UTS Peter Johnson Building, Harris Street, Broadway
Traffic and Parking Report

Final

26/03/2009

Prepared for

Living Education

Halcrow MWT

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This report has been issued and amended as follows:

Rev	Description	Date	Prepared by	Checked	Approved
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1	Draft for Client review	16/02/09	AB	-	-
2	Revised Draft for Client review	02/03/09	AB	-	-
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4	Revised Final	23/03/09	AB	BM	BM
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Contents

1 Introduction

Halcrow MWT has been commissioned by Living Education to provide traffic and parking advice in regard to the development of student accommodation at the Peter Johnson building, 702-730 Harris Street, University of Technology (UTS) Broadway Campus, Broadway.

The development proposal is for the construction of student accommodation to provide up to 720 beds. The accommodation is proposed to be located within a new 13 storey tower constructed above the existing 7 storey Peter Johnson building, which currently houses the Faculty of Design, Architecture and Building.

The site is located within City of Sydney LGA and as such the relevant planning controls relating to traffic and transport within the DCP and LEP are applicable.

This report has been prepared to examine the localised traffic and parking impacts of the development proposal.

The remainder of the report is structured as follows:

- Chapter 2 describes the development site, describes the surrounding road network and examines the existing transport situation;
- Chapter 3 provides a description of the development proposal and details provision for non-car modes;
- Chapter 4 provides an analysis of likely traffic and parking impacts; and,
- Chapter 5 summarises and concludes the study.

2 Existing Situation

2.1 Site Location

The Building 6 development site (Peter Johnson building) provides a frontage to both Harris Street and the Ultimo Pedestrian Network (UPN). Existing development exists to the north (ABC Ultimo Centre) and south (6 storeys mixed use development).

A site location plan is provided as Figure 1.

2.2 Surrounding Transport Network

A brief description of the transport network immediately surrounding the site is provided in the following paragraphs. References are made to a series of slides contained within Appendix A.

Broadway

Broadway is a state road classified as SH5 and provides a major arterial link between Sydney CBD and the western region. In the vicinity of the proposed development site it accommodates about 70,000 vehicles per day.

Broadway provides a 25 metre divided carriageway with four traffic lanes in either direction. The kerbside lanes in both directions provide a bus lane with clearway restrictions in operation on weekdays between the hours of 6.00am to 10.00am and 3.00pm to 7.00pm.

Harris Street

Harris Street is classified as a state road (MR 170) and carries about 30,000 vehicles per day.

At the site frontage Harris Street provides five traffic lanes which operate as one-way in the southbound direction (slide A1). At its southern end Harris Street connects to Broadway at a traffic signal controlled intersection. Full pedestrian facilities are provided.

Across the site frontage Harris Street provides a wide footpath and provide access to a bus stop providing access to City inbound services.

A pedestrian overbridge is provided across Harris Street (slide A2) which connects level 2 to the main

Ultimo Pedestrian Network

The Ultimo Pedestrian Network (UPN) takes the alignment of the former Ultimo Rail Corridor and provides a dedicated pedestrian link between the Devonshire Street Tunnel (Sydney Central Rail Station) through to Ultimo Road.

Along the site frontage the UPN provides an unobstructed 10 metres central pedestrian corridor (slide A3).

Currently escalators provide direct access onto the UPN from level 2 of the Peter Johnson building. The entrance to the Devonshire tunnel provides ramps for disabled access.

2.3 Vehicular Accesses

Current vehicular access to the site is taken from Harris Street (slide A4). A driveway provides two-way access to a loading area.

Currently the Boom gate is PIN activated (for entry and exit) and managed by UTS security office. After hours access (9.30pm to 6.00am) to the loading dock is also PIN activated and managed by UTS security office.

Accessed to the side of the loading area is further set of entry / exit boom gates located on a ramp to a lower level of parking providing 135 parking spaces. These parking spaces are provided for the users within the existing 7 storey tower podium works and UTS generally.

2.4 Existing Pedestrian Facilities

As described above the UPN provides direct convenient access between the development site and the Devonshire Street Tunnel, which itself provides access to bus services within Railway Square or rail services at Central Railway Station. Figure 2

shows a plan of the existing pedestrian routes between public transport facilities and to the UTS City Campus.

Harris Street also provides wide footpaths. Pedestrian crossings are provided at across most signalised intersections as shown in Figure 3.

2.5 Existing Cycle Facilities

There are currently no bicycle parking facilities located within the existing 7 storey Peter Johnson building.

City of Sydney Council provides details of existing cycle facilities within their LGA. A copy of the existing cycle network is included within Appendix B.

In the locality of the development site cyclists can use the bus lanes along Broadway.

2.6 Existing Bus Services

Broadway is a major public transport corridor which provides access to a significant number of local and strategic bus services. Kerbside bus lanes operate along Broadway.

