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TRAFFIC AND PARKING REPORT

REDEVELOPMENT OF 60 MARTIN PLACE, SYDNEY

X13103

Report No. X13103r01

Prepared for Investa Nominees Pty Ltd ATF 60 Martin Place Trust

COMMERCIAL IN CONFIDENCE

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60 MARTIN PLACE, SYDNEY, NSW

TRAFFIC AND PARKING ASSESSMENT REPORT

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1 INTRODUCTION

This report was prepared for the Investa Nominees Pty Ltd ATF 60 Martin Place Trust to present the findings of a traffic and parking demand study of the proposed redevelopment of 60 Martin Place, Sydney. This report assesses existing traffic conditions, proposed changes to the site on matters pertaining to traffic, access and parking and potential traffic impacts of the proposal.

Further, the report includes a pedestrian access assessment of the surrounding pedestrian environment to gauge opportunities to improve the pedestrian network which services the site.

The report is set out as follows:

- Chapter 2 describes existing conditions;
- Chapter 3 provides a summary of the proposed development;
- Chapter 4 summarises the data collection approach;
- Chapter 5 reviews the pedestrian environment;
- Chapter 6 provides a summary of the findings of the data assessment; and
- Chapter 7 presents a summary and report recommendations.

2 EXISTING CONDITIONS

2.1 SITE LOCATION

The site includes frontages to Phillip Street, Martin Place and Macquarie Street. The existing development includes a 26 storey commercial tower with 5 storey podium. The existing development provides 30,022m^2 of gross floor area which includes 28451.3m^2 Net Leasable Floor Area (NLA), consisting of 27,061m^2 NLA of office space and 1,390.3m^2 of retail space. St Stephens' Church (197 Macquarie Street) is also parto f the site and has a frontage to Macquarie Street.

The location is shown in **Figure 1** below.

Figure 1 - Site Location

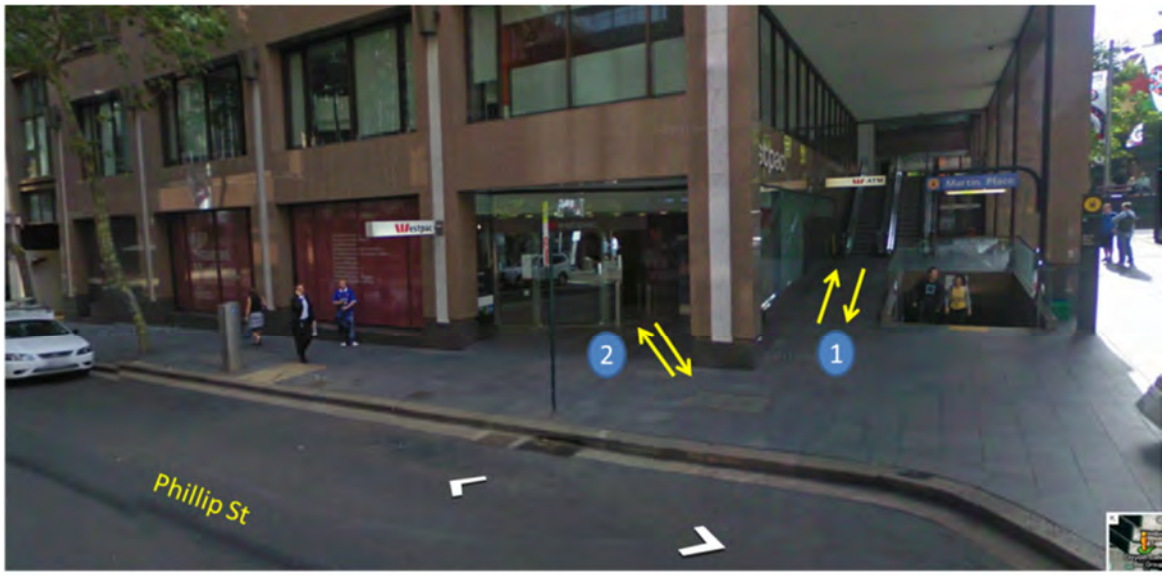
Vehicular access is via both Macquarie Street and Phillip Street. Pedestrian access to the main building is via Martin Place with minor access from Phillip Street as noted below. No vehicle access is available to St Stephens' Church and pedestrian access is restricted to Macquarie Street.

2.2 PEDESTRIAN ACCESS ARRANGEMENTS

On the Phillip Street frontage, the development includes a ground floor Westpac Bank. The main pedestrian access is located in the Martin Place frontage. However, level changes across the Martin Place frontage require the use of escalators when travelling to / from Phillip Street.

Pedestrian access from Macquarie Street is at grade via a covered walkway. Existing pedestrian access arrangements are shown in **Figure 2** and **Figure 3** below.

Figure 2 – Phillip Street Pedestrian Access Arrangements



1 – Existing escalator access to / from Martin Place
2 – Existing Westpac Bank access in Phillip Street

Figure 3 – Macquarie Street Pedestrian Access Arrangements

1 – At grade access to main pedestrian entry to / from Macquarie Street

As shown in **Figure 2**, the main frontage of the site also includes a two way stairway access to Martin Place Railway Station. The conditions and availability of transit in the area are discussed further below.

2.3 VEHICLE ACCESS ARRANGEMENTS

The site includes a one-way vehicle access system linking Macquarie Street to Phillip Street via the on-site car park and loading dock facilities. The existing vehicle access arrangements in each street are shown below.

Figure 4 – 'Entry Only' Vehicle Driveway from Macquarie Street

Figure 5 – 'Exit Only' Vehicle Driveway from Macquarie Street

A site inspection of the location was undertaken with a photographic record presented above.

2.4 ROAD NETWORK

2.4.1 Classification Criteria

It is usual to classify roads according to a road hierarchy in order to determine their functional role within the road network. Changes to traffic flows on the roads can then be assessed within the context of the road hierarchy. Roads are classified according to the role they fulfil and the volume of traffic they should appropriately carry. The RTA has set down the following guidelines for the functional classification of roads.

- Arterial Road – typically a main road carrying over 15,000 vehicles per day and fulfilling a role as a major inter-regional link (over 1,500 vehicles per hour)
- Sub-arterial Road – defined as secondary inter-regional links, typically carrying volumes between 5,000 and 20,000 vehicles per day (500 to 2,000 vehicles per hour)
- Collector Road – provides a link between local roads and regional roads, typically carrying between 2,000 and 10,000 vehicles per day (250 to 1,000 vehicles per hour). At volumes greater than 5,000 vehicles per day, residential amenity begins to decline noticeably.
- Local Road – provides access to individual allotments, carrying low volumes, typically less than 2,000 vehicles per day (250 vehicles per hour).

2.4.2 Existing Road Network

The existing road network in the vicinity of the proposed development is described below.

Macquarie Street – Martin Place to Hunter Street

This section of Macquarie Street includes parallel parking on the western side of the street with No Parking permitted on the eastern side. The street includes two travel lanes in each direction.

The intersections of Hunter Street/Macquarie Street and Martin Place / Macquarie Street are controlled by traffic signals with pedestrian phases available on all arms of the intersection.

Four hour parking restrictions are installed on the western side of Macquarie Street which operate between the hours of 6:30pm – 10:00pm Monday to Friday and 8:00am – 10:00pm Saturday and Sunday. Outside these times a loading zone operates within the parallel parking spaces.

Phillip Street – between Hunter Street and Martin Place

Phillip Street consists of a single travel lane in either direction with parking permitted on both sides of the street in the form of loading zones during the day and four hour parking restrictions during the evening.

Between the hours of 3:00pm-7:00pm, parking on the western side of the street for a distance of approximately 50m is banned to provide two northbound lanes in Phillip Street to Hunter Street. The kerbside lane is marked as a left turn lane only and the median lane is marked as a right turn lane only.

2.5 TRAFFIC CONDITIONS

Undertaking adjacent intersection counts for this development was not deemed as a necessary requirement to assess the potential impacts of the proposal.

The proposal includes replacement of an existing use with a new building with some ancillary uses in the form of a break out area located on the roof of the podium. The peak periods of this use would be outside the expected peak period of the main building.

Traffic conditions in the Sydney CBD are well known to be congested at most times during a weekday. Planning for improvements to the Sydney CBD is subject to area wide strategic and microsimulation modelling undertaken by the Roads and Maritime Services with consultation with both the State Government and City of Sydney Council.

