

Lend Lease Circular Quay

174-182 George Street, 33-35 Pitt Street, Sydney

Transport, Traffic, Pedestrian and Parking Assessment

Rev B | 12 October 2015

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It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 232076-00

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1 Introduction

1.1 Background

Lend Lease Development P/L (LLD) has engaged ARUP to prepare a Transport Assessment for its proposed Lend Lease Circular Quay development (LLCQ). The site is located at 174-182 George Street and 33-35 Pitt Street Sydney.

The City of Sydney has requested LLD prepare a Transport, Traffic, Pedestrian and Parking Study to address:

- traffic and parking impacts associated with the proposed LLCQ development and mitigation measures;
- changes to access arrangements for lots within the block bounded by Alfred, Pitt, Dalley and George Streets (APDG) proposed as part of LLCQ; and
- pedestrian circulation through and around the LLCQ site and broader APDG block;

LLD have separately engaged Colston Budd Hunt & Kafes Pty Ltd (CBHK) to prepare an assessment report entitled Assessment of Vehicular Transport Aspects of Planning proposal for Lend Lease Circular Quay, 174-182 George Street and 33-35 Pitt Street Sydney. The CBHK focuses specifically on aspects relating to vehicles and vehicular access both to and within the LLCQ site including a discussion regarding construction traffic impacts and management planning.

This transport assessment has been prepared in support of a formal request to the City of Sydney for an amendment to the Sydney LEP 2012 (SLEP) and Sydney DCP 2012 (DCP) and forms part of the Planning Justification Report submission.

The proposed amendments to the SLEP and DCP seek to facilitate a significant redevelopment of the precinct which will form the Lend Lease Circular Quay (LLCQ) project at 174-182 George Street and 33-35 Pitt Street, Sydney. The LLCQ planning proposal seeks to amend the LEP in order to facilitate the transfer of gross floor area (GFA) across a number of properties including a public road, and to increase the maximum achievable height limit for a tower building on the site from 110m to 220m.

1.2 The Design Concept

The LLCQ development contemplates:

- Demolition of existing commercial office buildings at both 182 George Street and 33-35 Pitt Street (and possibly Rugby Club) including the removal and disposal of hazardous materials (where relevant).
- The retention, modification and adaptive reuse of Jacksons on George,
- Site preparatory works including (where relevant):
 - the erection of hoardings and overhead protection structures;
 - remediation of contamination;
 - undertaking of archaeological investigation and protection works; and

- augmentation and diversion of existing infrastructure services.
- The erection of a commercial office tower up to 248m in height and up to 70,000 m² of GFA inclusive of a basement of up to 4 levels housing up to a maximum of 96 cars (assuming inclusion of optional sites and excluding service vehicles).
- Delivery of new public realm consisting of a public plaza on George Street and new interconnecting laneway extensions between Underwood Street and Rugby Place.
- The construction of shared laneway and plaza retail for the purpose of activating the new public realm.
- Internal traffic amendments to Rugby Place.
- Provision of a Public Cycle Facility located in stratum beneath the George Street Public Plaza. The below grade space is to be fitted out as a public cycle facility with amenities all to a performance specification to be agreed by the City. Access to the facility will be via:
 - A lift from the George Street plaza level; or
 - At grade from the laneway network at the Pitt Street level.

1.3 Site Description

The LLCQ project comprises the properties and roadway sections listed in Table 1 and Figure 1 below.

Table 1 Land associated with the LLCQ Project

Informal title	Address	Lot and DP
The Pitt Street property	33-35 Pitt Street	Lot 7 DP 629694
The George Street Property	182 George Street	Lot 182 DP 606865
Jacksons on George	174-176A George Street	Lot 181 DP 606865
Mirvac Triangle	Part of 200 George Street development site	Lot 1 in DP 69466 and Lot 4 in DP 57434
Crane Lane including walkway (aerial bridge)	Crane Lane extending east from George St, then north to Rugby Place	Lot 1 and 2 in DP 880891. Lot 1 is in stratum above Lot 2.
Rugby Club (Optional Site)	Rugby Place	Lot 180 DP 606866

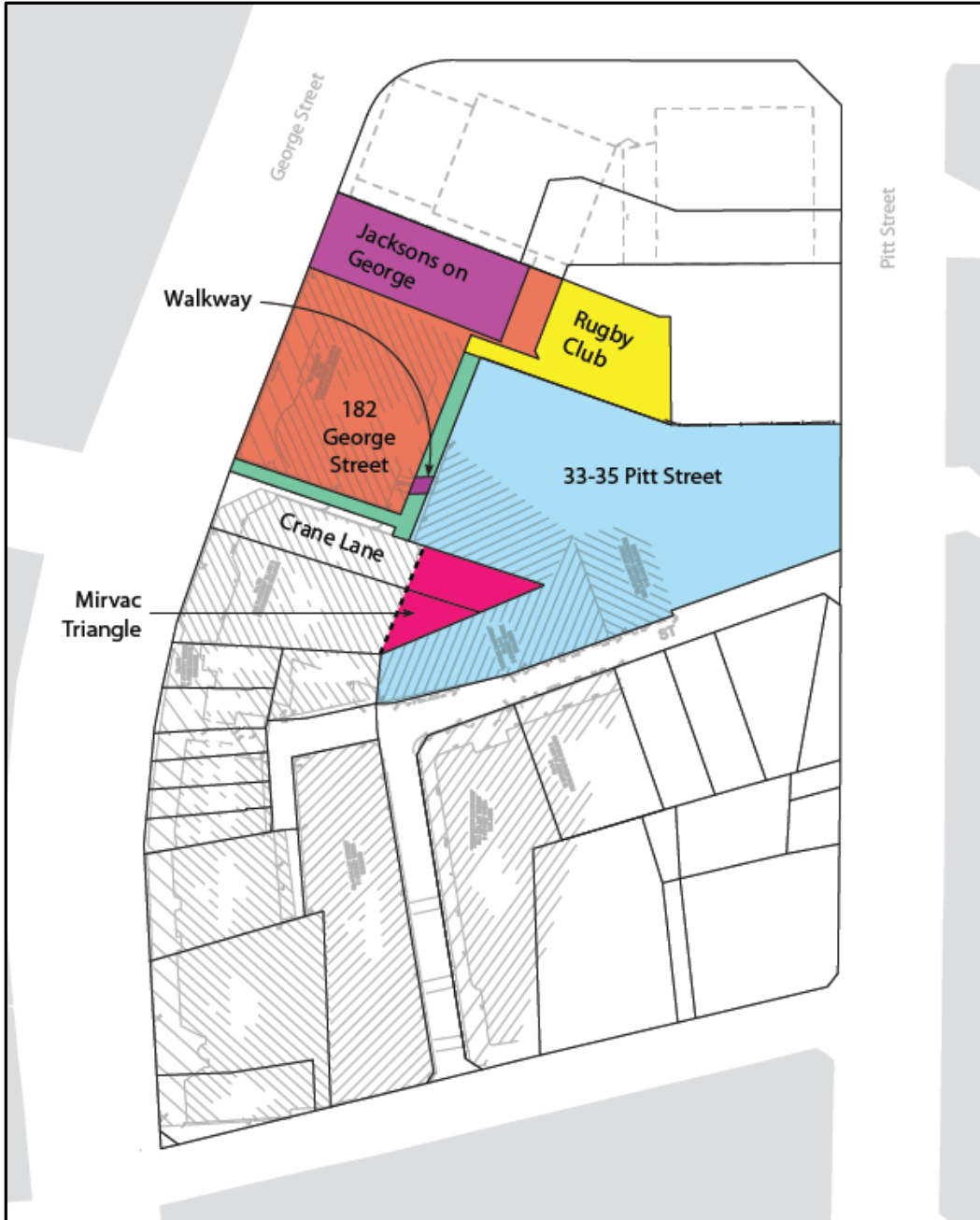


Figure 1 Land associated with the LLCQ Project

2 Existing Transport Conditions

2.1 Site Location

The LLCQ development is located at the northern end of the Sydney CBD, within the Block bounded by Alfred, Pitt, Dalley and George Streets, approximately 100m from Circular Railway Station and Ferry Interchange and 400m from Wynyard interchange.

The location of the precinct in the context of the CBD area is presented in Figure 2.

