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Mercantile Hotel Refurbishment SSDA
25 George Street, The Rocks
Construction, Pedestrian and Traffic Management Plan

Client // HBMS Pty Ltd
Office // NSW
Reference // N139170
Date // 13/12/18

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Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
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Table of Contents

1. Introduction 1

1.1 The Project 1

1.2 Purpose of this Report 1

1.3 References 2

2. Existing Conditions 3

2.1 Road Network 4

2.2 Surrounding Intersections 6

2.3 Car Parking 6

2.4 Public Transport 7

2.5 Pedestrian and Cycling Infrastructure 8

2.6 Traffic Generation 8

3. Overview of Construction Activities 10

3.1 Description and Duration of Works 10

3.2 Hours of Operation 10

3.3 Site Access and Layout 11

3.4 Loading and On-Street Works Zones 12

Construction Traffic Volumes 13

3.5 Existing and Future Developments 14

3.6 Construction Worker Parking 20

3.7 Construction Vehicle Routes 20

4. Construction Traffic Management 23

4.1 Traffic Guidance Scheme 23

4.2 Pedestrian and Cyclist Management 23

4.3 Public Transport and Point-to-Point 24

4.4 Emergency Vehicle Access 24

4.5 Traffic Movements in Adjoining Council Areas 24

5. Mitigation Measures 25

Appendices

A: City of Sydney Standard Requirements and TfNSW CPTMP Checklist

B: Traffic Guidance Scheme

Figures

Figure 2.1:	Site location	3
Figure 2.2:	Aerial context	4
Figure 2.3:	Indicative Cross Section of George Street looking north	5
Figure 2.4:	Mercantile Hotel frontage to George Street	6
Figure 2.5:	Parking restrictions on opposite side of George Street	7
Figure 2.6:	Parking restrictions adjacent to Mercantile Hotel	7
Figure 2.7:	Northern and western bus guide	7
Figure 2.8:	Southern and eastern bus guide	7
Figure 2.9:	Sydney cycleway map	8
Figure 3.1:	Construction site layout	11
Figure 3.2:	Roof Plan	12
Figure 3.3:	On-Street Lane Occupation	13
Figure 3.4:	Barangaroo Metro Station construction routes	15
Figure 3.5:	CSELR construction routes	17
Figure 3.6:	Barangaroo construction vehicle routes	19
Figure 3.7:	Truck approach routes	22
Figure 3.8:	Truck departure routes	22

Tables

Table 1.1:	Transport SEARs (construction) requirements	2
Table 3.1:	Traffic control requirements	13
Table 3.2:	Indicative two-way construction traffic movements	14
Table 3.3:	Construction heavy vehicle volumes	18
Table 3.4:	Walsh Bay construction traffic generation	19

1. Introduction

1.1 The Project

The site, known as The Mercantile Hotel is located at 25 George Street, The Rocks. The site is triangular, approximately 420 square metres in size and is legally known as Lot 10 in DP 258607. It is bound by a frontage to George Street to the east, Gloucester Walk to the west, and a group of State Heritage listed terrace houses, which are currently used as offices to the south.

The building is an item of State Heritage significance. It comprises a three-storey hotel/ pub, which was originally built in 1914. At the north end, the three storeys are reduced to two.

The proposal primarily incorporates the redevelopment and refurbishment of existing land uses.

1.2 Purpose of this Report

GTA Consultants (GTA) was engaged by Welsh + Major on behalf of HBMS Pty Ltd to prepare a construction and pedestrian traffic management plan (CPTMP) for the proposed redevelopment of the Mercantile Hotel, located in The Rocks. This report sets out an assessment of the anticipated transport implications of the proposed development, specifically as it relates to construction activities.

This CPTMP and accompanying Traffic Guidance Schemes have been prepared to appropriately address the construction traffic related impacts associated with the redevelopment of the Mercantile Hotel.

This CPTMP has been prepared in accordance with the City of Sydney Standard Requirements for Construction Traffic Management Plans and the Transport for NSW CPTMP Checklist. The appointed contractor would undertake all works in accordance with this CPTMP. The requirements are attached in Appendix A.

The overall principles of traffic management during the construction activity include:

- Provide an appropriate and convenient environment for pedestrians
- Minimise the impact on pedestrian and cyclist movements
- Maintain appropriate capacity for pedestrians on footpaths around the site
- Maintain appropriate public transport access
- Minimise the loss of parking
- Maintain access to/ from adjacent properties
- Restrict construction vehicle movements to designated routes to/ from the site
- Manage and control construction vehicle activity near the site
- Carry out construction activity in accordance with the approved hours of works.

This CPTMP has been prepared and checked by engineers who hold the Roads and Maritime Services (Roads and Maritime) Prepare Work Zone Traffic Management Plan accreditation.

This CPTMP has been prepared by GTA in response to the Secretary's Environmental Assessment Requirements (SEARs) dated 5 September 2017 (SSD 8665) for the Mercantile Hotel refurbishment.

The construction transport requirements set out in the SEARs are detailed in Table 1.1.

Table 1.1: Transport SEARs (construction) requirements

Consent description	Relevant sections of this report
An assessment of traffic and transport impacts during construction and how these impacts will be mitigated for any associated traffic, pedestrians, cyclists, taxis, and public transport operations, including the preparation of a draft Construction Pedestrian Traffic Management Plan. This Plan needs to include vehicle routes, number of trucks, hours of operation, access arrangements, work zone location, construction program and traffic control measures for all construction/demolition activities.	Contained within Section 3 and Section 4
An assessment of cumulative impacts associated with other construction activities, including the construction of the Sydney Light Rail project, other transport projects and private developments.	Section 3.5
Details of construction vehicle routes, peak hour and daily truck movements, hours of operation, access arrangements at all stages of construction, and traffic control measures for all demolition/construction activities.	Section 3.1
An assessment of construction impacts on road safety at key intersections and locations subject to pedestrian/vehicle/bicycle conflicts.	Section 3.4.1
Details of any required temporary cycling and pedestrian access during construction.	Section 4.1 and Section 4.2
Detail access arrangements for workers, emergency services and the provision of safe and efficient access for loading and deliveries.	Section 3.6 and Section 4.4

1.3 References

In preparing this report, reference has been made to the following:

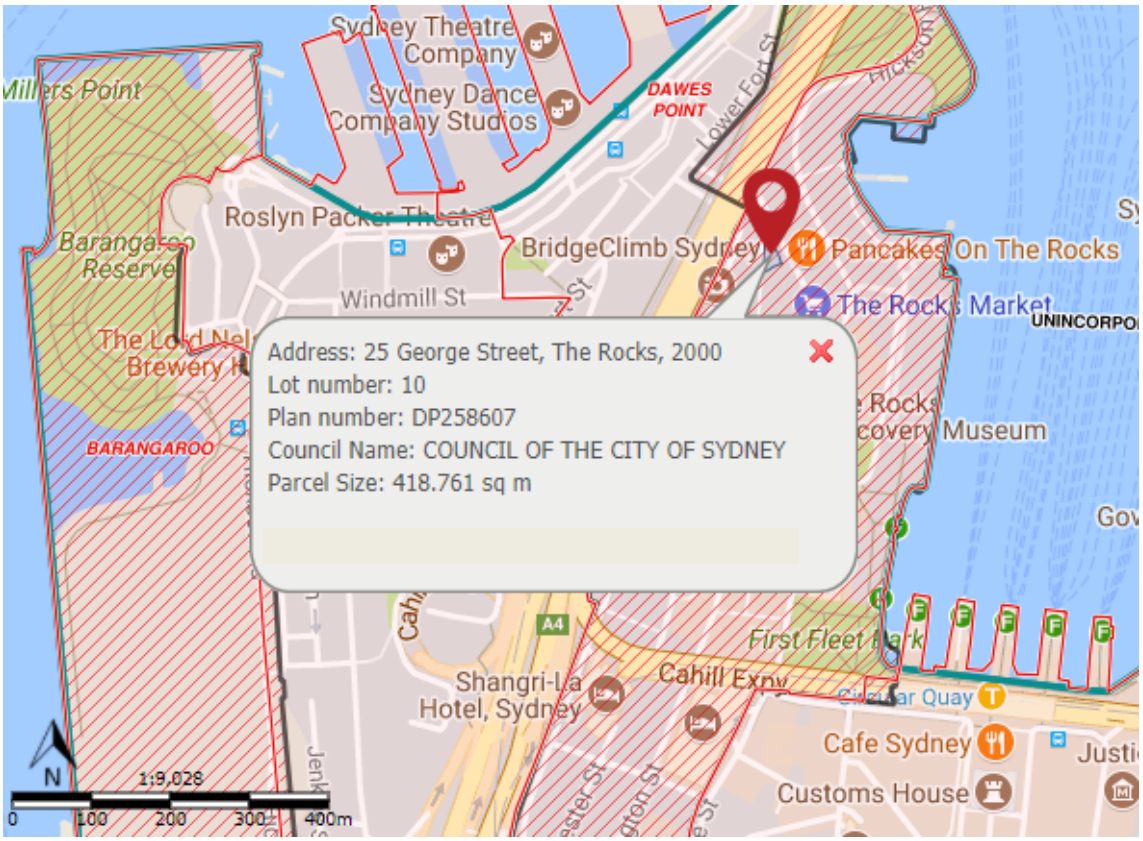
- An inspection of the site and its surrounds
- *Traffic Control at Work Sites* manual, Version 5, Roads and Maritime, July 2018
- Australian Standard *AS1742.3:2009 Manual of Uniform Traffic Control Devices – Part 3: Traffic control for works on roads*
- Various site plans prepared by Welsh + Major dated 26 October 2017
- Other documents and data as referenced in this report.