An analysis of the number and frequency of bus services during differing time periods is presented in Table 1.

Table 1 – Number of Existing Bus Services on Broadway

Time Period	Inbound	Outbound	Total
Weekday 8am to 9am	116	71	187
Weekday 11am to noon	59	58	117
Weekday 5pm to 6pm	64	99	163
Saturday 7am to 8am	32	28	60
Saturday 3pm to 4pm	50	53	103

Table 1 shows a significant number of bus services are within a convenient walk distance from the site. Weekday peak period bus service headway of a more than a service every minute is achieved. Weekend bus headways provide for at least a service a minute. Bus service accessibility is therefore considered to be excellent.

Figure 4 shows the diverse range of locations accessible by public transport and these reflect a significant range of healthcare, employment, residential and social/recreational opportunities.

Bus stops with shelters to access these services are available on Broadway and Harris Street in a number of locations in close proximity to the proposed development site. Additionally a short walk to Central Rail Station would ensure access to a range of further bus services on Eddy Avenue and Lee Street.

2.7 Existing Rail Services

Central Railway Station is a short walk distance from the site and dedicated tunnel links are provided to avoid the need for road crossings.

Central Rail Station provides access to all sub-urban trains which operate on the City Rail network and all country trains which operate on the Country Link network. Additionally the station provides access to regional coach services and taxi facilities.

The site has excellent accessibility to a large number of rail services to a range of local and regional destinations.

2.8 Current Site Development Consent

The development site has an existing City of Sydney Council development consent (DAZ91-00242). This consent allowed the construction of the existing 7 storey podium tower plus a further 13 storeys of yet unconstructed commercial offices to a maximum permitted height of RL 80 AHD.

2.9 Applicable Planning Controls

The Sydney Local Environment Plan 2005 provides the following objectives for car parking controls as follows:

- to acknowledge that public transport is the most important and efficient means of moving people to and within Central Sydney
- to encourage commuting by public transport to Central Sydney in order to reduce the number of motor vehicles travelling through and to Central Sydney, and to improve overall environmental quality and pedestrian amenity

- to improve the attractiveness and competitiveness of Central Sydney for retail and commercial activities by providing a reasonable level of tenant and short-stay public car parking whilst discouraging commuter car parking
- to encourage residential development in Central Sydney
- to minimise adverse urban design impacts, in particular by discouraging the provision of above ground parking
- to minimise adverse traffic impacts, in particular conflicts between pedestrian and vehicular traffic
- to discourage the provision of public car parking
- to ensure that tenant car parks are not occupied by persons other than occupiers of the building or land on which the car park is situated.

Chapter 3 of the Sydney Local Environment Plan 2005 provides planning principles for the Ultimo-Pyrmont area in which the site is located.

The planning principles for movement and parking within Ultimo-Pyrmont are as follows:

- A range of housing and work, leisure and service facilities is to be provided in Ultimo-Pyrmont so that the need for travel is minimised.
- A high degree of accessibility is to be provided to places in and outside Ultimo-Pyrmont for all persons. Walking, cycling and use of public transport are to be encouraged as the means of movement.
- Development in Ultimo-Pyrmont is to facilitate the provision and operation of a comprehensive regional public transport network.
- Development, particularly employment related development, is to be within the capacities of existing and proposed public transport and arterial road systems.
- The provision for vehicular movement is to be consistent with the development of a high-quality pedestrian environment within the street system.
- Parking controls are to support public transport strategies of the Government and to reflect road network capacities.

3 Proposed Development

3.1 Proposed Development

The proposed development is described as follows:

- Extension of existing podium up to 7 levels.
- Incorporation of 13 levels of student accommodation above the existing podium.
- Incorporation of a student roof top terrace on level 21.
- Incorporation of a new student roof top terrace on level 8.

The accommodation will provide a mix of studio apartments, accessible studios, two and six bed apartments.

3.2 Pedestrian Access

Level 2 of the Peter Johnson building currently acts as a pedestrian gateway between the bus/rail opportunities provided in Central square (and onward to Central station) and the City Campus. This existing pedestrian route provides grade separation (under Broadway and over Harris Street) and will be retained under the proposed development.

Pedestrian access to the UPN will continue to be provided.

3.3 Cycle Facilities

It is proposed to provide cycle parking to assist in the encouragement of active transport modes.

The City of Sydney Boarding Houses Development Control Plan 2004 identifies a bicycle parking provision rate of 2 bicycle racks per six bedrooms. For the proposed 720 bedroom this would equate to a provision of 240 bicycle parking spaces.

Parking for a total of 70 bicycles will be provided in a secure facility located on Level 2 of the proposed development. Access to these bicycle parking spaces will be via UPN or through the Harris Street loading dock. The level of bicycle parking provision, which equates to approximately one cycle space per 10 resident students, has been determined

as acceptable by the proposed facility operator and is comparable to the level of bicycle parking provision at other comparable facilities.

