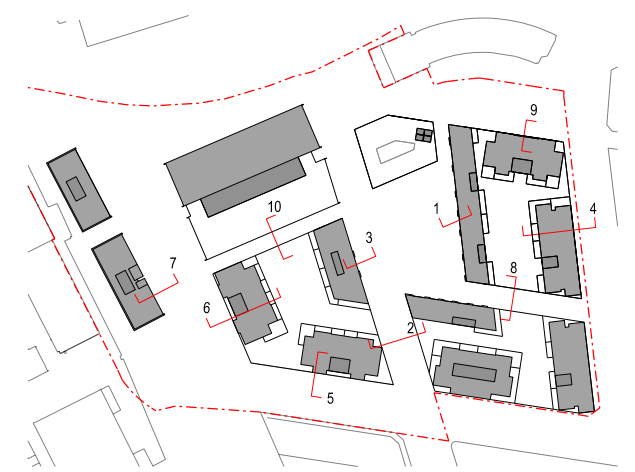
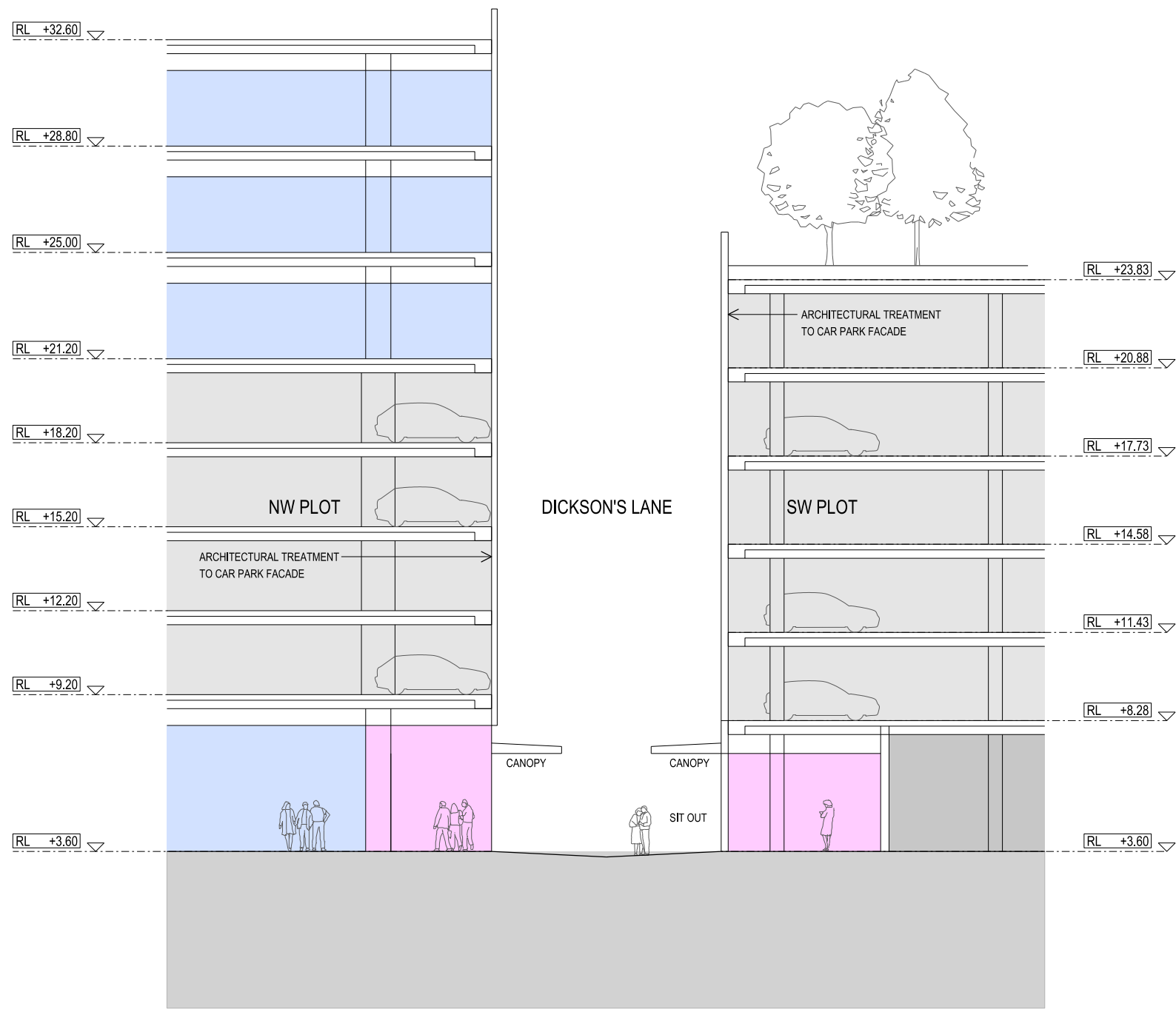




GENERAL NOTE
THE RETAIL SECTIONS REPRESENT A RANGE OF INDICATIVE BUILDING EDGE/PUBLIC DOMAIN INTERFACE OPTIONS. A SINGLE OPTION OR COMBINATION OF THESE OPTIONS MAYBE ADOPTED THROUGHOUT THE DEVELOPMENT AND WILL BE DETERMINED BY THE LOCALISED INTERFACE CONDITIONS. ALL BUILDING EDGE/PUBLIC DOMAIN INTERFACES WILL BE THE SUBJECT OF FURTHER DETAILED DEVELOPMENT WITHIN THE STAGE 2 DEVELOPMENT APPLICATIONS.

LEGEND

COMMUNITY	RESIDENTIAL	RETAIL	CAR PARK	SERVICES	OFFICE	IQ HUB	CIRCULATION	LOBBY	STUDENT ACCOMMODATION
-----------	-------------	--------	----------	----------	--------	--------	-------------	-------	-----------------------



7428A MCD AR D139
FOR INFORMATION ONLY
1:100 @ A1
0 1 5m

REV A
15/03/2013

DENTON
CORKER
MARSHALL

THE HAYMARKET
LEND LEASE DEVELOPMENT

DEVELOPMENT APPLICATION
ILLUSTRATIVE SCHEME
RETAIL DETAILED SECTION 10
DICKSON'S LANE



APPENDIX B

SEPP65 DESIGN

QUALITY

PRINCIPLES

VERIFICATION STATEMENT

Introduction

The following content has been prepared for the Illustrative Design submitted as part of the Concept Proposal for SSDA2, but not for approval. The Illustrative Design demonstrates that the constraints and guidelines prepared for The Haymarket development have taken into account the recommendations in accordance with Part 2 of the State Environmental Planning Policy No 65 (SEPP 65) and the Residential Flat Code Design (RFCD).

The ten principles identified within the policy have been addressed in the context of the Illustrative Design and are subject to confirmation when the detailed development applications are submitted for each plot. These design responses are for all of the residential buildings – including those currently noted as student accommodation – in the Illustrative Design.

Illustrative drawings have been included within this section to demonstrate how the design principles for a typical upper level of the development and an indicative summary schedule of units meeting minimum requirements recommended in 'Principle 7: Amenity.' They address access to daylight, sunlight and natural ventilation. The minimum building separation is as per Parameter Plan 04: Minimum Building Envelope Separation.

My full name is Peter Williams. I am a Director at Denton Corker Marshall, a firm that specialises in architecture, landscape architecture, urban design, interior design and planning.

I hold the following qualifications:

- Bachelor of Architecture, RMIT University, 1985
- Registered Architect VIC: 14057

I hereby verify that:

1. I directed the design of The Haymarket, Stage 1 Development Application; and
2. The design quality and principles set out in Part 2 of State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development are achieved for the development, as outlined in this document.



Peter Williams **08.03.13**
Director, Denton Corker Marshall

SEPP65 DESIGN QUALITY PRINCIPLES

Principle 1: Context

Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area. Responding to context involves identifying the desirable elements of a location's current character or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality and identity of the area.

The site referred to as The Haymarket forms the southern part of the Sydney International Exhibition, Conference and Exhibition Precinct (SICEEP) renewal project to be delivered by the Darling Harbour Live consortium.

The site is located within the Haymarket area of the city and forms a transitional zone from the grand event spaces and buildings of the SICEEP to the more urban and gritty former market buildings leading through to the city centre and university precincts. Currently the site contains the Sydney Entertainment Centre and a multi-storey car park, both of which will be demolished. The brief proposes a high density mixed-use development containing retail, community, residential, student accommodation, and commercial uses to create a vibrant new city quarter.

The site sits outside of the City of Sydney's Local Environmental Plan (LEP). The design of the proposal has instead been developed in consultation with the Urban Design and Public Realm Guidelines (UDPRG) prepared for Infrastructure New South Wales (INSW). This document provides guidance on maximum building envelope and setbacks, minimum street and building separation widths and encourages good overall urban design outcomes.

The site is owned by Sydney Harbour Foreshore Authority (SHFA); however the procurement will be lead by INSW and a small portion by RailCorp. The overall Haymarket site development area is 47,530m² with a built form development footprint of only 14,170m² equal to about 30% coverage. Of the remaining portion, a significant amount will be given over to the creation of new public spaces.

