

Sydney International Convention, Exhibition and Entertainment Precinct

3.1.3 Redevelopment and expansion of Star City Casino

The redevelopment and expansion of the Star city Casino commenced in 2009, and has recently expanded to include a 3,000-seat multi-purpose entertainment venue. The current \$575 million redevelopment project that commenced in 2009 includes development such as reorientation of the property towards Sydney Harbour, a new 5-star hotel, several new restaurants, bars, 4,000m² of retail space and refurbishment and expansion of the casino. In August 2010 Tabcorp announced plans to invest an additional \$285 million including the multi-purpose Events Centre and VIP customer facilities. The Events Centre comprises 2,400 m² of column free space that will have views of Sydney Harbour and the city Skyline. The venue has been designed to host performers as well as domestic and international conferences, exhibitions and functions.

3.1.4 Barangaroo Development

The major new \$6 billion Barangaroo site currently under construction is expected to generate activity and business events for Darling Harbour and the convention and exhibition centre precinct. This development has the potential to generate up to a \$ 1 billion for the NSW economy each year for the next 10 years. It will comprise commercial office towers mixed with residential apartments in a public waterfront precinct, public open space and a new Headland Park in the centre of the Sydney CBD.

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4. Initial Transport Assessment

4.1 Background

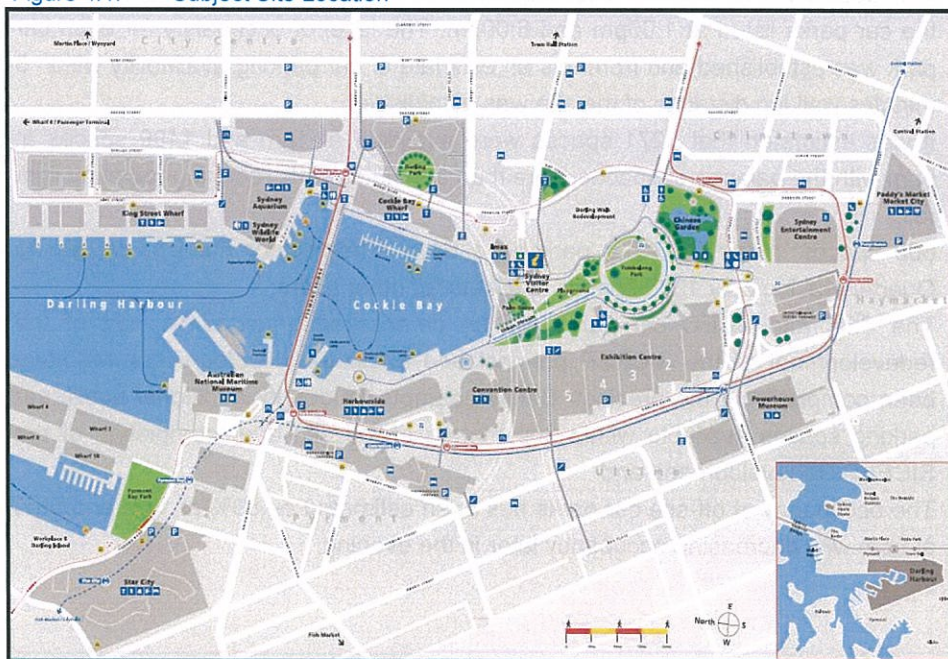
The existing conditions report provided a detailed assessment of the existing transport conditions for the SICEEP site. The SICEEP site is located along the western edge of the Darling Harbour Precinct and continues south to the Haymarket precinct. The site is divided into three sectors by existing arterial corridors. The northern sector of the site houses the Convention centre and foreshore walkway areas servicing Darling Harbour and the Harbourside Shopping Centre to the north. The M4 Western Distributor overpasses and associated access ramps divide the northern and central sectors. The central sector contains the Exhibition Centre, Tumbalong Park and public thoroughfares providing access to Darling Harbour South. The Pier Street overpass and Harbour Street intersection divide the central and southern sectors. The southern sector contains the Entertainment Centre and the Entertainment Centre car park, which lies in the south western corner of the site.

The entire site is contiguously bound to the west by Darling Drive and the existing Light Rail and Monorail corridors. To the north of the site lies the Harbourside Shopping Centre, with Darling Harbour to the north east and a number of large hotels to the north west. To the east of the site lies the southern extent of Darling Harbour foreshore and the Imax Theatre adjacent to the northern sector. The Darling Quarter and Chinese Gardens are east of the central sector, and the Chinatown precinct of Dixon Street lies to the east of the southern sector. Hay Street forms the southern boundary of the site, with the University of Technology Building 5 and Paddy's Markets to the South. The site falls under the Darling Harbour Development Plan No.1 (1996). Planning Ministry approval must be sought for any developments within this precinct.

The land uses in close proximity consist of Hotels and Residential to the east in Ultimo and Pyrmont, Educational and Retail to the south, with the Market City Centre and the University of Technology buildings and a mix of Retail and Commercial to the east with the Sydney Central Business District. To the north of the site lies the Harbourside Shopping Centre. Figure 4.1 indicates the Subject Site Location.

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Figure 4.1: Subject Site Location



Source: Sydney Harbour Foreshore Authority

4.2 Parking Supply

Details of the existing car parking availability in the Darling Harbour South Precinct are shown in Table 4.1 below.

Table 4.1: Current Carpark Capacities and Peak Time Occupancy

Car Park	Spaces	1pm	6pm	Comments
SEC	1900	926	1423	On site
SCEC	900	800	600	On site
World Square	557	495	330	345 m east
Market City	614	546	364	170 m south
Thomas Street	600	533	355	300 m south
Harbourside	1387	1233	822	4 mins light rail
Star City	2500	1218	912	7 mins light rail
TOTALS	8458	5751	4806	
Availability of Parking spaces		2707	3652	

Source: Halcrow TMAP Assessment (Reference Section 5.5 Page 45)

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Note:

- This assessment is based on parking demand surveys undertaken by Halcrow for the car parks listed at 1:00pm and 6:00pm. The level of occupancy for each car park was established and from this an estimate of car parking availability within 5 minutes walking distance of the site was established.
- It was estimated that 1271 spaces were available at 1pm and 1499 spaces at 6pm with the balance of spaces more than 5 minutes walk requiring travel by light rail;
- 600 spaces in the SEC car park have been reserved for the use of Darling Quarter leaving only 1300 spaces available for other users;
- The SEC and SCEC car parks will be demolished/amended as part of the redevelopment of the SICEEP precinct and additional developments will have been completed in the precinct. Below attempts to identify additional public car parking spaces available within 300 metres of the site after completion of the SICEEP Redevelopment; and
- The occupancy of off-site car parks has been estimated as 89% at 1pm and 59% at 6pm with decreasing occupancy later in the evening.

