



Planning

**MAJOR PROJECT ASSESSMENT
PROJECT APPLICATION FOR PUBLIC
DOMAIN WORKS, DARLING WALK,
DARLING HARBOUR
*Proposed by Lend Lease Development,
MP08_0093***

Director General's Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

February 2010



© Crown copyright February 2010
NSW Department of Planning
www.planning.nsw.gov.au

Disclaimer:

While every reasonable effort has been made to ensure that this document is correct at the time of publication, the State of New South Wales, its agents and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance upon the whole or any part of this document.

EXECUTIVE SUMMARY

Lend Lease Development Pty Ltd has lodged a project application seeking approval for public domain works as part of the redevelopment of the Darling Walk precinct of Darling Harbour in accordance with the Concept Plan Approval (MP 06_0054).

The site is located within Darling Harbour on the western edge of the Sydney CBD, adjacent to Harbour Street. The Darling Walk site has a total area covering approximately 32,900m².

The project application seeks approval for public domain works and a civic connector which will act as a pedestrian extension of Day Street. Augmentation works to the Bathurst Street pedestrian footbridge, road works to the east of the Darling Walk site and the reinstatement of male toilets under the northern end of the Liverpool Street pedestrian footbridge also form part of the project application. The Capital Investment Value (CIV) of the proposal is **\$15.12 million** and the proposal will contribute to the creation of 600 full time equivalent construction jobs.

On 9 July 2008, the then Minister for Planning approved a Concept Plan (MP06_0054) for Darling Walk, pursuant to section 75(O) of the EP&A Act. The terms of approval for the Concept Plan state that development with a CIV of more than \$5 million, excluding remediation, is subject to Part 3A of the EP&A Act. As such, the proposed works under this project application, MP 08_0093 are subject to Part 3A of the EP&A Act.

The proposal was exhibited for a 30 day period from 23 September to 23 October 2009. The Department received two submissions from City of Sydney Council (Council), four from public authorities and no public submissions. Key issues raised in submissions included reusable and potable water quality, heritage interpretation and archaeological investigations, signage and lighting.

The Department has assessed the merits of the project, and has found the key issues associated with the project include public domain and pedestrian access, potable water quality, heritage, and vehicular access. The Department is satisfied that the impacts of the proposed development have been addressed via the response to submissions and statement of commitments, and can be adequately managed through the recommended conditions of approval.

The Department is satisfied the site is suitable for the proposed use and that the public domain improvements will provide significant social and economic benefits to the locality. The project is consistent with strategic planning objectives, including the State Plan and draft Sydney City Subregional Strategy and will provide significant social and economic benefits to the locality, including:

- Activation and rejuvenation of the Darling Walk site, including creation of passive and active recreation spaces;
- Improved public domain areas, including engagement between the private and public realms; and
- Improved pedestrian connectivity and accessibility between the site and interface with the CBD to the east and Darling Harbour.

Accordingly, the Department considers the project is in the public interest and is recommended for approval, subject to conditions.