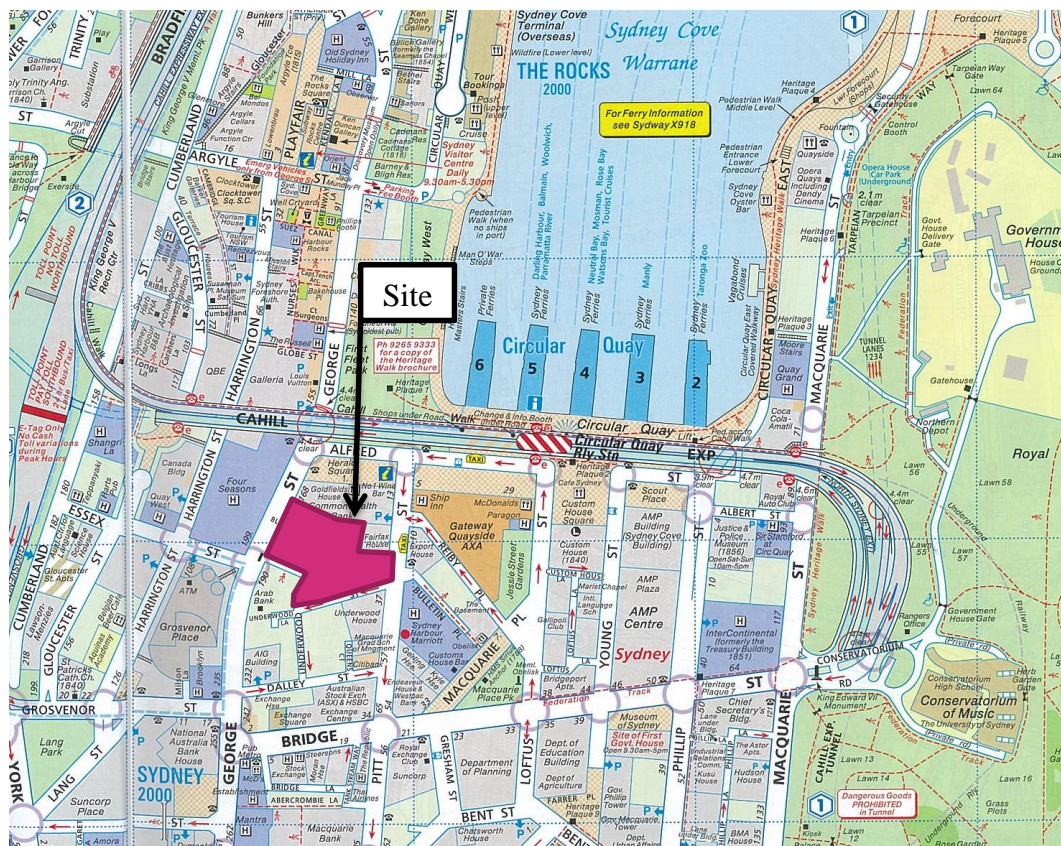


Figure 2 Site Location

2.2 Existing Travel Patterns

An assessment of existing travel patterns has been conducted using 2011 Journey to Work (JTW) data for the relevant travel zones¹ surrounding the site. The existing JTW mode share for all workers arriving to the site, compared with the average for the Sydney CBD, is summarised in Figure 3.

¹ Travel zones 0033 and 0034 utilised for the analysis

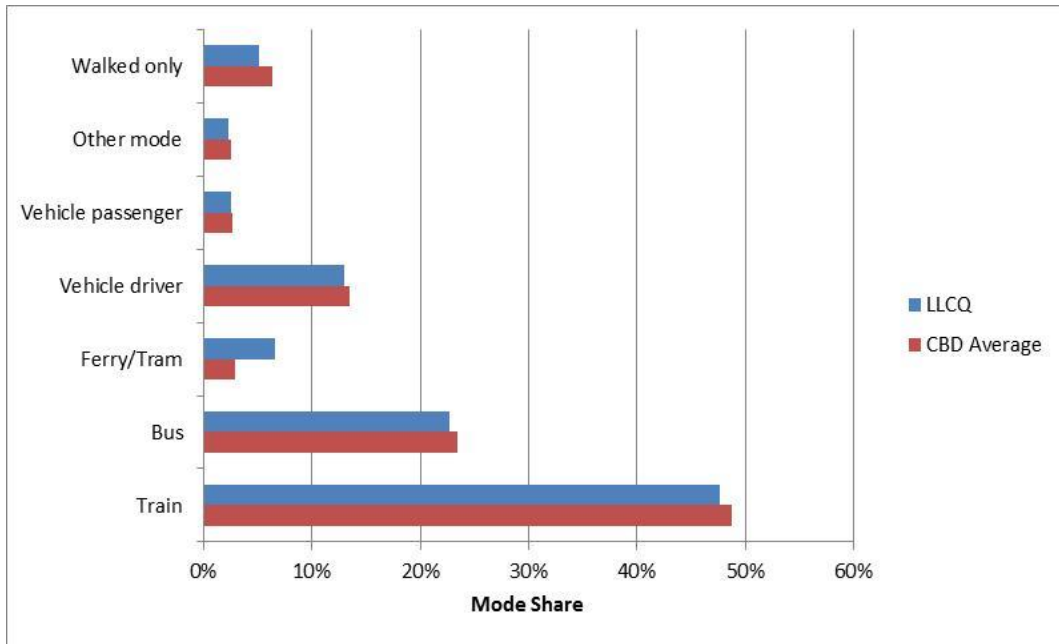


Figure 3 Existing Journey to Work Data for the Precinct

The data indicates the significant majority of people working in the Precinct arrive via non-car modes of transport, mostly bus and train. The proportion of private vehicle trips is approximately 1% lower than the average for the Sydney CBD. This reflects the good public transport availability near the site.

2.3 Vehicular Access

There are two existing vehicular access points into the site, each located on George Street (Blue Anchor Place) and Pitt Street (via Underwood Street). These are indicated in Figure 4. (Rugby Club optional site is accesses from Rugby Place)

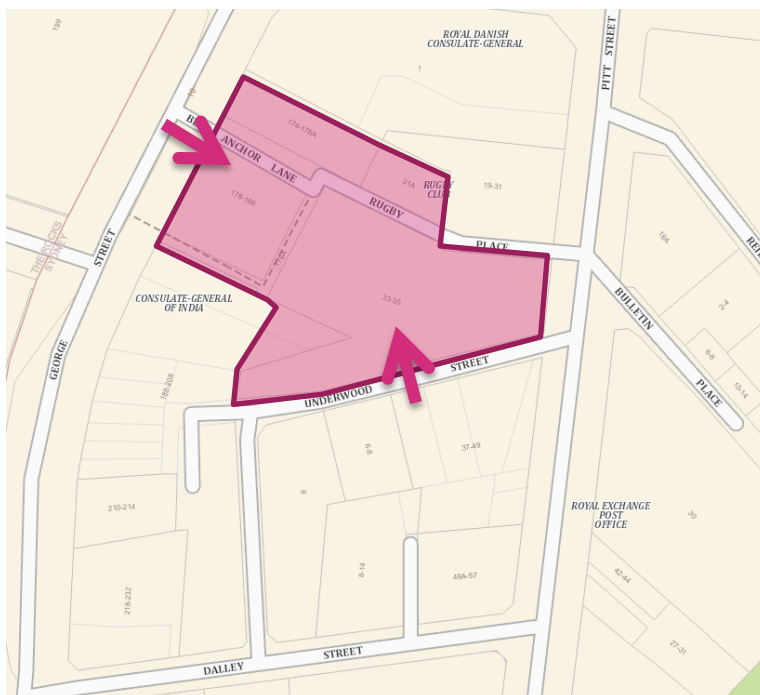


Figure 4 Existing Site Vehicle Access Points



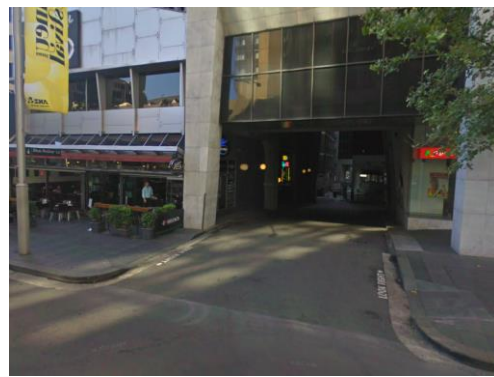
Photograph 1 Rugby Place



Photograph 2 Underwood Street



Photograph 3 Car Park Access



Photograph 4 Blue Anchor Lane

2.4 Parking

There are two car parks associated with existing buildings in this precinct which currently provides 154 basement car parking bays which are distributed between the two sites as follows:

- 182 George Street – 24 parking bays
- 33-35 Pitt Street Secure Parking public car park – 130 parking bays (stacked)

2.5 Existing Traffic Conditions

Peak hour traffic counts were conducted on a typical weekday in November 2013 at the various laneway access locations onto Pitt Street. These are summarised in Table 2. These are shown in Figure 5.