4.3 Road Network

The significant roads within and surrounding the site and their indicative road classification in accordance with reference to RTA Road classification criteria are listed in Table 4.2 below:

Table 4.2: RMS Road Occupancy

Road	Classification
M4 Western Distributor(Freeway)	Major Arterial
Pier Street	Arterial
Darling Drive	Arterial
Harbour Street	Collector
Goulburn Street	Collector
Liverpool Street	Collector
Hay Street	Collector
Bathurst Street	Collector
Druitt Street	Collector
Pymont Street	Collector
Harris Street	Collector

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4.4 Traffic

To ascertain the existing traffic conditions surrounding the site, a series of traffic surveys were undertaken to collect data for the purposes of analysis in establishing the existing AIMSUN model for the site, and to determine the peak periods under regular weekly traffic, on weekends, as well as during special events.

Turning movement count surveys were undertaken at the following locations in the vicinity of the site:

- Pyrmont Street/Allen Street;
- Harris St / Quarry St;
- Harris St / William Henry St;
- Harris St / Macarthur St;
- Darling Dr / Pier St;
- Darling Dr / Quay St;
- Darling Drive/Harbourside Roundabout Access;
- Harbour St / Liverpool St;
- Harbour St / Goulburn St;
- Harbour St / Hay St;
- George St / Goulburn St;
- George St / Hay St;
- Sussex St / Goulburn St; and
- Sussex St Hay St.

Tube count and video surveys were also undertaken to measure the weekly traffic volumes along these main corridors and to determine the weekday, weekend and event peak period volumes.

Tube counters were installed at the following locations:

- Darling Drive; and
- Harris Street

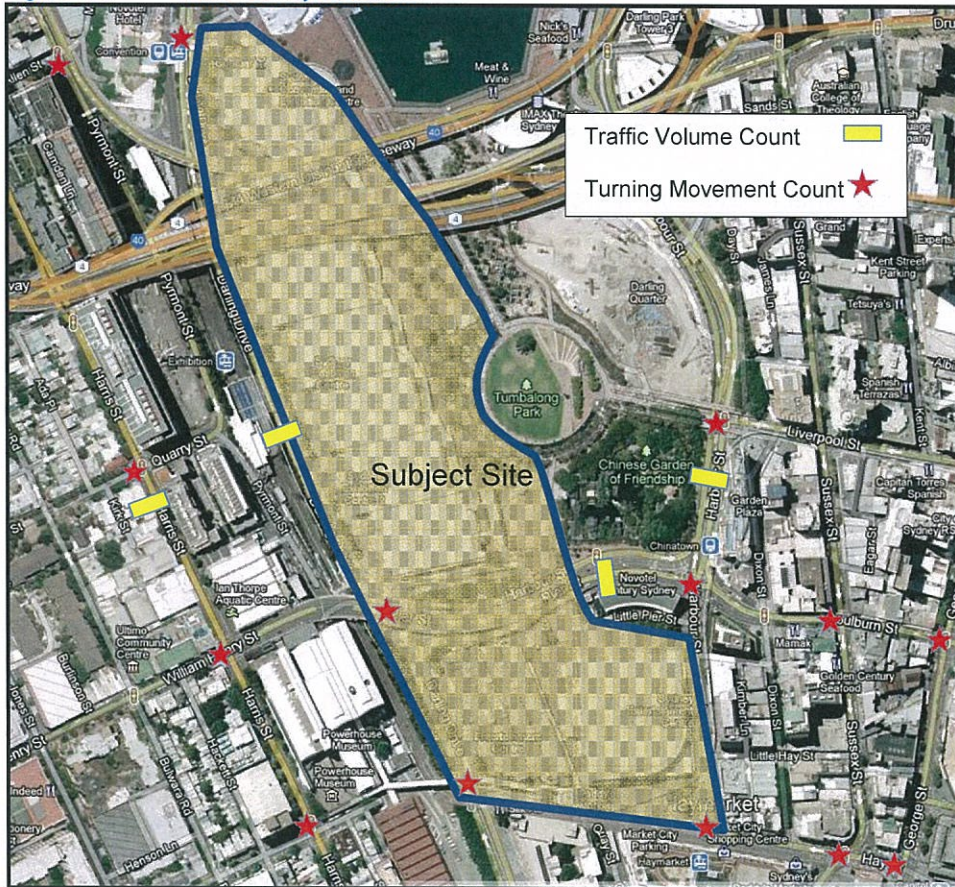
Video counters were installed at the following locations due to site constraints:

- Harbour Street
- Pier Street

Figure 4.2 indicates the location of all the traffic surveys undertaken.

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Figure 4.2: Traffic Survey Locations