CONTENTS

EXECUTIVE SUMMARY	i
1 BACKGROUND.....	1
1.1 THE SITE	1
1.2 SURROUNDING DEVELOPMENT	2
1.3 PREVIOUS APPLICATIONS	2
1.4 STRATEGIC CONTEXT	3
2 PROPOSED DEVELOPMENT	4
2.1 ENVIRONMENTAL ASSESSMENT (AS EXHIBITED)	4
2.2 RESPONSE TO SUBMISSIONS	9
3 STATUTORY CONTEXT	10
3.1 MAJOR PROJECT DECLARATION	10
3.2 PERMISSIBILITY	10
3.3 DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (DGR'S).....	10
3.4 OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 (EP&A ACT).....	10
3.5 ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES (ESD).....	11
3.6 STATEMENT OF COMPLIANCE	12
3.7 SECTION 75I (2) OF THE ACT	12
3.8 ENVIRONMENTAL PLANNING INSTRUMENTS (EPI'S)	13
4 CONSULTATION.....	15
4.1 PUBLIC EXHIBITION DETAILS	15
4.2 SUBMISSIONS RECEIVED ON ENVIRONMENTAL ASSESSMENT	15
5 ASSESSMENT OF ENVIRONMENTAL IMPACTS	18
5.1 PUBLIC DOMAIN AND PEDESTRIAN ACCESS	18
5.2 VEHICULAR ACCESS AND ROAD WORKS	19
5.3 RAINWATER RE-USE AND POTABLE WATER QUALITY	19
5.4 STORMWATER.....	20
5.5 HERITAGE INTERPRETATION AND ARCHAEOLOGICAL INVESTIGATIONS ...	20
5.6 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD).....	20
5.7 CONSTRUCTION IMPACTS	21
5.8 PUBLIC INTEREST	21
6 CONCLUSION.....	22
7 RECOMMENDATION.....	23

APPENDIX A.	DIRECTOR-GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS
APPENDIX B.	ENVIRONMENT ASSESSMENT
APPENDIX C.	RESPONSE TO SUBMISSIONS
APPENDIX D.	SUBMISSIONS

1 BACKGROUND

1.1 THE SITE

1.1.1 Site Context and Location

Darling Walk is located within the Darling Harbour precinct on the western edge of Sydney Central Business District (CBD). The site includes 38 parcels of land and has an area of approximately 32,900m². The site is largely owned by the Sydney Harbour Foreshore Authority (SHFA), with parcels of land adjoining the site on Harbour Street owned by the Roads and Traffic Authority (RTA). Both parties have provided landowner's consent.

The western distributor is located along the northern boundary of the site, the Chinese Garden is located immediately to the south, Tumbalong Park is to the south-west and Harbour Street and the western edge of the CBD (including some residential buildings) is to the east the site.



Figure 1: Darling Walk Site Location

1.1.2 Existing Site Features

Darling Walk is part of the Darling Harbour precinct which contains a range of entertainment, cultural and exhibition venues on the western edge of the CBD. These venues include Sydney Entertainment Centre, Sydney Convention and Exhibition Centre, the IMAX cinema and numerous harbourside bars and restaurants. The Darling Walk site is currently under construction, and close to completion.

The road frontage of the site is approximately 200 metres long and faces onto Harbour Street between Bathurst Street to the north and Liverpool Street to the south.

There are two key pedestrian bridges which link the site with the CBD. The Bathurst Street pedestrian footbridge at the northern end of the site is the main link to the CBD and Town Hall railway station. A second bridge, known as the Liverpool Street pedestrian footbridge, is at the southern end of the site and is the secondary connection that links Darling Walk and the southern parts of Darling Harbour to the CBD.

1.2 SURROUNDING DEVELOPMENT

Directly south of the site is The Chinese Garden of Friendship, to the west of the site is the Sydney Exhibition Centre. To the east, on the opposite site of Harbour Street, are a number of buildings ranging in height from 4 to 19 storeys and containing a mix of uses, including residential units, a hotel, and commercial office space. To the north of the site is the Palm Grove amphitheatre event space and IMAX cinema.

1.3 PREVIOUS APPLICATIONS

On 9 July 2008, the then Minister for Planning approved a Concept Plan (MP06_0054) for a mixed use commercial, retail, cultural, recreational and entertainment development involving a maximum of 68,000m² of gross floor area (GFA) which comprised:

- A maximum of 5,000m² GFA of retail floor space;
- A minimum of 1,000m² GFA for cultural, recreational and entertainment uses; and
- Remaining GFA for commercial uses (a child care centre may be included in this GFA).
- Maximum building heights and envelopes within 2 development blocks, separated from each other by a 20 metre wide 'view corridor';
- Maximum of 200 basement car parking spaces to serve the commercial GFA;
- