbound only) (CSSI Approval)

Source: Sydney Metro City & Southwest EIS Chapter 8 Construction traffic and transport – MOD vehicle movements added

3.1.3 Vehicle routes

To keep the construction related traffic to a minimum on the surrounding roads, vehicles are proposed to be held in holding areas located in areas outside the Sydney CBD and called via a number of defined constructions routes to the site. All holding areas will need to be negotiated with landowners. This will be undertaken by the Contractor, once engaged and this plan will be updated accordingly.

The routes will be clearly communicated by traffic control to ensure construction vehicles are following the correct route. **Figure 6** describes the inbound and outbound routes identified in the EIS for the construction site and it is anticipated that there will be no changes to these routes.

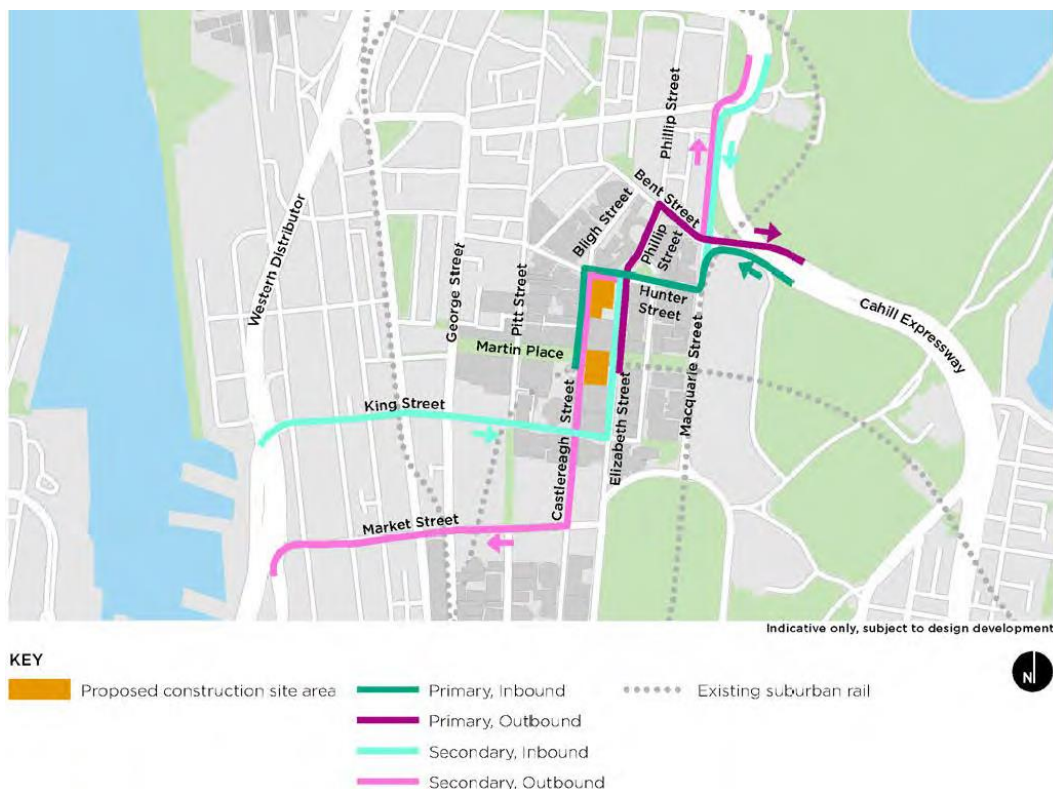


Figure 6 Construction vehicle routes to and from the site

Source: Sydney Metro City & Southwest EIS Chapter 8 Construction traffic and transport

All vehicles accessing the site will use the state road network from the surrounding areas prior to entering the Sydney CBD.

The deliveries of larger vehicles such as mobile cranes will need to be considered when accessing the site. These large vehicles will access the site at greater intervals to a set agreed programme, outside of road network peak periods. This will be coordinated with TfNSW and City of Sydney as required through a separate approvals process.