Source: Google Maps

4.4.1 Local Road Network

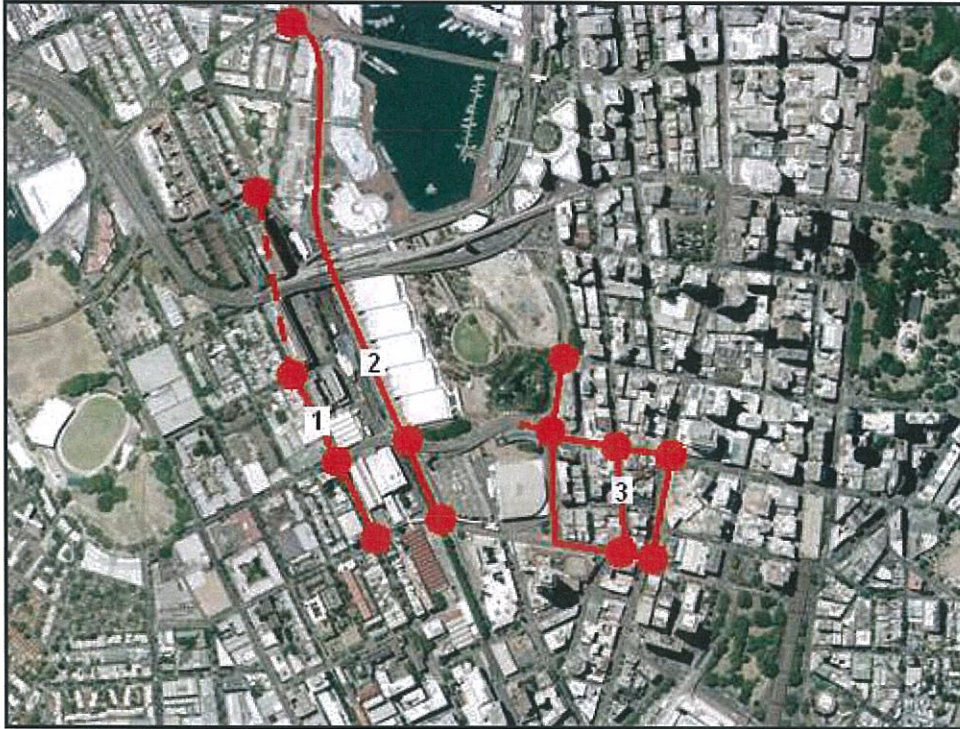
The local road network as defined in the project brief can be broken down into 3 distinct sections as follows:

- Section 1 – Three intersections along Harris Street plus one additional intersection;
- Section 2 – Three intersections along Darling Street plus car park accesses; and
- Section 3 – Six intersections within a grid defined by Harbour Street, Goulburn Street and George Street.

The sections are shown below in Figure 4.3.

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Figure 4.3: Distinct Sections within the Study Area



Source: Google Maps

Section 1 represents traffic travelling along Harris Street. This section predominantly carries traffic between Ultimo (with Parramatta Road being the primary origin / destination) and Pyrmont.

Section 2 represents the section with the lowest traffic flows, namely running along Darling Street adjacent to the site. Traffic through this section includes motorists travelling between the city centre and various destinations in Pyrmont. It is also the primary access for the subject site and is therefore considered to be the section which will be most impacted by the proposed development.

Traffic travelling within Section 3 includes a wide variety of traffic in terms of origin and destination. The origins and destination includes traffic travelling through the area to various destinations throughout the city as well as motorists connecting to the Western Distributor in order to travel in or out of the city.

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4.4.2 Connectivity

The sections of road network described above operate relatively independently with little connectivity between them. The primary connectivity is provided by Pier Street which runs east – west across the three sections.

The key intersection connecting the three sections of road network is the Pier St / Harbour St / Goulburn St intersection. In a westerly direction, the connection allows for a direct traffic flow from this intersection directly into Section 1 (given that there are no intersections along Pier Street between Harris Street and Harbour Street) as well as a direct traffic flow into Section 2 via the off ramp on Pier Street (refer to Figure 4.4).

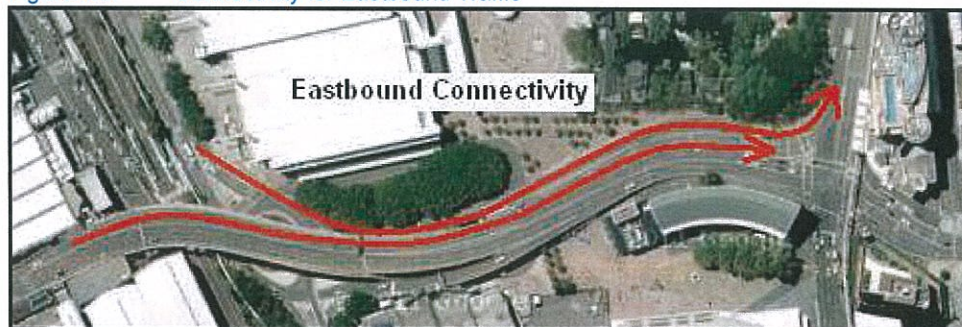
Figure 4.4: Connectivity for Westbound Traffic



Source: Google Maps

The connectivity in an easterly direction is similar with the exception that traffic approaching Harbour Street from Darling Street (i.e. Section 2) is restricted to left turning movements onto Harbour Street. (Refer to Figure 4.5).