For example, the Unilodge operators advise that Unilodge Sydney provides about 10 bicycle spaces for 585 apartments which equates to a provision of 1 bicycle space per 59 apartments. Additionally, the Unilodge Kensington facility provides 34 bicycle spaces for 231 students. Of these a total of 13 bicycle spaces were utilised which equates to usage of 1 bicycle parking space per 17 students. The operators Unilodge advise that there is spare bicycle parking at all times at these facilities.

The level of bicycle parking provision is therefore considered appropriate especially given the short walking distance proximity to educational facilities and public transport routes.

3.4 Car Parking

The development proposal does not seek the provision of car parking for students or for staff increases at the development site for the following reasons:

- Consistency to the UTS Concept Plan which seeks no increase in parking for staff and students at UTS.
- Travel demand management. Peak hour traffic capacity is limited and UTS is keen to increase staff and student numbers whilst minimising the impact of their associated travel on the operation of the road network.
- The proposed resident student population will live within a 400 metre walking distance of the University where students will undertake educational, recreational and leisure activities. The co-location of accommodation and workplace is a desired outcome in the integration of land use and transport planning to reduce the need to travel by private vehicle.
- The site is located in close proximity to a major public transport corridor (bus and rail) to provide transport opportunities to a diverse range of social, recreational, employment, institutional and religious activities.
- Provides an opportunity to ingrain sustainable travel patterns in the younger adult population to assist in removing a dependency upon private vehicle usage for mobility in inner city urban areas.

- The locality immediately surrounding the development site is projected to have population growth well above the average population growth of Sydney. This increasing population density in close proximity to workplace / educational opportunities will provide additional opportunities and encouragement for active transport (walk, cycle modes) and public transport in association with a constrained car parking approach.

The proposed approach to car parking is considered to be consistent with the intention of the Central Sydney LEP 2005.

3.5 Service Vehicle Access

It is proposed to utilise the existing loading area constructed for the approved podium level works for service vehicle access to the proposed development.

3.6 Student Drop Off/Pick Up Provision

Provisions for student drop off/pick up activity at the start and finish of term / academic years will be made available from within the existing loading area. UTS security office / operators will manage access as necessary.

3.7 Consultation Process

The Director General's Environmental Requirements for the project require a demonstration that an appropriate level of consultation has been undertaken with the following key transport stakeholders:

- NSW Ministry of Transport (MoT)
- NSW Road and Traffic Authority (RTA)
- Railcorp

The proposed development of the subject site is an integral part of the larger UTS Broadway Concept Plan. As such consultations were undertaken for that scheme with the above transport stakeholders.

The following paragraphs presents a summary of the UTS Broadway Concept Plan consultations with the above key transport stakeholders. Key comments are provided alongside a summary of the UTS Concept Plan response. Additional comments are

provided as to the applicability of the comments to the subject site if considered in isolation.

NSW Ministry of Transport

MoT Key Comment

The Concept Plan should consider initiatives to reduce potential impacts generated by the proposal and to promote transit use such as car pooling, salary packaging public transport, preparation of a Travel Access Guide and the introduction of flexible work arrangements.

UTS Concept Plan Response

The University currently promotes many of the above initiatives. The Transport Management and Accessibility Report to be submitted as part of the planning application will provide further recommendations to promote use by non private car modes.

Applicability of comments in relation to subject site

The proposed 'no net additional parking policy is an effective means to reduce the impact of development activity on road network operation and efficiency. The development proposal seeks to provide an appropriate amount of bicycle parking to assist in the promotion of alternative transport modes. The orientation of the building entrances and planned connections to both the UPN and Building 1 on Broadway (via an existing pedestrian overbridge above Harris Street) will facilitate dedicated pedestrian connections to the existing pedestrian movement network to further promote walking. The proposed development is therefore considered to satisfy MoT requirements in this regard.

MoT Key Comment

The Concept Plan should consider minimal on site parking provision.

UTS Concept Plan Response

The proposal includes no additional on site parking provision having regard to the accessibility of the site to high frequency public transport services.

Applicability of comments in relation to subject site

The proposal includes no additional on site parking provision having regard to the site's access to high frequency public transport services and the proximity of the student accommodation to the University. The proposed development is therefore considered to satisfy MoT requirements in this regard.

NSW Road and Traffic Authority

RTA Key Comment

The traffic impacts of the proposal on the surrounding road network and what improvements will be included to ameliorate any identified impacts?

UTS Concept Plan Response

The UTS City Campus is well served by both rail and bus. Accordingly there is a very high use of transit by both staff and students. To limit private vehicle usage and to promote the use of non private vehicle modes, the Concept Plan proposal does not include any additional on site parking. Future traffic conditions are expected to be similar to existing.