3.2 Vehicle movements and routes for inclusion of the O'Connell Street pedestrian link compared with CSSI MOD

3.2.1 Vehicle movement forecasts O'Connell Street pedestrian link

The assessment for the O'Connell Street pedestrian link assumes that 6 heavy vehicles enter and depart the site in the AM and PM peak period per hour (totalling 16 movements). The expected daily profile of truck movements as outlined in the Chatswood to Sydenham Submissions and Preferred Infrastructure Report are shown in **Figure 7**.



Figure 7: O'Connell Street construction site - hourly construction vehicles (inbound only)

Source: Chatswood to Sydenham Submissions and Preferred Infrastructure Report

3.2.2 Vehicle Routes

As shown in **Figure 8**, construction vehicles would enter the site from O'Connell Street, and exit onto Bligh Street. The haulage routes to and from the site would be in addition to the haulage routes assessed in the Environmental Impact Statement.

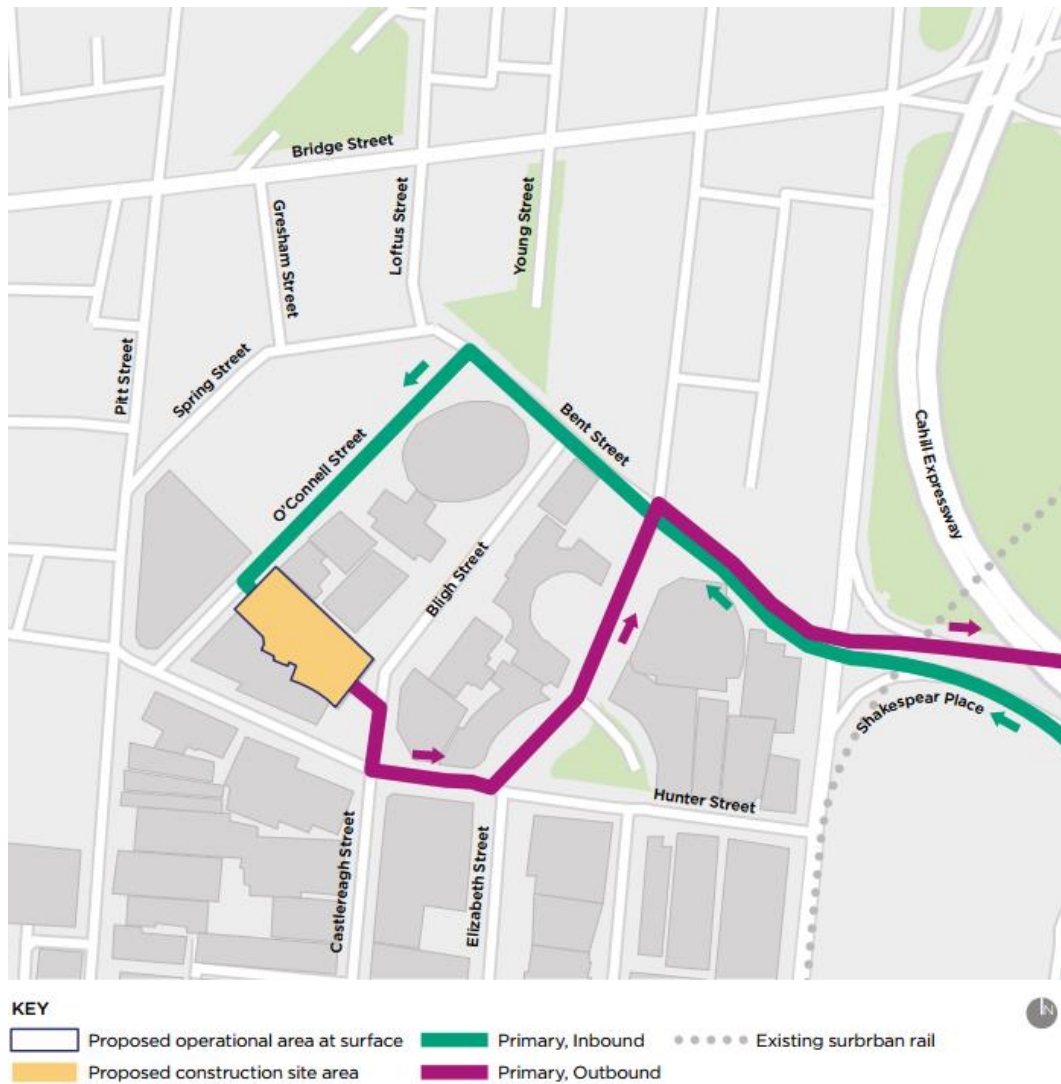


Figure 8: O'Connell Street construction site - vehicle construction routes

Source: Chatswood to Sydenham Submissions and Preferred Infrastructure Report

3.3 Road network performance

Suitably qualified traffic controllers will be present to ensure that traffic and pedestrians are safely and adequately managed around the site.

3.3.1 Construction impacts Approved CSSI compared with proposed CSSI MOD and OSD

The approved EIS traffic impacts are shown in **Table 1** and **Figure 9**. This shows a minor deterioration in performance at the Castlereagh Street / Hunter Street /

Bligh Street intersection in the AM peak from level of service A to level of service B. However, overall in spite of this particular scenario, the average delay and degree of saturation at the intersection does not change with the addition of the construction traffic and, therefore, the overall impact on the performance of the intersection would be negligible. The remaining intersections maintain their base level of service during the construction of the project and therefore the impact of the construction traffic on these intersections would not be significant.