Table 2 Existing Site Traffic Generation

Location	AM	PM
Rugby In	2	4
Rugby Out	5	1
Underwood In	74	6
Underwood Out	2	37
Dalley Out	2	85
Total	85	133

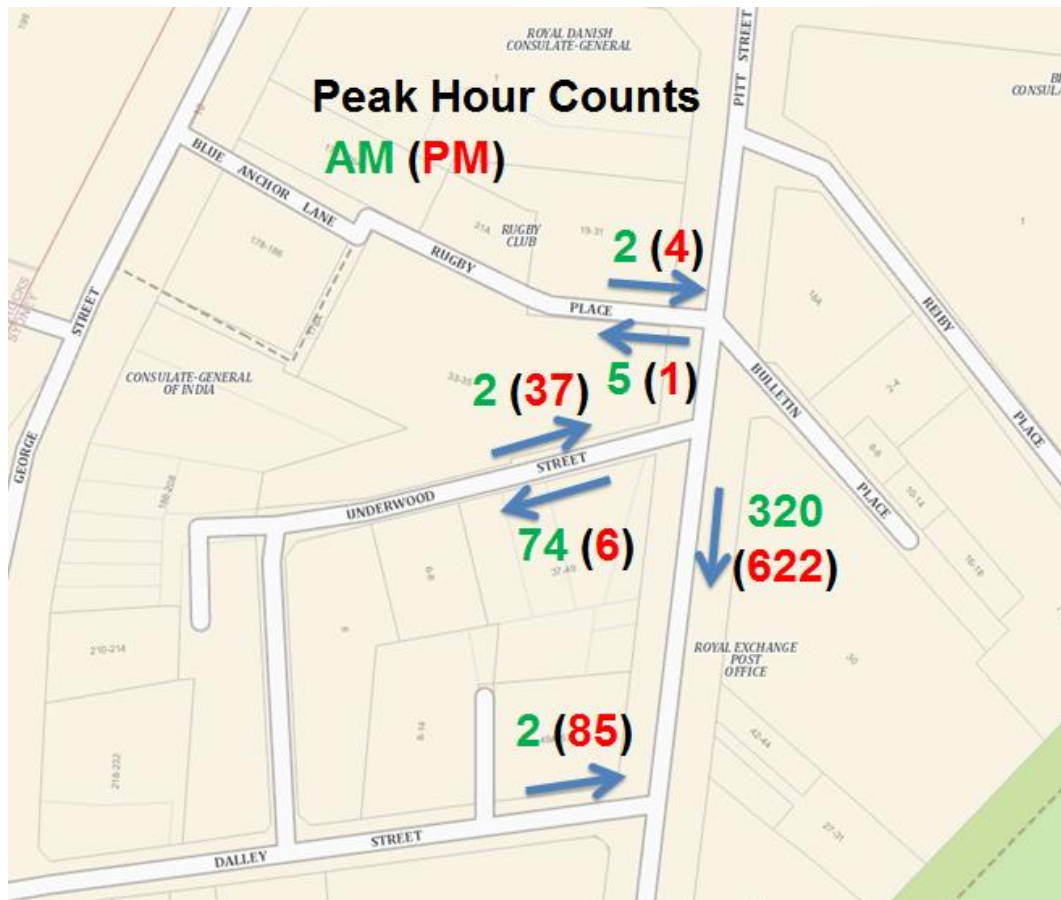


Figure 5 Peak Hour Traffic Counts

Access to the 33-35 Pitt Street Secure public car park, with 130 parking bays (stacked), and the 37-49 Pitt Street car park opposite, which also allows public access, is from Underwood Street which operates as two-way traffic from the car park access points up to Pitt Street. These two car parks generate 76 movements in the AM Peak and 43 movements in the PM Peak via Underwood Street.

The 182 George Street car park with 24 parking bays has access via Crane Lane (part) and Blue Anchor Lane to George Street. This car park has a very low turnover of cars with 8-10 cars arriving the AM peak hour and departing in the PM peak hour.

2.6 Public Transport Access

The site is served by the high quality Circular Quay public transport interchange – which provides an environment where passengers may easily transfer between bus, rail and ferry modes. In addition, the site is served by Wynyard transport interchange.

Over 550,000 passenger journeys are made through the Circular Quay interchange every week². A significant number of these journeys are made to access the precinct, with analysis indicating that public transport accounts for more than 75%

² Transport for NSW Press Release – May 2011

of all work trips into the site (see Section 2.2). A summary of the key public transport modes serving the site is described below.

2.6.1 Train

Circular Quay Railway Station is located approximately 250m away from the precinct, equating to a walk of less than 5 minutes from the centre of the platform. The station is on the T2 Line (Airport Line / Inner West and South Line) and T3 Line (Bankstown Line), with services running every few minutes in each direction of the city circle train loop during the morning and afternoon peak hours.

Wynyard Station is approximately 400m from the George St frontage and is a good alternative for users of the T1 Line (Northern Line, North Shore Line and Western Line).

2.6.2 Bus

The site is currently served by approximately 50 bus routes, operated by Sydney Buses. The bus services cover the Eastern Suburbs, Western Suburbs and Southern Region services. Western and Southern region inbound bus services use George Street via Town Hall and Wynyard to access Circular Quay, while Eastern region buses travel via Elizabeth Street. The existing bus arrangements provide set down and layover zones in Phillip Street, Young Street and Loftus Street to feed into pick up zones in Alfred Street in both directions as shown in Figure 6. Northern Suburbs bus services depart from Wynyard Park which is a 300m walk from the site.

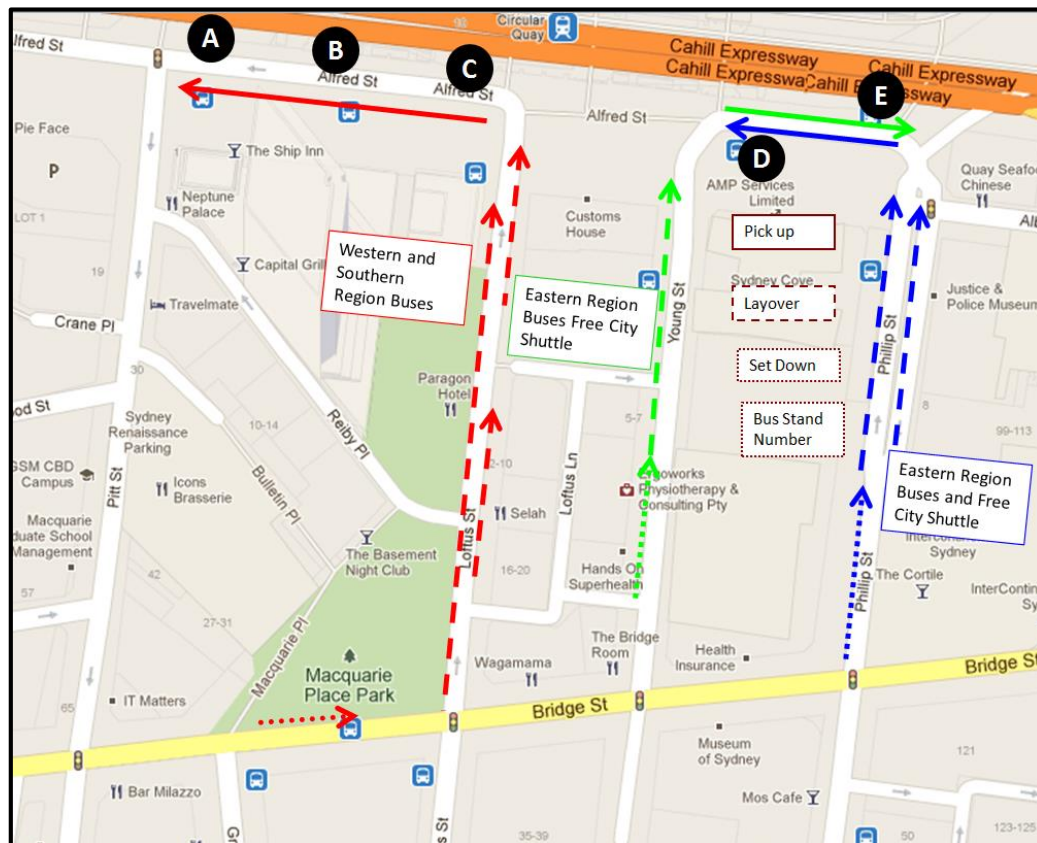


Figure 6 Existing Bus Arrangements

2.6.3 Ferry

Located within a 5 minute walk of the site, Circular Quay provides over eight regular ferry routes serving the Eastern Suburbs, lower North Shore (Manly, Taronga Zoo, Mosman and Neutral Bay) and wharves along the Parramatta River area. The journey to work mode share by ferry for the site is approximately double the Sydney CBD average mode share – indicating its convenience for site users.

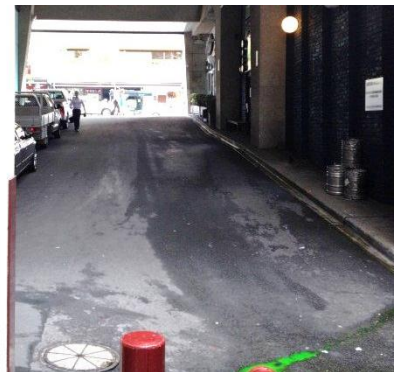
2.6.4 Pedestrian Access

The site is well connected via a network of good quality, wide pedestrian footpaths with signalised crossings of main roads. The northern end of the site through the Circular Quay precinct and along Alfred Street is a pedestrianised environment conducive to walking trips. The wait times experienced at signalised crossings of collector roads such as Bridge Street and George Street can act as a barrier to pedestrian movement.