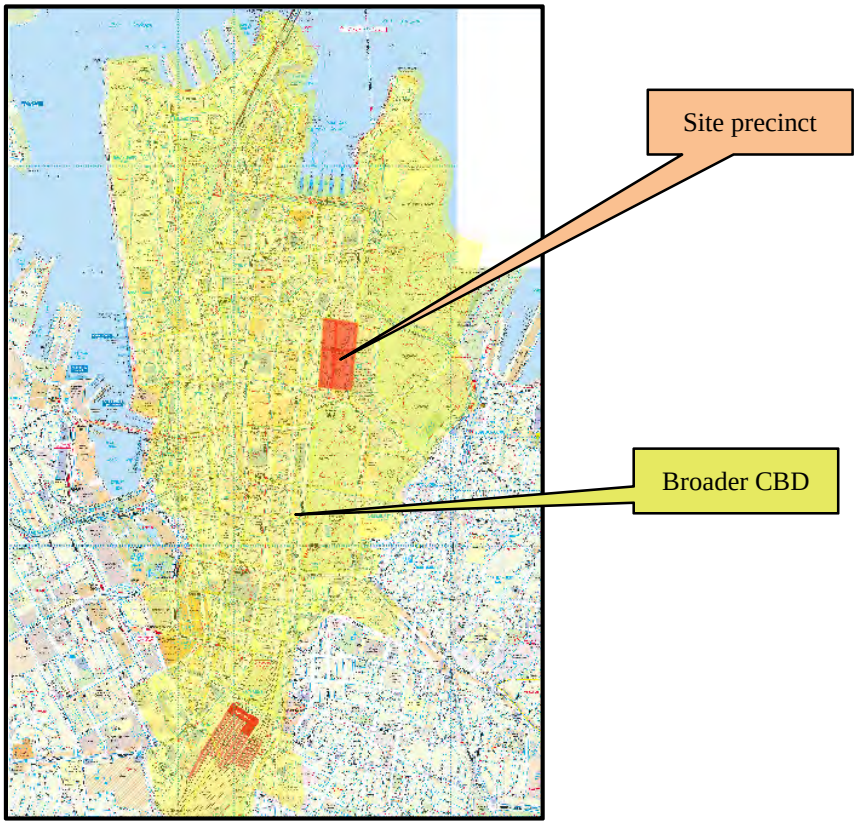
The focus of this report is on the potential improvements which can be achieved with the redevelopment of the site for non-private vehicle modes and the greater public.

2.6 JOURNEY TO WORK (JTW) & TRANSIT ACCESS ASSESSMENT

The analysis examines commuter travel behaviour in the area including and immediately around the site. This is compared with the broader CBD and with commuter travel within the broader Sydney area. Information is collated to characterise the public transport conditions in the vicinity of the site.

As stated above, the site is located adjacent to CityRail's Martin Place Station and includes frontages to Martin Place, Phillip Street and Macquarie Street. The following figure shows the general area of the site in the context of the broader Sydney CBD.

Figure 6 - Site context within Sydney CBD



2.6.1 Commuter Travel

The Census of Population and Housing undertaken by Australian Bureau of Statistics (ABS) collects information about how people travel to work, among other things. This information is available at small area resolution to permit analysis that identifies how people travel and how this varies with differing transport and land use conditions.

Coding of the information is to Travel Zones (TZ) which are very detailed in the CBD. The following figure shows the TZ in which the site is located (TZ62) as well as three adjoining TZs.

Figure 7 - Site within travel zone 62 and adjoining travel zones

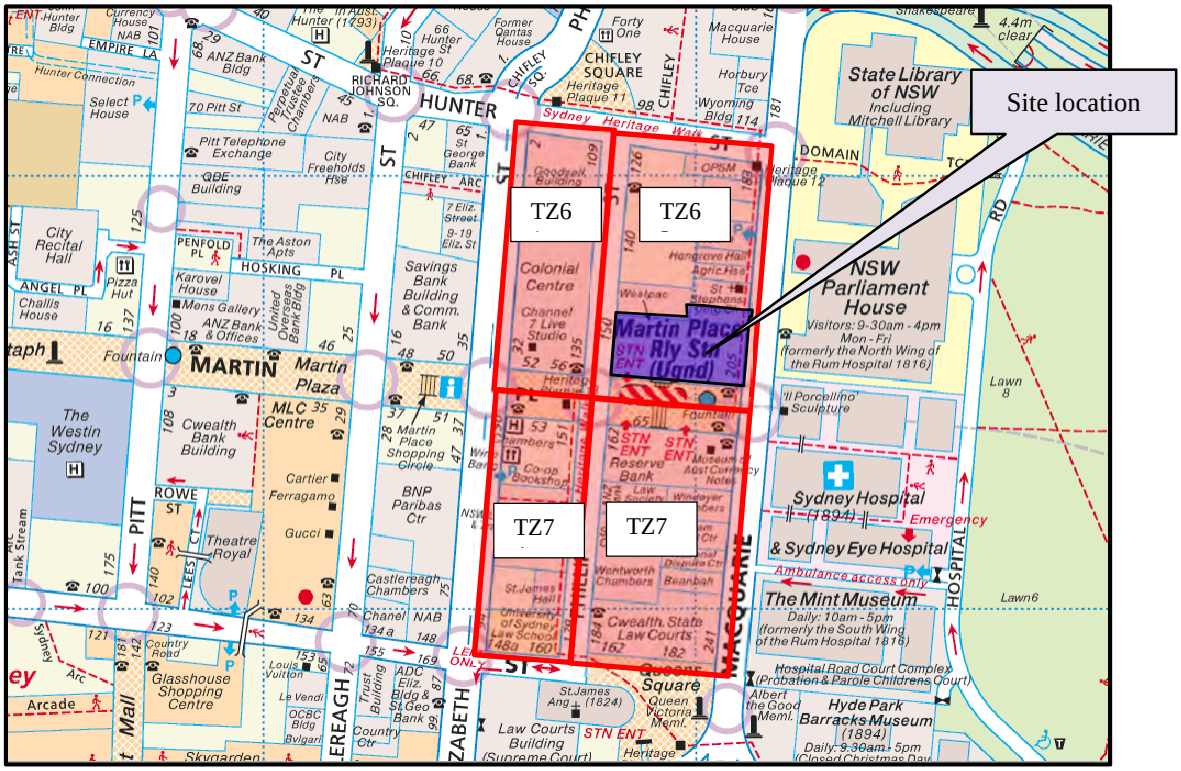


Table 1 provides a summary of how commuters who work in these four zones travelled to work on Census Day[1].

Table 1: Commuter travel to travel zones in Site's Precinct

Destination Travel Zone	Mode of travel								
	Train	Ferry or Tram	Bus	Car as Driver	Car as Passenger	Other Modes	Worked at Home or Did not go to Work	Not Stated	Total
61	1,212	101	599	262	51	193	200	10	2,628
62 (Site)	1,489	174	755	385	135	312	328	17	3,595
74	546	60	269	209	50	120	138	21	1,413
75	1,360	107	550	375	128	205	290	9	3,024
Total	**4,607**	**442**	**2,173**	**1,231**	**364**	**830**	**956**	**57**	**10,660**

Source: BTS Table 7 Expanded GMA, 2006 Census

The above figures indicate that rail is the main mode used by commuters; it also suggests that few people worked at home or did not go to work (generally less than 10%) and that there were few not stated responses, which suggests that the data quality is good.

Table 2 shows the mode shares of those who travelled to work on Census Day and includes CBD-wide and Sydney-wide estimates[2] (which includes the Site's Precinct) for comparison.

[1] Journey to work information is taken form 2006 Census. Results from the 2011 Census produced by BTS are expected anytime in May/June 2013 and these can be analysed and reported at the time. Analysis of preliminary information direct from ABS indicates very similar mode shares for these four zones and the CBD as a whole from 2011.

[2] Sydney SD is the statistical division which includes Gosford and Wyong to the north, Blue Mountains and Hawkesbury to the west and Wollondilly, Campbelltown and Sutherland to the south.

Table 2: Commuter travel to travel zones in Site's Precinct

Travel Zone	Train	Ferry or Tram	Bus	Car as Driver	Car as Passenger	Other Modes	Total
61	50%	4%	25%	11%	2%	8%	100%
62 (Site)	46%	5%	23%	12%	4%	10%	100%
74	44%	5%	21%	17%	4%	10%	100%
75	50%	4%	20%	14%	5%	8%	100%
Precinct Total	**48%**	**5%**	**23%**	**13%**	**4%**	**9%**	**100%**
CBD	**48%**	**3%**	**21%**	**16%**	**3%**	**8%**	**100%**
Sydney SD	**14%**	**1%**	**6%**	**66%**	**6%**	**7%**	**100%**

Source: BTS Table 7 Expanded GMA, 2006 Census

Mode shares in the TZs comprising the subject sites precinct are similar across the four zones, and the average of these zones is similar when compared with the CBD's commuter mode shares. From **Table 2** it can be seen that just how diverse the travel characteristics of the Sydney CBD are when compared with the larger area, with 'Other' the only mode that has a similar share.

2.6.2 Public Transport Conditions

The site has many public transport options close by which are summarised below.