The site is bounded by the Pier Street flyover to the north, the light rail alignment to the west, Harbour Street to the east and Hay Street to the south. A new public boulevard traverses north/south across the site and a generous new public square – Haymarket Square – is created at the heart of the development. The proposed design has evolved to take advantage of the surrounding views. The taller built forms hold the urban perimeter, retreating from the sensitive public space at the core of the development.

The site context is dominated by a mix of post-industrial, market and university uses. The heritage Pumphouse building sits opposite the northern boundary of the site and an appropriate response.

The site is broken into a series of urban blocks – defined by extending the local street network into the development. A 'street wall' partially sheaths the car park beyond and provides a datum of maximum 20 metres (as per the parameter plans) that relates to a human scale and the inner city context. Increased height is proposed around the square edge to provide an appropriate civic scale, addressing the proportion of the open public space.

Principle 2: Scale

Good design provides an appropriate scale in terms of the bulk and height that suits the proportion of the street and the surrounding buildings. Establishing an appropriate scale requires a considered response to the existing development. In precincts undergoing a transition, proposed bulk and height needs to achieve the scale identified for the desired future character of the area.

The existing context in and around The Haymarket is of a mixed scale and use. Market City with the tall Peak Apartment Tower provides a vertical benchmark of RL +170m. The other surrounding buildings provide a range of scales varying from 2 – 12 storeys (RLs notionally +10.00m – +45.00m).

An approach which advocated more towers of a reduced height and footprint supported the desire to maximise view-sharing corridors from within and through the site; a finer grain approach that talked of streets and buildings as opposed to podiums and towers. The locations of the residential towers reinforce the urban design narrative – from forming a gateway to mark the entrance to the boulevard to providing a local landmark on axis for pedestrians approaching the site from the west down Macarthur Street.

Generous street widths surrounding the development site support massing along the street edge, ameliorating the impacts of overshadowing and scale on the streetscape or buildings beyond. Development along Harbour Street is setback 3m from the site boundary to maintain view lines towards the main entrance of Market City.

The Concept Proposal proposes variation in building heights for four key reasons:

- Context | to respond to the range in height of existing buildings.
- Amenity | to ensure that buildings and open spaces have adequate access to sunlight and daylight.
- Built Form and Aesthetics | to ensure that there is sufficient variety in the appearance of the proposed buildings to make the development feel like a genuine part of the city.
- View sharing | the massing along the street edge considers the impact on views across the site from adjoining buildings and also from within the site itself.

Principle 3: Built form

Good design achieves an appropriate built form for a site and the building’s purpose, in terms of building alignments, proportions, building type and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

The Concept Proposal adopts the principle of perimeter block planning, proposing envelopes aligned with streets to clearly separate the public domain and urban edges. A variety of public spaces comprising roads, pedestrian streets, parks and pathways result from the careful arrangement of built form.

The urban blocks are partially ‘sleeved’ with occupied space to maintain an active street wall. The massing increases slightly as buildings front onto Haymarket Square to provide a slightly more civic scale. Four (4) mid-range blocks bookend the western and eastern flanks of the development and provide a strong, continuous edge to hold the street line. Four (4) further residential towers are located around the periphery of the development and are arranged to maximise view outlook for the residents.

The northern plot (N Plot) holds the northern face of Haymarket Square to contain the space and to visually shield it from the Pier Street overpass. The building maintains a low parapet line to minimise overshadowing onto the square, to respond to the scale of the Pumphouse, and to minimise impacts on view corridors from the development through to Darling Harbour.

Tall buildings are setback from the Boulevard and Haymarket Square to avoid dominating the space. Locating the massing at the site perimeter responds to, and reinforces, the urban edge of the site and addresses the topography as buildings rise up to the CBD and Pyrmont ridge lines.

All connections leading into Haymarket Square are kept tight to minimise erosion of the public space perimeter, and allow a more intimate scale for diners, customers and visitors as a counterpoint to the grand scale of the square and boulevard.

The Illustrative design shows retail frontages with either recessed ground planes or project canopies, improving pedestrian amenity and enhancing the building edge condition.

Building separation, lane and street size, and public domain interface respond to the principles contained within the Urban Design and Public Realm Guidelines (UDPRG) prepared for NSW and the Residential Flat Design Codes (RFDC).

Principle 4: Density

Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents). Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities and environmental quality.

The dwelling density is appropriate for the site and its future context. High density is supported for The Haymarket site, with the City of Sydney’s Local Environmental Plan settgin a Floor Space Ratio of 8:1 for residential development on sites surrounding the site. Based on the overall site area of 47,530m² (approximately 40,000m² if the light rail corridor and Darling Drive are excluded) and accommodation of 1363 residential apartments and 422 student units. The development has a floor space ratio (FSR) of 4.3:1.

	Allowable FSR	Proposed FSR
Haymarket	8:1	4.3:1

The Illustrative Design advocates a high-density mixed-use development given the proximity to employment and activity centres ranging from the central business district to the north-east and the universities precinct to the south. These study, employment and activity centres are all easily accessible via pedestrian, cycle and public transport linkages. Non-vehicular use will be promoted on site and within the wider SICEEP with cycle storage provided for all users. This is in keeping with the Sydney 2030 Strategic Directions for “A City for pedestrians and cyclists.”

The dwelling density is sustainable due to the provision of new infrastructure in SICEEP, such as stormwater, sewer, electricity, green energy telecommunications and retail and community facilities.

It is proposed that the four towers are tall rather than wide to allow more space between built forms and provide a good level of solar penetration. The towers are comparable in height and density to other CBD buildings within a close proximity such as the Peak Apartments and World Square towers. The development mix of low, mid and high-rise forms provide variety that addresses issues of view sharing, lifestyle and affordability.

The tall buildings provide a visible presence on the skyline and herald a new natural extension of the city. The towers are strategically located to avoid over shadowing and over domination of new public spaces, whilst marking key urban features in the concept proposal and assist way finding across the city.

Principle 5: Resource, energy and water efficiency

Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction. Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.

The design seeks to achieve an ‘Australian Excellence’ 4-Star As-built Green Star rating for the residential component. Similar benchmarking will be promoted for the other programmed uses within the precinct plan.

While many of the sustainability decisions will be made at development application stage – particularly those relating to detailed layouts and material selection – sustainability initiatives are integrated into the concept design wherever possible. Passive solar design has informed the massing approach and allowance for envelopes. For example, the Illustrative design scheme shows the majority of future apartments will be oriented north, northeast or north-west, while proposed building envelopes can accommodate generous balcony overhangs to minimise solar gain in summer. The Illustrative design scheme shows that many apartments will have dual orientation, maximising opportunities for natural cross ventilation. Also shown are lift lobbies and communal corridors which can be naturally lit and ventilated.

Opportunities exist to harness precinct-wide initiatives to bring chilled water and access into grey water sources to service the development. Rainwater will be harvested to irrigate the rooftop gardens and an overall water management strategy is proposed for the public domain (refer Hassell’s Public Domain Design Report for SSDA2). Low energy, efficient appliances and water efficient fixtures will be incorporated into the apartments. All dwellings are fitted with air conditioners with individual controls in each room and the ability to run one room of the entire dwelling reduce energy consumption.

The deep soil zones in Haymarket Square, the Boulevard and Pumphouse Place enable rainwater and overland flow to enter the ground and replenish the water table. Opportunities to use additional pockets of landscape and sections of permeable paving will be explored to capture run-off and serve as soakaways. Further detail is provided within the Public Domain Design Report for SSDA2 prepared by Hassell.

The overland flow path is a significant driver in the public domain design which is managed by the careful re-grading of the existing site levels to reduce the need for additional in-ground culverts and other infrastructure.

The Public Domain Design Report for SSDA2 catalogues the existing tree and planting stock and will look to retain and/ or re-use existing mature planting around the site. This will be addressed in subsequent detailed public domain applications prepared by the landscape consultant.

SEPP65 DESIGN QUALITY PRINCIPLES

Principle 6: Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain. Landscape design builds on the existing site’s natural and cultural features in responsible and creative ways. It enhances the development’s natural environmental performance by co-ordinating water and soil management, solar access, micro-climate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character. Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours’ amenity, and provide for practical establishment and long term management.

The Concept Proposal has developed a considered landscape strategy focusing on the following key public and semi-public spaces:

- The Boulevard is a new pedestrian spine that links The Haymarket with Tumbalong Park and through to Darling Harbour. It has a continuous tree canopy broken at key moments along the route and lined with cafés, retail, residential addresses and core facility entrances to activate the route.
- The Haymarket has a new urban square at the heart of the development. Sitting along the boulevard the square is defined by water and water interpretative elements. An urban forest provides a generous green shade canopy to avoid the square becoming a heat sink. Opportunities are provided for resident and visitor interaction and the public space incorporates areas defined as ‘outdoor lounges’ designed to support the site as a tech hub and allow for the meeting of minds. This activity is further bolstered by a number of cafés and retail outlets ringing the square and spilling out into the space.
- Improvement of the Hay Street public domain addresses the pedestrian movement from The Goods Line and provides opportunity for new market space as a spill-out from Paddy’s Market. This road shares vehicle drop-off to the residential towers and provides new shade trees, paving and seating as an extension of the community hub.
- Darling Drive road corridor has been reduced by narrowing the road width and reducing the number of lanes. A landscaped buffer has been introduced along its eastern boundary to accommodate overland flood paths and potentially provide a soakaway. New pedestrian crossings manage the movement of pedestrians over Darling Drive and the light rail alignment into The Haymarket.