2. Existing Conditions

The Mercantile Hotel (the site) is located at 25 George Street, The Rocks. The site is legally defined as Lot 10 of DP258607 and covers an area of 418 square metres. The site has a frontage to George Street and Gloucester Walk. The site is located within the City of Sydney Local Government Area and is under the State and Regional Development SEPP 2011, the site is located within The Rocks State Significant Development Site, and therefore the Department of Planning and Environment is the consent authority. The location and context of the site is shown in Figure 2.1 and Figure 2.2.

The Rocks precinct is one of the most prominent tourist precincts in Sydney and is located close to the historic areas of Millers Point, Circular Quay and the Sydney Opera House. The Barangaroo redevelopment precinct is located immediately to the south-west of the site.

Figure 2.1: Site location



Source: https://www.planningportal.nsw.gov.au/find-a-property/property/2782814_25_George_Street_10_The_Rocks_DP258607, accessed 26 October 2017
Hatching shows extent of State Significant Development Site

Figure 2.2: Aerial context

Source: SixMaps, accessed 26 October 2017

The Mercantile Hotel was originally constructed in 1914 and opened in 1915 as an iconic hospitality premises. Under its current consent, it has operational hours of 10am to midnight Sunday to Thursday and 9am to 1am on Friday and Saturday. It currently operates as a pub with ancillary function spaces and hotel accommodation space.

The site has capacity for a maximum of 431 patrons and up to 15 staff. Maximum capacity is most likely to be during Friday night and on weekends, and during other special event periods.

2.1 Road Network

George Street

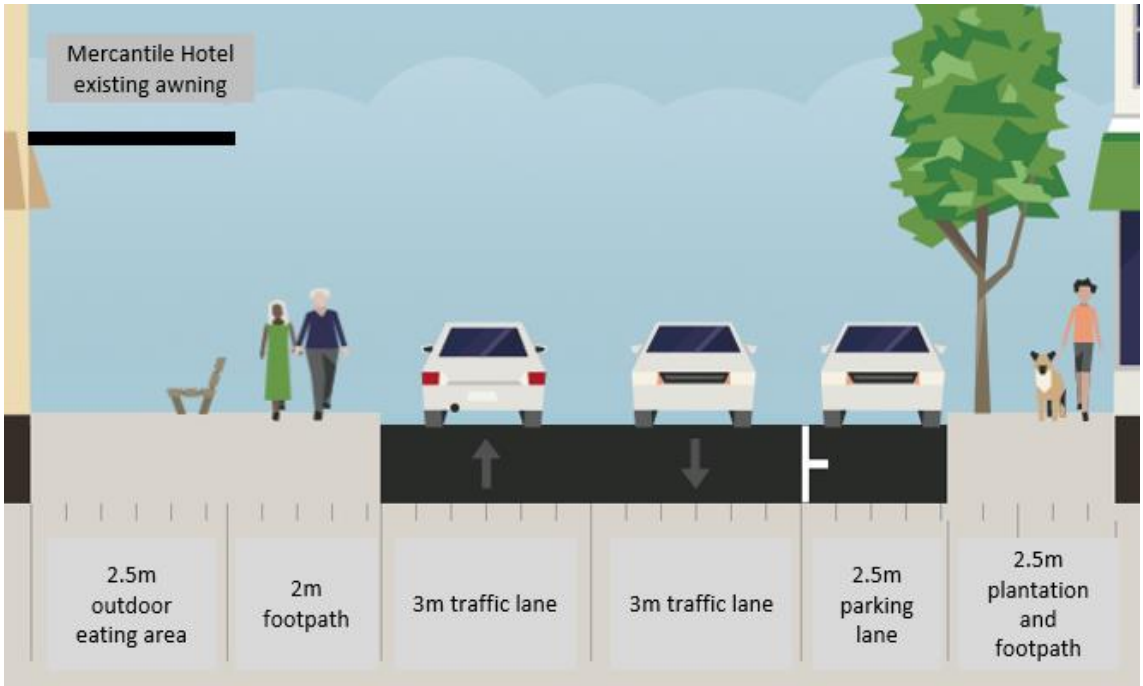
The Mercantile Hotel has a frontage to George Street. This area of George Street operates substantially differently to George Street further south. This section of George Street is a peninsular, therefore, access tends to be local traffic only with relatively low volumes overall.

Immediately adjacent to the site, there is a road corridor which is estimated to be approximately 8.5 metres kerb-to-kerb, within a 15.5-metre wide road reserve. The configuration includes one traffic lane in each direction and a southbound kerbside parking lane. An indicative cross section of George Street at the site is shown in Figure 2.3, with an image of the site shown in Figure 2.4.

Extensive access restrictions are present adjacent to the Mercantile Hotel, with a range of loading zone, no parking zones, taxi zones and restricted parking areas. The northbound traffic lane has a designated loading zone period.

There is a weekend market place on a section of George Street adjacent to the Mercantile Hotel. This is in place between 9am and 5pm on Saturday and Sunday.

Figure 2.3: Indicative Cross Section of George Street looking north



Source: Streetmix
For illustration purposes only, surveys not undertaken and based on visual estimates

Figure 2.4: Mercantile Hotel frontage to George Street

2.2 Surrounding Intersections

The following key intersections exist near the site:

- George Street/ Lower Fort Street (Unsignalised)
- George Street/ Hickson Road (Unsignalised).

Both intersections are subject to low volumes of traffic and were observed to operate satisfactorily and without delays during the site visit.

2.3 Car Parking

There is limited on-street car parking near the site, with the opposite side of George Street having a range of parking restrictions. Examples of parking restrictions are shown below in Figure 2.5 and Figure 2.6. On-street parking was generally observed to be approximately 50 per cent occupancy during a PM peak period site visit on 30 November 2017.

Figure 2.5: Parking restrictions on opposite side of George Street

Figure 2.6: Parking restrictions adjacent to Mercantile Hotel

2.4 Public Transport

The site is located within a typical walking catchment of Circular Quay transport interchange (of approximately 10 to 15 minutes). The site is serviced by the route 311 bus, which operates between The Rocks and Elizabeth Bay along George Street, directly past the site.

Circular Quay provides bus access to the eastern suburbs, south-eastern suburbs, inner west areas and northern suburbs. Circular Quay is on the City Circle loop and provides access to the western and south-western suburbs. It provides access to Central and Town Hall where the remainder of the Sydney Trains network can be accessed from. Circular Quay is the focal point for Sydney's ferry services and provides services to a range of harbourside suburbs. The density of public transport services is evident as shown in Figure 2.7 and Figure 2.8.

There may be an impact to the route 311 bus as part of construction activities and this needs to be managed. This is discussed further in Section 4.3.

Figure 2.7: Northern and western bus guide

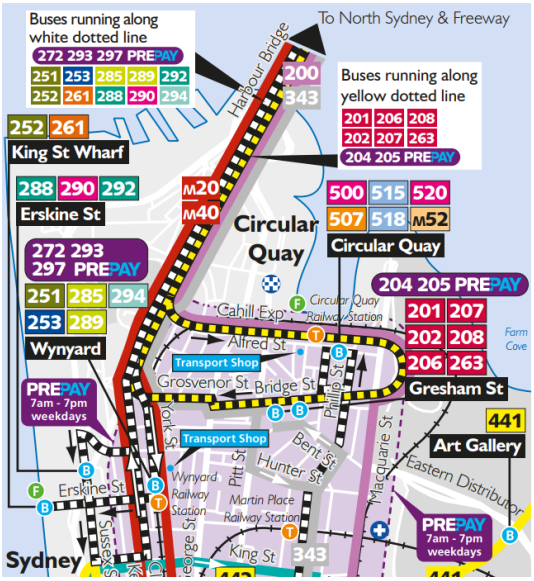
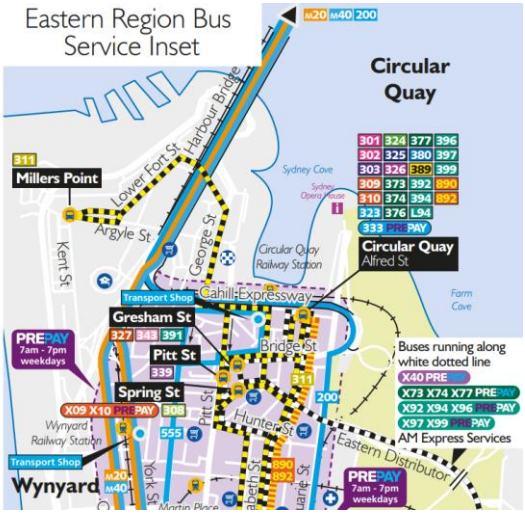


Figure 2.8: Southern and eastern bus guide



Source: https://transportnsw.info/document/1697/region-guide-sydney-north-shore-west.pdf, accessed 6 November 2017
Source: http://www.100roads.com/images/australia/sydney/sydney_transport_eastern_map.pdf, accessed 6 November 2017

2.5 Pedestrian and Cycling Infrastructure

Pedestrian footpaths are established on most of roads surrounding the site, noting that historical planning may result in some non-standard footpath widths and DDA access issues on some pathways, for example, Gloucester Walk is only accessible by stairs. Notwithstanding, there is satisfactory link from Circular Quay transport interchange along George Street to the site, which would likely function as the primary desire line for pedestrian movements.

The Kent Street cycleway is located close to the site. North of Gas Lane, traffic volumes substantially decline, and mixed traffic riding is likely suitable for staff and patrons who may elect to cycle to or from the site. The Sydney cycleway map is shown in Figure 2.9.

Figure 2.9: Sydney cycleway map

Source: https://www.google.com/maps/ accessed 13 December 2018

2.6 Traffic Generation

Two primary forms of traffic are currently generated by the site. Firstly, there is operational activity generated by the patrons and staff. Secondly, there is the service vehicle activity generated by the supply and removal of supplies associated with the activities of the premises. Cumulatively, the existing operational activity and loading activity is relatively low and described in the following sections.

2.6.1 Operational Activity

During the site visit undertaken by GTA, the site was observed to generate a small number of vehicular trips. These were primarily associated with the taxi rank opposite the site and pick-up and set-down activity, although no trips were observed during the site visit. A high proportion of patrons were observed to travel to/ from George Street by foot.