The existing site pedestrian connections are indicated in Figure 7. Blue Anchor Lane provides pedestrian access between George Street and Rugby Place. Crane Place also provides a pedestrian connection from George Street along the southern side of 182 George Street. These are all fairly poor quality connections with no footpaths and shared with traffic but not appropriately signed/treated for this type of interaction.



Photograph 5 Blue Anchor Lane East



Photograph 6 Blue Anchor Lane West



Figure 7 Existing Site Pedestrian Connections

2.7 Cycling Network

There are a number of key cross-city cycle routes which form part of City of Sydney Council's new cycling network which provide linkages to the site. These routes, indicated in Figure 8, are as follows:

- Kent Street (separated, bi-directional cycleway)
- King Street (separated, bi-directional cycleway)
- Pyrmont Bridge (shared cycle path)
- Macquarie Street (mixed street environment)
- Alfred Street north (shared cycle path)
- College Street (separated, bi-directional cycleway)

The Sydney City Centre Access Strategy (for further consultation) was released by the NSW Government in September 2013. The strategy outlines the future city centre cycleway network to encourage growth in cycling and reduce pressure on the public transport system. The future city centre cycle network is shown in Figure 8, and includes:

- Extending the Kent Street cycleway south to Liverpool Street
- Construction of a bi-directional cycleway on Liverpool Street
- Construction of a bi-directional cycleway on Castlereagh Street and Pitt Street, providing a new north-south connection through the CBD
- Extending the existing King Street cycleway to Castlereagh Street
- Extending the east- west cycleway along Park Street to Castlereagh Street



Figure 8 Strategic Cycleway Network Map

Source: Sydney City Centre Access Strategy (NSW Government, 2013)

3 Public Domain

3.1 Pedestrian Permeability

The proposed pedestrian connectivity via the laneway linkages and public open space is shown in Figure 9. Improved north-south and east-west movement will be possible providing greater permeability for access to public transport and surrounding services.

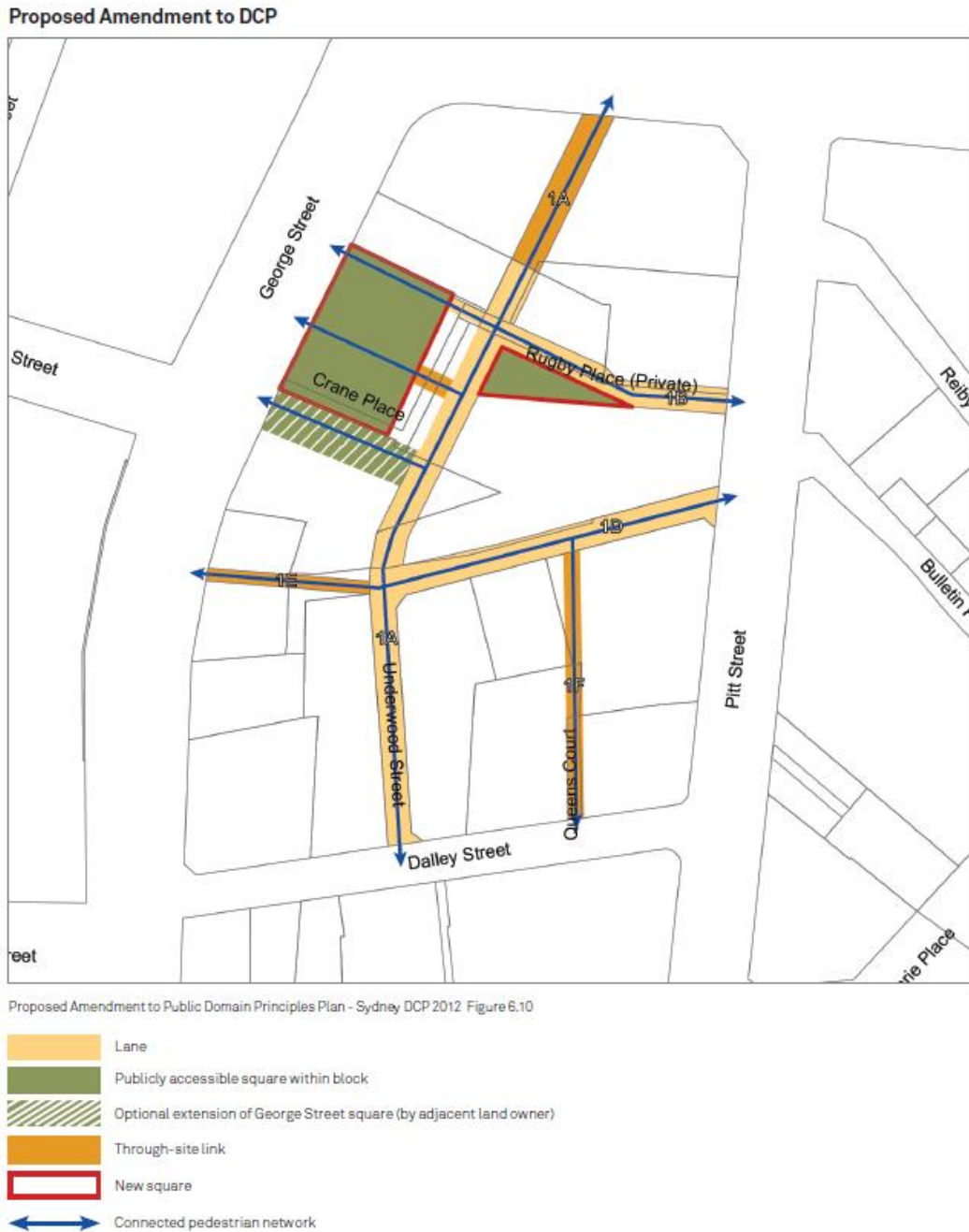


Figure 9 Proposed Pedestrian Connectivity

3.2 Shared Zones

A Shared Zone is an area where the road space is shared by vehicles and pedestrians, with a maximum speed limit of 10km/hr. There may be no road markings or kerbs in a shared zone to emphasise pedestrian priority, with drivers to give way to pedestrians at all times. Shared zones reflect a high level of pedestrian activity where quality of life takes precedence over ease of vehicular movement.

Within the LLCQ project, opportunities will arise to introduce shared zones on the laneways. Typical treatments for shared zones are shown in Figure 10 below.



Figure 10 Typical Laneway Treatment

3.3 Universal Access

The current best practice standards for access to the built environment are the Disability Access to Premises – buildings, Standards 2010, which build on AS1742.10 Pedestrian Access standards. The built environment will comply with these standards. The site links and access to buildings and activated street frontages will comply with these requirements.

4 Transport Assessment

4.1 Northern CBD Functional Road Changes due to the CBD and South East Light Rail Project

As a result of the pedestrianisation of Alfred Street with introduction of the Light Rail Terminus, Pitt Street is proposed to be closed at Alfred Street. To provide traffic access to the northern section of Pitt Street, the Environmental Impact Statement (EIS) outlines the proposal to convert Pitt Street to two-way operation between Alfred Street and Bridge Street as shown in Figure 11.

Introduction of a northbound traffic lane in Pitt Street will enable direct property access to the northern end of Pitt Street. It will require the following changes to traffic operations:

- Provision of a turning circle at the northern terminus of Pitt Street;
- A reduction in a southbound traffic lane; and
- Modification of traffic signals at the Pitt Street / Bridge Street intersection