For the proposed MOD, increased construction traffic activity has been identified over and above the CSSI approval. The increase in peak hour traffic movements is only 3 trucks which will have negligible impacts.

Table 1: Martin Place Station construction site intersection performance

Peak period	Without construction			With construction		
	Average delay (second per vehicle)	Level of Service	Degree of saturation	Average delay (second per vehicle)	Level of Service	Degree of saturation
Elizabeth Street / Phillip Street / Hunter Street						
AM	23	B	0.84	23	B	0.83
PM	26	B	0.79	23	B	0.81
Elizabeth Street / Martin Place						
AM	5	A	0.42	7	A	0.42
PM	4	A	0.40	7	A	0.41
Elizabeth Street / King Street						
AM	26	B	0.73	26	B	0.73
PM	24	B	0.73	25	B	0.71
Hunter Street / Macquarie Street						
AM	20	B	0.83	21	B	0.86
PM	20	B	0.82	20	B	0.83
Macquarie Street / Bent Street / Eastern Distributor ramps						
AM	155	F	1.27	156	F	1.27
PM	161	F	1.19	167	F	1.29
Castlereagh Street / Hunter Street / Bligh Street						
AM	15	A	0.45	15	B	0.45
PM	16	B	0.52	16	B	0.50
Castlereagh Street / Martin Place						
AM	6	A	0.23	6	A	0.24
PM	6	A	0.28	6	A	0.28
Castlereagh Street / King Street						
AM	21	B	0.50	21	B	0.50
PM	22	B	0.61	21	B	0.64
Bent Street / Phillip Street						
AM	17	B	0.74	17	B	0.74
PM	18	B	0.63	25	B	0.71

(Source: Sydney Metro City & Southwest EIS)



Figure 9: Martin Place Station intersection performance

Source: Sydney Metro City & Southwest EIS

3.3.2 Construction impacts with potential O'Connell Street site compared with proposed CSSI MOD

Table 2 and **Figure 10** shows a comparison of the predicted traffic impacts with that assessed in the Environmental Impact Statement. The assessment assumes that eight vehicles enter and depart the site in the AM and PM peak period per hour (totalling 16 movements) in addition to vehicle movements associated with the other Martin Place construction sites. The assessment shows there would be no change to the predicted level of service (compared with the assessment in the Environmental Impact Statement) at all key intersections during construction as a result of the additional construction vehicles.