Figure 4.5: Connectivity for Eastbound Traffic



Source: Google Maps

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4.5 Pedestrian Network

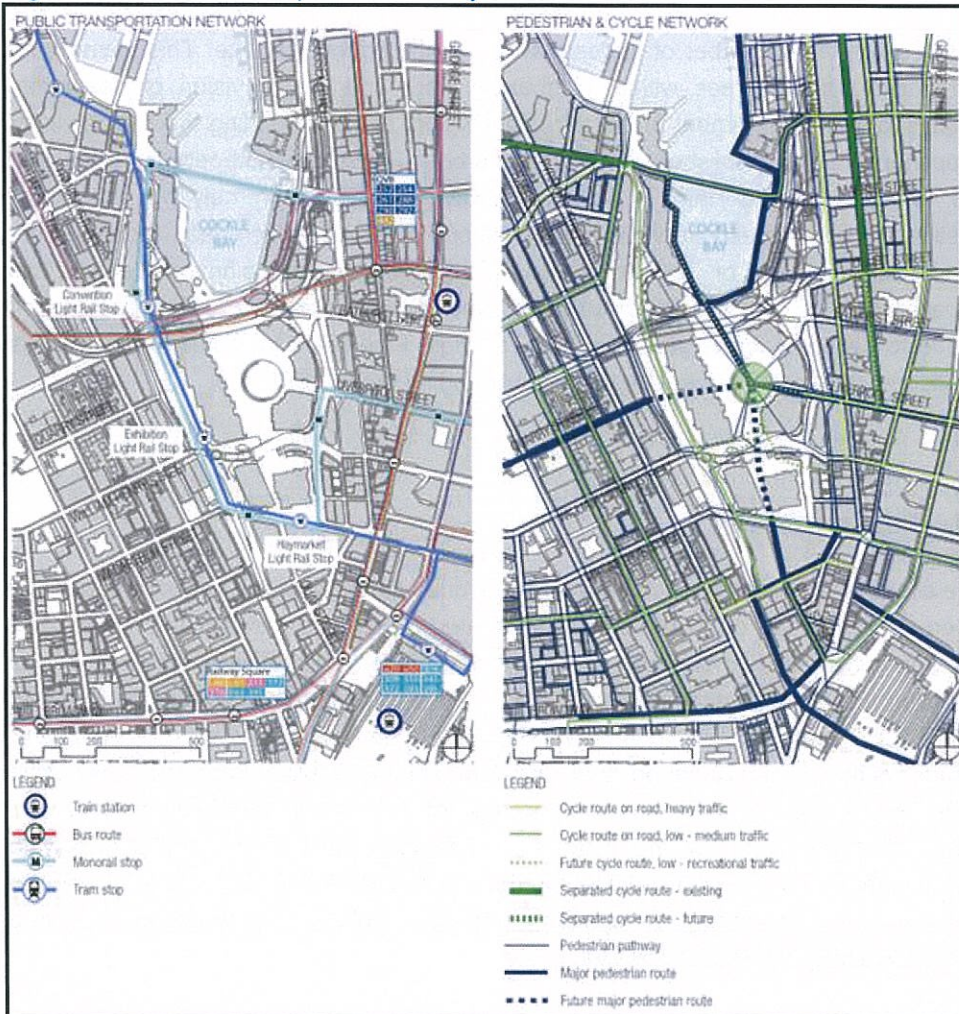
There are a large number of pedestrian routes throughout the site. This stems from the public domain areas within Tumbalong Park and the provision of pedestrian access to the large number of trip attractors within, and surrounding the site. A visitor snapshot for 2011 published by Sydney Harbour Foreshore Authority indicates that the whole of Darling Harbour including SICEEP are an extremely popular tourist destination, with an estimated 25 million visitors to the area each year. Moreover the combined patronage of the Convention, Exhibition and Entertainment Centres has necessitated the provision of large public spaces and numerous accesses to each venue to cater for the large pedestrian volumes. Figure 4.6 indicates the numerous public transport options for pedestrians surrounding the SICEEP site.

4.6 Bicycle Network

The site is located in close proximity to the Sydney CBD Cycleway network, consisting of on-street marked cycle lanes, and separated at-grade cycleways that have been recently constructed to promote green transport as an alternative to other modes of transport. Figure 4.6 indicates existing and future bicycle network facilities surrounding the SICEEP site. Two Bicycle lanes border the site on its east and west faces. Figure 4.7 shows the Darling Street on-road cycle lane and the Darling Harbour off-road cycle path. These two lanes provide connectivity for the site to the Sydney CBD and surrounding areas. If travelling to the site by Bicycle, there are a number of bicycle parking stations immediately adjacent to the site as shown in Figure 4.8. In addition to this, there are, a number of other Bicycle parking stations in Darling Harbour, within 5 minutes walking distance to the site.

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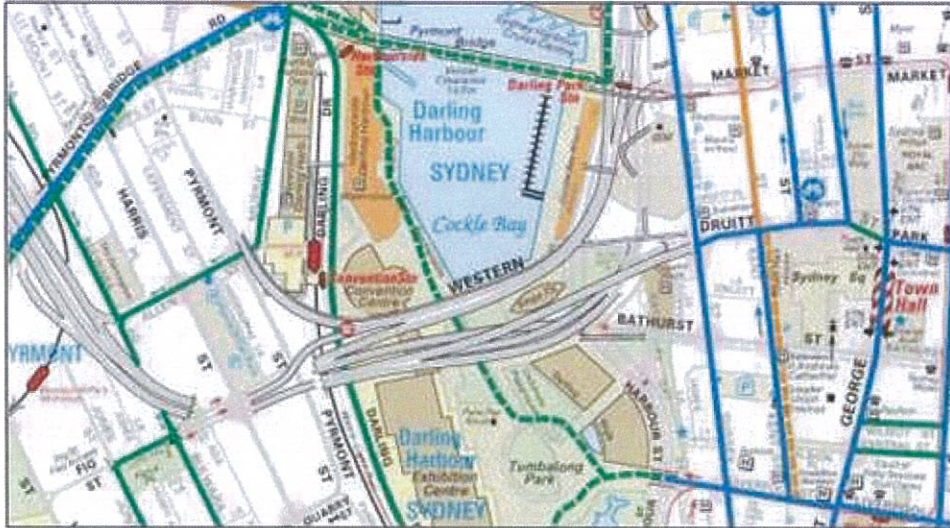
Figure 4.6: Public Transportation and Bicycle Network



Source: SICEEP Urban Design Guidelines (Woods Bagot)

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Figure 4.7: Bicycle Lanes in the vicinity of the site