Train Services

Martin Place Station has a direct pedestrian access within the site curtilage fronting Martin Place. Train services operating at this station include both the Eastern Suburbs and Illawarra Lines, offering high frequency services between Bondi Junction and areas in southern Sydney, including Hurstville, Sutherland, Cronulla, Waterfall, as well as to Wollongong.

These trains stop at Town Hall (next stop west of Martin Place) which offers direct interchange to most destinations on the CityRail network.

St James Station's entrance on the northside of St James Road is approximately 230m from the entrance to the site, walking along Phillip Street and then across Queens Square, without the need to cross any roads. This station is on the City Circle offering services to the Airport and East Hills Line, as well as to the Inner West via Circular Quay, Wynyard and Town Hall. At these two last stations there is interchange available to most City Rail destinations, within the paid area of the station.

Wynyard Station's George Street entrance is approximately 600m from the entrance to the site, walking down Martin Place and along George Street.

Bus Services

The CBD is supported by extensive bus networks, which cover most of the area within approximately 10km of the CBD, as well as some longer distance services from the northern Beaches, upper North Shore and the Northwest. This network comprises primarily direct services which serve particular suburbs at their outer extent and then converge on corridors as they approach the City. The combined service frequencies on a number of these corridors, such as Oxford Street, Broadway and Victoria Road are in the range of 50 to 120 buses per hour.

Sydney Buses Services

George Street

- Services from the Inner West from Ashfield, Burwood, Lilyfield, Abbottsford and Chiswick via Broadway and George Street:
    - closest inbound bus stop on George Street near Wynyard approximately 600m from site
    - closest outbound bus stop is on George Street near Wynyard approximately 550 m from site
- Services from the Victoria Road network serving northern parts of the Inner West, as well as areas north of Gladesville Bridge, such as West Ryde and Eastwood:
    - closest inbound bus stop on George Street near Wynyard approximately 600m from site
    - closest outbound bus stop is on George Street near Wynyard approximately 550 m from site

George Street / Castlereagh Street

- Services from south west (Tempe, Kingsgrove, Canterbury, Dulwich Hill) these services enter town via George Street:
    - closest inbound bus stop on George Street near King Street approximately 600m from site
- When leaving the City these services use Castlereagh Street, with:
    - closest outbound bus stop near Martin Place approximately 200m from site

Elizabeth Street

- Service from the Eastern Suburbs generally run along Elizabeth Street with:
    - inbound bus stop located on Elizabeth Street near Martin Place approximately 110m from site
    - outbound bus stop located north of Martin Place approximately 100 m from site
    - some outbound services also run along Castlereagh Street, with a stop near Martin Place, approximately 200m from site.

Wynyard

Northern Beaches and Lower North Shore

These services call at, or commence at Wynyard, in the York Street and Carrington Street areas. Some of these services continue south to QVB and Railway Square (Lee Street).

The most convenient bus stops to the site for most of these services are at York Street (inbound) and Carrington Street (outbound), approximately 650m to 700m from site; for services that continue to Railway Square or commence at Lee Street, the most convenient bus stop inbound is marginally closer to the site on York Street, whilst the outbound stop at Carrington Street remains the most convenient.

Victoria Road Corridor

Another set of services from the general areas of North Ryde, Macquarie Park, Lane Cove and Chatswood West comes over the Harbour Bridge via either Gore Hill Freeway or the Pacific Highway. This network operates to QVB via Wynyard. The most convenient bus stops are located around Wynyard, although a stop on York Street south of Wynyard for inbound services is marginally closer to the site.

Private Bus Operators

In addition to the above Sydney Buses services, a number of private operators offer services to the City. These include services from:

- Sydney's Northwest (Hillsbus) which generally use the M2 Motorway alignment and Gore Hill Freeway, connecting at Wynyard and then Town Hall and Railway Square.
- Sydney's upper north shore (Forest Coach Lines and Shorelink) connect Belrose, North Turramurra, East Wahroonga and Terry Hills calling at Wynyard and Town Hall.

Convenient bus stops are in the Wynyard area and some inbound services call at a stop on York Street which is marginally closer to the site.

Ferry Services

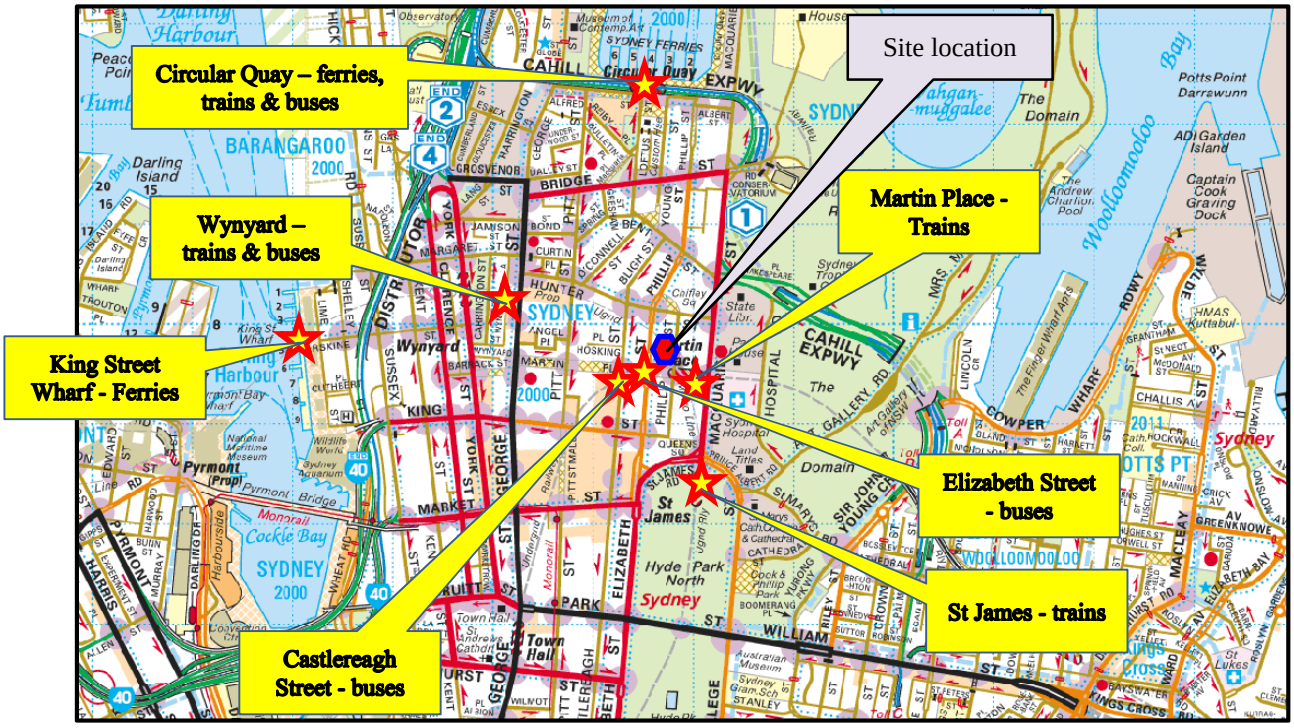
Circular Quay Ferry Wharves are approximately 900m from the entrance to the site, walking via Phillip Street, Bent Street and Loftus Street.

King Street Wharf is approximately 1,200 m from the entrance to the site.

2.6.3 Summary

The high mode share to public transport for workers around the site indicates that the array of public transport services available offer excellent accessibility. This site has some of the highest public transport accessibility in Sydney. To provide context the location of all available transit services to the existing site within less than 800m walking distance is provided in **Figure 8**.