- Each urban block has a landscaped podium to provide some semi-private amenity for the residents. Deep soil zones have been provided to ensure a generous canopy and privacy screening throughout. Communal facilities such as barbeques will be distributed on the roofs for the residents’ use.
- The streets are planted with street trees and the existing landscape treatments are drawn into the site to provide continuity and assist in a seamless transition from new into old.

The existing site has been re-graded to support the movement of water through Haymarket at surface level. The ground plane – including car park levels – are built above this flood datum. The resultant level transitions are integrated into the landscape design to provide thresholds, interest and create outlook opportunities.

Planting selection is considerate of a sustainable water management strategy and to the saline conditions present around site, whilst still providing protection and visual amenity.

Refer to Public Domain Design Report for SSDA2 prepared by Hassell for an Illustrative landscape design and detail.

Principle 7: Amenity

Good design provides amenity through the physical, spatial and environmental quality of a development. Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and degrees of mobility.

The development has provided a range of apartment types to suit a variety of lifestyles and aspirations. From apartments accessed off of the local lanes that engage with the square, to prestigious tower-top dwellings with panoramic views out over the city skyline and Darling Harbour. The mix of apartment types is as described in the table below.

Unit size	No. units	Car park ratio	No. cars
Student units	422	0	0
Studio	153	0	0
1 bed	354	0.5	178
1 bed + study	209	1	209
2 bed/ 2 beds + study	621	1	621
3 beds +	26	2	52
Total	1363	-	1060

Tower cores have been located on the south face to maximise the opportunity for the amenity for the dwellings and afford the opportunity to naturally light and ventilate the circulation spaces. Many apartments will have a primary aspect that optimises daylight and sunlight access, along with views to Haymarket Square and beyond to Darling Harbour and the Sydney skyline. More than half the units will have corner or dual aspect to enable natural cross ventilation.

Many dwellings have studies and media alcoves. The ceiling height to living rooms is minimum 2.7m with the floor to floor height generally 3.15m. No dwelling units are located at ground level and a generous retail floor-to-floor height ranging from 4.5m to 6.3m has been provided. Each dwelling has access to a secure private open space, such as a balcony, terrace or court. Adequate storage space has been made available for the residents and is distributed within zones in the car park.

Resident amenity is enhanced by the inclusion of open spaces at ground level which provide recreational and pedestrian spaces within the immediate vicinity. Landscaped podiums will also contribute to the overall level of amenity by offering resident facilities and an injection of vegetation within the built fabric.

Secure, undercover parking will be provided for the residents.

Provision of car wash bays, small car bays, electric charge bays and car sharing as well as adequate provision for accessible car parking is to be included.

The building has an integrated waste management system consisting of waste chutes near the lifts and multiple waste storage areas in the basement with carousels and compactors. The waste is picked up from the loading dock area located within each urban block.

Many of the amenity issues described above, particularly those regarding detailed apartment layouts, will be addressed in the future development applications. The following drawings describe how the Illustrative Design scheme performs against the amenity requirements of the Residential Flat Design Code.

Principle 8: Safety and security

Good design optimises safety and security, both internal to the development and for the public domain. This is achieved by maximising overlooking of public and communal spaces while maintaining internal privacy, avoiding dark and non-visible areas, maximising activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and clear definition between public and private spaces.

- The design of the buildings optimises safety and security, both internal to the development and to the public domain. Safety and security has also been considered in accordance with CPTED principles of surveillance, access, territorial reinforcement and space management.
- The Illustrative Design proposes active street frontages throughout the development by providing retail and cafes, community (IQ Hub), commercial office lobby and residential lobbies at ground level. The broad mix of uses generate different footfall patterns throughout the day and maximise the passive surveillance within and around the precinct. Sleaving the urban blocks with occupied space provides an additional level of oversight across the whole development and associated public spaces. Darling Drive and Harbour Street vehicular movement, as well as the connecting pedestrian and cycle networks, provide an additional layering of activity around the development.
- The residential lobbies are evenly distributed around the site and there is a visual connection between entrances within different blocks and/ or with entrances to other late-night uses such as hotel foyers.
- The undercroft space necessitated by overland flood path consideration is overlooked by a residential lobby, Haymarket light rail stop, market activity (day and night) and passersby along the Boulevard, Harbour and Hay Streets. A permeable screen provides physical separation between the car park and service yard access, but should still support some visual connectivity.
- Parking within the residential development is restricted to residents only; access being controlled at the ground level. Direct access from the car park to residential lobbies is provided on every floor. An intercom at the main entries and key card access for residents secure the perimeter. There is no parking provided for the student accommodation.
- Access to the rooftop gardens is restricted to residents and their guests. Units face out onto this space, but fences and level changes provide a level of separation to maintain security and visual privacy for these residents.
- Some amenity space is provided for use by the student residents. This space is adjacent to the lobby entrances.

Principle 9: Social dimensions

Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities. New developments should optimise the provision of housing to suit the social mix and needs in the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community.

The Concept Proposal will provide an increase in residential accommodation available in the local area. By providing several residential typologies and a range of apartment sizes, the proposal seeks to meet the Council's vision for a diverse and vibrant community. The proposal contains a unit mix and apartment sizes that are carefully considered with a mix of one, two and three bed apartments to be provided (refer to the 'residential dwelling mix' table on page 65).

There will also be student accommodation units providing a mix of independent studios and shared dormitory clusters (refer to 'student accommodation mix' table on page 65).

The Haymarket aims to promote the establishment of a technology hub. Part of this aspiration is the provision of approximately 2000m² of IQ hub incubator space which aims to provide low-cost rental studio and collaborative spaces to support tech-industry start-ups. In addition to this use, a community library is proposed for the northern plot (N Plot), which will be of a benefit to residents and visitors to the Haymarket as well as the wider community.

Principle 10: Aesthetics

Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should respond to the environment and context, particularly to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.

The buildings should have a modern aesthetic to express the aspirations of the overall SICEEP and its spirit of innovation and environmental excellence. The expression of the elevations responds to many factors including sun control, construction, technology and apartment amenity.

The development should add to the rich tapestry and heritage of the Haymarket area, reflecting the composition, choice of materials and colours of the local existing built context. To provide a point of difference which talks to the re-invention of the precinct, its relationship to the SICEEP, and its maritime legacy, a different aesthetic is proposed around the square. The materiality, along with a greater level of articulation, seeks to transition from the residential setting to the much more public and event based environment and materiality within the SICEEP.

The aesthetics of the individual building designs will be addressed comprehensively in future development applications.



Natural Ventilation

Residential Units-

Under the RFDC, a minimum of 60% of apartments should have two aspects to support natural cross ventilation. While the Concept Proposal seeks approval only for building envelopes, the diagram left demonstrates how the illustrative scheme might support natural ventilation for the development plots. A further breakdown of all the development plots is provided below.

PLOT	Breakdown	% of units
N	Podium	100%
	Above Podium	-
	Overall	100%
NE	Podium	13%
	Above Podium	50%
	Overall	39%
SE	Podium	20%
	Above Podium	44%
	Overall	38%
SW	Podium	17%
	Above Podium	50%
	Overall	45%
RESIDENTIAL	Overall	43%

Student Accommodation -

Under the RFDC, a minimum of 60% of rooms should have two aspects to support natural cross ventilation. While the Concept Proposal seeks approval only for building envelopes, the diagram left demonstrates how the illustrative scheme might support natural ventilation for the development plot. A further breakdown of all development plots is provided below.

PLOT	Breakdown	% of units
STUDENT	Overall	64%

*Cluster Units have been analysed as a whole unit, but each room is calculated for the above schedule as an independant unit.

KEY

- Residential Units with a corner aspect on a typical floor which support natural cross ventilation
- Student Rooms with a corner aspect on a typical floor which support natural cross ventilation
- Units/ Rooms without a corner aspect on a typical floor which do not support natural cross ventilation
- Areas not included in this study

NOTE

For the purposes of this drawing the low level plans have been considered as notional level 12 for the other buildings



Minimising South facing unit

Residential Units-
RFDC rules of thumb seek to limit the number of apartments with a southerly aspect (SW-SE) to a maximum of 10% of the total units proposed. While the Concept Proposal seeks approval only for the building envelope, the illustrative scheme shows units with a single aspect between southwest and southeast. A further breakdown of all development plots is provided below.

However, these impacted apartments typically face onto open spaces at least 30m wide, where a large area of visible sky will ensure good daylight levels.