Source: www.sydneycycleways.net

Figure 4.8: Bicycle Parking Locations



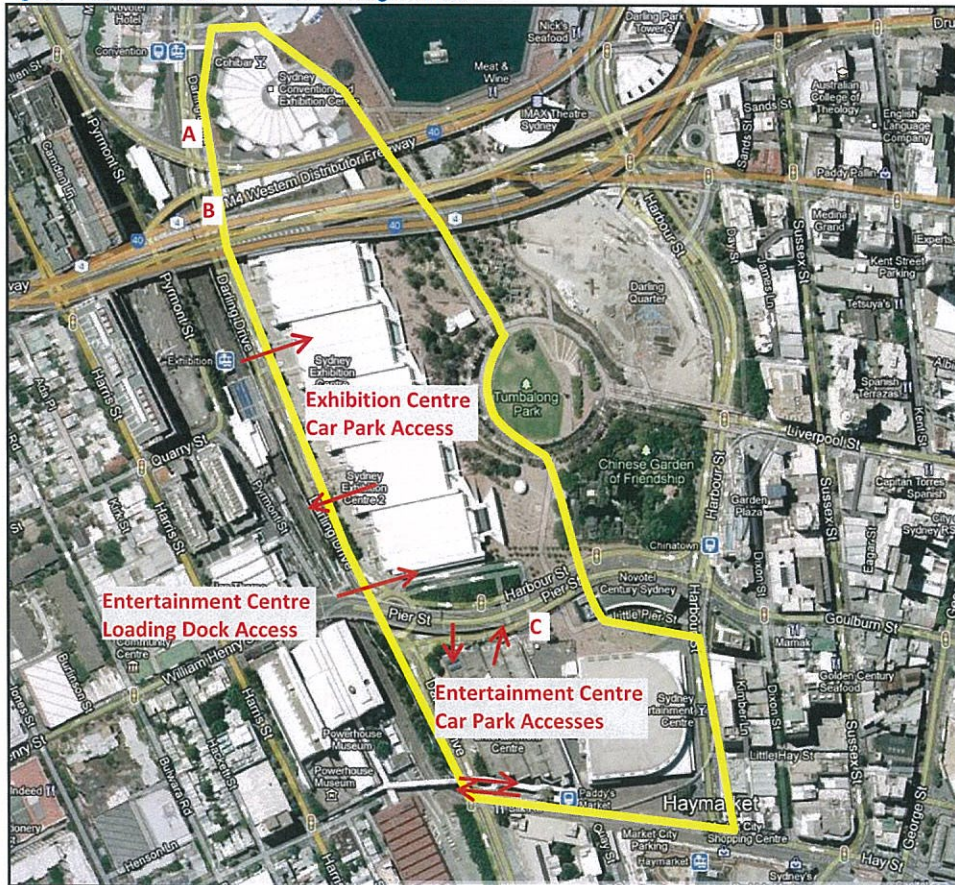
Source: www.darlingharbour.com

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4.7 Current Access Arrangement

The existing vehicular site access arrangements for SICEEP are from Darling Drive as marked in Figures 4.9 and 4.10.

Figure 4.9: Vehicular Access Arrangements



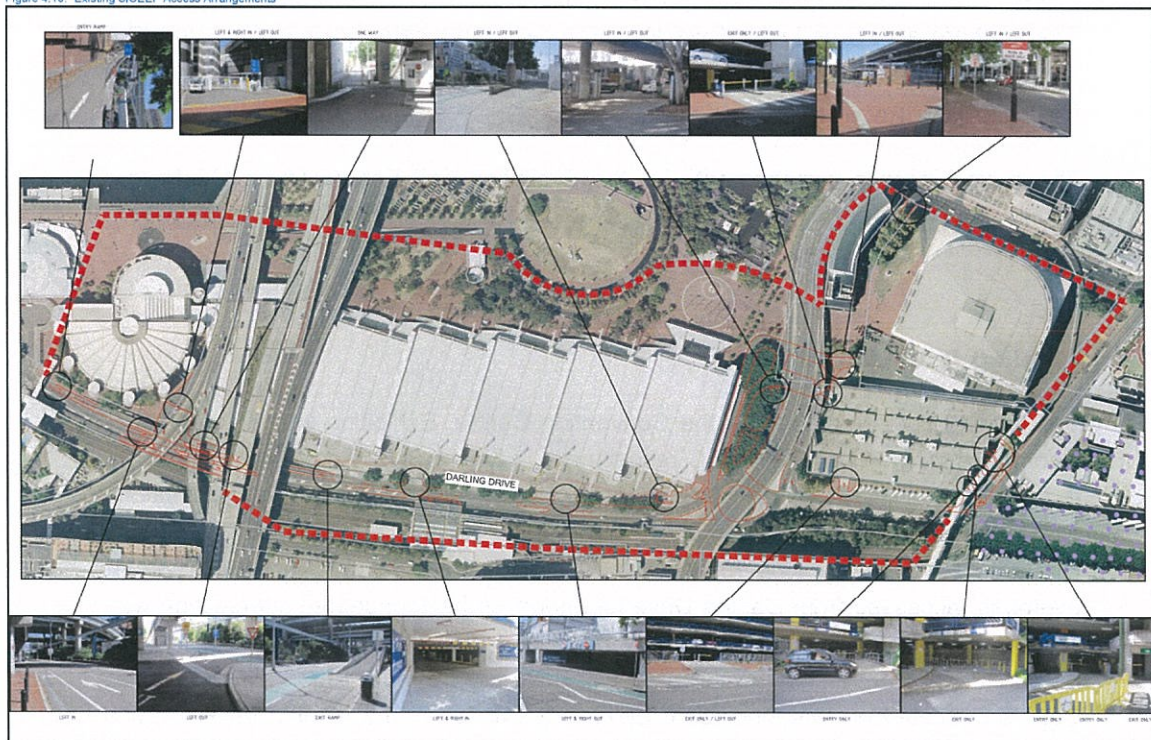
Source: Google Maps

Edward.hart@capellacapital.com.au 2012-08-21 02:53 GMT

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Figure 4.10: Existing SICEEP Access Arrangements



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4.7.1 Car Park Access

Access to the Exhibition Centre Car Park is located on Darling Drive. The entrance driveways are located at the rear of Exhibition Hall 4 and the exit driveways are located at the rear of Exhibition Hall 2. Access and egress is available in both directions along Darling Drive. Access to the Entertainment Centre car park is divided between the north and south end of the car park. The southern access is located on Darling Drive via a separated laneway access just north of the intersection with Quay Street. The southern exit driveway lies adjacent to the southern entrance driveway. The northern access is located via an entrance ramp located on the Pier Street off ramp. The northern exit driveway connects with the one way loop road underneath the Pier Street overpass.

The current access arrangements for the Exhibition and Entertainment Centre car parks have been assessed and found to be in accordance with Australian Standards.

4.7.2 Loading Dock Access

The loading dock accesses for the Convention Centre, Exhibition and Entertainment Centre are marked as A, B and C respectively in Figure 3.12. Access and egress to the Convention and Exhibition Centre loading docks are available in both directions along Darling Drive. Access to the loading dock for the Entertainment Centre is located via a one-way loop road which runs under the Harbour Street/Pier Street overpass, accessed from Darling Drive just north of the roundabout intersection with Pier Street. It provides access to the Back of House and service areas for the Entertainment Centre. There is also an exit driveway from the Entertainment Centre Car Park located on this loop road. Entry and exit for all the loading docks is in a forward direction.