For the proposed MOD, increased construction traffic activity has been identified over and above the CSSI approval and potential O'Connell Street site. The increase in peak hour traffic movements is only 3 trucks which will have negligible impacts.

The tower construction for the OSD will occur from level 5 upwards following the station works and hence not overlap with the early peak excavation activity. This will result in no additional cumulative impacts.

Table 2: Intersection performance – Martin Place with the O’Connell Street site

	Without construction		EIS Assessment		With O’Connell Street site	
Peak period	Level of Service	Degree of saturation	Level of Service	Degree of saturation	Level of Service	Degree of saturation
Macquarie Street / Bent Street / Eastern Distributor ramps						
AM	F	1.25	F	1.27	F	1.25
PM	F	1.20	F	1.29	F	1.31
Bent Street / Phillip Street						
AM	B	0.61	B	0.74	B	0.68
PM	B	0.79	B	0.71	B	0.79
Bent Street / Bligh Street						
AM	A	0.33	N/A	N/A	A	0.34
PM	A	0.32	N/A	N/A	A	0.33
Loftus Street / Bent Street / O’Connell Street (priority controlled)						
AM	A	0.40	N/A	N/A	A	0.40
PM	A	0.36	N/A	N/A	A	0.36
Castlereagh Street / Hunter Street / Bligh Street						
AM	A	0.48	B	0.45	B	0.58
PM	B	0.54	B	0.50	B	0.48
Elizabeth Street / Phillip Street / Hunter Street						
AM	B	0.77	B	0.83	B	0.75
PM	B	0.73	B	0.81	B	0.74