PLOT	Breakdown	% of units
N	Podium	27%
	Above Podium	-
	Overall	27%
NE	Podium	0%
	Above Podium	25%
	Overall	13%
SE	Podium	22%
	Above Podium	24%
	Overall	23%
SW	Podium	16%
	Above Podium	15%
	Overall	15%
RESIDENTIAL	Overall	17%

Student Accommodation-
RFDC rules of thumb seek to limit the number of apartments with a southerly aspect (SW-SE) to a maximum of 10% of the total units proposed. While the Concept Proposal seeks approval only for the building envelope, the illustrative scheme shows units with a single aspect between southwest and southeast. A further breakdown of all development plots is provided below.

PLOT	Breakdown	% of units
STUDENT	Overall	4%

*Cluster Units have been analysed as a whole unit, but each room is calculated for the above schedule as an independent unit.

KEY

-  Residential Units with a single aspect in the 90° arc between southeast and southwest
-  Student Rooms with a single aspect in the 90° arc between southeast and southwest
-  Areas not included in this study
-  Units/ Rooms not facing south

NOTE

For the purposes of this drawing the low level plans have been considered as notional level 12 for the other buildings



Access to Sunlight

Residential Units-
Under the RFDC rules of thumb, a minimum of 70% of apartments should receive at least two hours of direct sunlight between 9am and 3pm in mid-winter, within denser urban areas the arrangement of buildings in the Illustrative Scheme aims to maximise direct sunlight reaching living rooms and balconies. While the Concept Proposal seeks approval only for building envelopes, the diagram left demonstrates how the indicative design scheme might support direct sunlight for the development plots. A further breakdown of all the development plots is provided below.

PLOT	Breakdown	% of units
N	Podium	55%
	Above Podium	-
	Overall	55%
NE	Podium	90%
	Above Podium	80%
	Overall	86%
SE	Podium	55%
	Above Podium	77%
	Overall	71%
SW	Podium	53%
	Above Podium	75%
	Overall	72%
RESIDENTIAL	Overall	70%

Student Accommodation-
Under the RFDC rules of thumb, a minimum of 70% of apartments should receive at least two hours of direct sunlight between 9am and 3pm in mid-winter, within denser urban areas the arrangement of buildings in the Illustrative Scheme aims to maximise direct sunlight reaching living rooms and balconies. While the Concept Proposal seeks approval only for building envelopes, the diagram left demonstrates how the indicative design scheme might support direct sunlight for the development plots. A further breakdown of all the development plots is provided below.

PLOT	Breakdown	% of units
STUDENT	Overall	90%*

*Cluster Units have been analysed as a whole unit, but each room is calculated for the above schedule as an independant unit.

KEY

- Residential Units receive more than two hours direct sun between 9am and 3pm on June 21st
- Student Rooms receive more than two hours direct sun between 9am and 3pm on June 21st
- Units/ Rooms receive less than two hours direct sun between 9am and 3pm on June 21st
- Areas not included in this study

NOTE

For the purposes of this drawing the low level plans have been considered as notional level 12 for the other buildings

APPENDIX C
UDPRG
COMPLIANCE

Item	Urban Design requirement/ guideline	Compliance	Design approach
INFRASTRUCTURE NSW; SICEEP URBAN DESIGN + PUBLIC REALM GUIDELINES (29 FEBRUARY 2012)			
01 URBAN STRUCTURE			
1.1	Movement Framework. The design must:		
1.1.1	Take into account of a movement assessment that has been undertaken	Yes	Concept proposal has been developed in consultation with traffic engineer.
1.1.2	Design for ease of walking	Yes	Pedestrian priority network and public spaces. Wherever possible level changes achieved by graded transitions .1:20 maximum grading instead of steps/ ramps.
1.1.3	Connect with the existing networks	Yes	Existing street network extended into site with Macarthur Street directed along the dominant route of Hay Street. Materials and plant palette borrows from the surrounding precincts. The following streets continue into or along the site: Little Hay Street; Factory Lane/ Little Pier Street; Darling Drive; Harbour Street; Quay Street/ Boulevard; Exhibition Place. Through discussion with DRP it has been noted that topographical and traffic/ rail corridor constraints cannot accommodate direct movements from Macarthur Street. Spatial requirements to meet brief preclude moving Dickson's Lane further south to make connection.
1.1.4	Integrate upper levels as well as the valley floor	N/A	Related to PPP Development Application. No publically accessible upper levels in Haymarket.
1.1.5	Stitch the east, west and the south together	Yes	As per item 1.1.3 above
1.1.6	Make or break boundaries	Yes	Built form remains defined by street network (boundaries)
1.1.7	Provide choice through a grid network with a clear hierarchy	Yes	Hay Street + Boulevard defined as a key pedestrian movement corridors (and are of a grand scale). Other new streets are reduced widths providing intimate spaces and places and allow a finer grain, local movements
1.2	Walking. The design must:		
1.2.1	Maintain the pedestrian dominance of Darling	Yes	As per 1.1.2 and 1.1.7.
1.2.2	Provide pedestrian and cycle friendly streets	Yes	As per 1.1.2 and 1.1.7. In addition new cycle route provided along Darling Drive for activation and to provide commuter link minimising pedestrian / cycle conflict in a highly pedestrianised precinct. Passive/ non commuter cycling is anticipated throughout The Haymarket.
1.2.3	Create attractive and character rich routes	Yes	A highly active ground plane with integrated retail and public domain strategies will provide a rich mix of uses and animation along the lanes and public spaces.
1.2.4	Ensure Accessible routes along all pathways and desire lines	Yes	As per 1.1.2 and 1.1.7. Storm water flood protection has resulted in having to raise the ground plane. The public realm and building interface have been sensitively handled to address grade change to avoid access creating barriers within public realm.

1.2.5	Separate Front of House areas from Back of House areas	Yes	Access and servicing to square edge retail provided from adjoining streets. Note: The Haymarket does not have a 'Back of House.' All buildings front onto active streets on all sides.
1.3	Cycling, the design must:		
1.3.1	Provide a Design for convenient cycling	Yes	As per 1.2.2 above.
1.3.2	Allow for passing of parked cars	Yes	New cycle route located off of main road in dedicated, cycle only zone
1.3.3	Provide streets that are safe for cyclists	Yes	Low traffic existing streets. No street edge parking around site maintaining clear site lines. Design slows cyclists & delineate cycling & pedestrian zones.
1.3.4	Cycle lanes should be provided outside the public realm (i.e. commuter cycling)	Yes	As per 1.2.2 above.
1.3.5	Recreational cycling should be provided within the public realm	Yes	Pedestrian only streets and public spaces will support recreational cycle use - as per existing Darling Harbour model. Refer also 1.2.2 above.
1.3.6	Provide public cycle parking from the outset	Yes	Allowance to be made within new development for and public domain.
1.3.7	Include secure community / public bike storage along cycle routes and nodes	TBA	As per 1.2.2 above. Refer also Public Domain Report for SSDA2.
1.4	Public Transport. The design must:		
1.4.1	Make connections for people on the bus, train and light rail	Yes	Pedestrian routes promoted allowing access to key bus corridors. Light rail stops immediately adjacent to the site. Connections to the goods line to provide pedestrian friendly access to central.
1.4.2	Make it convenient to catch the bus, train and light	Yes	As per 1.4.1 above.
2.0 URBAN GRAIN			
2.1	Streets and traffic. The design must:		
2.1.1	Define street types by capacity and character	Yes	As per 1.1.7 above. Refer also Public Realm Stage 1 DA submission
2.1.2	Ensure street hierarchy is clear: Lane (7.5m - 12m); Residential (12m - 25m); Commercial (18m to 40m); Boulevard (27m - 36m)	Yes	Little Hay Street - nom 12m Dickson's Lane - nom 8m Link to east of N Plot - nom 8m Boulevard - 20m
2.1.3	Ensure no vehicular traffic within pedestrianised areas	Yes	As per 1.1.2 above. Emergency vehicle access only through The Haymarket.
2.1.4	Support the key pedestrian connections with vehicular access that includes VIP arrival and drop-off zones for red carpet and similar events	N/A	Related to PPP Development Application.
2.1.5	Make the street an address	Yes	Each lane and street will be the address for a number of the residential buildings and a unique retail brief relating to the scale and intimacy of place will reinforce the unique character of the street.
2.1.6	Make the routes go through	Yes	As per 1.1.3 above
2.1.7	Connect to finer grain laneways; that are open to the sky	Yes	All new streets open to sky along entire length - apart from projecting canopies and/ or tenant awnings.
2.1.8	Provide streets for everyone	Yes	As per 1.1.2 above
2.1.9	Provide places not roads	Yes	As per 1.1.2 above
2.1.10	Put the urban space first	Yes	Architecture and built form responds to public open space - in particular new central square
2.1.11	Keep junctions tight	Yes	All corner to street/ lanes held and widths all significantly less than Boulevard.