Overall, it is estimated that the site generates a nominal number of vehicular journeys, primarily through point-to-point trips, with a majority of these occurring outside of road network peak times (usually concentrated at closing times of around midnight).

2.6.2 Loading Activity

It is understood that the site currently generates approximately 55 service vehicle movements per week. This can be largely attributed to keg pick-up/ drop-off, kitchen supplies and garbage collection. Correspondence provided to GTA indicates the following characteristics:

- Food deliveries: 40 per week (excludes Sunday)
- Beverage deliveries: 10 per week (excludes weekend)
- Consumables/ repairs/ maintenance: 5 per week (excludes weekend).

Based on the above, assuming uniform distribution of deliveries, it is generally expected that the site generates no more than 10 service vehicle movements per day, which is less than one service vehicle per hour.

3. Overview of Construction Activities

3.1 Description and Duration of Works

The construction of the project is to be carried out over the course of up to 12 months in three stages, with an overview of proposed work as follows:

- **Stage 1**: Demolition and excavation
- **Stage 2**: Construction of lift pit, in ground drainage and services, footings, ground floor slab and roof garden slab
- **Stage 3**: Install crane, construct roof terrace, lift shaft and fire stairs.

Whilst the overall duration of the project is understood to be 12 months, the duration of each construction stage will be confirmed and finalised once a contractor has been appointed.

This SSDA will seek consent for the following building alterations[1]:

- General upgrades to fire safety and circulation including new fire stairs and lift.
- Upgrade and reconfiguration of ground, first and second floors, including:
  - **Ground floor:**
    - New amenities
    - Refurbishment of main bar area
    - Introduction of new bistro space including access to a new outdoor courtyard space.
  - **First floor:**
    - Relocation of kitchen and kitchen preparation areas to the first floor, including the installation of a dumbwaiter system
    - New fire stair arrangement, including new (formalised) egress stair to Gloucester Walk
    - Rearrangement of bedroom/ bathroom areas to ensure each bedroom has an en-suite.
  - **Second floor:**
    - Rearrangement of bedroom/ bathroom areas to ensure each bedroom has an en-suite.
  - **Roof (note: this level has existing built fabric, including storage rooms):**
    - Addition of rooftop bar, which includes accessible toilet facilities and servery area
    - The roof area will include acoustic screening.

3.2 Hours of Operation

The permitted hours of work would be set by the Department of Planning and Environment in the conditions of consent. However, it is anticipated that construction works to be carried out between the following typical CBD hours:

- Monday to Friday: 7am to 5pm

[1] Extracted from Request for SEARs (pg. 4) prepared by Urbis, dated 2 August 2017, https://majorprojects.accelo.com/public/ecabee03b7cfbdd4e96e1f25b41d4056/The%20Mercantile%20Hotel_%20Request%20for%20SEARs.pdf, accessed 26 October 2017,

- Saturday: 7am to 3pm
- No work will be carried out on Sundays and public holidays.

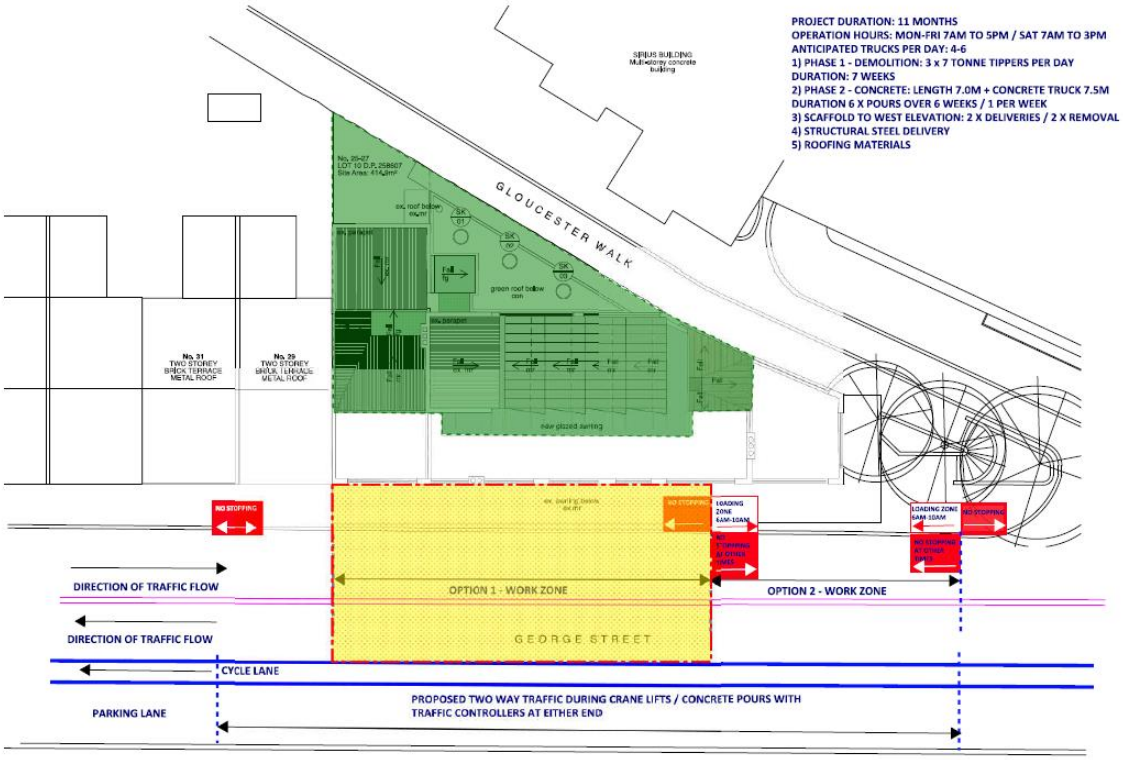
The contractor would be responsible for instructing and controlling all subcontractors regarding the hours of work. Any work (including oversized deliveries) outside the approved construction hours would be subject to specific prior approval from the Department of Planning and Environment and the Sydney Coordination Office (SCO).

3.3 Site Access and Layout

The Mercantile Hotel would be serviced from George Street. Depending on the arrival/ departure route, either Lower Fort Street or Hickson Road would be preferred to ensure that construction traffic is primarily maintained in a single direction.

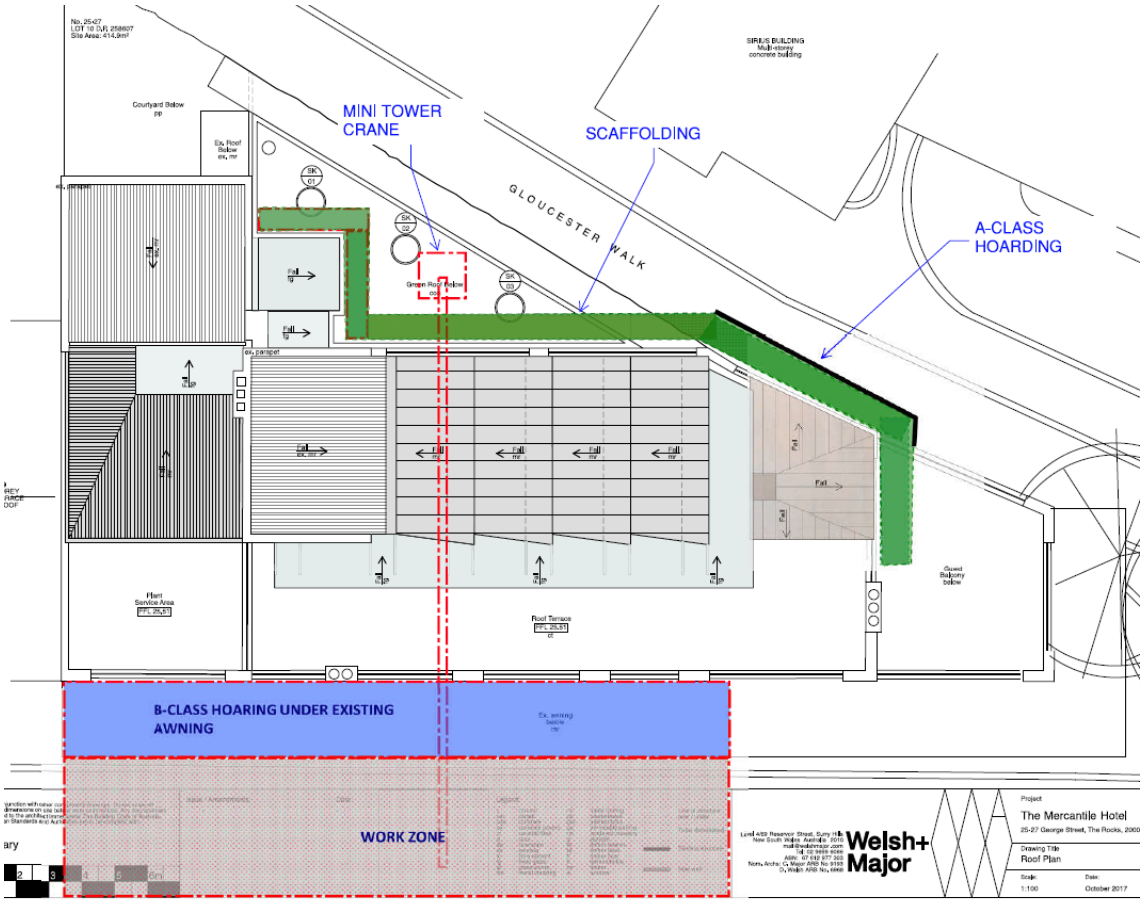
Various construction profiles are proposed as shown in Figure 3.1 and Figure 3.2.