Figure 8 – Public Transport Access Points around 60 Martin Place, Sydney

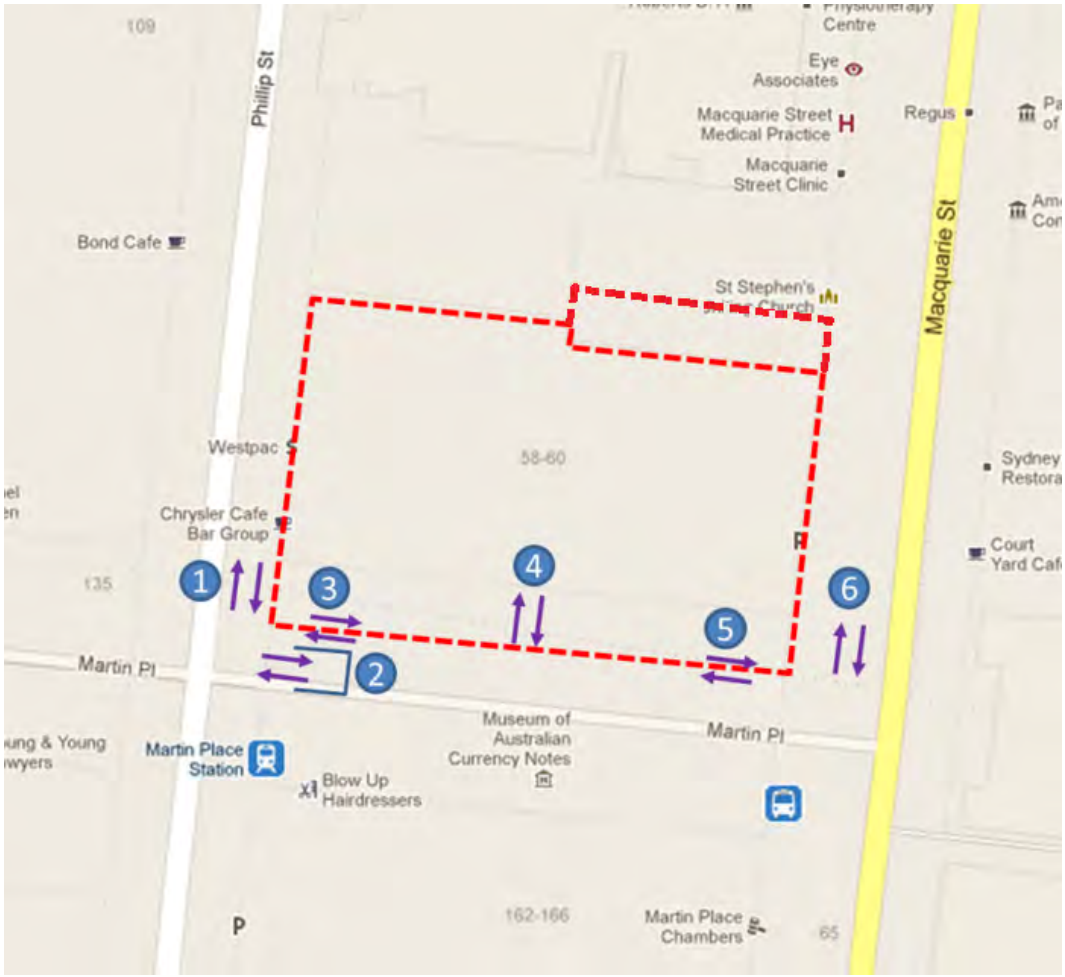


2.7 PEDESTRIAN CONDITIONS

To gauge current conditions for pedestrian into, out of and around the proposed development, pedestrian flow counts were undertaken at the following locations which are shown in **Figure 9**.

1. Eastern side of Phillip Street immediately north of Martin Place
2. Entry / exit stairwell to Martin Place Railway Station
3. Pedestrian pathway from Phillip Street to escalators
4. Main entry to existing building
5. Elevated pedestrian pathway linking main entry to Macquarie Street
6. Western side of Macquarie Street

Figure 9 – Pedestrian Count Locations - 60 Martin Place, Sydney



Counts were undertaken on Tuesday 14 May 2013 between the hours of 7:00am – 9:00am, 12:00pm - 2:00pm and 4:00pm – 6:00pm. Copies of the pedestrian counts can be found in **Appendix B** of this report. A summary of the AM, midday and PM peak hour pedestrian flows by direction are presented in

Table 3 - AM, Midday & PM Peak Hour Pedestrian Existing Pedestrian Flows

	Location	Direction	8:00am – 9:00am	12:00pm – 1:00pm	5:00pm – 6:00pm
1	Eastern side of Phillip Street immediately north of Martin Place	Northbound	661	286	105
		Southbound	141	337	471
2	Entry / exit stairwell to Martin Place Railway Station	In	20	194	567
		Out	821	246	48
3	Pedestrian pathway from Phillip Street to escalators	Eastbound	634	492	54
		Westbound	125	212	181
4	Main entry to existing building	In	707	524	62
		Out	106	328	711
5	Elevated pedestrian pathway linking main entry to Macquarie Street	Eastbound	185	156	56
		Westbound	116	121	73
6	Western side of Macquarie Street	Northbound	523	509	168
		Southbound	118	419	450

From **Table 3** it can be seen that the existing development generates in the order of 800 pedestrian movements in / out of the building during morning and afternoon peak periods.

It is noted that at the time of undertaking the counts that the building was fully occupied / rented and thus the recorded traffic pedestrian flows would be representative of future flows. This is discussed further in Section 5 of this report.

2.8 FRUIN ANALYSIS OF EXISTING CONDITIONS

The FRUIN 'Level of Service' approach is a widely recognised technique in assessing passenger spaces. The technique measures the pedestrian flow along a footway against the measured width, and assigns a score between A and F, where A is totally free-flowing movement, and F means that pedestrian flows are so heavy that people are shuffling. The resulting table by type of pedestrian facility is provided in below.

Table 4 - Fruin LoS for Flow Rates

LOS	Density (ped/m²)	Space (m²/ped)	Flow Rate (ped/min/m)	Av Speed (m/s)	Capacity (v/c ratio)
LoS A	<0.27	>3.24	<23	>1.3	0.0 to 0.3
Los B	0.43 to 0.31	2.32 to 3.24	23 to 33	1.27	0.3 to 0.4
LoS C	0.72 to 0.43	1.39 to 2.32	33 to 49	1.22	0.4 to 0.6
LoS D	1.08 to 0.72	0.93 to 1.39	49 to 66	1.14	0.6 to 0.8
LoS E	2.17 to 1.08	0.46 to 1.39	66 to 82	0.76	0.8 to 1.0
LoS F	>2.17	<0.46	Variable	<0.76	variable

A Fruin assessment of both Phillip Street and Macquarie Street has been undertaken to gauge existing conditions in locations which may be influenced by the proposal. Undertaking a Fruin assessment of Martin Place was considered well beyond the scope of this proposal as Martin Place has a number of factors which influence pedestrian capacity of which this development has no control over. The available footpath width in both Phillip Street and Macquarie Street is shown in **Figure 10** and **Figure 11**.

Figure 10 - Clear footpath width on Phillip St Frontage

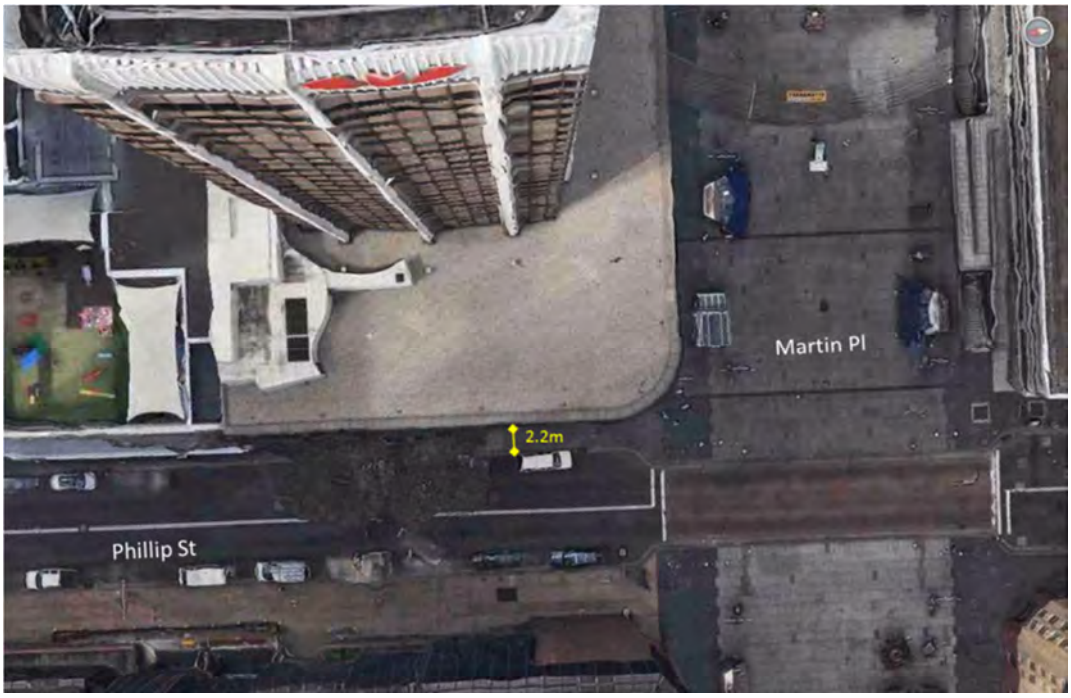


Figure 11 - Clear footpath width in Macquarie St frontage

Applying the recorded two way pedestrian flows from **Table 3** to the available footpath / stairwell clear widths, the following summarises the existing level of service for pedestrians in the vicinity of the proposed development.