Applicability of comments in relation to subject site

The impacts of traffic activity associated with the operation of Building 6 will be negligible since there is to be no parking provided for the student accommodation. Accordingly there are no requirements for ameliorative measures associated with Building 6.

RTA Key Comment

What initiatives will the University be putting in place, if not already, to reduce private vehicle use of existing and future staff / students?

UTS Concept Plan Response

Current travel patterns associated with the University reveal a high level of transit use which is expected to continue with the proposed intensification in development. The University is proactive in promoting transit as the preferred method of travel to and from the University. The Concept Plan includes a proposal to formulate a travel access guide for new and existing students.

Applicability of comments in relation to subject site
No parking is proposed for the student accommodation. This will ensure that private vehicle usage is minimised as much as possible.

RTA Key Comment
What items were being considered in the forthcoming Voluntary Planning Agreement (VPA)?

UTS Concept Plan Response:
Given the modest forecast traffic generation associated with the Concept Plan, there are no road improvement proposals within the Concept Plan.

Applicability of Comments in relation to subject site:
Building 6 is a component of the Concept Plan. As such any forthcoming VPA that is agreed between UTS and Council for the Concept Plan will include any appropriate contribution from Building 6.

Railcorp
Railcorp Key Comment:
Concern about the adequacy of the Devonshire Street pedestrian tunnel to accommodate the proposed student growth.

UTS Concept Plan Response:
A Transport Management and Accessibility Plan (TMAP) agreement is a formal agreement between UTS and the relevant transport stakeholders on the content, timing and cost of a package of transport measures to address transport impacts. A TMAP is being developed for the Concept Plan. However, a capacity analysis of the Devonshire Street tunnel is beyond the scope of the report. However, to assist Railcorp in their future planning of tunnel capacity, the TMAP details the increases in inbound and outbound students travelling by rail by hour on a typical weekday.

Applicability of Comments in relation to subject site:
The student accommodation within Building 6 provides campus based accommodation within walking distance to the University. Peak hour period travel by these students is likely between the accommodation and University lecture halls / facilities. It is not

considered that the residents of Building 6 will increase significantly peak hour pedestrian using the tunnel.

4 Traffic and Parking Impacts

4.1 Traffic Impacts

Traffic impacts of the proposed office tower on the site were taken into account when the current podium and future office tower on the site were approved in 1991.

To a large extent the traffic generation potential of the site has already established through the provision and use of car parking on the site. The removal of about 15 spaces from the existing car park will further reduce peak hour traffic generations.

Because the students living on the site will be located next to the University in order to be able to walk to/from lectures they will generate minimal additional traffic.

Thus the traffic impacts of the proposal will be negligible.

4.2 Parking

As stated above no parking is proposed to be provided for the students within the accommodation or their visitors. However, to provide for the needs of the mobility impaired it is proposed to create and dedicate one disabled car parking spaces within the existing level 1 car park. Access to this space will need to be managed through UTS security.

4.3 Bicycle Parking

Parking for a total of 70 bicycles will be provided in a secure facility located on Level 2 of the proposed development. Access to these bicycle parking spaces will be via UPN or through the Harris Street loading dock.

For 720 students this amounts to a bicycle parking provision rate of 1 space per 10.3 students. This level of provision has been determined by the proposed operators of the facility as being reflective of the current utilization of cycling provision at other comparable facilities.

4.4 Impact of Structural Upgrade on Existing Car Park

To accommodate the new tower structural strengthening works to existing columns within the car park will be necessary. Additionally, it is proposed to remove 13 spaces to provide the facility operator with operational space.

The resultant car park layout, providing some 122 car spaces of which 3 will be tandem, should comply with the requirements of AS2890.1:2002. Certification of the compliance of the layout to the requirements of AS28901:2002 will occur prior to the issue of construction certification.

5 Summary & Conclusions

Halcrow MWT has been commissioned by Living Education to provide traffic and parking advice in regard to the development of student accommodation at the Peter Johnson building, 702-730 Harris Street, Ultimo, University of Technology (UTS) Broadway Campus.

The development proposal is for the construction of student accommodation to provide up to 720 beds. The accommodation is proposed to be located within a new 13 storey tower constructed above the exiting 7 storey Peter Johnson building.