Figure 3.1: Construction site layout



Source: Welsh+Major Site Plan Dated 26 October 2017

Figure 3.2: Roof Plan



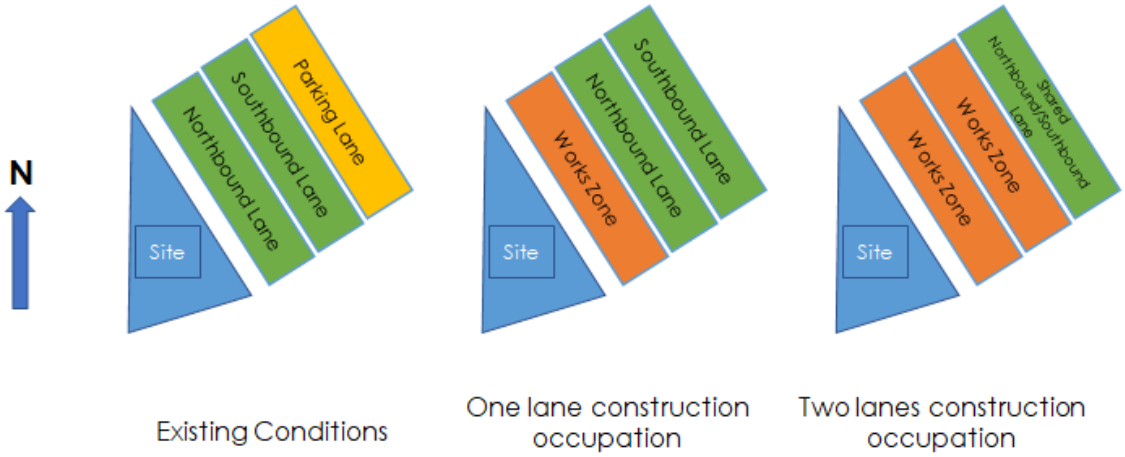
Source: Welsh+Major Roof Plan dated 26 October 2017

3.4 Loading and On-Street Works Zones

The location of the proposed works zones is shown indicatively in Figure 3.1 and Figure 3.2. The proposed works zones will require the temporary removal of approximately six existing kerbside parking spaces. The removal of the above spaces is not anticipated to have an adverse impact to parking in the area, as there is a moderate availability of parking in the area and the existing loading zone is serviced by the subject site.

Various stages of construction will either require occupation of either one or two of the three available traffic and parking lanes within this section of George Street. In both instances, the existing parking lane is proposed to be removed. At some stages of construction, two-way traffic movement is to be maintained, and at other instances, only one traffic lane will be available, with a traffic controller in place to manage two-way traffic flow within the single lane. These are illustratively shown in Figure 3.3.

Figure 3.3: On-Street Lane Occupation



Left-to-right – Existing Conditions, one lane construction occupation, two lanes construction occupation

Three Traffic Guidance Schemes (TGSs) have been drafted by GTA for consultation purposes, which are consistent with the images shown in Figure 3.3.

- Closure of one traffic lane and the western footpath
- Closure of two traffic lanes and western footpath
- Closure of one traffic lane but retain footpath access.

The draft TGS plans are shown in Appendix B.

The use of the work zones is dependent on the specific construction activity, but the following activities shown in Table 3.1 provide an indicative breakdown of the activities for each stage of construction.

Table 3.1: Traffic control requirements

Stage	Description/ example of works	TGS requirement
Stage 1	Demolition and earthworks	Closure of one traffic lane and footpath
Stage 2a	Footing and lift pit	Closure of one traffic lane and footpath
Stage 2b	Roof slab	Closure of two traffic lanes and footpath
Stage 3a	New fire stairs	Closure of two traffic lanes and footpath
Stage 3b	Structural steel installation	Closure of one traffic lane but retain footpath access

Hours of operation for the road occupation and closures are expected to be within the hours of construction. This will be confirmed and finalised once a contractor has been appointed and in discussion and consultation with Sydney Coordination Office.

Construction Traffic Volumes

Based on a preliminary assessment, the number of construction vehicle movements associated with proposed works has been estimated and is summarised in Table 3.2.

Table 3.2: Indicative two-way construction traffic movements

Construction stage	Truck movements per day
Demolition	3 vehicles per day
Construction	4 to 6 vehicles per day

As shown in Table 3.2, the estimated impact of construction activities would generate up to six vehicles, equating to 12 two-way movements per day. This would likely result in no more than two movements in a peak hour.

At this level, negligible impacts on the surrounding road network are expected. However, further assessment would be undertaken prior to construction, with the cumulative impacts of other key construction sites considered using available data at the time of writing. These are further outlined in Section 3.5.

This number of construction vehicles is not expected to have an adverse impact on the safety and operation at the key intersections surrounding the site.

3.4.1 Impact to Intersections

Given the modest number of traffic movements associated with the construction activities, it would be expected that the construction vehicle volumes would add only a nominal number of additional vehicles to intersections. Such an increase would not be expected to compromise the safety or function of intersections for vehicles, pedestrians or cyclists.

3.5 Existing and Future Developments

There are currently some significant developments under construction (or in the approval process) within the immediate local area with the potential to overlap with activities of the Mercantile Hotel. The primary projects include:

- CBD and South East Light Rail (CSELR)
- Walsh Bay Arts and Cultural Precinct
- Sydney Metro
- Barangaroo precinct redevelopment.

It is recommended that the contractor liaises with the other sites to avoid duplication or conflicting messages of traffic control signs near the site. In particular, consultation would be required with City of Sydney Council and the Sydney Coordination Office to ensure appropriate coordination with other works and events in the area.

A review of the potential construction related impacts from key nearby developments is detailed in the following subsections.

3.5.1 Sydney Metro

The closest proposed Metro station to the Mercantile Hotel is Barangaroo, which is to be located along Hickson Road, south of Argyle Street. Construction of the Barangaroo Metro station is anticipated to occur between 2017 and 2022.

The Environmental Impact Statement (Transport for NSW, May to June 2016, page 325-326) for the project indicates that during the AM and PM road network peak periods (7am to 10am, 4pm to 7pm), the construction works would generate up to:

- Six heavy vehicles per hour

- Two light vehicles per hour.

Between the peak periods, the construction works would generate up to:

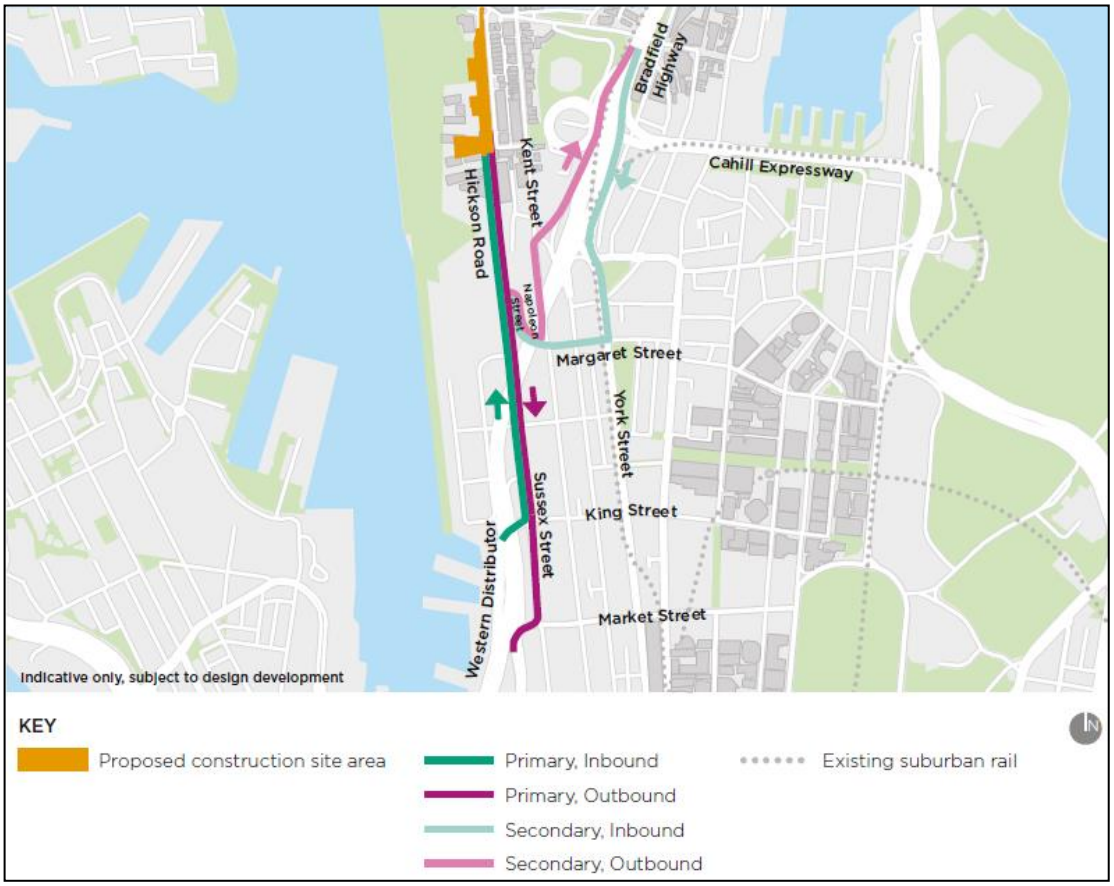
- 26 heavy vehicles per hour
- 10 light vehicles per hour.

Construction vehicles would enter the construction site from the south via Hickson Road, from the Western Distributor and the Bradfield Highway as shown in Figure 3.4.

During the launch and retrieval of tunnel boring machines, there may be a requirement for a temporary closure of Hickson Road however this is likely to occur at night and would be coordinated with the Sydney Coordination Office.

The section of George Street relevant to this SSDA is unlikely to be affected by the construction vehicle routes for the Barangaroo Metro Station.

Figure 3.4: Barangaroo Metro Station construction routes



Source: Sydney Metro Chatswood to Sydenham EIS

More recently, Transport for NSW has announced that "following community consultation, crushed rock will be removed by barges for the excavation work that takes place at Blues Point, Barangaroo and under Sydney Harbour – reducing impacts to the road network and cutting truck movements[2]." The significance of this is that the cumulative construction traffic impacts of multiple concurrent projects on the road network would be reduced as a result.