Source: Chatswood to Sydenham Submissions and Preferred Infrastructure Report

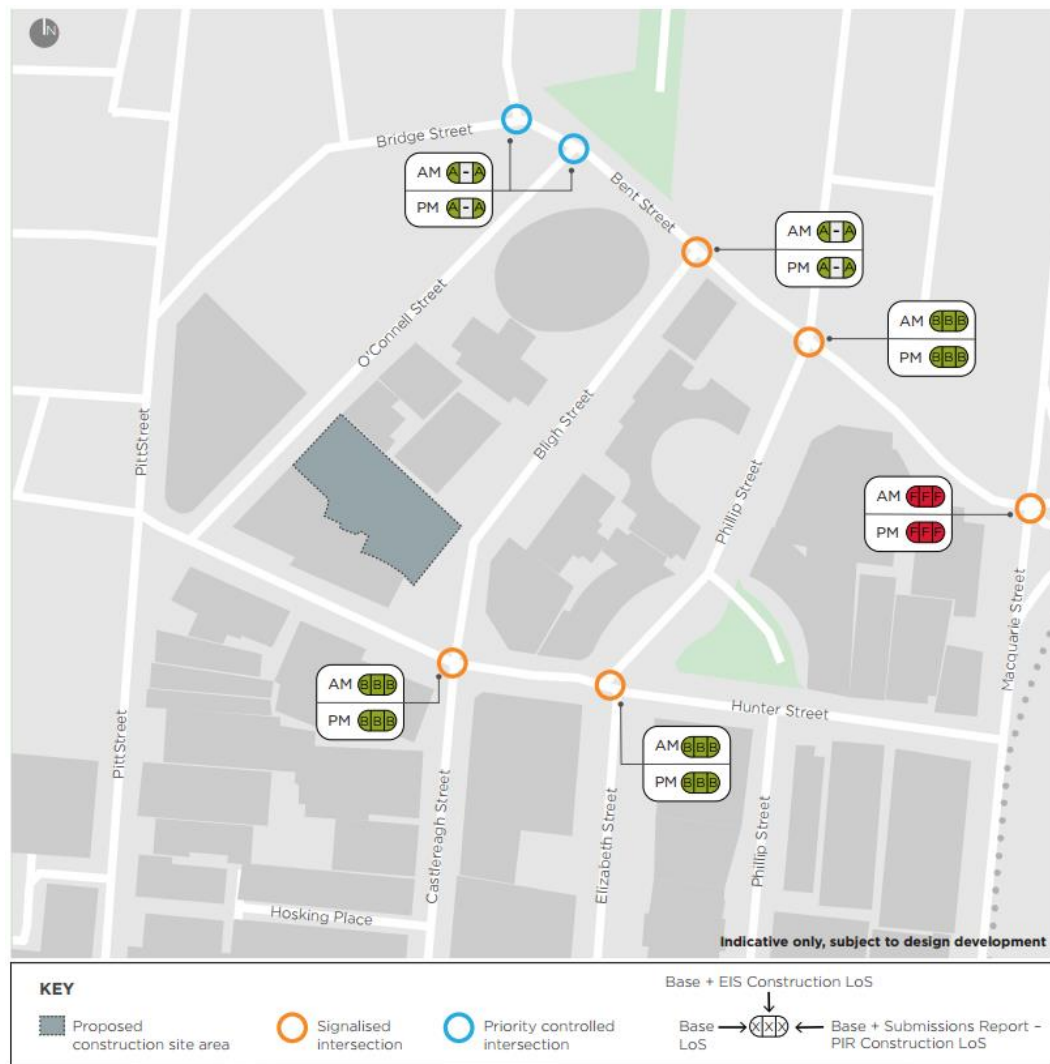


Figure 10: Martin Place Station construction sites plus the O'Connell Street site

Source: Chatswood to Sydenham Submissions and Preferred Infrastructure Report

3.4 Parking

No on-site car parking will be made available for construction vehicles and workers. Given the availability and cost of parking within the CBD, construction workers will most likely take public transport to the site and store their larger tools on site. On-street 4P ticketed parking is currently available after normal business hours at various loading zones should workers choose to use these.

3.5 Pedestrians

Footpath space along all frontages will be maintained with only minor reductions possibly needed to facilitate the possible Works zones.

Pedestrians will be managed by qualified traffic controllers so that they will not conflict with heavy vehicles accessing the Works zones or the site access points to maximise pedestrian safety. As a result, additional delays to pedestrians will be

minimal. When vehicles require access, pedestrians may be held for very short periods of time as trucks enter and exit the site.

Prior to the reduced footpath width being agreed by TfNSW and RMS, a suitable plan for relocation of services, removal of trees and relocation of street furniture will need to be considered. The Contractor will be responsible to prepare suitable plans to mitigate this, such as Traffic Control Plans and utility / public domain modifications.

3.6 Public transport services

The Martin Place precinct experiences high volumes of bus traffic during peak and off-peak times, particularly along Elizabeth Street and Castlereagh Street which, since the closure of George Street, are the main north-south bus corridors through the Sydney CBD. Buses from all over Sydney converge and diverge at bus stops located adjacent to and near the proposed station.

Martin Place Station on the T4 Eastern Suburbs and Illawarra Line and the South Coast Line provides a key Sydney CBD access point for customers travelling from the eastern suburbs and southern regions of Sydney.

4 Effects on existing and future developments

There are a number of construction sites already established and proposed within the Sydney CBD which will operate during demolition and construction of the SMMPS site. Surrounding construction activities include (but are not limited to):

- Sydney Metro
- 1 Carrington Street (Wynyard Place)
- 280 George Street
- Wanda One
- AMP Quay Quarter
- Intercontinental Hotel
- Barangaroo Precinct
- Sydney Light Rail
- Sandstone Precinct

Construction vehicle activity may increase along Hunter Street and Bent Street as a result of the cumulative traffic increases from surrounding sites and the closure of George Street. Given the large number of construction vehicles from surrounding sites, a coordinated approach to truck routes will be required.