2.1.12	Allow for an appropriate amount of vehicular traffic	Yes	Traffic flow maintained along Darling Drive and Harbour Street. Limited drop-off provided along Hay Street and Little Pier Street. No vehicles allowed into remaining streets - pedestrian only zones.
2.1.13	Provide wide crossings on busy or main roads	Yes	New pedestrian crossing provided on Darling Drive
2.1.14	Slow traffic down	Yes	Darling Drive road alignment reduced and new pedestrian crossings provided to support pedestrian movements (The Goods Line, Macarthur Street + student accommodation)
2.2	Blocks defined by Street Network. The design must:		
2.2.1	Ensure blocks face and front the street	Yes	New development reinstates urban fabric and holds perimeter street lines with new built form
2.2.2	Respect people's privacy by the arrangement of buildings	Yes	Development adopts minimum building separations distances in line with this report and the RFDC.
2.2.3	Build to the street alignment and line the perimeter	Yes	As per 2.2.1 above
2.2.4	Encourage continuity of street frontage and rhythm	Yes	Retail strategy to replicate fine grain of existing streets to tie into context and encourage growth/ take-
2.2.5	Keep blocks small	Yes	Blocks defined by existing street pattern - to match existing grain
2.2.6	Provide a block that allows for change and the future	Yes	All blocks are independently accessed and serviced allowing one or all to be redeveloped
2.2.7	Provide for internal flexibility	Partial	Limited ability to convert to use other than residential. Apartment layouts have ability to be adaptable in line with RFDC requirements.
2.2.8	Keep the grain fine	Yes	Architectural expression of urban blocks introduces grid to provide scale and ordering device. Infill to vary to reflect finer grain plots
2.2.8	Keep commercial units narrow on ground floors	Yes	To be confirmed at Stage 2 DA for individual plots
2.3	Landmarks, vistas + focal points. The design must:		
2.3.1	Ensure a sense of arrival	Yes	Tall built form located at gateway sites on Hay/ Boulevard, Little Pier/ Harbour and Macarthur/ Darling junctions
2.3.2	Provide a southern gateway to Darling Harbour	Yes	As per 2.3.1 above
2.2.3	Make it easy to find your way around	Yes	Street pattern follows existing fabric allowing line of sight up streets. Supplemented by precinct-wide wayfinding signage strategy
2.2.4	Emphasise the hierarchy of the place	Yes	As per 1.1.7 above.
2.2.5	Show the way for visitors	Yes	As per 2.2.3 above
2.2.6	Create an interesting and identifiable skyline	Yes	Tower forms are to be unique design and vary in height. Will share skyline with Peak Tower
2.2.7	Provide a point and line approach to vistas	Yes	As per 2.2.3 above. Hay Street, due to its width, has been identified as the key east/ west corridor to support mass pedestrian footfall around the site. It will connect the Goods Line, Macarthur Street and student accommodation to the Boulevard and Quay Street and onwards to Chinatown and the George Street bus + future tram corridor. Clear line of sight is afforded of the Powerhouse museum and other attractions located on Hay Street to assist wayfinding.

2.2.8	Ensure focal points are appropriately located and scaled	Yes	Towers set back from square edge with appropriate scale development to reflect civic nature of square - maintains natural light and avoids over domination by tower forms
2.2.9	Provide an entrance that welcomes people	Yes	Quality public realm and retailing environment that activates new public spaces makes for space positive experience
2.2.10	Provide ceremonial entrance/s for the Core Functions	N/A	Related to PPP Development Application.
2.4	Utilities Infrastructure. The design must:		
2.4.1	Plan for sustainable infrastructure provision	Yes	To be confirmed at Stage 2 DA for individual plots
2.4.2	Design a discreet and co-located network	Yes	To be confirmed at Stage 2 DA for individual plots
2.4.3	Make services subservient to the Design	Yes	To be confirmed at Stage 2 DA for individual plots
2.4.4	Coordinate design development with service providers	Yes	To be confirmed at Stage 2 DA for individual plots
2.4.5	Put services underground in shared strips	Yes	To be confirmed at Stage 2 DA for individual plots
2.4.6	Hide the services boxes and plant facilities from Front of House areas	Yes	To be confirmed at Stage 2 DA for individual plots
2.5	Parking + Servicing. The design must:		
2.5.1	Ensure sustainable parking levels	Yes	No parking provided for student accommodation, significant decrease in car park spaces across the site and a maximum limit of 50 cars for the commercial office space.
2.5.2	Minimise the need for service vehicles to park, stop or queue on the public road network, including Darling Drive	Yes	Loading docks provided within all plot footprints - provide drive in/ drive out access
2.5.3	It is preferable to put parking behind, under, above or to the side of buildings	Yes	Majority of car parking sleeved in residential buildings. Car park put above retail office floor plate at ground level
2.5.4	Design the commercial car park following secure-by-design principles	Yes	To be confirmed at Stage 2 DA for individual plots
2.5.5	Soften and screen basements and multi-storeys	Yes	As per 2.5.3 above
2.5.6	Make car parks discreet or if they are prominent make them beautiful	Yes	Architectural treatment to commercial car park similar to office above. Screens where required to have architectural and design merit and high level of articulation
3.0 DENSITY + MIX			
3.1	Mixing uses. The design must:		
3.1.1	Build a walkable Precinct	Yes	As per 1.1.2 above
3.1.2	Create a patchwork of different activities throughout the Precinct	Yes	As per 2.2.9 above
3.1.3	Include uses such as: tourist; educational; recreational; entertainment; cultural and commercial facilities	Yes	Broad mix of uses on site including commercial office and communal (IQ Hub + library use)
3.1.4	Maximise synergy and minimise conflict of uses	Yes	Retail uses to be sympathetic to residential setting
3.1.5	Include Convention, Exhibition and Entertainment uses	N/A	Related to PPP Development Application.
3.1.6	Combine commercial and civic uses with hotel and other uses such as residential to provide a sustainable and viable mix of uses	Yes	Student accommodation provides additional residential type. Other uses as per 3.1.3 above.
3.1.7	Emphasise the civic values of the Precinct	Yes	As per 2.2.8 above
3.1.8	Complement the existing retail of Darling Harbour	Yes	As per 2.2.4 above
3.1.9	Wrap and cap 'big box' facilities with other uses	Yes	As per 2.5.3 above
3.1.10	Bring dead edges to life through active uses	Yes	As per 2.5.3 above
3.1.10	Provide a rich mix in the transition of uses	Yes	As per 2.2.9 + 3.1.3 above

3.1.12	Focus on links to public transport nodes	Yes	As per 1.4.1 above.
3.2	Density, Facilities + form. The design must:		
3.2.1	Integrate with the city context	Yes	Massing and materiality sensitive to city context. Use and street grain replicate context.
3.2.2	Focus on activity centres and use clusters	Yes	Public realm and ground plane provides focal points to support multi-group activities
3.2.3	Vary the density profile of different Facilities	N/A	No Core Facilities on site
3.2.4	Cater for a range of users and lifestyles	Yes	Mixed range of residential product and experiences being provided on site
3.2.5	Blend the best parts of town	Yes	Exemplars included international destinations as well as Sydney.
3.2.6	Enable people to trade space for place	Yes	As per 3.2.4 above
3.2.7	Take a long term view	Yes	8 year staging strategy will allow opportunity for time to fine-tune if required based upon societal changes.
4.0 HEIGHT + MASSING			
4.1	Building size + scale. The design must:		
4.1.1	Define The Big Picture	N/A	Aspirational statement
4.1.2	Develop a building height strategy	Yes	As per 2.2.8 above
4.1.3	Relate building height to context	Yes	Establish street walls containing active uses. Relate to scale of street. Design does not provide setbacks along street edge. Design approach is of building and streets, not towers and podiums. Maximum separation is sought to allow development to both sides of plot. Tower forms will be visually separated with reentrant and material change to express street wall.
4.1.4	Wrap up and Step down to provide a human scale to the facilities	N/A	Related to PPP Development Application.
4.1.5	Adapt with topography	Yes	As per 2.2.8 above - massing steps up at perimeter of site to respond to urban edge and development rising up from valley floor.
4.1.6	Respect overshadowing principles	Yes	Massing located to minimise impact on public square and playground within Powerhouse Museum courtyard.
4.1.7	Consider view sharing for residential neighbours	Yes	Separate View Impact analysis report to be submitted with Stage 1 DA
4.1.8	Plan shallow building depths	Yes	Tower floor plates 21m deep including recessed balcony zones
4.1.9	Orientate for flexibility and suitable access	Yes	Complies with DDA and BCA
4.1.10	Ensure the building form turns the corner where streets meet	Yes	As per 2.3.1 above. All elevations considered and designed
4.1.11	Provide trim and slim (narrow) building types or frontages to Big Box facilities	N/A	No Core Facilities on site
4.2	Building for change. The design must:		
4.2.1	Provide a mix of uses where most uses are compatible side-by-side	Yes	Mix of residential, commercial, retail and community uses provided at ground level
4.2.2	Ensure a mix of uses at close quarters	Yes	As per 2.2.9 + 4.2.1 above
4.2.3	Provide a vertical mix of uses: Make uses stack up through the building	Yes	Retail/ community use at ground + level 1. Semi-public residential gardens/ amenities at podium level
4.2.4	Provide access for all and meet Disability Discrimination Act requirements	Yes	To be confirmed at Stage 2 DA for individual plots