[2] https://www.transport.nsw.gov.au/newsroom-and-events/media-releases/new-harbour-metro-crossing-underway, accessed 27 September 2017

3.5.2 CBD and South East Light Rail

Construction of northern stations (The Rocks Precinct) of the CSELR would require some construction vehicles to use the northern end of George Street as shown in the construction route diagram in Figure 3.5.

Figure 3.5: CSELR construction routes

Source: CBD and South East Light Rail Project Environmental Impact Statement Volume 2 Technical Papers Construction Traffic Management Plan prepared by Booz & Co./AECOM dated 7 November 2013

The estimated volume of construction traffic generated by the CSELR works is summarised in Table 3.3. The table indicates, that a construction site would generate an average of up to six heavy vehicle trips per day on average, to George Street and Alfred Street. Six vehicle trips per day is a negligible increase to traffic and includes approximately up to two vehicle trips per hour.

Peak construction volume to George Street and Alfred Street would occur during concrete delivery and CSR (Cyclic Stress Ratio) backfill, with a peak of 86 heavy vehicle trips per day. This peak volume is to occur for a short duration of the overall project timeline.

It is noted that detailed dates and durations of specific CSELR construction works are unknown and therefore the potential extent of works overlapping with the Mercantile Hotel redevelopment is undetermined.

Coordination with the Sydney Coordination Office would be required in this instance to identify whether the Mercantile Hotel construction vehicles would share a traffic route with peak CSELR construction traffic.

Table 3.3: Construction heavy vehicle volumes

CBD Route							
Route	Street Start	Street End	Total Duration *	Average Daily Heavy Vehicle Trips * (Day)	Peak Daily Heavy Vehicle Trips* (Day)	Total Number of Peak Activity Shifts	Peak Activity
George Street	Market Street	King Street	5 months	4	87	3	Concrete delivery
George Street	King Street	Margaret Street	9 months	4	95	1	Concrete delivery & CSR backfill
George Street	Margaret Street	Grosvenor Street	9 months	2	96	1	Concrete delivery & CSR backfill
George Street / Alfred Street	Grosvenor Street	Loftus Street	9 months	6	86	4	Concrete delivery & CSR backfill

** Average / Peak Daily Heavy Vehicle Trips represent the total inbound and outbound truck movements of the worksite (construction works only; therefore excludes all early works, and systems construction component of civil works, rolling stock & rail systems contract component).*

** In the Total Duration, the number of days for overlapping sections of work would not be added separately, only the first and last date of that whole section of overlapping works is allowed for when calculating average truck movement.*

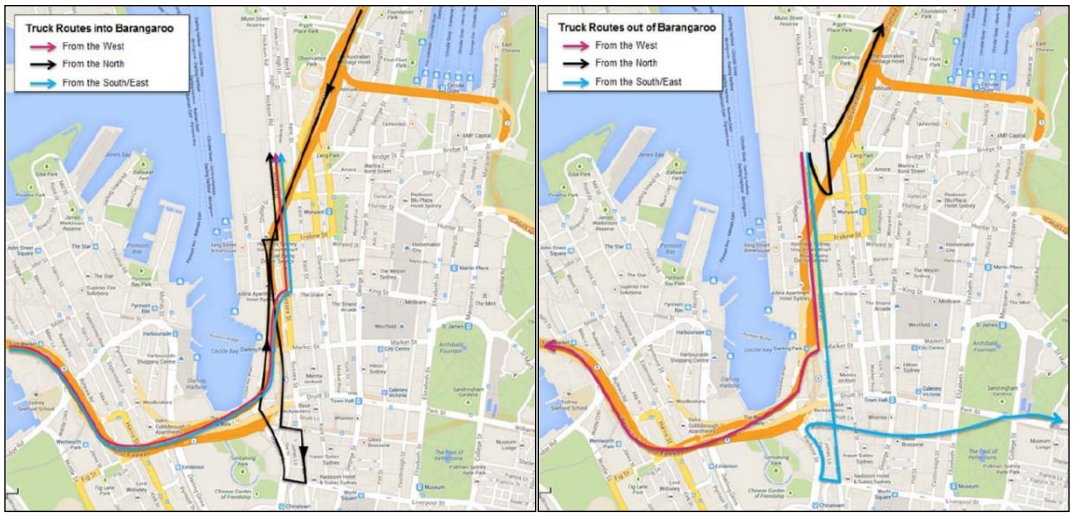
** Average / Peak Daily Heavy Vehicle Trips does not include the cumulative truck movements; shows only single site movements*

Source: CBD and South East Light Rail Project Environmental Impact Statement Volume 2 Technical Papers Construction Traffic Management Plan prepared by Booz & Co./AECOM dated 7 November 2013

3.5.3 Barangaroo

The Barangaroo precinct would include various development projects of varying duration, intensity and access requirements. Nonetheless, generally construction access into the precinct would access the site from the south, via Hickson Road, as shown in Figure 3.6.

Figure 3.6: Barangaroo construction vehicle routes



Source: Arup, 2015, Barangaroo Hickson Road Remediation, Traffic Impact Assessment, Rev B

A forecast of cumulative construction vehicle movements indicates that from 2017 to 2018, the Barangaroo precinct would generate approximately 50 to 80 construction vehicle movements per hour during the morning peak period (8am to 9am)[3]. LinSig road network modelling carried out by Arup indicates that the surrounding network would generally operate satisfactorily with forecasted construction traffic, with model results indicating intersections performing at level of service A to C. The nearest modelled intersection to the Mercantile Hotel is Hickson Road/ Napoleon Street, which is forecasted to perform at a level of service C. Level of service D or better is generally considered an acceptable level of service.

3.5.4 Walsh Bay Arts and Cultural Precinct

The Walsh Bay Arts and Cultural Precinct (WBACP) is set to undergo redevelopment over the coming years. The demolition and construction works are forecast to occur over a period of approximately 24 months commencing in 2018, with estimated construction traffic generation shown in Table 3.4.

Table 3.4: Walsh Bay construction traffic generation

Construction stage	Average number of truck movements per day		Cumulative number of truck movements per day	Cumulative number of truck movements per hour
	Wharf 4/5	Pier 2/3		
Demolition	20	20	40	Up to 4
Construction	35	45	80	Up to 7

Source: Walsh Bay Arts and Cultural Precinct CPTMP, prepared by GTA Consultants, https://majorprojects.accelo.com/public/54e8456b8657a30de3587cf4232da345/Appendix%2021%20Construction%20Pedestrian%20and%20Traffic%20Management%20PlanRD.pdf, accessed 10 November 2017

[3] Arup Pty Ltd, 18 August 2015, *Barangaroo Hickson Road Remediation, Traffic Impact Assessment,* Rev B

3.5.5 Cumulative Impact

The indicative construction vehicle movements generated by key construction sites, are as follows:

- Walsh Bay Arts and Cultural Precinct: Seven vehicle trips per hour
- Sydney Metro: Eight vehicle trips per hour (pending final decision on barge use)
- CSELR: One vehicle trip per hour
- Barangaroo: 50 to 80 vehicle trips per hour
- Mercantile Hotel: 12 vehicle trips per day.

The above summary indicates that the indicative construction traffic generation from the Mercantile Hotel site is low in comparison with the anticipated increase to traffic from other construction sites. In particular, the Barangaroo development site would generate a notable increase in construction vehicle traffic of up to 80 vehicle trips per hour, during a road network peak. As the traffic impact assessment for Barangaroo indicates that the surrounding road network would operate satisfactorily, the addition of up to 12 vehicle trips per day from the Mercantile Hotel site is a negligible increase in construction traffic and is unlikely to cause unacceptable levels of service. Similarly, the increase in vehicle traffic resulting from the Mercantile Hotel construction is not expected to impact pedestrian and cyclist safety during commuter peak periods above what is currently expected resulting from the cumulative construction traffic throughout the Walsh Bay and Barangaroo areas. Further discussion with TfNSW and the Sydney Coordination Office would occur prior to the construction stage of the Mercantile Hotel. This consultation would be incorporated into the final Construction Pedestrian and Traffic Management Plan prior to the issue of a Construction Certificate.

3.6 Construction Worker Parking

It is not proposed to provide any designated on-site staff car parking for workers due to site constraints. All staff would be encouraged to utilise public transport to access the site and would not impact resident and commercial parking near the site.

The following measures would be proposed to encourage staff to use public transport:

- During the induction and regular management/ site meetings, staff would be informed of restricted parking conditions on site and would be instructed that they are not to park on the surrounding road network (existing on-street parking restrictions and charges will support this).
- Staff would be instructed to use public transport to access the site and public transport timetable information would be made available and displayed at prominent locations.

The above measures would be included in contract documents between HBMS Pty Ltd and the head contractor.

As such, it is not expected there would be substantial staff generated traffic during the construction of proposed development.

3.7 Construction Vehicle Routes

Truck movements would be largely restricted to designated routes and confined to classified roads in the broader road network. Truck routes to/ from the site, as indicated below, have been identified with the aim of minimising the impact of construction traffic on roads near the site.

The directional distribution and assignment of traffic generated by the development will be influenced by a number of factors, most notably the origin/ destination of materials and the configuration of the arterial road network in the immediate vicinity of the site. Ongoing changes to routing may be required due to the impacts from the construction of the CSELR and Barangaroo development, as well as the proposed Sydney Metro construction.

Feasible approach and departure routes are detailed as follows:

Arrival Routes

- From north:
  - Harbour Bridge, York Street, York Street, Jamison Street, Kent Street, Argyle Street, Lower Fort Street, George Street.
- From south:
  - Southern Cross Drive, Eastern Distributor, Cross City Tunnel, Wheat Road, Shelley Street, Erskine Street, Kent Street, Argyle Street, Lower Fort Street, George Street.
- From west:
  - ANZAC Bridge, Western Distributor, Kent Street, Argyle Street, Lower Fort Street, George Street.