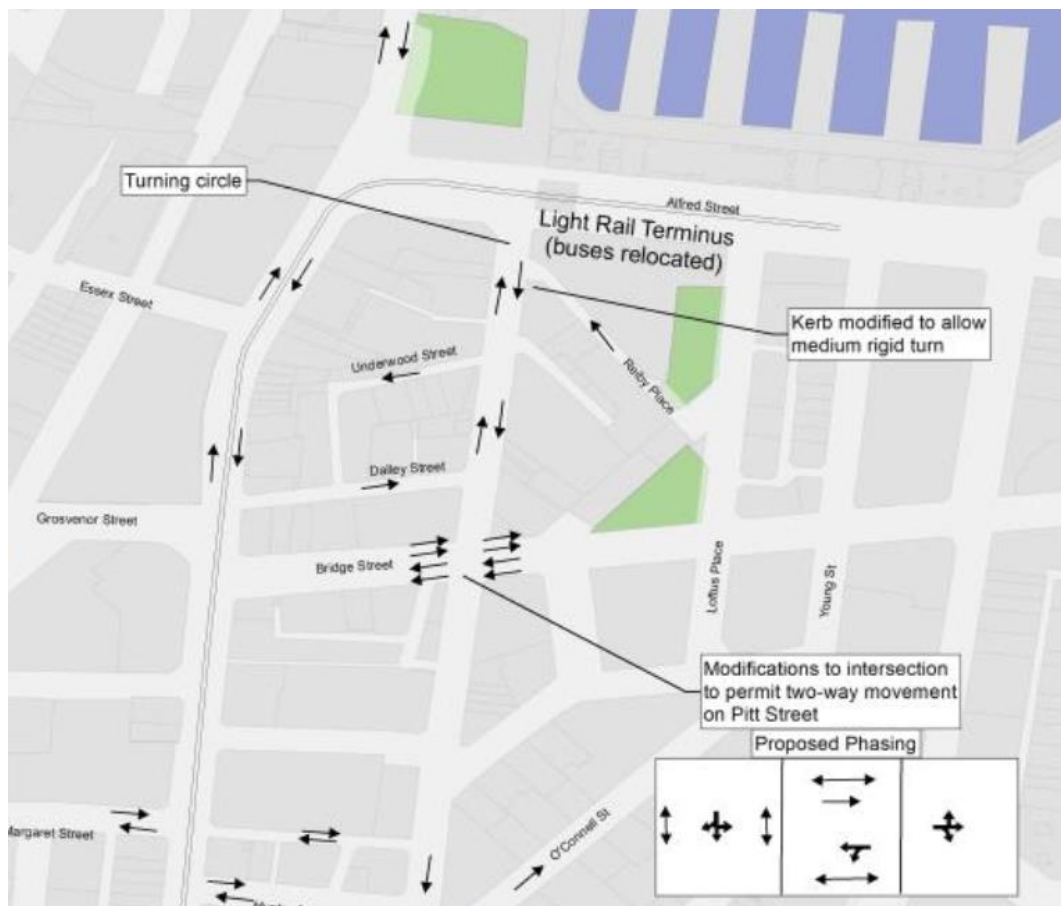


Figure 11 Circular Quay Light Rail Terminus and associated road network changes

Source: CSELR EIS Technical Paper 1 – Transport Operations

4.2 Vehicular Site Access

4.2.1 Vehicular access principles

The vehicular access principles for the site are:

- Demolish the existing Secure commercial car park currently operating at 33-35 Pitt Street (currently serviced from Underwood Street)
- Retain current vehicular access to the existing lanes.
- Limit vehicular access to the new lanes to certain hours of the day to encourage a pedestrian friendly precinct. All lanes are shared with pedestrians.
- Locate the new basement entry point close to Pitt Street to reduce vehicular movement along Underwood Street.
- All vehicular access to existing lanes is to be off Pitt Street which removes the need to connect to George Street.
- All vehicular access to new north south lane is to be from Underwood Street
- Existing adjacent third party landowner rights of access servicing existing buildings to be retained (ie existing 1 Alfred Street loading dock, existing Rugby Club and existing 19-31 Pitt Street commercial car park)

Vehicular access to the basement car park and loading dock will be from Underwood Street as shown in Figure 12. Limited vehicle access for delivery vehicles will be retained via Rugby Place (see Section 4.3). Limited vehicle access for delivery vehicles, with restricted hours, will be provided via the new north south lane way.

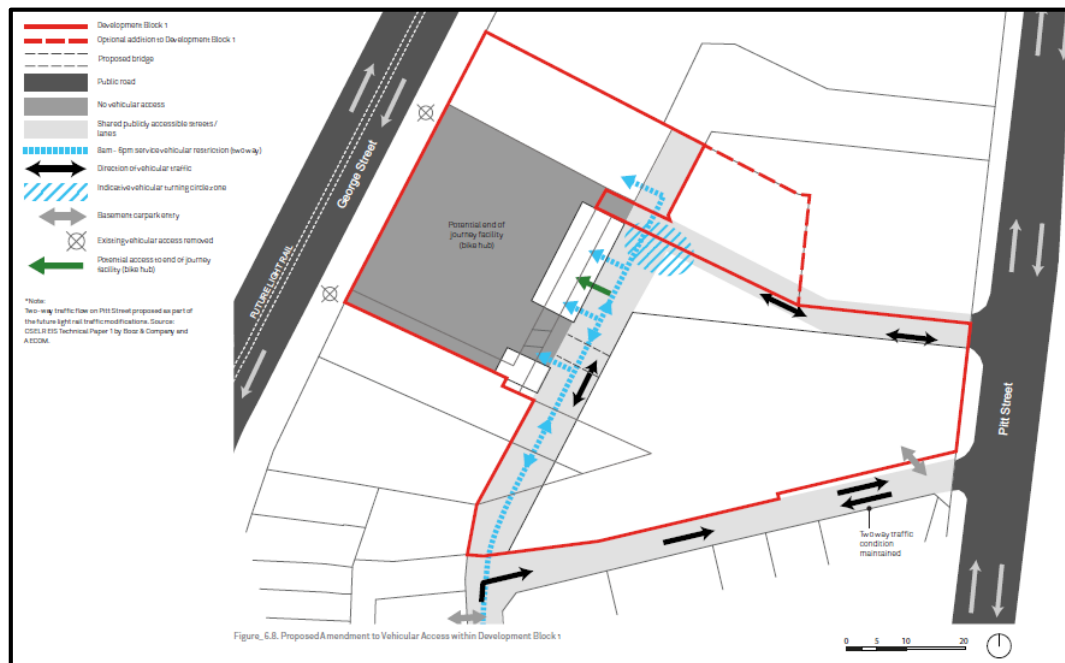


Figure 12 Proposed Site Vehicle Access

4.2.2 Change to DCP Vehicular Access Plan

- The current vehicular access plan in DCP 2012 proposes time restricted surface level vehicle access into the precinct along a northern extension of Underwood Street as shown in Figure 13.
- Existing adjacent third party landowner rights of access servicing existing buildings (ie existing 1 Alfred Street loading dock, existing Rugby Club and existing 19 Pitt Street commercial car park) will need to be retained.
- Under the proposed LLCQ development scheme, a shared basement across 33-35 Pitt, 6-8 Underwood, 37-49 Pitt, 49A-57 Pitt and 8-14 Dalley Street (corresponding to former APDG Block 1), all accessed from Dalley Street as contemplated in Figure 13, is no longer able to be realised.
- The proposed amendments to the DCP for vehicular access are shown in Figure 14. They include the proposed basement access from Underwood Street to the LLCQ development and access points for 19-31 Pitt Street and 1 Alfred Street.

Current DCP 2012

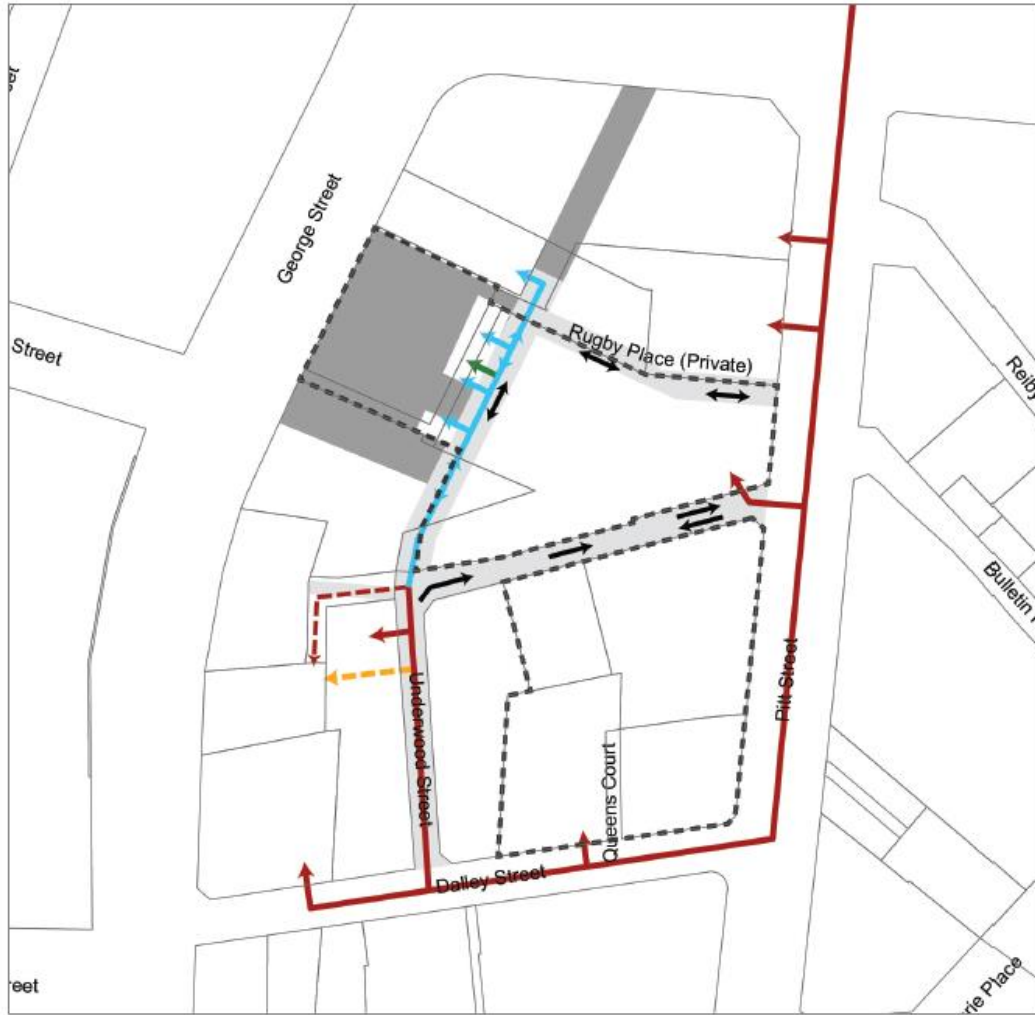


Vehicular Access Plan - Sydney DCP 2012 Figure 6.16

- | | | | |
|--|-------------------------------------|--|---|
| | Preferred vehicular access location | | One way traffic circulation direction |
| | No vehicle access 8am-6pm mon-fri | | No vehicular access |
| | Short term access location | | Publicly accessible space/streets/lanes |
| | Preferred long term access location | | Shared basement/servicing |