This report is summarised as follows:

- The site currently accommodates the 7 storey Peter Johnson building, which currently houses the Faculty of Design, Architecture and Building of UTS.
- The site benefits from good connectivity to existing movements systems by all modes of transport with Broadway and arterial road which carries a significant number of bus services.
- The development proposal is for the construction of student accommodation to provide up to 720 beds. The accommodation is proposed to be located within a new 13 storey tower constructed above the exiting 7 storey Peter Johnson building.
- The proposed development is included as part of a larger Concept Plan for redevelopment of the UTS Broadway campus.
- During the development of the Concept Plan consultations were held by others with the relevant key transport stakeholders. The proposed development of the Peter Johnson building is considered to satisfactorily address any concerns of relevance.
- In accordance with the intention of the Concept Plan no parking is proposed for the student accommodation with the exception of one space for persons with mobility impairment. This will minimise the impact of the development on the peak hour operation of the road network and promote the use of active transport (walk, cycle) and public transport. Traffic impacts will be reduced by the removal of existing spaces within the Level 1 car park.

- Continued pedestrian connectivity is proposed to the main UTS buildings by over bridge across Harris Street and by escalator/lifts to the Ultimo Pedestrian Network.
- A total of 16 spaces will be removed from the existing 135 car parking spaces located on Level 1.
- Cycle parking facility to accommodate up to 70 bicycles will be provided in a secure cycle compound easily accessible on the entry level to the development.

This report is concluded by stating that the development will not give rise to any detrimental impacts on the operation of the road network No infrastructure improvements are necessary. The site provides significant accessibility to a significant public transport corridor (bus, rail) and grade separated pedestrian connectivity into the existing campus and pedestrian networks.