Table 5 – Existing AM Fruin LOS Assessment

Location	AM Two Way Flow	Peds / Min	Available Width (m)	Flow Rate (ped/min/m)	Fruin LOS
Phillip Street	802	14	2.2	6.4	**LoS A**
Macquarie Street	641	11	2.5	4.4	**LoS A**

Table 6 – Existing Midday Fruin LOS Assessment

Location	Midday Two Way Flow	Peds / Min	Available Width (m)	Flow Rate (ped/min/m)	Fruin LOS
Phillip Street	623	11	2.2	5.0	**LoS A**
Macquarie Street	928	16	2.5	6.4	**LoS A**

Table 7 – Existing PM Fruin LOS Assessment

Location	PM Two Way Flow	Peds / Min	Available Width (m)	Flow Rate (ped/min/m)	Fruin LOS
Phillip Street	576	10	2.2	4.5	**LoS A**
Macquarie Street	618	11	2.5	4.4	**LoS A**

From the above it is noted that the footpath frontages of the development currently include Fruin LoS A for the AM, midday and PM peaks.

3 PROPOSED DEVELOPMENT

The proposal seeks to amend the maximum height for the site under the Sydney Local Environmental Plan 2012 and also provides an amendment to Section 6 'Specific Sites' of the Sydney Development Control Plan 2012 to establish development controls on the site to guide any future redevelopment.

The proposal will facilitate a redevelopment on the site for a new premium commercial office building with an intent to achieve an FSR of 12.5:1 (plus an additional 10% subject to the achievement of design excellence). Thus an FSR of 13.75:1 would be achieved which represents an approximate 26.6% increase over and above existing floor space.

An indicative scheme on the site has been prepared by Hassell and includes:

1. Removal of the existing building.
2. A Gross Floor Area of 38,000m^2;
3. An estimated office component of 36,500m^2 and a retail component 1,500m^2;
4. Construction of a new building to achieve a 'Premium' Grade standard as defined by the Property Council of Australia.
5. Improved service vehicle facilities.
6. Improved basement car park arrangements / circulation.
7. Rationalisation of vehicle access with closure of existing access in Macquarie Street and creation of an entry / exit driveway in Phillip Street.
8. A basement car park maintaining the existing provision of carparking spaces with *no* additional parking provided for the additional floorspace created with the new building.
9. Potential to provide shelter along the Phillip Street frontage to provide a public benefit.

4 TRAFFIC & PARKING ASSESSMENT

4.1 TRAFFIC IMPACTS

As stated in Section 3, the intention of the proposal is to achieve an FSR of 13.75:1 which would equate to an approximate increase of 26.6% of floorspace area. This FSR has been determined in light of the current planning controls applicable to the site under the Sydney Local Environmental Plan 2012. The FSR for commercial/retail uses on the site is 12.5:1 and an additional 10% bonus is potentially available subject to the achievement of design excellence. As it is intended that any redevelopment of the site would undergo a competitive design process, the FSR of 13.75:1 has been selected for use in all calculations.

However, as stated in Section **3**, the proposed development will not provide *any* additional parking for the additional floorspace achieved.

Thus the traffic impacts of the new building are expected to be similar to the existing building.

4.2 PARKING PROVISION

As stated in Section 3, the intention of the development is to achieve greater usable floorspace within the current building envelope. However, whilst the new building would achieve an increase of some 26.6% in usable floorspace, no additional on-site parking for this additional floorspace is proposed.

We note the following is stated in the City of Sydney 2012 LEP:

7.6 Office premises and business premises

The maximum number of car parking spaces for a building used for the purposes of office premises or business premises is as follows:

a) if the building is on land in category D and has a floor space ratio of no more than 3.5:1—1 space for each 175 square metres of gross floor area of the building used for those purposes,

b) if the building is on land in category E and has a floor space ratio of no more than 2.5:1—1 space for each 125 square metres of gross floor area of the building used for those purposes,

c) if the building is on land in category F and has a floor space ratio of no more than 1.5:1—1 space for each 75 square metres of gross floor area of the building used for those purposes,

d) if the building is on land in category D, E or F and has a floor space ratio greater than that specified in paragraph (a), (b) or (c) respectively, the following formula is to be used:

$$M = (G \times A) \div (50 \times T)$$

where:

M is the maximum number of parking spaces, and

G is the gross floor area of all office premises and business premises in the building in square metres, and

A is the site area in square metres, and

T is the total gross floor area of all buildings on the site in square metres.

7.7 Retail premises

1. *This clause does not apply to a building if the building has more than 2,000 square metres of gross floor area used for the purposes of retail premises.*
2. *The maximum number of car parking spaces for a building used for the purposes of retail premises is as follows:*

a) if the building is on land in category E—1 space for each 60 square metres of gross floor area of the building used for those purposes,

b) if the building is on land in category F—1 space for each 50 square metres of gross floor area of the building used for those purposes,

c) if the building is on land in category D and has a floor space ratio of no more than 3.5:1—1 space for each 90 square metres of gross floor area of the building used for those purposes,

d) if the building is on land in category D and has a floor space ratio greater than 3.5:1, the following formula is to be used:

$$M = (G \times A) \div (50 \times T)$$

where:
M is the maximum number of parking spaces, and
G is the gross floor area of all retail premises in the building in square metres, and
A is the site area in square metres, and
T is the total gross floor area of all buildings on the site in square metres.

The subject site has a 'Category A' in the Land Use & Transportation Integration and 'Category D' in the Public Transport Accessibility Level classifications of the LEP.

As the proposed development would provide an FSR of 13.75:1, application of the formula would apply to both the commercial and retail components. It should be noted that the St Stephens Church would be included in the Stage 2 DA. Therefore the total site area is 3,399m^2.

Thus application of the formula to calculate parking provision for both the commercial and retail components would be applied.

Commercial/Retail Parking Requirement =

$$\frac{(38{,}000\text{m}^2 \text{ commercial/retail floor space} \times 3{,}399\text{m}^2 \text{ site area})}{(50 \times 38{,}000\text{m}^2)}$$

Thus, the site would provide 68 parking spaces for commercial / retail uses.

4.3 COMMENTARY OF PARKING PROVISION

There are many opinions on the role of parking provision and who it may or may not affect a person's decision on preferred mode of travel. In the case of this development, it is clear that the existing parking provision, constrained when compared to the parking requirements of surrounding Council areas, has had no bearing on the preferred mode choice of the building users.

That is, access to high quality and high frequency public transport services has a far greater impact on a person's choice of mode than the provision of a parking space.

The existing occupiers / workers of the subject site exhibit very high non private vehicle mode share and this is expected to continue should the same parking provision be provided for the new development (and no additional parking for the additional floorspace).

Overall the provision of the existing 82 car spaces at the development would not impact on traffic conditions and would have little to no bearing on the choice of those who work at the site.

4.4 SERVICE VEHICLE PROVISION

The proposal would include compliance with Sydney City Council's DCP 2012 for service vehicle provision which is as follows:

7.8.1 Service vehicles
(1) The following minimum requirements for service vehicle parking apply to new development for:
Commercial premises:
(i) 1 space per 3,300m^2 GFA, or part thereof, for the first 50,000m^2; plus
(ii) 1 space per 6,600m^2, or part thereof, for additional floor area over 50,000m^2 and under 100,000m^2; plus
(iii) 1 space per 13,200m^2, or part thereof, for additional floor area over 100,000m^2.

(c) Shops, shopping centres:
(i) 1 space per 350m^2 GFA, or part thereof, up to 2,000m^2; then
(ii) 1 space per 800m^2 GFA thereafter.

Therefore with an approximate intended FSA of 38,000m^2 of commercial / retail floorspace the development should provide some 12 service vehicle parking spaces for the commercial component.

It is understood adequate provision for service vehicle parking will be provided in the detailed designs of the proposal.

4.5 BICYCLE / MOTORCYCLE PARKING PROVISION

4.5.1 Bicycle Parking

In accordance with the Sydney City DCP 2012, the proposed development should provide bicycle parking at the following rates:

Commercial

- 1 space per 150m^2 GFA for residents / employees
- 1 space per 400m^2 GFA for customers / visitors

Retail

- 1 space per 25m^2 GFA for residents / employees
- 2 spaces plus 1 space per 100m^2 over 100m^2 GFA

As stated in Section 3, it is estimated the development would provide some 36,500m^2 of office space and 1,500m^2 of retail space. Thus the development would be required to provide:

Commercial Component

- 244 bicycle parking spaces for employees
- 92 spaces for customers / visitors

Retail Component

- 60 spaces for employees
- 16 spaces for customers

It is understood the intent of the development is to provide bicycle parking in accordance with DCP 2012.

4.5.2 Motorcycle Parking

The following is noted from Schedule 7 of DCP 2012:

7.8.4 Motorcycle parking spaces

In all buildings that provide onsite parking, the area equal to 1 car parking space is to be provided as separate parking for motorcycles for every 50 car parking spaces provided, or part thereof. Each motorcycle parking space is to be designated and located so that parked motorcycles are not vulnerable to being struck by a manoeuvring vehicle.