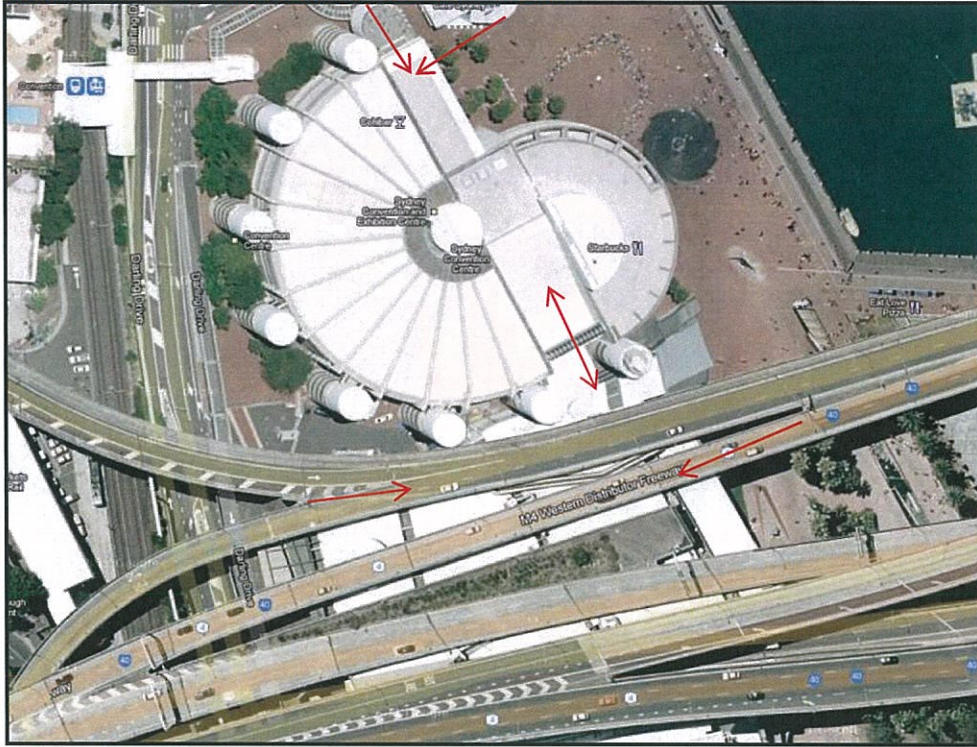
The current access arrangements for the Convention, Exhibition and Entertainment Centre loading docks have been assessed and found to be in accordance with Australian Standards and do not raise any safety concerns.

4.7.3 Pedestrian Access

Pedestrian access arrangements to the three centres are mostly configured to accommodate the majority of pedestrian movements from the Darling Harbour concourse. All access points are wheelchair accessible via pedestrian ramps and walkways.

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Figure 4.11: Convention Centre Pedestrian Access

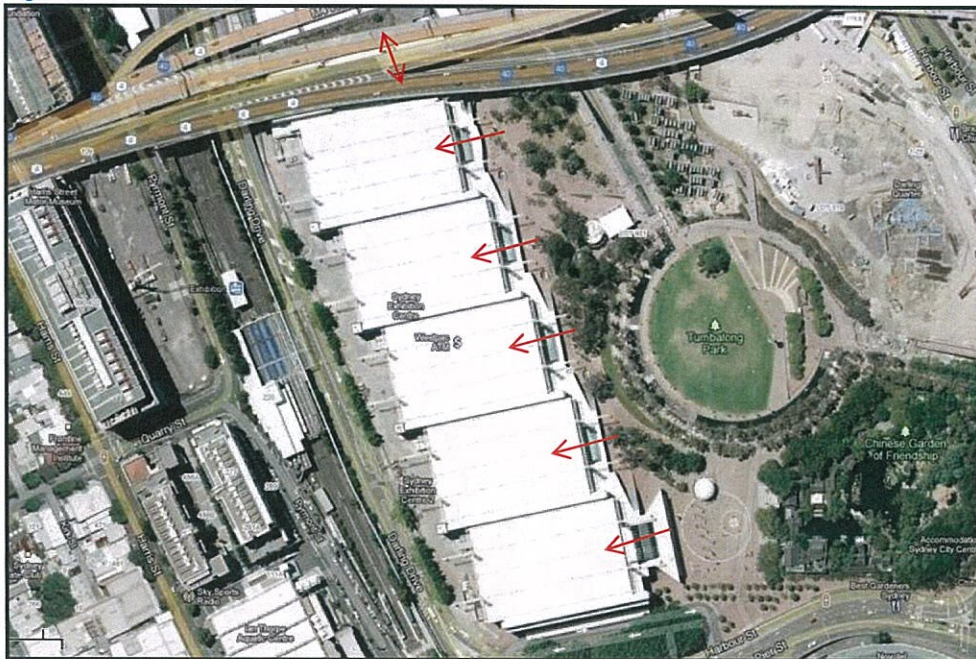


Source: Google Maps

The pedestrian access arrangements for the Convention Centre are marked in Figure 4.11. The access points are distributed between the Bayside and Parkside wings of the Convention Centre. Pedestrian Access to the Bayside wing is located at the northern end of the site, adjacent to the Bus and Cab rank at the rear of the Harbourside Shopping Centre. Access to the Parkside wing of the Convention Centre is split between the eastern entrance located adjacent to the Tumbalong Concourse, and the western entrance located at the porte cochere on Level 1 of the building. There are internal accesses between the two wings of the Convention Centre as well as internal accesses to the Exhibition Centre to the south.