SITE LOCATION

UTS BUILDING 6 HARRIS STREET, BROADWAY

North

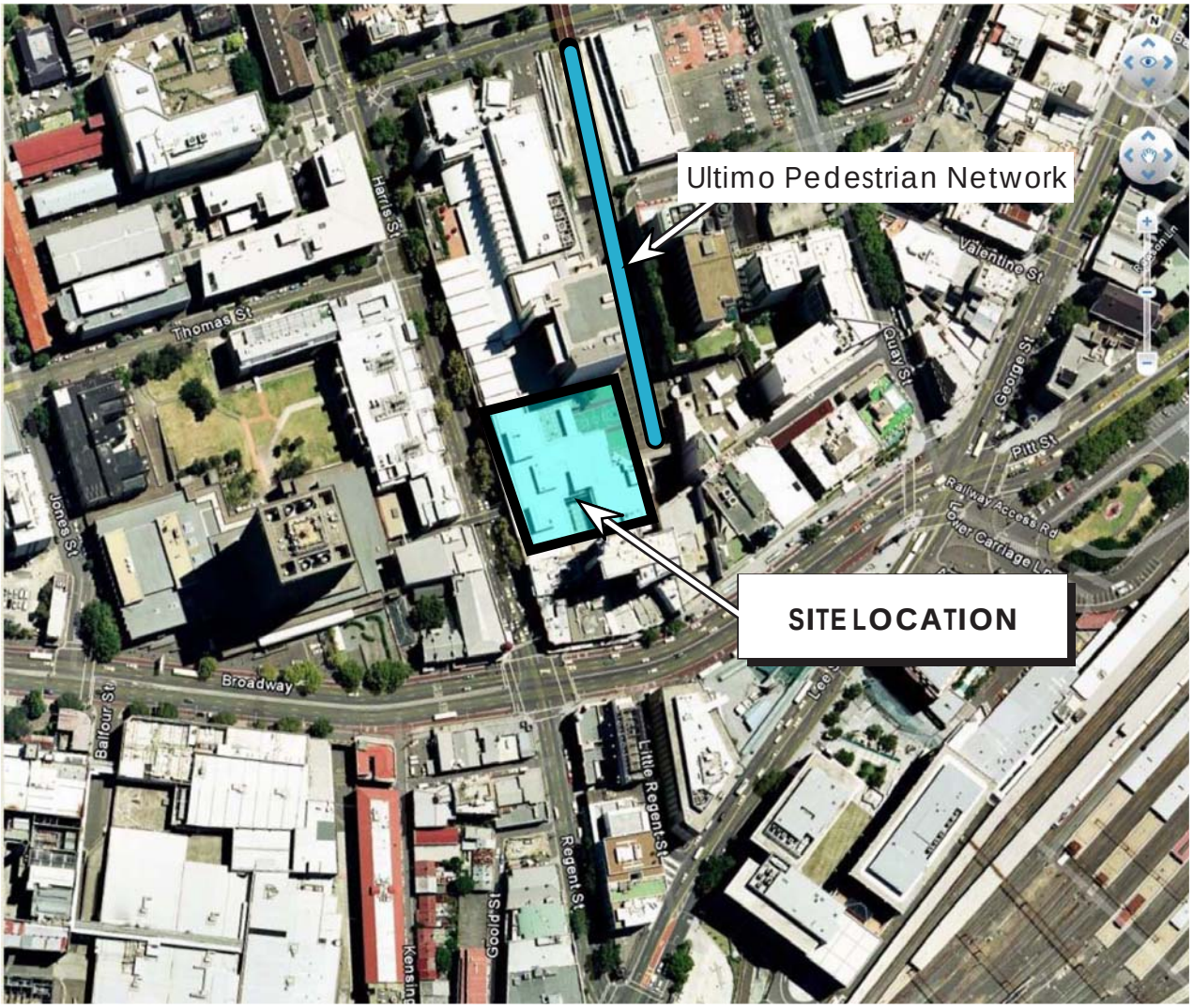

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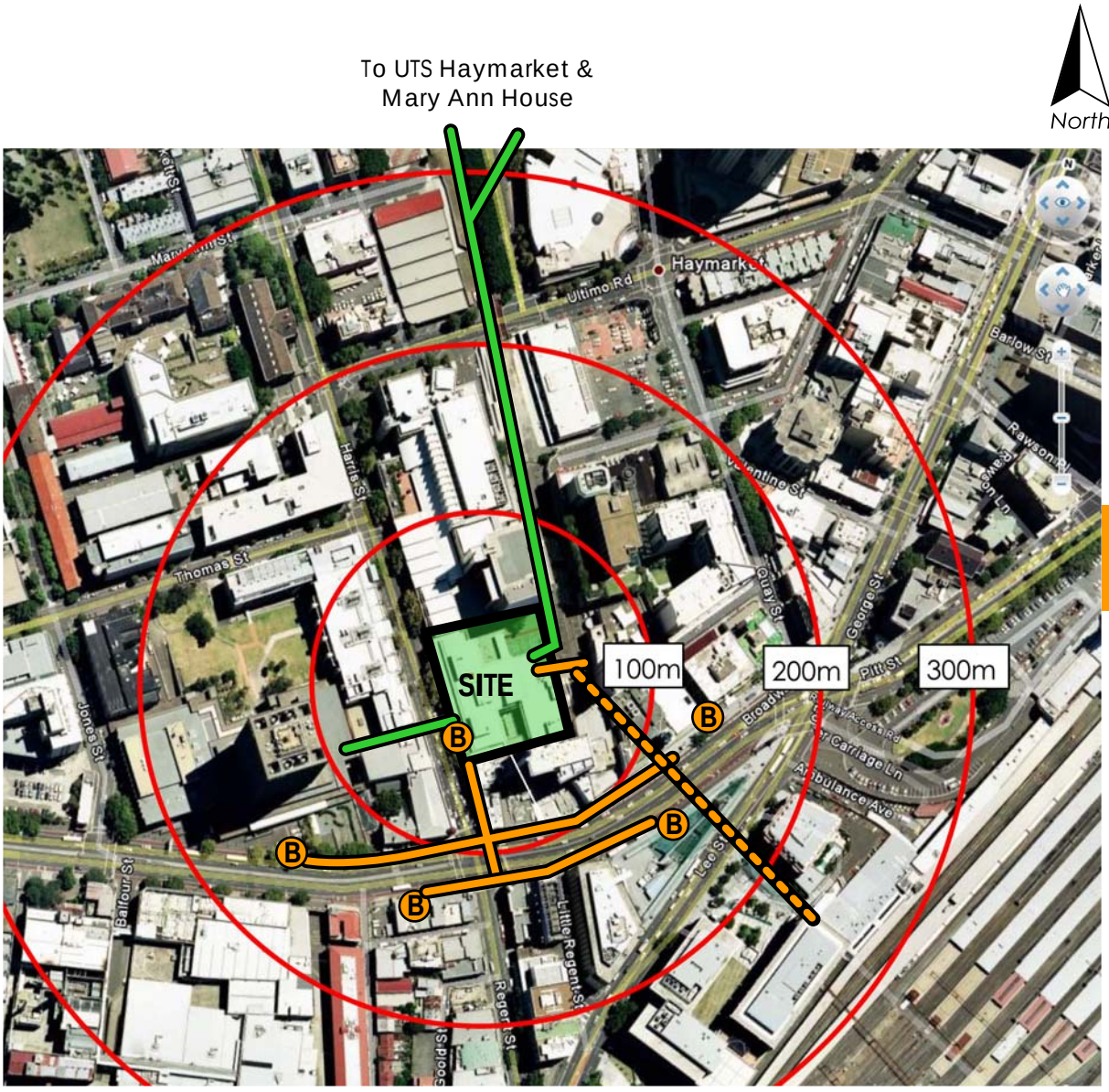
Figure 1

Filename: 083920di02.ai

Date: 6 February 2009

PEDESTRIAN ACCESS ROUTES TO PUBLIC TRANSPORT AND UTS CITY CAMPUS

UTS BUILDING 6 HARRIS STREET, BROADWAY



Key

- Existing Bus Stops
- Pedestrian Route to Public Transport Facilities
- Pedestrian Route to UTS Campus
- Pedestrian Underpass (Approx Alignment Shown)