Thus, the development should provide at least two motorcycle spaces.

4.6 CAR PARK DESIGN

All car parking and service vehicle areas are proposed to be compliant with both the Australian Standard for Off Street Car Parking Facilities – AS2890.1 and the Australian Standard for Off Street Commercial Parking Facilities – AS2890.2. For waste provision, the proposal would include compliance with the City of Sydney Policy for Waste Minimisation in New Developments.

4.7 ACCESS ARRANGEMENTS

As stated in Section 3, the proposal includes the removal of the existing 'entry' driveway from the higher order road of Macquarie Street and conversion of the existing 'exit' driveway in Phillip Street. This in turn rationalises the access arrangements and results in two potential conflict points to be reduced to one which is considered an overall improvement.

Entry / exit from the lower order road of Phillip Street is considered an overall improvement as it will allow easier access compared with access from Macquarie Street.

5 THE PEDESTRIAN / TRANSIT ENVIRONMENT

5.1 FRUIN ASSESSMENT OF FUTURE CONDITIONS

As stated in Section 2.8, the existing pedestrian Fruin LoS was estimated to be Level of Service A in Phillip Street and Macquarie Street for the AM, midday and PM peaks.

Based on a potential increase of 26.6% floorspace, the following presents the estimated increase in footfall traffic at the main entrance:

Table 8 - AM, Midday & PM Peak Hour Pedestrian Existing vs Future Pedestrian Flows

		Existing	Future	Existing	Future	Existing	Future
Location	**Direction**	**8:00am – 9:00am**		**12:00pm – 1:00pm**		**5:00pm – 6:00pm**	
Main entry to existing building	Two Way	813	1030 (+217)	852	1079 (+227)	773	979 (+206)

From **Table 8** it is noted that the increase in pedestrian flows generated by the increase in floorspace would be marginal.

Based on the existing mode of travel characteristics of the travel zone where the development is located, the allocation by mode in **Table 2** has been used to gauge the mode of travel of the additional pedestrian trips. This is shown below.

Table 9 - Mode Choice Allocation of Increase in Trips

Travel Zone	Train	Ferry or Tram	Bus	Car as Driver	Car as Passenger	Other Modes	Total
62 (Site)	46%	5%	23%	12%	4%	10%	100%
62 (site) adjusted	52%	6%	26%	0%	4.5%	11.5%	100%
No. of Additional Trips by Type							
AM Peak	113	13	56	0*	10	25	217
PM Peak	107	12	54	0*	9	24	206

Source: BTS Table 7 Expanded GMA, 2006 Census

*With no increase in parking for the increased floorspace, no additional trips generated by car as driver. The 12% allocation was transferred proportionally to other modes

Based on the transit availability assessment as presented in Section 2.6.2, those pedestrians who would travel by ferry or bus would make their way north for the purpose of assessing future flows (50/50 allocation between Phillip Street and Macquarie Street).

Therefore the future pedestrian flows and Fruin LOS in Phillip Street and Macquarie Street would be as follows:

Table 10 – Future AM Fruin LOS Assessment

Location	AM Two Way Flow	Peds / Min	Available Width (m)	Flow Rate (ped/min/m)	Fruin LOS
Phillip Street	837	14.0	2.2	6.4	LoS A
Macquarie Street	676	11.3	2.5	4.5	LoS A

Table 11 – Future PM Fruin LOS Assessment

Location	PM Two Way Flow	Peds / Min	Available Width (m)	Flow Rate (ped/min/m)	Fruin LOS
Phillip Street	609	10.2	2.2	4.6	LoS A
Macquarie Street	651	10.9	2.5	4.4	LoS A

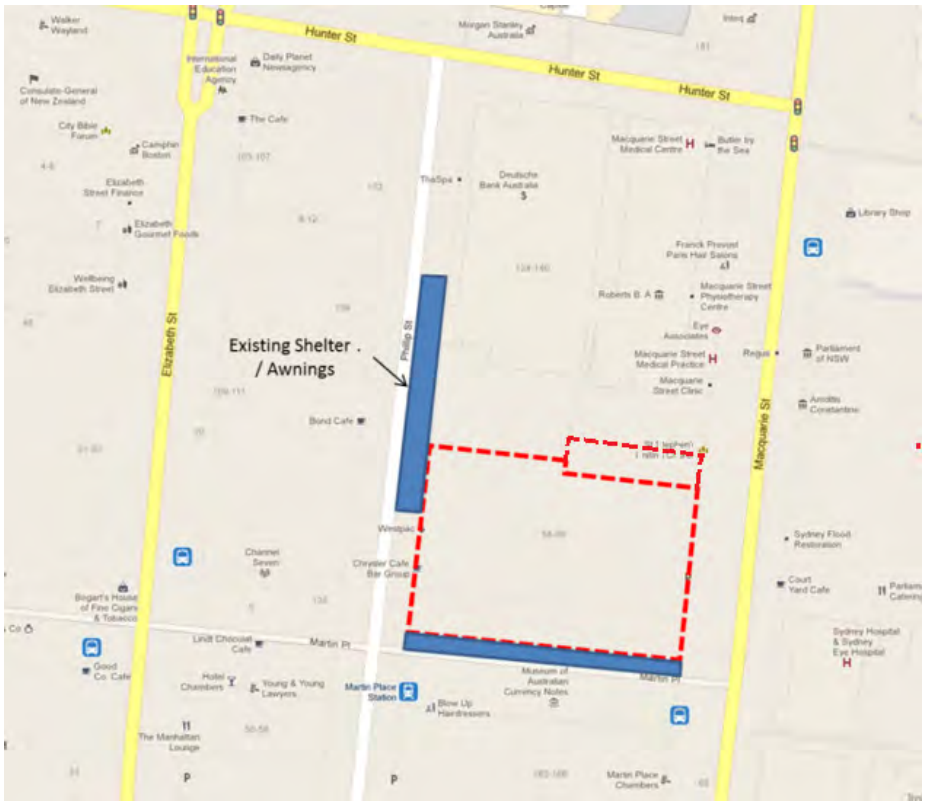
From **Table 10** and **Table 11** it is noted that pedestrian amenity conditions would not change on adjacent streets with the increased flows generated by the development.

5.2 ALL WEATHER PATHWAYS

Given the draw north / south of the development for commuters accessing bus and ferry services, a public benefit would be to ensure all weather pathways / shelter were available for the preferred route of travel to / from bus and ferry services. That is, Phillip Street. Provision of a connecting shelter to 126 Phillip Street development would provide shelter from Hunter Street to the new building entrance.

The availability of shelter for pedestrian movements is shown below.

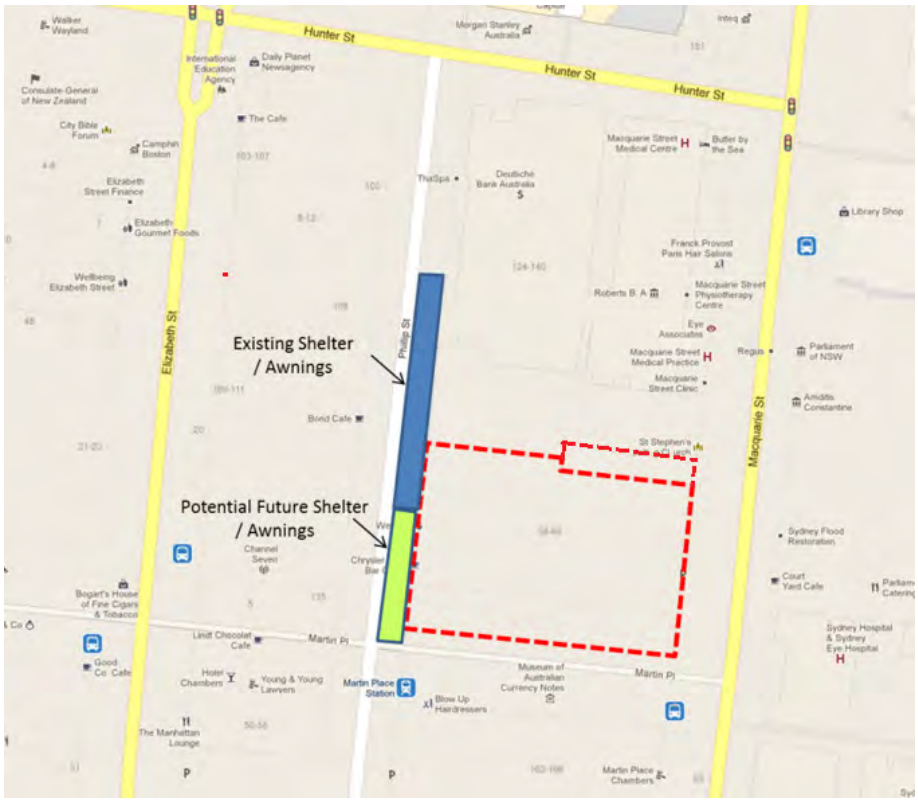
Figure 12 - Existing Shelter / Awnings



It is noted from the existing DCP that new buildings in Martin Place are not permitted to provide either awnings or colonnades along Martin Place and thus the current shelter along the Martin Place frontage will not be redeveloped.