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Figure 4.12: Exhibition Centre Pedestrian Access

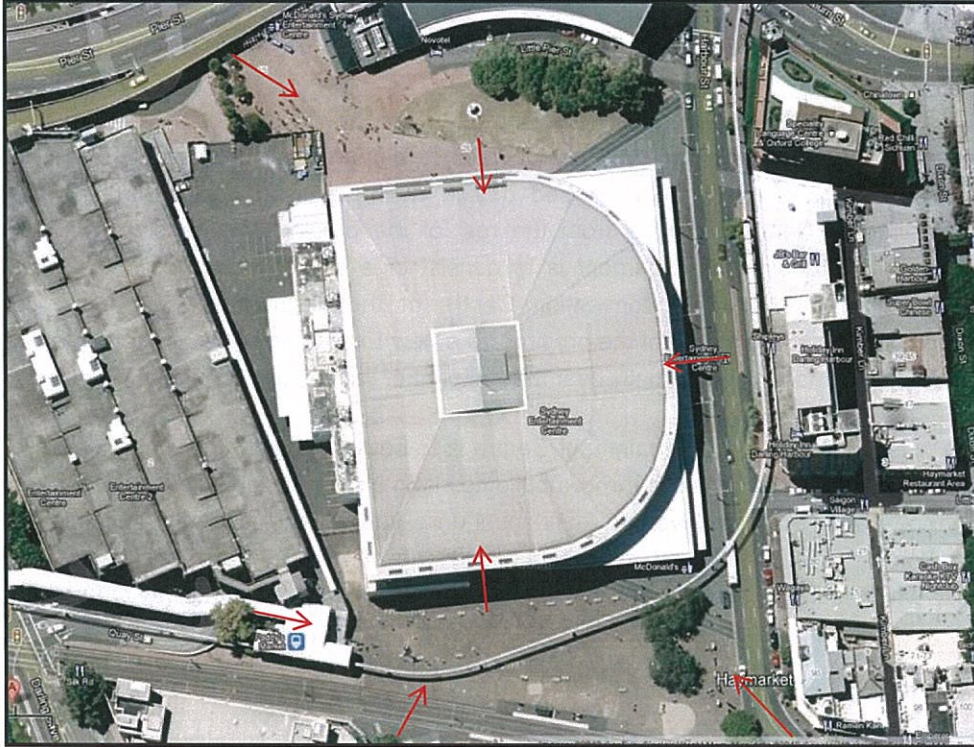


Source: Google Maps

The pedestrian access arrangements for the Exhibition Centre are marked in Figure 4.12. The access arrangements for exhibitors are extensive, with access points available along the length of the eastern frontage. Access to each hall is then managed via the eastern foyer which runs the length of the building. There is also an internal access available from the Convention Centre to the north.

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Figure 4.13: Entertainment Centre Pedestrian Access



Source: Google Maps

The pedestrian access arrangements for the Entertainment Centre are marked in Figure 4.13. The main access is located on the eastern frontage of the building along Harbour Street. Additional pedestrian accesses are also located on the northern and southern frontages. Regional access to the site is available via the concourse from Darling Harbour to the northwest, from Quay Street to the south and from Hay and Little Hay Street to the south west.

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5. Proposed Development

5.1 Reference Design

Woods Bagot prepared a Reference Design on behalf of Infrastructure NSW that provides an indicative layout for the proposed development of the SICEEP site. The development is to comprise a revised design to the existing layout that has the Entertainment Centre separate from the rest of the precinct, to the south of Pier Street. The proposed development is to consist of a single consolidated complex, running from the existing Convention Centre at the northern end, reconfigured Exhibition halls in the centre of the precinct, to a new Entertainment Centre complex at the southern end located partially over the footprint of the existing Exhibition Centre.

The existing site of the Entertainment Centre is to be developed into 2 separate multi storey buildings. The larger of the two buildings is to have a mixed land use with retail tenancies on the bottom level and residential units above. An additional retail building will also be located adjacent to the southern wing of the Entertainment Centre car park, which is to be retained. This area will be known as the Quay Gateway Quarter.

5.2 Proposed Gross Floor Areas

A number of functional spatial requirements have been set out as part of the SICEEP project. The reference design has been developed to comply with these functional requirements. These are specified and discussed below.

5.2.1 Plenary Hall/s

The plenary hall functional requirements are as follows:

- Mega convention requirements of up to 6,000 delegate seating capacity; and
- Large convention requirements of no less than 3,000 delegate seating capacity.

Plenary hall/s with removable flat floor and/or raked seating for:

- Medium convention requirements of 750 to 1,500 delegate seating capacity; and
- Small convention requirements of up to 750 delegate seating capacity.

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5.2.2 Meeting Rooms

Meeting rooms will be dispersed throughout the facility to align with all core functions, however, will be primarily focused around servicing the convention facilities.

The provision for meeting rooms within the redeveloped facilities is outlined below:

- A total functional area of 5,000 sqm, comprised of:
 - 10 rooms x 150 sqm (Small Meeting Rooms); each capable of subdivision into 2x 75sqm rooms; and
 - 8 rooms x 450 sqm (Large Meeting Rooms); each capable of subdivision into 2x 225 sqm rooms.

5.2.3 Exhibition Halls

A total of 40,000 sqm of Exhibition space will be provided within the development. This will be achieved through the provision of:

- 15,000 sqm of "Standard" exhibition hall space, to be located within the Exhibition Centre;
- 15,000 sqm of "Convex" exhibition space, to be collocated within the Convention Centre;
- 5,000 sqm of "Multi-functional" exhibition space, to be located within the Convention and Entertainment Centres; and
- 5,000 sqm of outdoor exhibition space.

The existing exhibition facilities have a GFA of 25,000 sqm. The proposed development will increase the exhibition GFA by 15,000 sqm.

5.2.4 Entertainment Centre

The reference design proposes a multi-use arena seating up to 8,000 people in its maximum configuration. The multi-purpose arena facility will incorporate the requisite exhibition and meeting room requirements specified above.

The existing Entertainment Centre has a maximum capacity of 12,000. There is therefore a net reduction in capacity of 4,000.



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5.2.5 Concurrent Events

The facilities have been designed such that concurrent events can be supported. Concurrent events may include a large and small conference being hosted simultaneously, or a conference and exhibition, etc. It is not anticipated that concurrent events would be supported during the hosting of a major conference (6,000 pax), for example.