Figure 13 Current Vehicular Access Plan DCP2012

Proposed Amendment to DCP



Proposed Amendment to Vehicular Access Plan - Sydney DCP 2012 Figure 6.16

- | | | | |
|--|---|--|---|
| | Preferred vehicular access location | | Traffic circulation direction |
| | 8am - 6pm service vehicular restriction | | No vehicular access |
| | Short term access location | | Publicly accessible space/streets/lanes |
| | Preferred long term access location | | Shared basement/servicing |
| | Access to end of trip facility (bike hub) | | |

Figure 14 Proposed Amendment to Vehicular Access Plan DCP2012

4.3 Service Vehicle Access to Existing Surface Laneways

There are a number of third party rights of access that legally benefit existing adjacent third party landowners and permit the vehicular servicing of existing buildings at:

- existing 1 Alfred Street loading dock (Valad/Blackstone),
- existing Rugby Club loading dock (Rugby Club) and
- existing 19 Pitt Street commercial car park (Fairfax)

A summary of the existing access rights is as indicated on the draft plan prepared by Rygate Surveyors for Lend Lease Development which is shown in Figure 15.

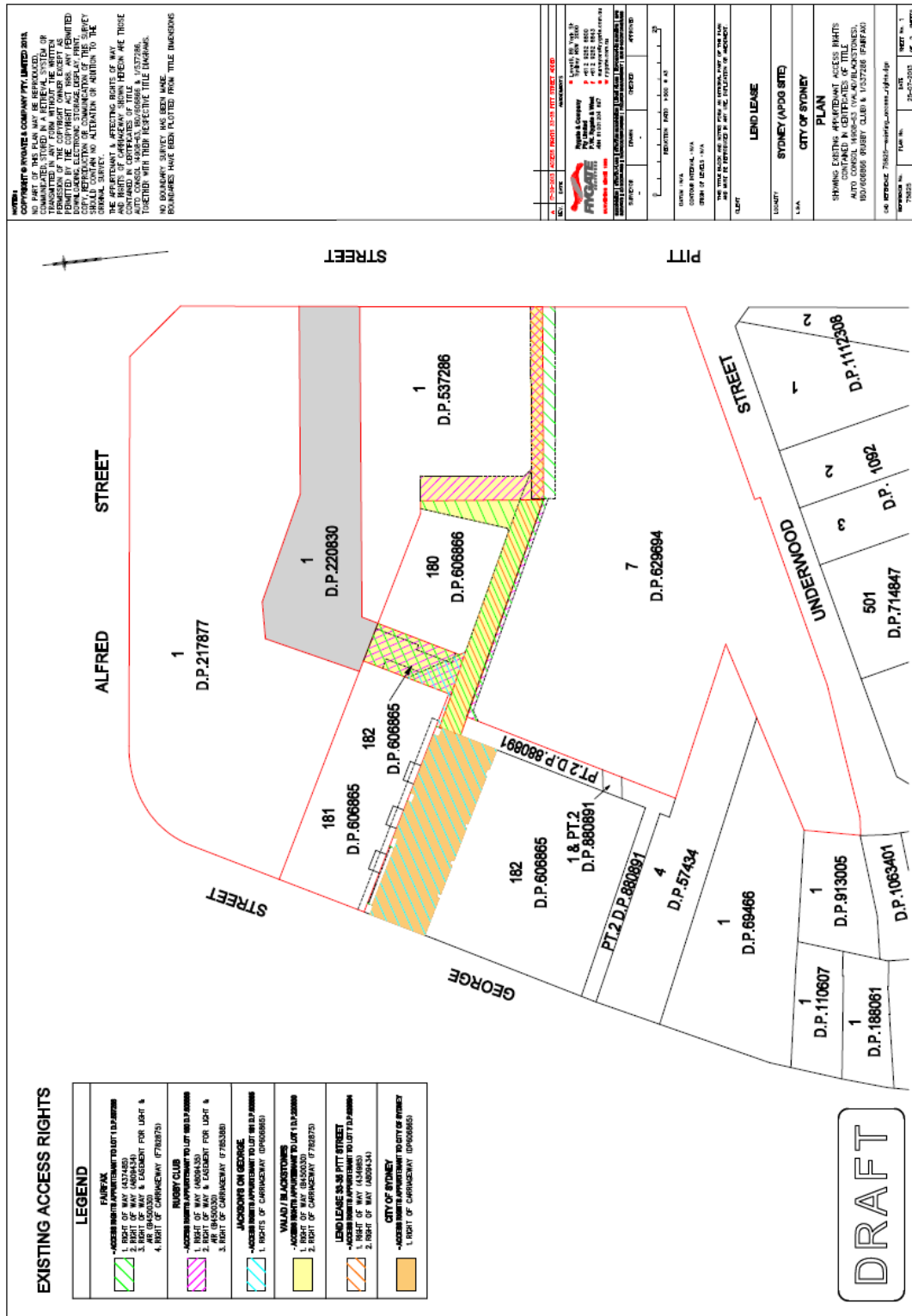


Figure 15 Existing access rights

4.4 Service Vehicle Access to Proposed Surface North South Laneway

The north-south laneway will be accessed from Underwood Street as shown in Figure 14. It is intended to limit access between the hours of 8am to 6pm to maximise the pedestrian amenity in this precinct.

4.5 Maintaining of access to the various buildings during construction.

LLD will maintain existing adjacent third party landowner rights of access for the purpose of servicing existing buildings (ie existing 1 Alfred Street loading dock, existing Rugby Club and existing 19 Pitt Street commercial car park) throughout the proposed LLCQ development

LLD have separately engaged Colston Budd Hunt & Kafes Pty Ltd (CBHK) to prepare a separate assessment report entitled Assessment of Vehicular Transport Aspects of Planning proposal for Lend Lease Circular Quay, 174-182 George Street and 33-35 Pitt Street Sydney. The CBHK discusses in more detail vehicular traffic impacts associated with the construction phase of the LLCQ development and how access to existing adjacent third party landowner rights of access servicing existing buildings at 1 Alfred Street (loading dock), Rugby Club (loading dock) and 19 Pitt Street (commercial car park) will be retained.

CBHK's report includes a discussion regarding the forecast LLCQ construction vehicular aspects of the proposed development including:

1. Temporary Loading zones
2. Temporary Access arrangements
3. Staging
4. Forecast construction vehicle numbers (trucks during demo and excavation in particular)
5. Coordination with Light Rail construction
6. Maintaining adjacent landowners access throughout

4.6 Maintaining of access to the various buildings post redevelopment.

The proposed LLCQ redevelopment scheme will maintain existing adjacent third party landowner rights of access for the purpose of servicing existing buildings (ie existing 1 Alfred Street loading dock, existing Rugby Club and existing 19 Pitt Street commercial car park).



Photograph 7 Blue Anchor Lane (Turnaround Location). Includes current basement access to 182 George Street



Photograph 8 Existing Loading Area to Jacksons on George (174 George Street)



Photograph 9 Rugby Place West



Photograph 10 Rugby Place East

The design vehicle for access to the precinct via both existing Rugby Place and the proposed new north south lane way is the 10m long keg truck and 9.9m long garbage truck and 8.8m MRV. The proposed entry and exit route between Pitt Street and Jacksons on George via Rugby Place is shown on Figure 16.

The dock access to Jacksons on George will be staged between Pitt and George Street to facilitate the construction delivery of the LLCQ development.