4.2.5	Reveal the history of the place	Yes	Street grain replicates former urban grid. Opportunity to provide place names reflecting local history. Materiality of Haymarket Square draw reference from timber wharfs.
4.3	Positive outdoor spaces. The design must:		
4.3.1	Define the space, its function and character	Yes	As per 2.2.8 above
4.3.2	Provide and ensure the right to light between buildings	Yes	As per 2.2.2 above
4.3.3	Form and shape outdoor rooms using built form	Yes	As per 2.2.8 above. Articulation at ground level retail to support uses.
4.3.4	Use light and shadow to add dynamism within spaces	Yes	Continuous weather protection and awnings will provided shelter, intimacy and management of light/ elements
4.3.5	Avoid creating microclimate issues for example negative wind conditions caused by tall building location and design	Yes	To be confirmed at Stage 2 DA for individual plots
4.4	Building line and setbacks. The design must:		
4.4.1	Provide buildings that are built to an appropriate building line	Yes	As per 4.1.3 above
4.4.2	Form appropriate heights of street walls with taller sections of building setback from the street	No	As per 4.1.3 above
4.4.3	Proportion buildings with a base, middle and top	Yes	To be confirmed at Stage 2 DA for individual plots. Designs do not preclude articulation of towers, but design philosophy is different urban blocks responds to street scale and context. Towers float above the urban blocks with different expression and form. However massing is singular and consistent and does not erode at top. Rooftop plant to be managed architecturally.
4.4.4	Create an interface for humans at the public realm	Yes	Ground plane to have highly articulate and interesting expression. Refer to retail report
4.4.5	Create enclosure and definition to the space around and between buildings	Yes	As per 2.1.11 above
5.0 PUBLIC REALM			
5.1	Public realm. The design must:		
5.1.1	Provide focus activity areas within the public realm	Yes	Activity focussed within key PD spaces such as Haymarket Square, the Boulevard and the laneways. Refer to Public Domain (PD) Report- Sections 5 & 6
5.1.2	Ensure there are appropriate uses in and around the space	Yes	Spaces have been designed to accommodate envisaged uses based on activation from associated retail or cafes, circulation requirements and events.
5.1.3	Build in versatility and flexibility	Yes	Spaces are non prescriptive in their design and will facilitate a variety of use.
5.1.4	Provide adequate routes through space: enable people to pass directly from A to B	Yes	All public domain spaces are linked to the Boulevard which allows direct access through the site. The site is permeable and well connected. Refer to PD Report

5.1.5	Stimulate the human senses through touch; sound; smell	Yes	Materials, trees, lighting and furniture will combine to create a visually stimulating environment - Refer to PD Report Section 6.0
5.1.6	Create a distinctly local Sydney identity	Yes	Haymarket is well linked to distinct neighbouring precincts such as Chinatown and well connected to Sydney civic spaces through materials and tree planting strategies
5.1.7	Plant local species	Partial	A mix of deciduous and evergreen trees is proposed in order to achieve desired microclimate and seasonal interest. Trees in boulevard to be local native species. Refer to PD Report Section 6.2
5.1.8	Enhance natural ecology and ecosystems	Partial	Essentially an urban city environment with limited existing natural ecology. Opportunities to enhance the natural ecology of the site lie in: significant increase in tree planting, bio filtration improvements to stormwater, use of native species and shrub planting to Darling Drive, Macarthur Place and Boulevard.
5.1.9	Embrace the Sydney climate	Yes	Deciduous trees within the Square to shade in summer and allow sun in winter. Laneways shady and cool places to eat. Lighter paving materials within square and laneways to reduce heat absorption. Periodical heavy rain falls addressed within stormwater strategy for the Public domain.
5.1.10	Ensure the place is of high quality and is built to last	Yes	A simple palette of robust and durable materials to be used.
5.1.11	Integrate art within built and landscape forms	Yes	Public art and heritage interpretation to be built in to the PD. Refer to PD Report - Section 6.7
5.2	Safety + security. The design must:		
5.2.1	Build in Safety	Yes	Safety built in through strong community ownership, clear sight lines, safe lighting levels etc in line with CPTED principles
5.2.2	Focus on natural surveillance	Yes	PD designed to prevent views from being obscured. Uncluttered and open public domain. Good surveillance from surrounding buildings.
5.2.3	Follow secure-by-design principles	Yes	As above
5.2.4	Watch the main entrance closely	Yes	As above
5.2.5	If there has to be a security fence or grill, design it as a sculpture	NA	
5.3	Temporary uses: The design must:		
5.3.1	Ensure there are rich day and night experiences	Yes	The Square, Boulevard and laneways will be enhanced day and night through water features, feature lighting, diverse furniture and 18/7 activation. Refer PD Report Sections 5 and 6
5.3.2	Provide appropriate amenity for an 18 hour / 7 days a week site	Yes	As above
5.3.3	Allow for a diverse range of events and overlays	Yes	As per 5.1.1/ 5.1.2

5.3.4	Provide large gathering spaces and intimate areas for diversity	Yes	The Square and the Boulevard provide large areas for gathering whilst also capable of facilitating more intimate events. Laneways provide intimate spaces at 12m and 8m wide with tree planting and seating either side.
5.3.5	Balance the event spaces with recreational spaces and circulation spaces	Yes	Haymarket Square well balanced - designed to allow free circulation around a central feature. Generous steps organised to the north allow informal seating overlooking a flexible event 'stage'. Recreational space for seating, eating etc located to edges. Hay Street and the Boulevard provide generous circulation space.
5.4	Accessibility. The design must:		
5.4.1	The Design Must follow the principles to be adopted for walking routes and follow the five C's approach as follows: - connected - convivial - conspicuous - comfortable - convenient	Yes	The principles as set up within the PD Design Report- Section 4.0 are directly in line with the five C's and flow through to the concept plan for the precinct.
6.0 STREETSCAPE + LANDSCAPE			
6.1	Landscape. The design must:		
6.1.1	Provide a variety of open space types	Yes	Refer to PD Report, Section 5.1 for precinct and placemaking objectives which set up typologies for a variety of places
6.1.2	Create park life	Partial	The site is essentially an urban neighbourhood and a city precinct. Haymarket Square will provide park life in an urban context. Macarthur Place will provide open space and small scale park life for the student accommodation on Darling Drive. Park life will be generated through Tumbalong Park in the northern SICEEP precinct which is directly connected to The Haymarket.
6.1.3	Ensure that parks are within walking distance	Yes	Tumablong Park is within walking distance of The Haymarket
6.1.4	Connect open spaces as a network	Yes	The Waterfront, Tumbalong Park and Haymarket Square are connected via the Boulevard.
6.1.5	Work with the earth and the historic landform cuts of the valley	Yes	Natural patterns of the site's topography examined in PD Report Section 3.1. This informs strategies for stormwater management, access, tree planting and materials.
6.2	Wildlife + ecology. The design must:		
6.2.1	Balance human access and wildlife shelter	Partial	As per 5.1.8. Haymarket will be a highly urban, city pedestrian precinct with limited site value as a wildlife shelter although opportunities will be explored further to ensure that where practical, tree canopy and bioswale areas are environments that will encourage native birds and wildlife suitably adapted to the urban environment.

6.2.2	Ensure that all sites are created as habitats	N/A	As above
6.2.3	Aid biodiversity	Partial	As per 6.2.1 Microclimate and biodiversity improvements will be made through significantly increased tree planting and native planting where practical within this highly urbanised environment.
6.3	Microclimate. The design must:		
6.3.1	Consider the influence of the elements	Yes	Awnings and under croft will provide weather protection around edges of public domain. Stormwater flow paths integrated into the public domain layout and durable paving materials to be used within flow paths. Sun and shading strongly influencing orientation and layout of the Square.
6.3.2	Plant with the sun in mind	Yes	Trees - as per 5.1.9. Shadow diagrams have helped inform layout and tree planting strategy.
6.3.3	Harness cool breezes	Yes	The Boulevard exposed to prevailing southerly winds but also to coastal breezes from the north. Evergreen tree planting will help deflect Southerlies in the Boulevard. Haymarket Square and laneways sheltered and main seating areas located away from high wind areas
6.3.4	Protect from winter winds	Yes	As above
6.3.5	Make the place comfortable	Yes	As per 5.1.9
6.4	Wayfindng. The design must:		
6.4.1	Make the place legible	Yes	Proposed layout and articulation of space significantly improving legibility of the site. Primary wayfinding signage locations and circulation addressed in PD Report - Section 5.3
6.4.2	Use urban markers through both built form and landscape elements	Yes	Furniture, water features and integrated art will provide urban markers within precinct. Refer to PD report - Section 6.0
6.4.3	Achieve a macro-precinct to micro-pedestrian scale wayfinding strategy	Yes	As per 6.4.1 - Macro pedestrian scale wayfinding to be addressed in detail at Stage 2 DA
6.5	Street furniture, art + lighting. The design must:		
6.5.1	Clean up the existing clutter and provide a collection that is integrated and harmonious with the Design	Yes	Refer to PD Report, Sections 5.0 and 6.0
6.5.1	Provide a consistent palette of quality street furniture	Yes	Refer to PD Report, Section 6.3
6.5.1	Fit art to the place	Yes	Refer to PD Report, Section 6.7
6.5.1	Integrate art within built and landscape forms	Yes	As above
6.5.1	Make art a spectacle and worth repeat visits	Partial	Art will be integrated within the water, paving and lighting of The Haymarket. The design facilitates opportunities for Pop-Up art.
6.5.1	Illuminate each unique scene and harness an identifiable night time experience	Yes	Refer to PD Report, Section 6.4
6.5.1	Consider 'plug and play' (smart poles or equivalent) lighting poles to facilitate event overlays	Partial	Banner poles... Refer to report...
7.0 FAÇADE + INTERFACE			
7.1	Animating the edge. The design must:		
7.1.1	Provide a varied and active frontage	Yes	As per 4.4.4 above
7.1.2	Reach out to the street	Yes	As per 4.4.4 above