Departure Routes

- To north:
  - George Street, Lower Fort Street, Argyle Street, Sydney Harbour Bridge.
- To south:
  - George Street, Lower Fort Street, Windmill Street, Dalgety Road, Towns Place, Hickson Road, King Street, Elizabeth Street, William Street/ Park Street, Bourke Street, Eastern Distributor
  - George Street, Lower Fort Street, Windmill Street, Dalgety Road, Towns Place, Hickson Road/Sussex Street, Liverpool Street, Harbour Street, Cross City Tunnel, Eastern Distributor.
- To west:
  - George Street, Lower Fort Street, Windmill Street, Dalgety Road, Towns Place, Hickson Road/Sussex Street, Western Distributor.

Truck drivers would be advised of the designated truck routes to/ from the site. The truck routes are shown in Figure 3.7 and Figure 3.8.

Figure 3.7: Truck approach routes

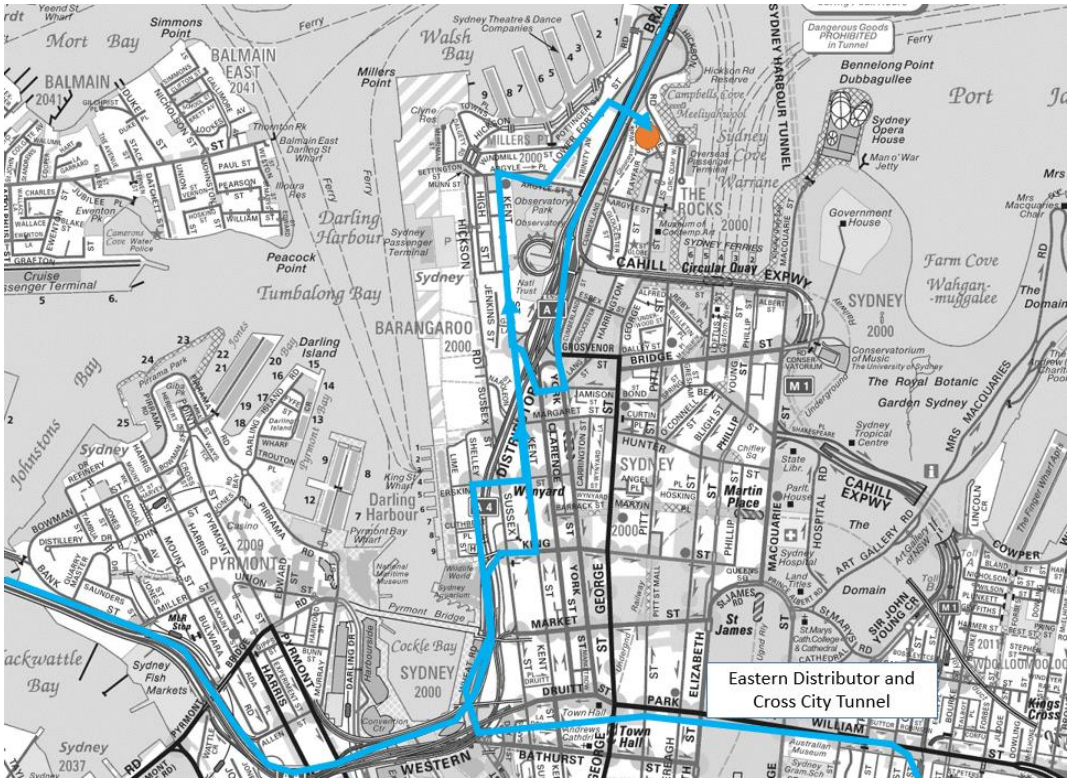
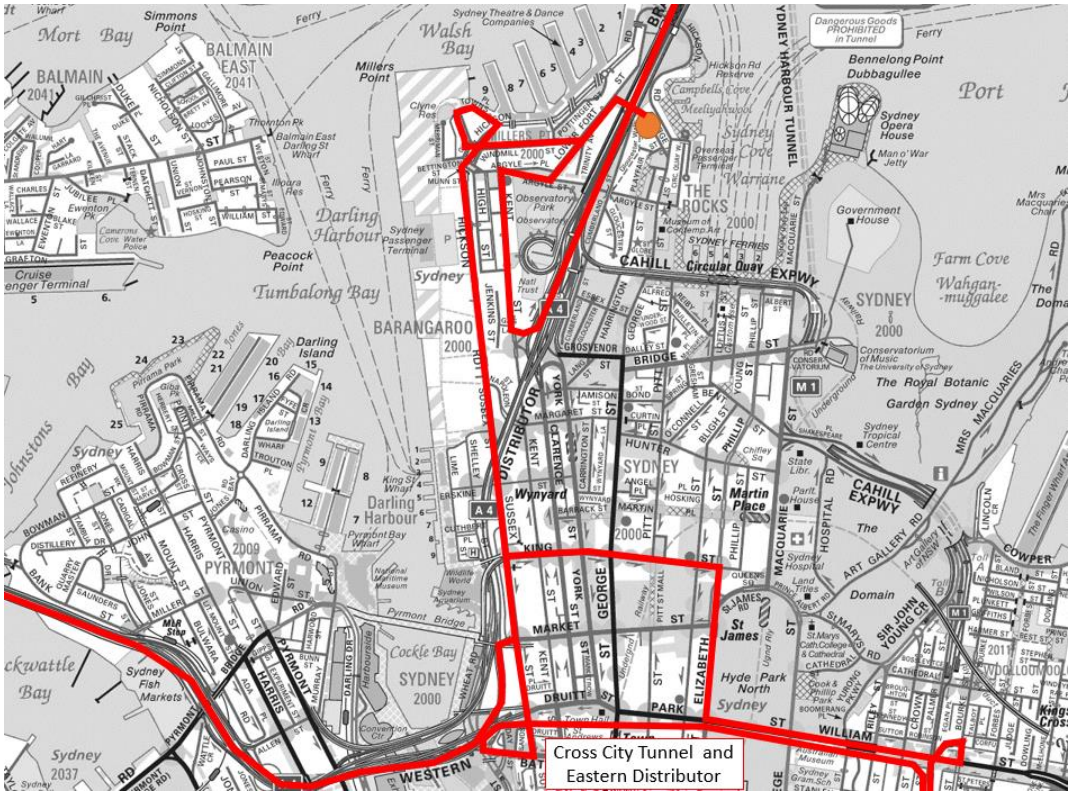


Figure 3.8: Truck departure routes



4. Construction Traffic Management

4.1 Traffic Guidance Scheme

An overview of three TGSs for the construction works has been prepared and are provided in Appendix B consistent with what was discussed in Section 3.4. The three TGS plans are dependent on the specific construction activity. The plan presents the principles of traffic management and is subject to WorkCover requirements. To recap, three TGS plans are proposed:

- **Closure of one traffic lane and footpath (Stage 1 and Stage 2a)**
  - This plan results in the temporary loss of parking to maintain two-way traffic movements at all times with the support of traffic controllers. It also restricts pedestrian access past the site, with pedestrians to be redirected to the eastern side of George Street. This scheme is supported by signage and traffic controllers.
- **Closure of two traffic lanes and footpath (Stage 2b and 3a)**
  - This plan results in the temporary loss of parking to provide a single traffic lane. Two-way traffic flow within the single lane would be managed by traffic controllers. It also restricts pedestrian access past the site, with pedestrians to be redirected to the eastern side of George Street. This scheme is supported by signage and traffic controllers.
- **Closure of one traffic lane but retain footpath access (Stage 3b)**
  - This plan results in the temporary loss of parking to maintain two-way traffic movements at all times with the support of traffic controllers. B-class hoarding is installed to facilitate pedestrian movement past the site. This scheme is supported by signage and traffic controllers.

Detailed information for work site operations is contained in the Roads and Maritime Traffic Control at Work Sites manual (version 5, June 2018). The control of traffic at work sites must be undertaken with reference to WorkCover requirements and the contractor's own workplace health and safety manuals.

The TGS details the following considerations:

- Construction vehicle activity, including the loading/ unloading of trucks and all materials handling to be provided within the construction site boundaries or within the proposed works zones (if required) at all times.
- The movement of trucks to/ from the construction site is to be managed and controlled by accredited site personnel.
- Pedestrian safety to be maintained at all times.
- Pedestrian wayfinding signage to be provided where an existing pathway is closed.

4.2 Pedestrian and Cyclist Management

During construction, pedestrian and cyclist movements should be maintained wherever possible. During the implantation of the TGS for Stage 1, 2a, 2b and 3a, pedestrians will need to be diverted to the opposite side of the road. This is facilitated by two existing pedestrian crossings which will minimise changes to existing traffic conditions.

The work zone will conflict with the weekly markets on within The Rocks and during special event periods. These impacts will need to be further negotiated with the City of Sydney and the Sydney Coordination Office.

Should any unforeseen activities require the temporary closure of any additional pedestrian access, a TGS should be developed and implemented by the contractor to ensure a safe alternative for pedestrians traversing these routes near the site.

4.3 Public Transport and Point-to-Point

The 311 bus passes the site as part of its route. All bus stops should be maintained with operational disruptions also expected to be modest. Should more extensive disruptions be expected, these will need to be discussed with the State Transit Authority and the Sydney Coordination Office. A traffic lane of at least 3.1 metres must be provided past the site as part of the work zone to accommodate bus movements.

All TGS plans propose the temporary removal of parking opposite the Mercantile Hotel site. Discussion will need to be had with the City of Sydney and the Sydney Coordination Office as to the feasibility of relocating the taxi zone, which would be temporarily removed.

4.4 Emergency Vehicle Access

Access to the neighbouring sites by emergency vehicles would not be affected by the works as the road and footpath frontages would be unaffected. Emergency vehicle access would be maintained to the site at all times.