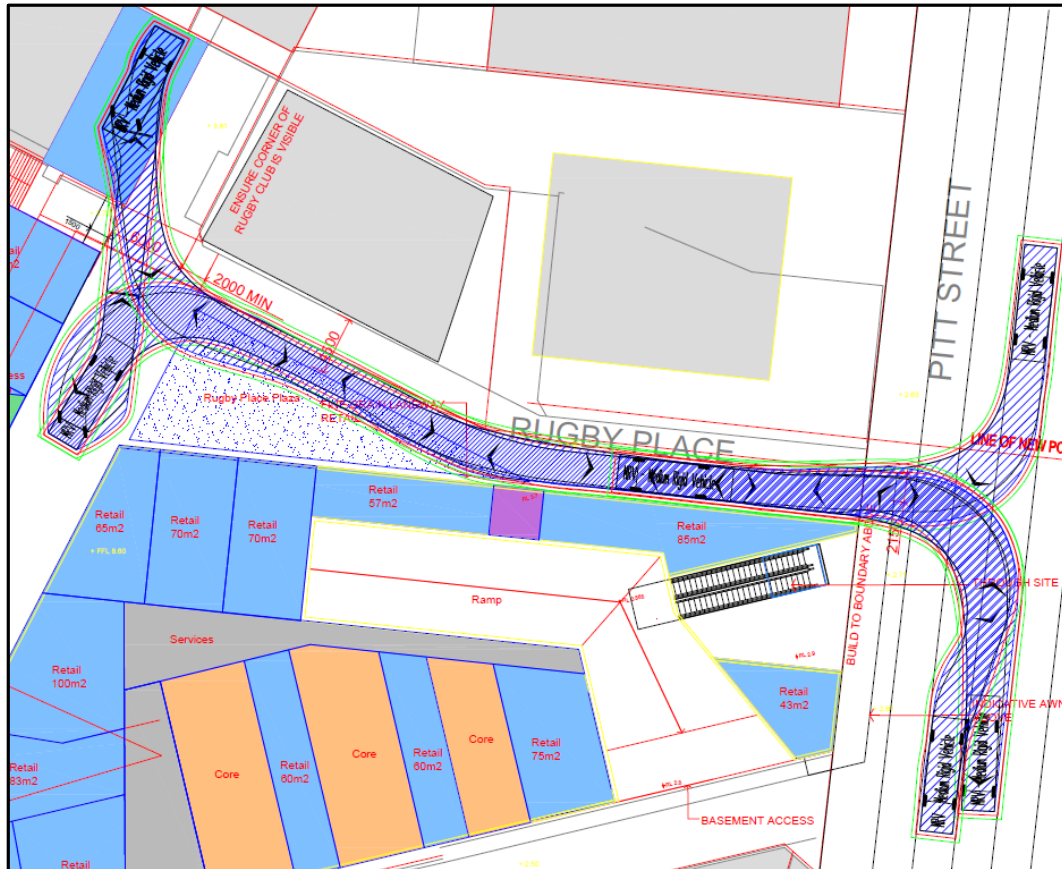


Figure 16 Service Vehicle Access to Jacksons on George

4.7 Parking

The development proposes a single car park spread over up to 4 basement levels providing a maximum of 96 commercial car parking spaces (pending participation of Rugby Club optional site).

A managed loading dock is proposed to be provided at Basement Level 1.

Design aspects of the internal basement vehicular provisions are further discussed in the report prepared by Colston Budd Hunt & Kafes Pty Ltd (CBHK) entitled Assessment of Vehicular Transport Aspects of Planning proposal for Lend Lease Circular Quay, 174-182 George Street and 33-35 Pitt Street Sydney.

4.8 Traffic Impact

The basement access is located in Underwood Street to the east of Pitt Street. The existing Secure Parking 130 space (stacked) public car park is currently accessed in Underwood Street and has a similar mix of commercial users to the proposed car park. With less parking proposed in the new car park, future traffic in Underwood Street would be expected to be no more than current with the potential for a decrease in activity.

The removal of vehicle access to car parking from Blue Anchor Lane will remove existing traffic accessing George Street.

The proposed conversion of Pitt Street to two-way traffic will reduce traffic volumes to local traffic access developments north of Bridge Street. This will improve accessibility to these sites and it is expected that the low traffic volumes will mean that all laneway connections will function adequately.

4.9 Public Transport

4.9.1 Rail

Circular Quay Station will continue to provide direct connection to the rail network via the city loop with connections to all other services. Wynyard Station is also an easy walk for direct access to northern services via the Sydney Harbour Bridge.

In addition, the CBD Rail Link (CBDRL) Corridor proposes a future rail station at Macquarie Place which will enhance access to public transport in close proximity to the site.

4.9.2 Light Rail

The Environmental Impact Statement (EIS) for the CBD and South East Light Rail Project is on public exhibition until 16 December 2013. The EIS outlines the proposed construction for a new light rail service in Sydney, connecting Circular Quay and the CBD with Surry Hills, Kingsford and Randwick.

The project includes construction of a new light rail stop Circular Quay on Alfred Street between Pitt Street and Loftus Street as shown in Figure 17. The next stop is located at Grosvenor Street just to the south of the site. Both this stop and the terminus will provide access to the site.

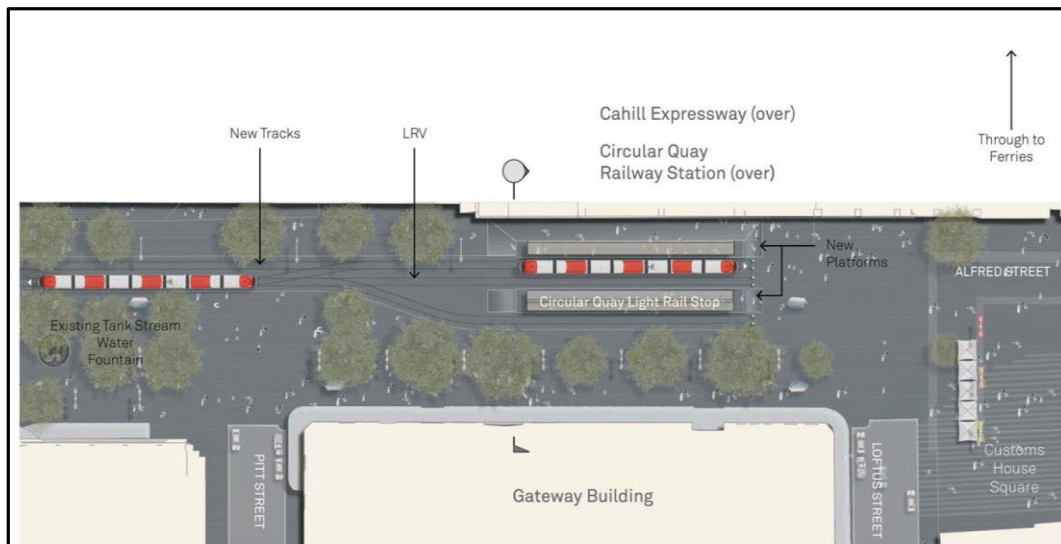


Figure 17 Circular Quay Light Rail Stop

Source: CSELR EIS Technical Paper 10 - Visual and Landscape Assessment

This new light rail stop at Circular Quay will improve accessibility to Quay Quarter Sydney by providing an excellent public transport connection. Associated benefits of the light rail proposal for Quay Quarter Sydney include:

- Closure of Alfred Street to vehicular traffic between George Street and Young Street to provide an improved pedestrian environment
- Introduction of integrated customer information and wayfinding
- Connections to adjacent public transport modes including ferry, bus and heavy rail
- Integration of light rail platforms into the Circular Quay precinct

4.9.3 Bus

There will be significant changes to bus routes as a result of the introduction of the CBD and South East Light Rail Project. Bus stops will be located in Bridge Street and Alfred Street for all Circular Quay Services to the east, south and west. Northern bus services will operate from Wynyard Park which is a 450m walk from the site.

4.9.4 Ferry

Ferry access will continue to be easily accessible at Circular Quay. The new Ferry Mode Plan outlines opportunities for increased services to parts of the harbour which has the potential to increase ferry mode share for employees at this site.

4.10 Walking and Cycling

The ground plane of the site creates a network of plazas and laneways that connect into the surrounding precinct. The series of pedestrian desire lines throughout the precinct with the enhanced east-west and north-south links are shown in Figure 18. The wide open plaza to George Street creates clear lines of sight to the range of routes available for ease of wayfinding. The laneways will be scaled and configured to priorities pedestrian activity with after hours servicing occurring to provide clear pedestrian and cyclist access.