7.1.3	Make buildings provide a setting to the spaces between them and in front	Yes	As per 4.4.4 above
7.1.4	Strengthen local identity	Yes	Development borrows retail grain and character from existing neighbourhoods. Materiality is reflected in elevations
7.1.5	Keep the Design rich from both near and afar	Yes	To be confirmed at Stage 2 DA for individual plots
7.1.6	Express the use and the purpose of the facilities	N/A	Related to PPP Development Application.
7.1.7	Relate to the human scale	Yes	As per 4.1.3 above
7.1.8	Embrace the identity of the Precinct		
7.1.9	Make entrances a feature in the façade	N/A	Related to PPP Development Application.
7.1.10	Utilise detailed massing and facade treatments to welcome, guide and orientate users	TBA	To be confirmed at Stage 2 DA for individual plots
7.1.11	Relate the facade and ground level portions of buildings to the public realm	Yes	Architecture, retail and public realm designs to be coordinated to avoid 'mall-ification' of retail ground plane abd create a neighbourhood/ High street intent.
7.1.12	Combine event strategies and elements such as banners, light poles and other event structures for the site with permanent ground level uses	TBA	To be confirmed at Stage 2 DA for individual plots
7.2	Continuous weather protection. The design must:		
7.2.1	Provide a weather protected route along all primary routes, including Quay Street (and its northern extension) and the Quarry Street extension	Yes	As per 4.3.4 above
7.2.2	Use colonnades or awnings along building frontages to allow a consistent datum to be read along a street edge	Yes	As per 4.3.4 above Lend Lease retail have advocated that continuous colonnades are to be avoided to minimise impact on retail line of sight but support a blend of various awnings + canopies to provide weather protection as indicated in retail report.
7.2.3	Provide diversity in the elevations through articulation of the façade	Yes	Level changes, retail experience and address will be expressed in built form. To be confirmed at Stage 2 DA for individual plots
8.0 DETAILS + MATERIALS			
8.1	Precinct scale. The design must:		
8.1.1	Demonstrate a precinct approach to materials and their built assembly	N/A	Related to PPP Development Application.
8.1.2	Recognise that the grain, texture and scale of the skyline is of great importance	Yes	As per 2.2.6 above
8.1.3	Materials should be used to define and reinforce different character areas within the Precinct	Yes	As per 7.1.4 above
8.1.4	Be built of the same fundamental elements that make Darling Harbour the place it is. A place for celebration, for transaction and for entertainment with quality venues, shops, hotel, homes and public realm	Yes	As per 3.1.3 + 3.1.6 above
8.1.5	Respond to surrounding existing and historic character	Yes	As per 7.1.4 above
8.1.6	Add a distinctive townscape element within the wider Darling Harbour area	Yes	As per 4.2.5 above
8.1.7	Add another 'layer' of character into Darling Harbour, the new materiality will be symbolic of the change and transformation of the area	Yes	As per 4.2.5 above
8.2	Pedestrian scale. The design must:		

8.2.1	Ensure that detail resolution matters	Yes	To be confirmed at Stage 2 DA for individual plots
8.2.2	Ensure that materials are easily maintainable	Yes	To be confirmed at Stage 2 DA for individual plots
8.2.3	Ensure that the buildings are sustainable, durable and visually interesting	Yes	To be confirmed at Stage 2 DA for individual plots
8.2.4	All materials in the public realm areas of the Precinct, and especially the lower base elements of all buildings are to be highly durable	Yes	To be confirmed at Stage 2 DA for individual plots
8.2.5	Create a hierarchy of materials	Yes	To be confirmed at Stage 2 DA for individual plots
8.2.6	Propose a primary material to dominate the frontage, other materials should be used to demarcate different elements of the building	Yes	To be confirmed at Stage 2 DA for individual plots
8.2.7	Primarily use glazing where there is a key public use and where there are retail frontages	Yes	To be confirmed at Stage 2 DA for individual plots
8.2.8	Identify with the climatic conditions of Sydney and provide appropriate shade and shelter	Yes	To be confirmed at Stage 2 DA for individual plots
8.2.9	Use colour to add vibrancy and distinctiveness. Colour may be added through coloured light, retail signage, coloured glass or glazed brick as well as coloured fabrics of awnings and parasols.	Yes	To be confirmed at Stage 2 DA for individual plots
8.3	Materials. The design must:		
8.3.1	Consider Sydney as a blue and green connected city	Yes	To be confirmed at Stage 2 DA for individual plots
8.3.2	Celebrate the temperate climate	Yes	To be confirmed at Stage 2 DA for individual plots
8.3.3	Use landscape and plant materials	Yes	To be confirmed at Stage 2 DA for individual plots
9.0 ENERGY + RESOURCE EFFICIENCY			
9.1	Resource Efficiency. The design must:		
9.1.1	Orientate buildings towards the sun	Yes	Buildings adopt SEPP 65 and RFDC minimum standards
9.1.2	Let the light in and keep the heat out in summer	Yes	To be confirmed at Stage 2 DA for individual plots
9.1.3	Recycle rainwater where possible	Yes	To be confirmed at Stage 2 DA for individual plots
9.1.4	Use the potential of the ground	Yes	To be confirmed at Stage 2 DA for individual plots
9.1.5	Work with the wind	Yes	To be confirmed at Stage 2 DA for individual plots
9.1.6	Do more with less	Yes	To be confirmed at Stage 2 DA for individual plots
9.1.7	Waste not, want not	Yes	To be confirmed at Stage 2 DA for individual plots
9.1.8	Prioritise Precinct wide solutions	Yes	To be confirmed at Stage 2 DA for individual plots
10.0 STAGING + MANAGEMENT			
10.1	Precinct management. The design must:		
10.1.1	Provide a platform for a range of events	Yes	Haymarket Square will be an open, hard-paved square with the potential for a performance stage area in the centre. Step to the edge of the square will form informal seating.
10.1.2	Provide a place for locals, visitors and international guests	Yes	As per 1.2.3 and 2.5.1 above
10.1.3	Allow the Precinct to change over time and evolve with contemporary culture	Yes	As per 3.1.3, 3.1.6, 3.1.10 and 3.2.6 above. Individual plots are created and a staged strategy allowing changes to occur over time as required.
10.1.4	A new Tumbalong Park will provide the opportunity for event staging.	N/A	Related to PPP Development Application.

DOCUMENT INFORMATION

The Haymarket, Sydney Design Report for SSDA2

15 March 2013

Prepared by:
Denton Corker Marshall Pty Ltd
ABN 84 615 019 443 ACN 131 308 088
49 Exhibition Street
Melbourne
Victoria 3000 Australia

Peter Williams
Telephone +61 3 9012 3600
Facsimile +61 3 9012 3601
Email melbourne@dentoncorkermarshall.com

Prepared for:
Lend Lease Development
30 The Bond, 30 Hickson Road,
Millers Point, NSW, 2000

Rev	Date	Originated	Checked	Approved
-	25/02/2013	TE	ES	-
A	04/03/2013	DL	ES	PW/NB
B	08/03/2013	DL	ES	PW/NB
C	13/03/2013	DL	ES	-
D	14/03/2013	DL	ES	PW/NS
E	15/03/2013	DL	ES	PW

APPENDIX D

PUBLIC DOMAIN DESIGN REPORT

SSDA2



HASSELL

This report has been prepared by Hassell Landscape Architects to illustrate the public domain concept proposal for The Haymarket Precinct. This report explores the site context and history and the inherent opportunities and constraints. It establishes the site wide principles and concepts for the public domain within The Haymarket and sets up the strategies for elements such as furniture and materials. This document will be the reference document for informing design development and detail design for future stages of the project. The detailed design for the public domain will be the subject of future development applications.

This document has been prepared in accordance with the NSW Planning and Infrastructure Director General's Requirements for the Sydney International Convention and Entertainment Precinct.