Emergency protocols on the site would include a requirement for traffic controllers to assist with emergency access from the street. All truck movements to the site and/ or incident point would be suspended and cleared. Consequently, any potential impacts on emergency access would be effectively managed throughout the works. Any accredited traffic controllers on-site would also be made available to assist should an incident occur on Hickson Road in the immediate vicinity of the site.

Liaison would be ongoing with the police and emergency services agencies throughout the construction period and a 24-hour contact would be made available for 'out-of-hours' emergencies and access.

Overall, there are no anticipated adverse impacts on the provision of existing emergency vehicle access to other neighbouring properties as a result of the proposed construction activities.

4.5 Traffic Movements in Adjoining Council Areas

No adverse effects are expected from the movement of heavy vehicles through adjacent council areas.

5. Mitigation Measures

The principal contractor shall develop a detailed CPTMP in consultation with the Sydney Coordination Office, TfNSW, Roads and Maritime and the City of Sydney Council prior to construction commencing. This CPTMP will be prepared in accordance with the City of Sydney Council's standard requirements for a Construction Traffic Management Plan, which is included in Appendix A and *Traffic Control at Worksites* (Roads and Maritime, version 5, June 2018). The detailed CPTMP would include confirmation of:

- Hours of specific construction activities to minimise impact on the surrounding transport network and local residents and tenants
- Agreement on specific haulage routes
- Sequence for implementing traffic management devices
- Induction requirements for construction, supervisory and management personnel
- Procedure for inspections and record keeping for maintaining traffic control measures
- Provisions for maintaining safe access for pedestrians and cyclists throughout construction.

Appendix A

City of Sydney Standard Requirements and TfNSW CPTMP Checklist

APPENDIX A

The City of Sydney
Standard Requirements for Construction Traffic Management Plan

The Applicant or contractor undertakes to follow and abide by the following requirements at all times during the demolition, excavation and construction works at (Please Insert site address and DA No here)

1. Details of routes to and from site and entry and exit points from site – site specific

2. Details of roads that may be excluded from use by construction traffic i.e. roads with load limits, quiet residential streets or access/turn restricted streets – site specific

3. The approved truck route plan shall form part of the contract and must be distributed to all truck drivers.

4. All vehicles must enter and exit the site in a forward direction (unless specific approval for a **one-off occasion** is obtained from the City's Construction Regulation Unit).

5. Trucks are not allowed to reverse into the site from the road (unless specific approval for a **one-off occasion** is obtained from the City's Construction Regulation Unit).

6. The Applicant must provide the City with details of the largest truck that will be used during the demolition, excavation and construction.

   NOTE: No dog trailers or articulated vehicles (AV) to be used on local roads (unless specific approval for a **one-off occasion** is obtained from the City's Construction Regulation Unit).

7. Oversize and over-mass vehicles are not allowed to travel on Local Roads (unless approval for a **one-off occasion** is obtained from the City's Traffic Operations Unit). Requests to use these vehicles must be submitted to the City 28 days prior to the vehicle's scheduled travel date. For more information please contact the National Heavy Vehicle Regulator (NHVR) on 1300 696 487 or www.nhvr.gov.au.

8. No queuing or marshalling of trucks is permitted on any public road.

9. Any temporary adjustment to Bus Stops or Traffic Signals will require the Applicant to obtain approval from the STA and RMS respectively prior to commencement of works.

10. All vehicles associated with the development shall be parked wholly within the site. All site staff related with the works are to park in a designated off street area or be encouraged to use public transport and not park on the public road.

11. All loading and unloading must be within the development site or at an approved "Works Zone".

12. The Applicant must apply to the City's Traffic Works Co-ordinator to organise appropriate approvals for Work Zones and road closures.

13. The Applicant must apply to the City's Construction Regulations Unit to organise appropriate approvals for partial road closures.

14. The Applicant must apply to the Transport for NSW's Transport Management Centre for approval of any road works on State Roads or within 100m of Traffic Signals and receive an approved Road Occupancy Licence (ROL). A copy of the ROL must be provided to the City.

15. The Applicant must apply to the City's Construction Regulations Unit to organise appropriate approvals for temporary driveways, cranes and barricades etc.

16. The Applicant must comply with development consent for hours of construction.

17. All Traffic Control Plans associated with the CTMP must comply with the Australian Standards and Roads and Maritime Services (RMS) Traffic Control At Work Sites Guidelines.

18. Traffic Controllers are NOT to stop traffic on the public street(s) to allow trucks to enter or leave the site. 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 site - **the vehicles already on the road have right-of-way.**

19. Pedestrians may be held only for very short periods to ensure safety when trucks are leaving or entering BUT you must NOT stop pedestrians in anticipation i.e. **at all times the pedestrians have right-of-way on the footpath not the trucks**.

20. Physical barriers to control pedestrian or traffic movements need to be determined by the City's Construction Regulations Unit prior to commencement of work.

21. The Applicant must obtain a permit from the City's Construction Regulation Unit regarding the placing of any plant/equipment on public ways.

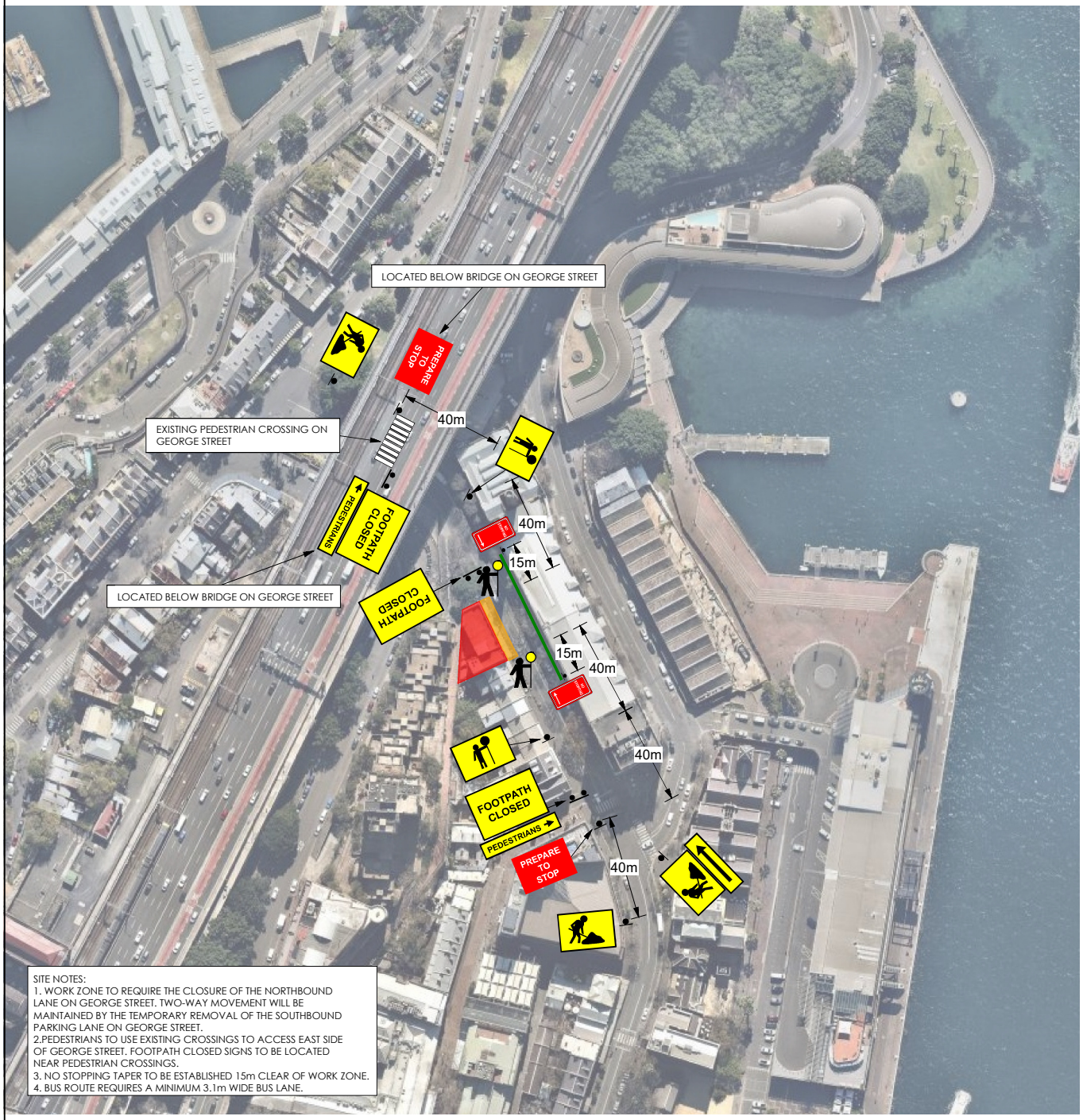
22. The Applicant must apply to the City's Building Approvals Unit to organise appropriate approvals for hoarding prior to commencement of works.

23. The CTMP is for the excavation, demolition and construction of building works, not for road works (if required) associated with the development. Any road works will require the Applicant or the contractor to separately seek approval from the City and/or RMS for consideration. Also WorkCover requires that Traffic Control Plans must comply with Australian Standards 1742.3 and must be prepared by a Certified Traffic Controller (under RMS regulations).

24. Please note that the provision of any information in this CTMP will not exempt the Applicant from correctly fulfilling all other conditions relevant to the development consent for the above site.

Appendix B

Traffic Guidance Scheme



SITE NOTES:
1. WORK ZONE TO REQUIRE THE CLOSURE OF THE NORTHBOUND LANE ON GEORGE STREET. TWO-WAY MOVEMENT WILL BE MAINTAINED BY THE TEMPORARY REMOVAL OF THE SOUTHBOUND PARKING LANE ON GEORGE STREET.
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3. NO STOPPING TAPER TO BE ESTABLISHED 15m CLEAR OF WORK ZONE.
4. BUS ROUTE REQUIRES A MINIMUM 3.1m WIDE BUS LANE.