To improve the benefit to both the users of the building and the general public, shelter could be considered along the Phillip Street frontage as part of the redevelopment of the site as shown in **Figure 13**.

Figure 13 - Additional Potential Shelter



6 CONCLUSIONS AND RECOMMENDATIONS

This report has reviewed the potential traffic impacts of the proposed redevelopment of 60 Martin Place, Sydney to provide some approximate 26.6% increase in floorspace:

1. The site is located in an area with very high non-private vehicle mode use and has access to a wealth of public transport alternatives.
2. Maintaining the existing number of spaces on site, the development would not generate any additional traffic.
3. Conditions for pedestrian around the site would remain similar to existing conditions following minor increases in pedestrian flows generated by the proposal
4. The development would provide adequate service vehicle provision as per the requirements of City of Sydney Council.
5. The provision of shelter along the Phillip Street frontage of the development would provide an additional public benefit.
6. The rationalisation of two entry/exit points to a single access point from Phillip Street is an overall improvement for the site.
7. All car parking areas and access ramps are proposed to comply with relevant Australian Standards and Council policies.

Overall the potential traffic impacts of the development are considered acceptable.

7 APPENDICES

Appendix A Pedestrian Counts

APPENDIX A

PEDESTRIAN COUNTS

RESULTS

To

Dean Brodie

at ***Brown Consulting***

your results for

SYDNEY CBD Martin Place Pedestrians

supplied by

R.O.A.R. DATA Pty. Ltd.

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Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

AM

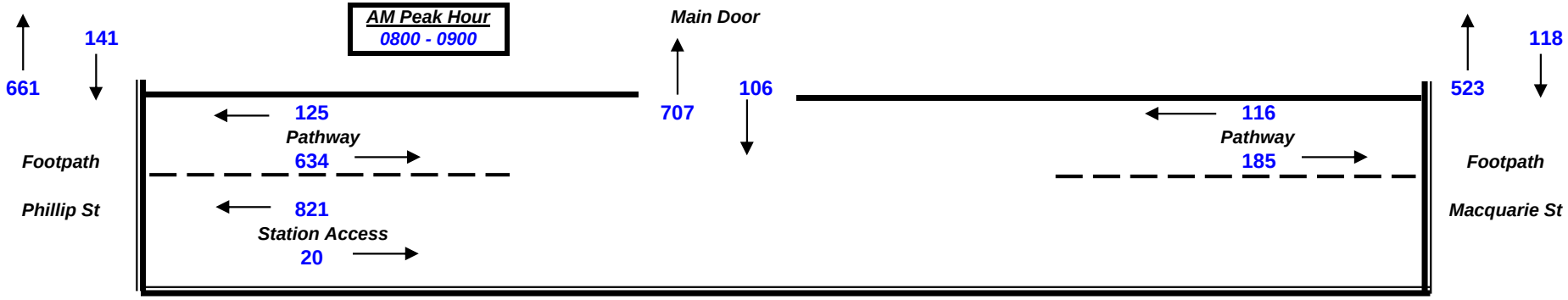
Client : Brown Consulting

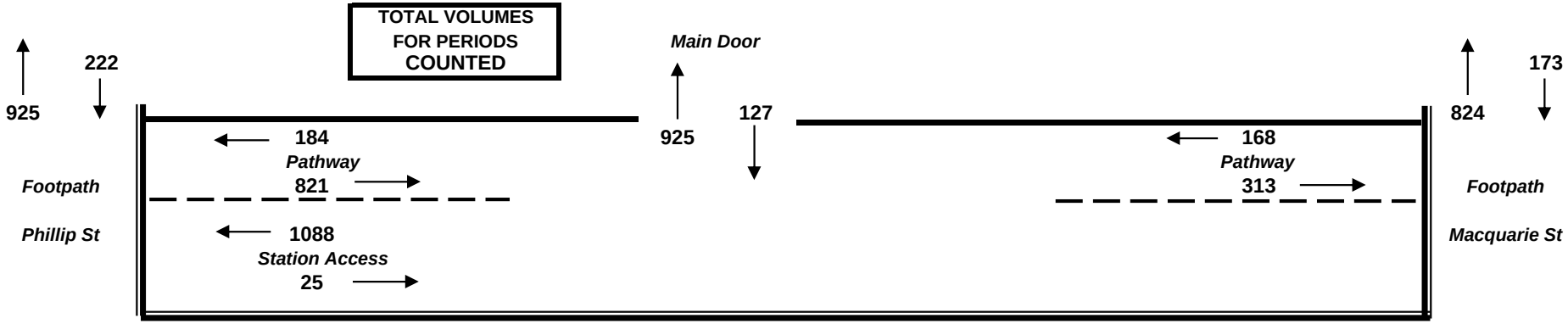
Job No/Name : 4623 SYDNEY CBD Martin Place Pedestrians

Day/Date : Tuesday 14th May 2013

	PHILLIP ST Footpath			WEST Pathway			MARTIN PL Station			MAIN DOOR Top Escalators			MACQUARIE ST Pathway			MACQUARIE ST Footpath		
Time Per	NB	SB	TOT	EB	WB	TOT	TO	FROM	TOT	IN	OUT	TOT	EB	WB	TOT	NB	SB	TOT
0700 - 0715	30	11	**41**	12	10	**22**	2	22	**24**	31	4	**35**	14	10	**24**	52	3	**55**
0715 - 0730	53	26	**79**	35	13	**48**	1	51	**52**	46	1	**47**	30	11	**41**	69	25	**94**
0730 - 0745	70	20	**90**	55	14	**69**	1	73	**74**	63	4	**67**	38	16	**54**	70	12	**82**
0745 - 0800	111	24	**135**	85	22	**107**	1	121	**122**	78	12	**90**	46	15	**61**	110	15	**125**
0800 - 0815	117	33	**150**	117	34	**151**	2	168	**170**	121	18	**139**	37	28	**65**	115	23	**138**
0815 - 0830	145	35	**180**	170	21	**191**	1	184	**185**	157	22	**179**	49	21	**70**	120	22	**142**
0830 - 0845	185	40	**225**	179	29	**208**	6	218	**224**	210	28	**238**	45	37	**82**	120	24	**144**
0845 - 0900	214	33	**247**	168	41	**209**	11	251	**262**	219	38	**257**	54	30	**84**	168	49	**217**
Period End	**925**	**222**	**1147**	**821**	**184**	**1005**	**25**	**1088**	**1113**	**925**	**127**	**1052**	**313**	**168**	**481**	**824**	**173**	**997**

	PHILLIP ST Footpath			WEST Pathway			MARTIN PL Station			MAIN DOOR Top Escalators			MACQUARIE ST Pathway			MACQUARIE ST Footpath		
Peak Per	NB	SB	TOT	EB	WB	TOT	TO	FROM	TOT	IN	OUT	TOT	EB	WB	TOT	NB	SB	TOT
0700 - 0800	264	81	**345**	187	59	**246**	5	267	**272**	218	21	**239**	128	52	**180**	301	55	**356**
0715 - 1815	351	103	**454**	292	83	**375**	5	413	**418**	308	35	**343**	151	70	**221**	364	75	**439**
0730 - 0830	443	112	**555**	427	91	**518**	5	546	**551**	419	56	**475**	170	80	**250**	415	72	**487**
0745 - 0845	558	132	**690**	551	106	**657**	10	691	**701**	566	80	**646**	177	101	**278**	465	84	**549**
0800 - 0900	661	141	**802**	634	125	**759**	20	821	**841**	707	106	**813**	185	116	**301**	523	118	**641**
PEAK HOUR	**661**	**141**	**802**	**634**	**125**	**759**	**20**	**821**	**841**	**707**	**106**	**813**	**185**	**116**	**301**	**523**	**118**	**641**