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Figure 2

Filename: 083920di01.ai

Date: 6 February 2009

EXISTING PEDESTRIAN CROSSING FACILITIES

UTS BUILDING 6 HARRIS STREET, BROADWAY

North

Key

Pedestrian Facility

MASSON | WILSON | TWINEY

TRAFFIC AND TRANSPORT CONSULTANTS

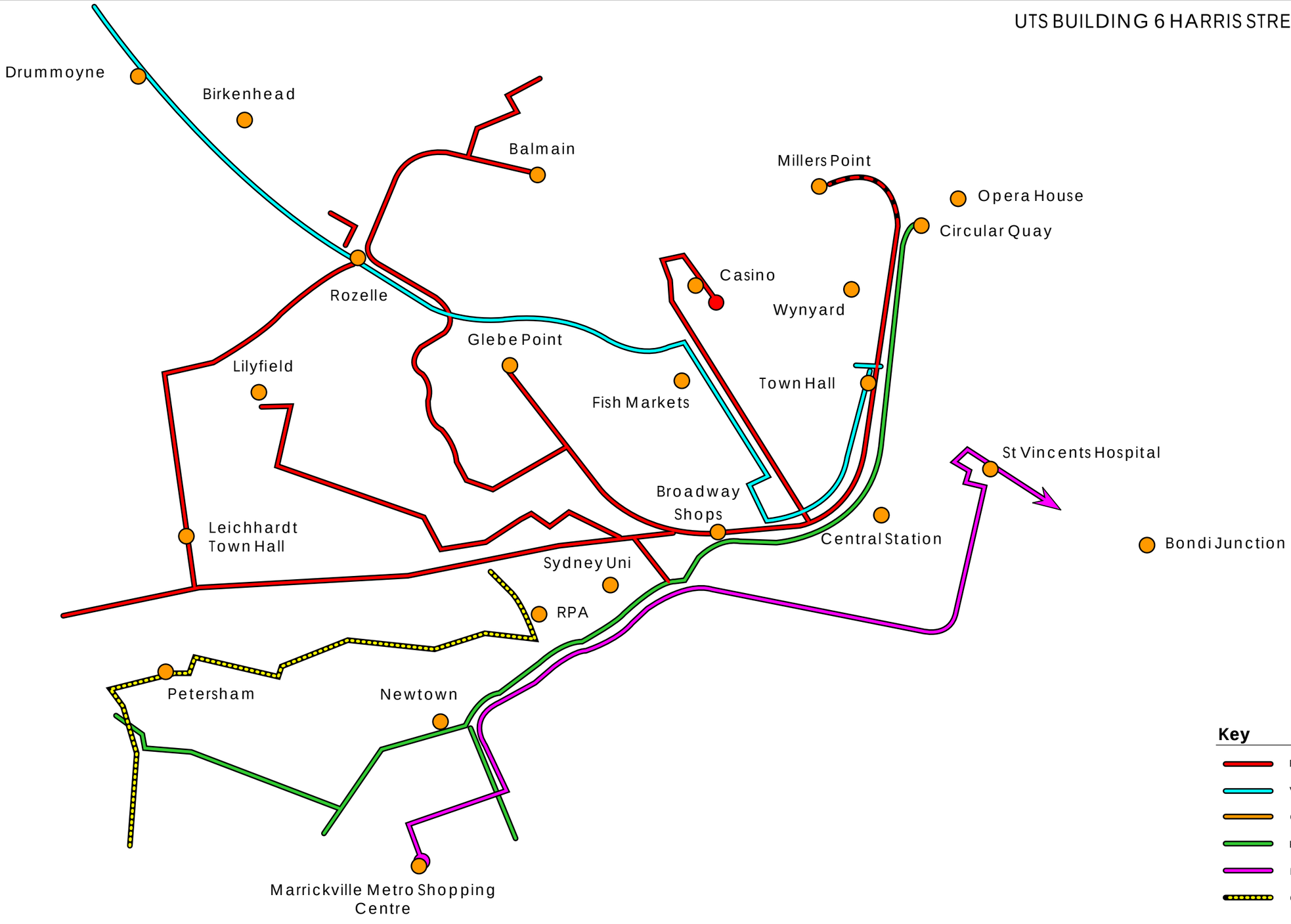
Figure 3

Filename: 083920di06.ai

Date: 6 February 2009

LOCATIONS ACCESSIBLE BY PUBLIC TRANSPORT

UTS BUILDING 6 HARRIS STREET, BROADWAY



MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

Figure 4

Filename: 083920di07.ai

Date: 6 February 2009

Appendix A Photographic Slides

SITE INSPECTION PHOTOGRAPHS

UTS BUILDING 6 HARRIS STREET, BROADWAY