TRAFFIC MANAGEMENT NOTES:
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5. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE RMS "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER 4 (RMS 2010) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
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7. THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TGS BEFORE ANY PHYSICAL WORK COMMENCES AND ENSURE A COPY OF THE TCP IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL ALSO DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TGS HAS BEEN IMPLEMENTED CORRECTLY AND THAT IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY VARIATIONS MADE TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL.
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15. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009.
16. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.

LEGEND

- SITE AREA
- WORK ZONE
- NO STOPPING ZONE
- SIGNPOST

CERTIFICATION
THE UNDERSIGNED HAS COMPLETED AND OBTAINED:
- PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN

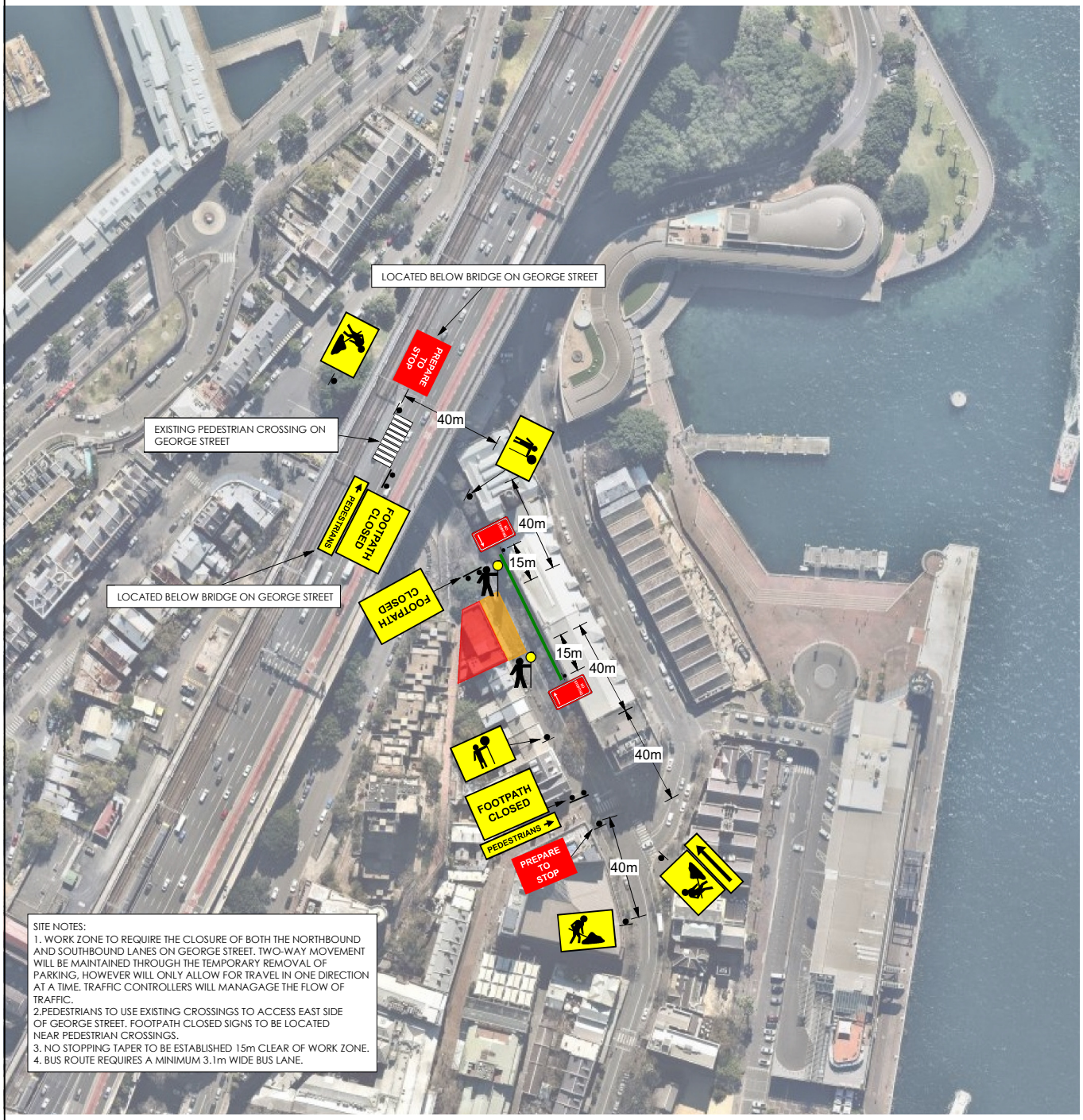
CERTIFICATE NO: XXXXXXXXXX - NICOLE VUKIC

GTAconsultants
www.gta.com.au

MERCANTILE HOTEL

STAGE 1 AND 2A
ONE LANE OCCUPATION
TRAFFIC GUIDANCE SCHEME

DATE: 30/11/17
DRAWING NO. N139170-01-P1



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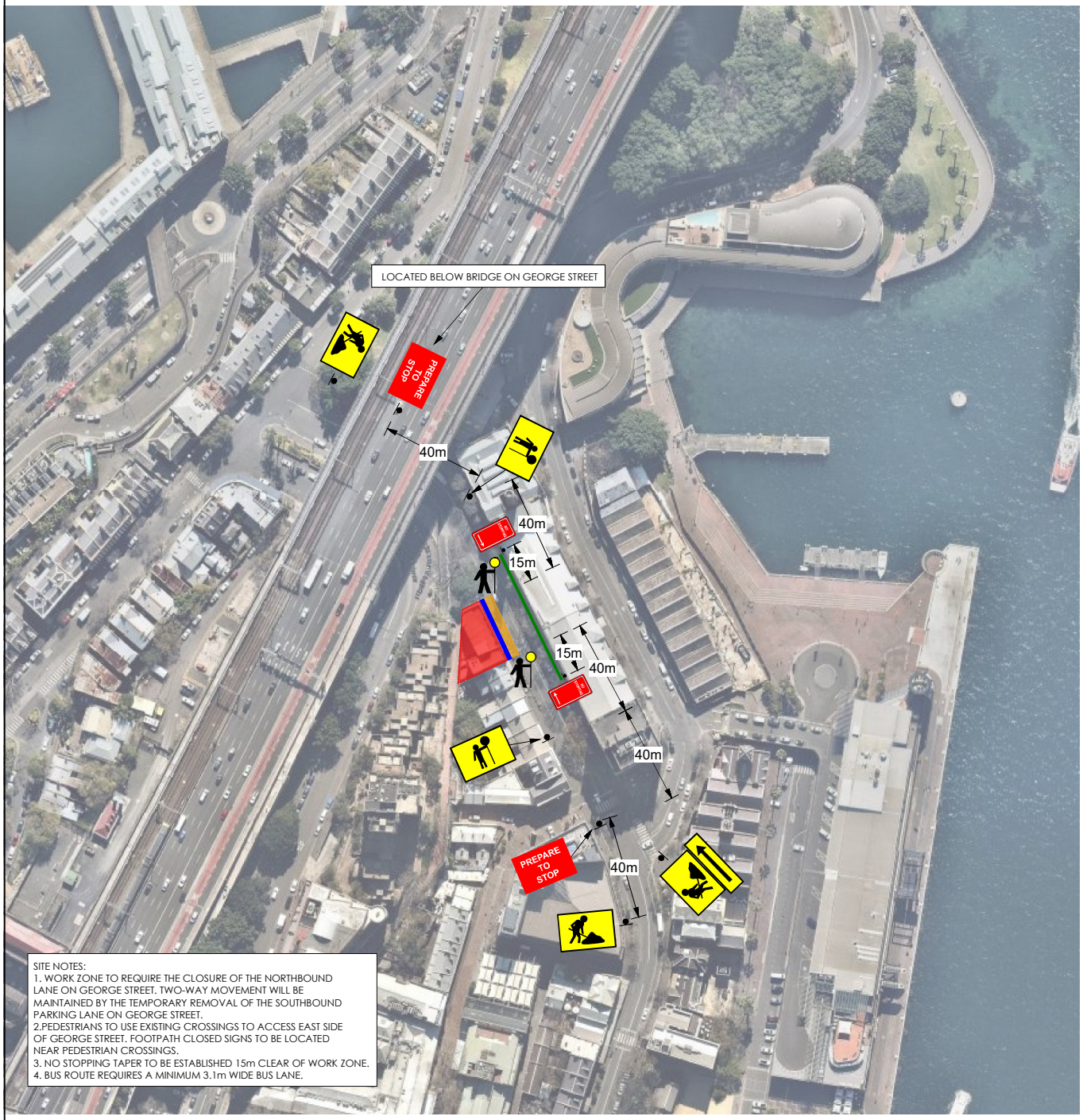
www.invarion.com



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- PEDESTRIAN ACCESS AROUND THE WORK AREA TO BE MAINTAINED AT ALL TIMES.
- AT ALL TIMES AN UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE.
9. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
10. IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS.
11. TRIFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE.
12. ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED.
13. ALL SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
14. ALL NIGHT WORK OR DAY/ NIGHT MUST USE RMS STANDARD NIGHT SIGNS AND DEVICES UNLESS OTHERWISE STATED.
15. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009.
16. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.

LEGEND

- SITE AREA
- WORK ZONE
- NO STOPPING ZONE
- B CLASS HOARDING
- SIGNPOST

CERTIFICATION
THE UNDERSIGNED HAS COMPLETED AND OBTAINED:
- PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN

CERTIFICATE NO: XXXXXXXXXX - NICOLE VUKIC

GTAconsultants
www.gta.com.au

MERCANTILE HOTEL

STAGE 3B
ONE LANE OCCUPATION WITH HOARDING
TRAFFIC GUIDANCE SCHEME

DATE: 30/11/17
DRAWING NO. N139170-03-P1

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