5.2.6 Commercial Development

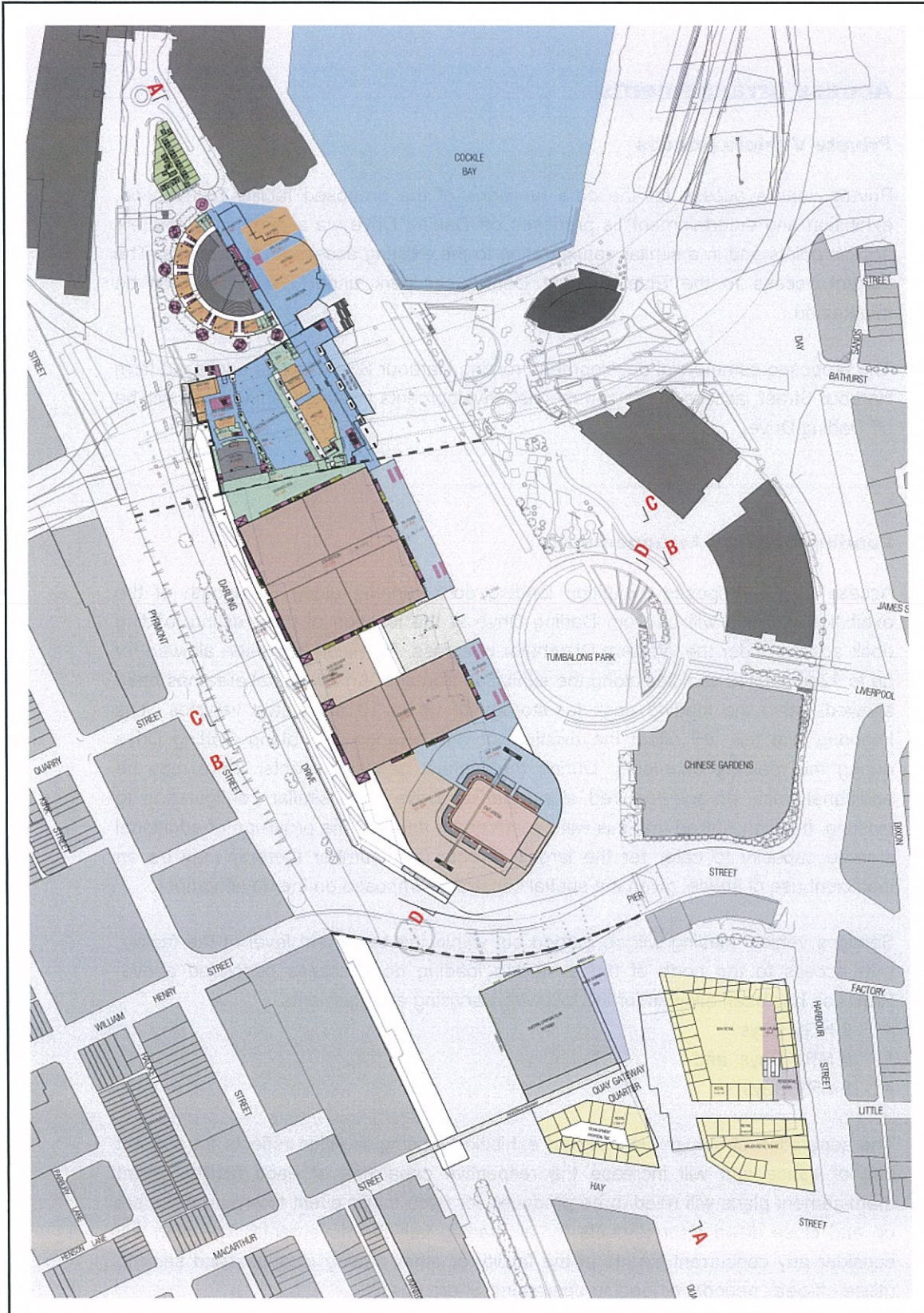
Commercial development is proposed to the south of Pier Street at the site of the existing Entertainment Centre. The commercial development aspects are undefined and have not been included in this assessment.

5.2.7 Change in Development Area

The most significant change in development area in the proposed development scenario is to the exhibition space which will increase by 15,000 sqm (37.5%). The entertainment centre/multi-use arena capacity will be reduced by 4,000 people. The proposed convention facilities are to be based on refurbishment of the existing, therefore the GFA will be as per existing. The proposed commercial development to the south of Pier Street will reflect an increase in GFA for this portion of the site, however, the details of these facilities will be subject to further assessment when further details become available.



Figure 5.1: SICEEP Reference Design



Source: Woods Bagot

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5.3 Access Arrangements

5.3.1 Private Vehicle Access

Private vehicle access for the core functions of the proposed facility (convention, exhibition and entertainment) is proposed off Darling Drive via a number of discrete access points and in a similar configuration to the existing access arrangements. The current access to the Entertainment Centre car park under Pier Street will be maintained.

The proposed commercial development fronting Harbour Street will be accessed from Harbour Street; access to the commercial developments fronting Darling Drive will be off Darling Drive.

5.3.2 Loading/Delivery Arrangements

Access to the proposed exhibition loading dock running along the length of the exhibition facilities will be from Darling Drive at the location of the existing loading dock access under the Western Distributor overpass. Provision has been allowed for up to 12 articulated vehicles along the exhibition frontage. An additional area has been allowed within the loading dock for storage of up to 10 articulated vehicles. It is intended that this will offset the existing storage arrangement along Darling Drive during the majority of events. During the highest capacity events, there may be additional truck storage required along Darling Drive, in a similar configuration to existing. It is considered that this will be infrequent and that the provision of additional storage capacity to cater for the largest events (low number thereof) may be an inefficient use of space, given the spatial constraints imposed on the development.

Services vehicle loading will be carried out within the basement level of the facility, with access to the north of the exhibition loading dock access described above. Provision has been allowed for the following servicing arrangements:

- 2 HGV Bays;
- 6 MRV Bays; and
- 8 SRV Bays.

The separation of service vehicle and exhibition loading facilities reflects an efficient use of space and will increase the respective capacities of each facility. Event management plans will need to be produced for each major event to program the set up and close down arrangements for all loading vehicle movements. The plan will consider any concurrent events at the facility or other nearby locations and seek to utilise off-peak periods for loading operations where possible.