Compliance with INSW SICEEP (Haymarket) Urban Design and Public Realm Guidelines is included within Appendix C - Concept Design Report - Sections 5 & 6 - prepared by Denton Corker Marshall (DCM)

Contents	Page		
1.0 ____ Introduction and project background	04	5.0 ____ Public domain concept proposal	32
1.1 Introduction	04	5.1 Precinct plan	32
1.2 Overview of development	04	5.2 Placemaking	33
1.3 Background	04	5.3 Circulation and Wayfinding	34
1.4 Site description	05	5.4 Concept proposal	35
1.5 Planning approvals strategy	05	5.4.1 The Boulevard	36
		5.4.2 The Laneways	38
2.0 ____ Site context	06	5.4.3 Haymarket Square	42
2.1 Precinct plan	06	5.4.4 Hay Street shareway	46
2.2 Site context and existing conditions	08	5.4.5 Macarthur Place	50
2.3 Site photographs	10		
2.4 Neighbourhood character	13	6.0 ____ Public domain strategy	52
2.5 City context	14	6.1 Materials	52
2.5.1 Open spaces	14	6.2 Planting and trees	54
2.5.2 Civic spaces	15	6.3 Furniture	56
2.5.3 Cycle network	16	6.4 Lighting	58
2.5.4 Surrounding communities	17	6.5 WSUD & Stormwater management	60
2.5.5 Pedestrian and cycle connectivity	18	6.6 Water play	62
2.5.6 Public transport	18	6.7 Public Art and Heritage interpretation	64
2.6 Ultimo pedestrian network	19		
2.7 Opportunities and constraints	20		
3.0 ____ Site history	22		
3.1 The Valley floor	22		
3.2 History and heritage	24		
4.0 ____ Site wide principles	28		
4.1 Connectivity and permeability	28		
4.2 Public engagement	30		

1.0 INTRODUCTION AND PROJECT BACKGROUND

1.1 INTRODUCTION

This report supports a State Significant Development Application (SSD 12_5752) submitted to the Minister for Planning and Infrastructure pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*.

The Application seeks approval for the establishment of building envelopes and design parameters for a new neighbourhood and a community hub (referred to as The Haymarket) as part of the Sydney international convention, exhibition and entertainment precinct SICEEP Project at Darling Harbour.

The project will develop The Haymarket into one of Sydney's most innovative residential and working districts. Through the delivery of the overall project, Darling Harbour will also become home to Australia's largest convention and exhibition facilities, Sydney's largest red carpet entertainment venue, and a hotel complex of up to 900 rooms. The SICEEP Project importantly forms a critical element of the NSW Government's aspiration to "make NSW number one again".

1.2 OVERVIEW OF DEVELOPMENT

The proposal relates to a staged development application and seeks to establish concept plan details for The Haymarket, located within the southern part of the SICEEP Site.

The concept proposal establishes the vision and planning and development framework which will be the basis for the consent authority to assess future development proposals within The Haymarket Site.

The Haymarket Site is to be developed for a mix of residential and non-residential uses, including but not limited to residential buildings, commercial, retail, community and open space.

The Concept Proposal seeks approval for the following key components and development parameters:

- Staged demolition of existing site improvements, including the existing Sydney entertainment Centre (SEC), Entertainment car park, and part of the pedestrian footbridge connected to the Entertainment car park and associated tree removal;
- A network of streets, lanes, open space areas and through-site links generally as shown on the Public Domain Concept Proposal, to facilitate reintegration of the site into the wider urban context and connect with the broader SICEEP Site;
- Street layouts;
- Development plot sizes, development plot separation, building envelopes (maximum height in RLs); building depths, building alignments and natural ventilation and solar provision to buildings;
- Land uses across the site, including residential and non residential uses;
- A maximum total gross floor area (GFA) across The Haymarket Site of 197,236m² for the mixed use development (excluding ancillary above ground car parking), comprising of:
 - A maximum of 49,545m² non-residential GFA;
 - A maximum of 147,691m² residential GFA;
- Above ground parking including public car parking;
- Car parking rates to be utilised in the subsequent detailed (Stage 2) Development Applications, being:
 - Zero (0) spaces per studio apartment;
 - Maximum one (1) space per two (2) one bedroom apartments;
 - Maximum one (1) space per one bedroom + study apartment, plus one (1) additional space per five (5) apartments;
 - Maximum one (1) space per two bedroom apartment, plus one (1) additional space per five (5) apartments; and
 - Maximum two (2) spaces per 3+ bedroom apartment.
- Design Guidelines prepared by Denton Corker Marshall to guide future development and the public domain; and
- A remediation strategy.

1.3 BACKGROUND

The existing convention, exhibition and entertainment centre facilities at Darling Harbour were constructed in the 1980s and have provided an excellent service for Sydney and NSW. The facilities however have limitations in their ability to service the contemporary exhibition and convention industry which has led to a loss in events being held in Sydney.

The NSW Government considers that a precinct-wide renewal and expansion is necessary and is accordingly committed to Sydney reclaiming its position on centre stage for hosting world-class events with the creation of the Sydney international convention, exhibition and entertainment precinct.

Following an extensive and rigorous Expressions of Interest and Request for Proposals process, Darling Harbour Live (formerly known as 'Destination Sydney' - a consortium comprising AEG Ogden, Lend Lease, Capella Capital and Spotless) was announced by the NSW Government in December 2012 as the preferred proponent to transform Darling Harbour and create the new Sydney international convention, exhibition and entertainment Precinct.

Key features of the Darling Harbour Live Preferred Master Plan include:

- Delivering world-class convention, exhibition and entertainment facilities, including
 - Up to 40,000m² exhibition space;
 - Over 8,000m² of meeting rooms space, across 40 rooms;
 - Overall convention space capacity for more than 12,000 people;
 - A ballroom capable of accommodating 2,000 people; and
 - A premium, red-carpet entertainment facility with a capacity of 8,000 persons.
- Providing up to 900 hotel rooms in a hotel complex at the northern end of the precinct.
- A vibrant and authentic new neighbourhood at the southern end of the precinct, called 'The Haymarket', home to an IQ Hub focused on the creative industries and high-tech businesses, apartments, student accommodation, shops, cafes and restaurants.
- Renewed and upgraded public domain, including an outdoor event space for up to 25,000 people at an expanded Tumbalong Park.
- Improved pedestrian connections linking to the proposed Ultimo Pedestrian Network drawing people between Central, Chinatown and Cockle Bay Wharf as well as east-west between Ultimo/Pyrmont and the City.

1.4 SITE DESCRIPTION

The SICEEP Site is located within Darling Harbour. Darling Harbour is a 60 hectare waterfront precinct on the south-western edge of the Sydney Central Business District that provides a mix of functions including recreational, tourist, entertainment and business.

With an area of approximately 20 hectares, the SICEEP Site is generally bound by the Light Rail Line to the west, Harbourside shopping centre and Cockle Bay to the north, Darling Quarter, the Chinese Garden and Harbour Street to the east, and Hay Street to the south.

The SICEEP Site has been divided into three distinct redevelopment areas (from north to south) – Bayside, Darling Central and The Haymarket. The Application Site area relates to The Haymarket as shown in Figure 1.0.1



Figure 1.0.1

1.5 PLANNING APPROVALS STRATEGY

In response to separate contractual agreements with the NSW Government and staging requirements Lend Lease (Haymarket) Pty Ltd is proposing to submit a number of separate development applications for key elements of the overall Project.

This staged development application involves the establishment of building envelopes and design parameters for a new neighbourhood and a community hub (The Haymarket) within the southern part of the SICEEP Site. Detailed development applications will accordingly follow seeking approval for specific aspects of The Haymarket in accordance with the approved staged development application.

Separate development applications will be lodged for the PPP component of the SICEEP Project (comprising the Convention Centre, Exhibition Centre, entertainment facility and associated public domain upgrades) and Hotel complex.

- SICEEP Site
- PPP - State Significant DA Boundary
- PDA - Stage 1 State Significant DA Boundary
- Hotel Complex - State Significant DA Boundary



Figure 1.0.2

2.0 SITE CONTEXT

2.1 PRECINCT PLAN

The Haymarket Precinct lies at the southernmost end of the proposed Sydney International Convention Centre, Exhibition and Entertainment Precinct (SICEEP) at Darling Harbour.

The SICEEP precinct development represents a rare opportunity for the city of Sydney to re-design and re-invigorate a large area of waterfront and reconnect it to the larger Sydney CBD. This affords Darling Harbour Live the opportunity to re-address issues of connectivity, permeability, and accessibility.

The Haymarket site will form a mixed use precinct with substantial residential, student accommodation and office elements - a precinct that introduces a new urban fabric to the city, with an enhanced public transport and pedestrian experience. The Haymarket will become the number one neighbourhood destination of the Sydney CBD; one with a vibrant retail and café culture with a rich community identity and a strong attractor for tourists. The Haymarket precinct will be focussed on the creative industries, high tech business, apartment living, student accommodation, shops and cafes. It is expected that the precinct will be populated by a vibrant mix of professionals, students and residents as well as attracting tourists due to its location between key city tourist precincts.

The public domain of The Haymarket is crucial to providing the connections to the International Convention Centre (ICC), adjacent neighbourhoods and the greater CBD. This will be achieved by providing the enhanced pedestrian legibility and accessibility and creating the stage for events at a more local and community scale than the adjacent public domain in the PPP precinct of SICEEP.

Figure 2.1.1 illustrates the SICEEP public domain concept proposal.

Harbourside Place

Urban Jungle & Cockle Bay
(Future Masterplan, not in PPP
scope)

Waterplay and Technology

The Boulevard

Terraced Landscape

Tumbalong Park

Event Deck

Tumbalong Place

Pier Street & Chinese
Garden Square

Extent of Study Site
“The Haymarket”



Figure 2.1.1 SICEEP Public Domain Concept Proposal