Harris Street looking southbound toward Broadway **A1**

Pedestrian Overbridge over Harris Street **A2**

SITE INSPECTION PHOTOGRAPHS

UTS BUILDING 6 HARRIS STREET, BROADWAY

Ultimo Pedestrian Network looking north **A3**

Peter Johnson Building Frontage to Harris Street looking south **A4**

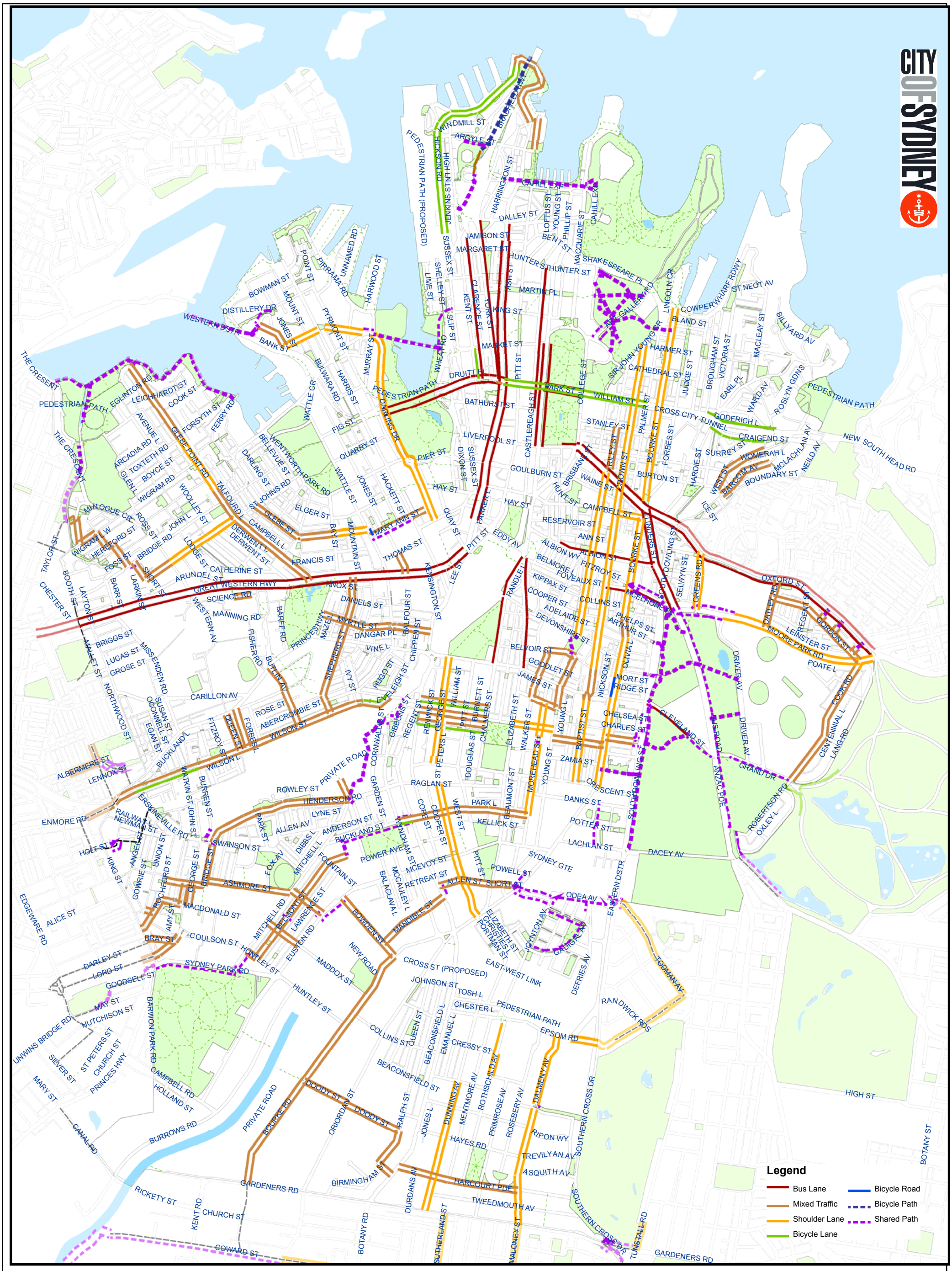
SITE INSPECTION PHOTOGRAPHS

UTS BUILDING 6 HARRIS STREET, BROADWAY

Harris Street Loading Dock Entry

A5

Appendix B City of Sydney Existing & Proposed Cycle Network



Cycle Strategy and Action Plan 2007-2017
Existing cycle network

250 0 250 250 500 Meters

Prepared By: gmccabe
Printing Date: July 23, 2007
Scale 1:30,000 @ A4