4.1 Sydney Light Rail

The Sydney CBD and South East Light Rail (SLR) route is proposed to run from Circular Quay to Kingsford and Randwick, via George Street in the Sydney CBD. George Street will be pedestrianized between Hunter Street and Bathurst Street and general traffic will be limited for the remainder of the road.

As a result of the project, a number of construction activities will take place along George Street during the proposed construction programme of the site.

Construction began on 23 October 2015 and is due to finish by mid-2018, with 31 individual zones progressively scheduled to minimise construction impacts. All bus routes were completely removed from George Street on 4 October 2015.

With the implementation of Sydney Light Rail, Hunter Street will be converted to two-way (between Pitt Street and George Street) to become the key link between Barangaroo and Macquarie Street. This may offer a future opportunity for access routes.

4.2 Sydney Metro

The SMMPS project will be coordinated with the remainder of the Sydney Metro works as it is relevant to the Martin Place Station works.

5 Emergency vehicle provisions

The proposed demolition and construction of the SMMPS site will have no impact on the current provisions in place for emergency vehicles.

6 Measures to ameliorate impacts

The measures proposed to ameliorate the impacts of the construction work could be considered as follows:

- The Works zone
- B Class hoarding
- Consultation with adjacent construction site contractors
- Ongoing consultation with authorities

These measures are discussed in earlier sections of the report.

Additionally, drivers wishing to access the site for any reason will need to report to the traffic controllers and receive instructions and guidance. Scheduling will be the main management method in ensuring no multi-vehicle arrivals. A radio set-up will manage multiple vehicle arrivals from nominated holding points surrounding the CBD. The contractor (once appointed) will need to nominate preferred sites for the north, south and west directions.

Traffic control plans will be developed by the contractor once appointed and submitted with a finalised version of this plan. Traffic will not be impacted on entry or exit unless a temporary partial road closure is in place during the few occasions on weekends that a mobile crane may be required. These temporary road closures would be obtained through the normal approvals process.

6.1 Vehicle movements

Mitigation measures will be adopted during the construction phase to ensure traffic movements have minimal impact on surrounding land uses and the community in general, and would include the following:

- Truck loads would be covered during transportation off-site
- Neighbouring properties would be notified of construction works and timing. Any comments would be recorded and taken into consideration when planning construction activities.
- All activities, including the delivery of materials would not impede traffic flow along local roads and highways
- Materials would be delivered and spoil removed during standard construction hours
- Deliveries would be planned to ensure a consistent and minimal number of trucks arriving at site at any one time
- CBD Coordination Office and City of Sydney Council will be notified of any future disruption to roadways and footpaths

6.2 Driver code of conduct

No queuing or marshalling of trucks is permitted on a public road. They must wait until a suitable gap in traffic allows them to assist trucks to enter or exit the site. The Roads Act does not give any special treatment to trucks leaving a construction zone – the vehicles already on the road have right-of-way.

Vehicles entering, exiting and driving around the site will be required to give way to pedestrians at all times.

6.3 CBD Coordination Office discussions

The CBD Coordination Office will be consulted at all relevant stages through the project.

7 Public transport services affected

No bus services would be impacted by construction traffic as the work is confined to the Works zone and off-street within the site. Construction routes have been developed to avoid key bus corridors wherever possible.

8 Public consultation

City of Sydney Council, Transport for NSW and Roads and Maritime Services will be given the opportunity to further contribute to this report on submission of this plan for subsequent future detailed CPTMPs.

Should temporary road closures be required at any stage during the construction period, they would be obtained separately through the normal approvals process with the CBD Coordination Office and City of Sydney Council.

Ongoing consultation as outlined throughout the report will be conducted with surrounding buildings by the Construction Contractor (once appointed) to ensure surrounding affected users are updated on the construction of the works.