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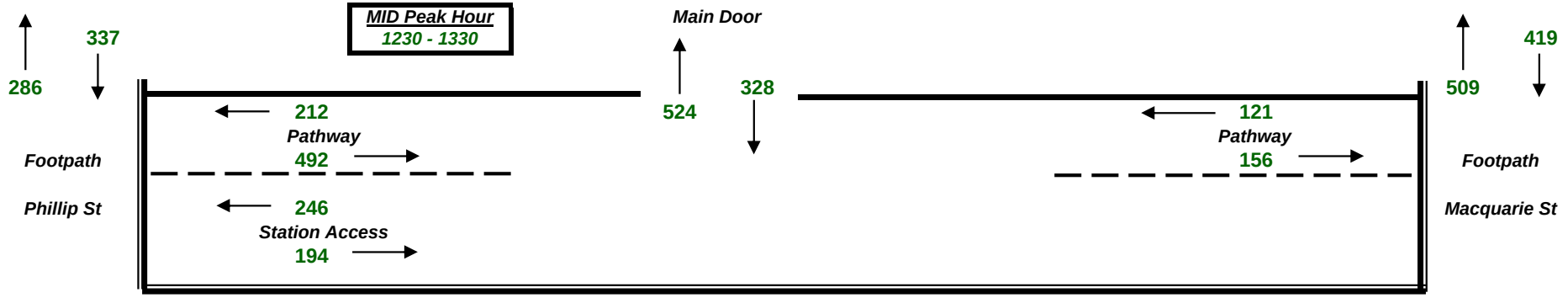
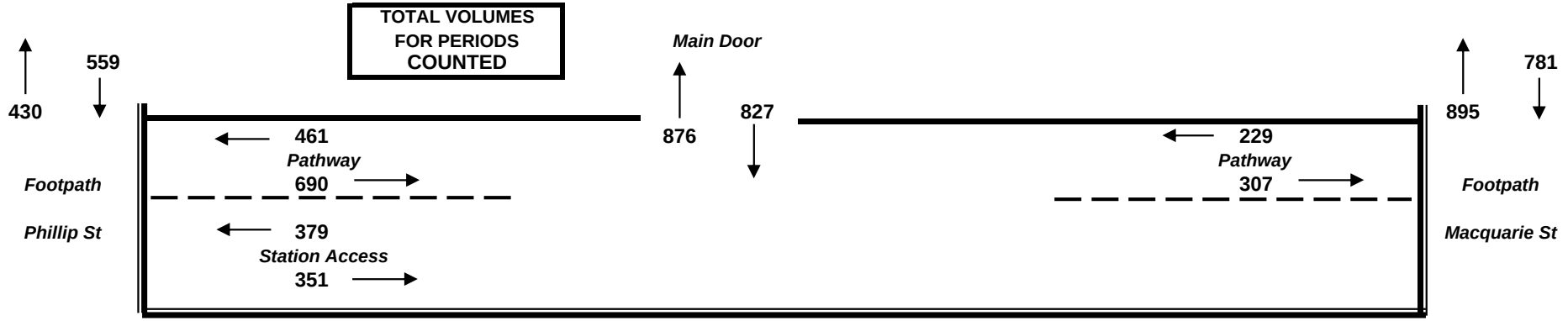
MID

Client : Brown Consulting
Job No/Name : 4623 SYDNEY CBD Martin Place Pedestrians
Day/Date : Tuesday 14th May 2013

	PHILLIP ST Footpath			WEST Pathway			MARTIN PL Station			MAIN DOOR Top Escalators			MACQUARIE ST Pathway			MACQUARIE ST Footpath		
Time Per	NB	SB	TOT	EB	WB	TOT	TO	FROM	TOT	IN	OUT	TOT	EB	WB	TOT	NB	SB	TOT
1130 - 1145	18	40	**58**	30	34	**64**	9	13	**22**	68	79	**147**	34	26	**60**	91	73	**164**
1145 - 1200	30	37	**67**	34	62	**96**	30	26	**56**	80	199	**279**	44	29	**73**	84	84	**168**
1200 - 1215	57	74	**131**	58	71	**129**	73	40	**113**	103	120	**223**	40	29	**69**	99	113	**212**
1215 - 1230	39	71	**110**	76	82	**158**	45	54	**99**	101	101	**202**	33	24	**57**	112	92	**204**
1230 - 1245	51	82	**133**	108	53	**161**	46	66	**112**	108	92	**200**	47	43	**90**	153	95	**248**
1245 - 1300	68	89	**157**	136	56	**192**	54	74	**128**	137	86	**223**	38	20	**58**	115	86	**201**
1300 - 1315	71	106	**177**	128	56	**184**	59	52	**111**	149	92	**241**	42	30	**72**	140	139	**279**
1315 - 1330	96	60	**156**	120	47	**167**	35	54	**89**	130	58	**188**	29	28	**57**	101	99	**200**
Period End	**430**	**559**	**989**	**690**	**461**	**1151**	**351**	**379**	**730**	**876**	**827**	**1703**	**307**	**229**	**536**	**895**	**781**	**1676**

	PHILLIP ST Footpath			WEST Pathway			MARTIN PL Station			MAIN DOOR Top Escalators			MACQUARIE ST Pathway			MACQUARIE ST Footpath		
Peak Per	NB	SB	TOT	EB	WB	TOT	TO	FROM	TOT	IN	OUT	TOT	EB	WB	TOT	NB	SB	TOT
1130 - 1230	144	222	**366**	198	249	**447**	157	133	**290**	352	499	**851**	151	108	**259**	386	362	**748**
1145 - 1245	177	264	**441**	276	268	**544**	194	186	**380**	392	512	**904**	164	125	**289**	448	384	**832**
1200 - 1300	215	316	**531**	378	262	**640**	218	234	**452**	449	399	**848**	158	116	**274**	479	386	**865**
1215 - 1315	229	348	**577**	448	247	**695**	204	246	**450**	495	371	**866**	160	117	**277**	520	412	**932**
1230 - 1330	286	337	**623**	492	212	**704**	194	246	**440**	524	328	**852**	156	121	**277**	509	419	**928**
PEAK HOUR	**286**	**337**	**623**	**492**	**212**	**704**	**194**	**246**	**440**	**524**	**328**	**852**	**156**	**121**	**277**	**509**	**419**	**928**





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PM

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Day/Date : Tuesday 14th May 2013

	PHILLIP ST Footpath			WEST Pathway			MARTIN PL Station			MAIN DOOR Top Escalators			MACQUARIE ST Pathway			MACQUARIE ST Footpath		
Time Per	NB	SB	TOT	EB	WB	TOT	TO	FROM	TOT	IN	OUT	TOT	EB	WB	TOT	NB	SB	TOT
1600 - 1615	27	47	**74**	33	26	**59**	48	8	**56**	66	117	**183**	20	20	**40**	64	103	**167**
1615 - 1630	29	33	**62**	24	21	**45**	53	13	**66**	38	111	**149**	16	32	**48**	47	82	**129**
1630 - 1645	26	54	**80**	24	24	**48**	85	13	**98**	45	126	**171**	21	23	**44**	51	99	**150**
1645 - 1700	39	62	**101**	15	31	**46**	73	10	**83**	28	123	**151**	16	18	**34**	52	95	**147**
1700 - 1715	19	115	**134**	15	71	**86**	166	9	**175**	23	218	**241**	18	18	**36**	39	116	**155**
1715 - 1730	24	131	**155**	14	45	**59**	161	9	**170**	24	206	**230**	11	24	**35**	38	115	**153**
1730 - 1745	39	120	**159**	12	39	**51**	131	18	**149**	6	153	**159**	18	20	**38**	36	114	**150**
1745 - 1800	23	105	**128**	13	26	**39**	109	12	**121**	9	134	**143**	9	11	**20**	55	105	**160**
Period End	**226**	**667**	**893**	**150**	**283**	**433**	**826**	**92**	**918**	**239**	**1188**	**1427**	**129**	**166**	**295**	**382**	**829**	**1211**

	PHILLIP ST Footpath			WEST Pathway			MARTIN PL Station			MAIN DOOR Top Escalators			MACQUARIE ST Pathway			MACQUARIE ST Footpath		
Peak Per	NB	SB	TOT	EB	WB	TOT	TO	FROM	TOT	IN	OUT	TOT	EB	WB	TOT	NB	SB	TOT
1600 - 1700	121	196	**317**	96	102	**198**	259	44	**303**	177	477	**654**	73	93	**166**	214	379	**593**
1615 - 1715	113	264	**377**	78	147	**225**	377	45	**422**	134	578	**712**	71	91	**162**	189	392	**581**
1630 - 1730	108	362	**470**	68	171	**239**	485	41	**526**	120	673	**793**	66	83	**149**	180	425	**605**
1645 - 1745	121	428	**549**	56	186	**242**	531	46	**577**	81	700	**781**	63	80	**143**	165	440	**605**
1700 - 1800	105	471	**576**	54	181	**235**	567	48	**615**	62	711	**773**	56	73	**129**	168	450	**618**
PEAK HOUR	**105**	**471**	**576**	**54**	**181**	**235**	**567**	**48**	**615**	**62**	**711**	**773**	**56**	**73**	**129**	**168**	**450**	**618**