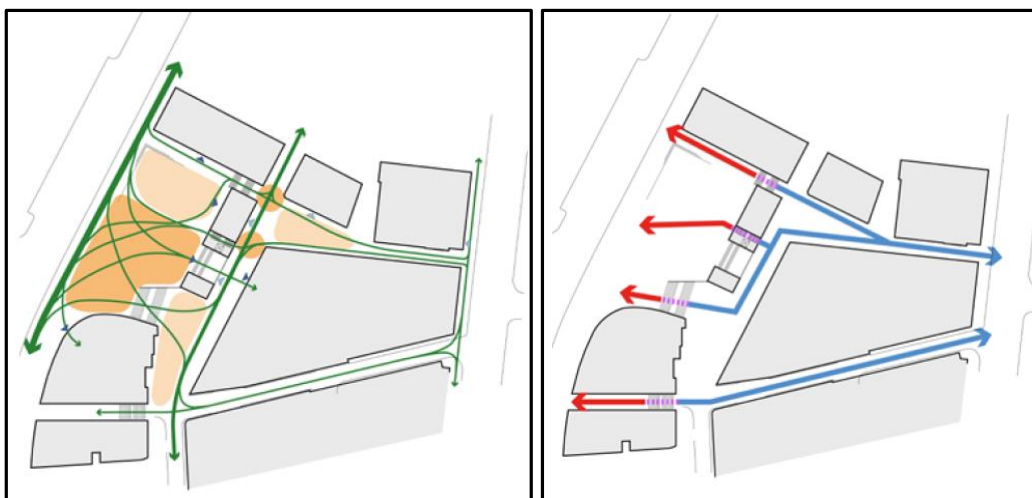


Figure 18 Pedestrian connectivity

The introduction of light rail through the CBD will provide opportunities for an improved pedestrian environment in Circular Quay. With the removal of the bus layover areas on Loftus Street, the section of road between Alfred Street and Bridge Street may become a pedestrianised precinct, allowing for improved access for cyclists and pedestrians.

Good pedestrian connectivity to George Street will ensure patrons of the Rugby Club will retain a high level of access.

The site is well located to take advantage of the City’s existing and planned network of high quality cycleway facilities. The proposed bi-directional cycleway on Pitt Street will form the main north-south spine through the CBD for cyclists into the area. This is likely to be installed in one of the parking lanes associated with conversion to two-way traffic. Following the closure of Alfred Street to general traffic and the removal of buses on Loftus Street, there will be an opportunity to create a good quality shared environment for pedestrians and cyclists as shown in Figure 19.

The proposed LLCQ development will provide bicycle parking for commercial employees, in line with Green Star requirements. A Public Cycle Facility will also be located in the stratum beneath the George Street Public Plaza. The below grade space is to be fitted out as a public cycle facility with amenities all to a performance specification to be agreed by the City. Access to the facility will be via:

- A lift from the George Street plaza level; or
- At grade from the laneway network at the Pitt Street level.

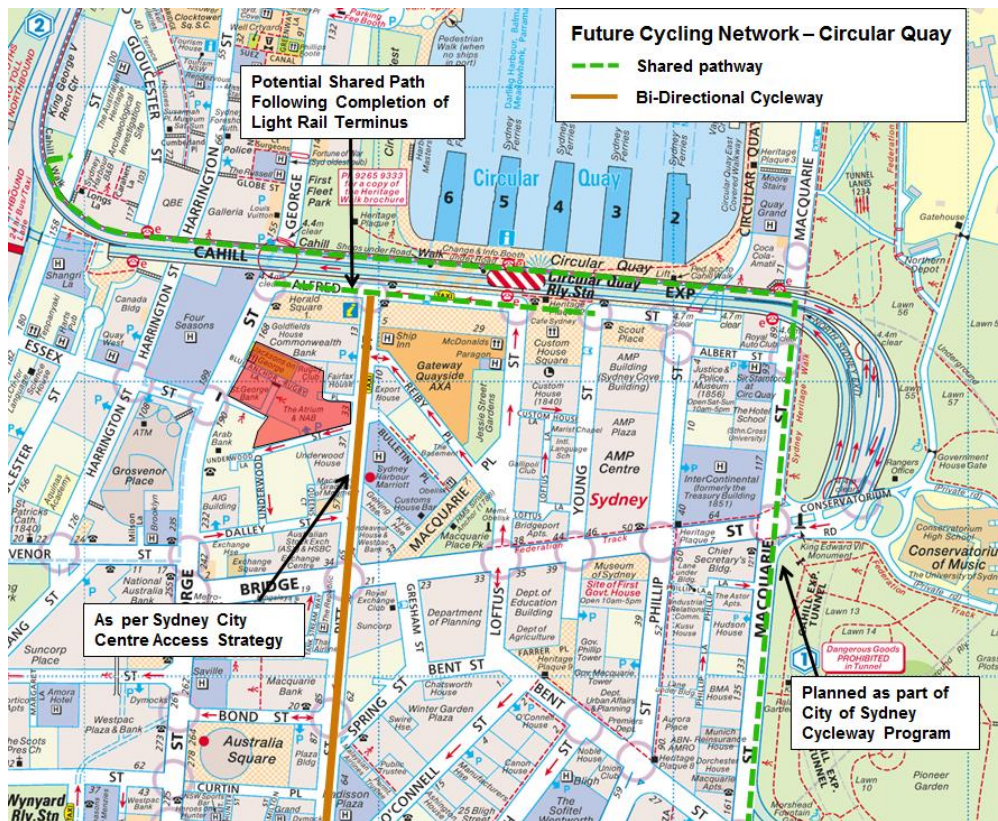


Figure 19 Proposed Cycling Network

4.11 Workplace Travel Plan

The implementation of a Work Place Travel Plan (WPTP) would contribute to reducing parking demand and encourage other forms of transport to the site. The Premier's Council for Active Living (PCAL) describes the three key objectives for a WPTP as follows:

- To reduce the need to travel
- To improve non-car travel methods
- To ensure the most efficient use of car parking spaces

At this early stage (particularly where no future building occupants have been identified), it is difficult to prepare a detailed WPTP capable of implementation. A WPTP could be tailored to suit the specific requirements of each of the future building tenants.

Following the completion of the development and identification of building tenants, a detailed WPTP would be prepared given its proximity to Circular Quay Interchange and the opportunities that this provides for a modal split towards public transport and other journey to work options.

Framework objectives and measures for the preparation of a WPTP for the proposed development could include the following:

- Increase of travel choices for employees, with an emphasis on improving access by sustainable modes of transport;
- Encouragement of high mode share to sustainable modes from private vehicle usage;
- Reduce the number of car journeys associated with business travel by staff and visitors with communication technologies;
- Raising awareness of sustainable transport amongst staff with travel guides (online and print planners);
- Facilitation of the sustainable and safe travel of new employees;
- Utilising the close proximity to the train station with train / bus reimbursement schemes and services tailored to suit employee's needs;
- Ensuring adequate end-trip facilities are provided at the site to enable staff and visitors to commute by active transport modes;
- Limited on-site parking and restricted public parking options as needed;
- Implementation of ride sharing and car sharing schemes; and
- Encouragement of car pooling and off-peak travel

The development of the WPTP could be undertaken using the above framework, considering the City of Sydney's objectives to encourage less traffic in the CBD. With the appropriate framework in place, implementation of a detailed and targeted WPTP for the eventual occupants of the buildings will be more effective.

5 Conclusions

This transport assessment has been prepared in support of a formal request to the City of Sydney for an amendment to the Sydney LEP 2012 (SLEP) and Sydney DCP 2012 (DCP) and forms part of the Planning Justification Report submission

The proposed amendments to the SLEP and DCP seek to facilitate a significant redevelopment of the precinct which will form The Lend Lease Circular Quay (LLCQ) project at 174-182 George Street and 33-35 Pitt Street, Sydney.

The development proposes a single car park spread over up to 4 basement levels providing a maximum of 96 commercial car parking spaces (pending participation of Rugby Club optional site). A managed loading dock is proposed to be provided at Basement Level 1.

The basement access is located in Underwood Street to the east of Pitt Street. The existing Secure Parking 130 space (stacked) public car park is currently accessed in Underwood Street and has a similar mix of commercial users to the proposed car park. With less parking proposed in the new car park, future traffic in Underwood Street would be expected to be no more than current with the potential for a decrease in activity.

The removal of vehicle access to car parking from Blue Anchor Lane will remove existing traffic accessing George Street.

The proposed conversion of Pitt Street to two-way traffic will reduce traffic volumes to local traffic access developments north of Bridge Street. This will improve accessibility to these sites and it is expected that the low traffic volumes will mean that all laneway connections will function adequately.

Existing adjacent third party landowner rights of access servicing existing buildings (ie existing 1 Alfred Street loading dock, existing Rugby Club and existing 19 Pitt Street commercial car park) will need to be retained.

Under the proposed LLCQ development scheme, a shared basement across 33-35 Pitt, 6-8 Underwood, 37-49 Pitt, 49A-57 Pitt and 8-14 Dalley Street (corresponding to former APDG Block 1), all accessed from Dalley Street, is no longer able to be realised. The proposed amendments to the DCP for vehicular access include the proposed basement access from Underwood Street to the LLCQ development and access points for 19-31 Pitt Street and 1 Alfred Street.

The ground plane of the site creates a network of plazas and laneways that connect into the surrounding precinct. The wide open plaza to George Street creates clear lines of sight to the range of routes available for ease of wayfinding. The laneways will be scaled and configured to priorities pedestrian activity with after hours servicing occurring to provide clear pedestrian and cyclist access.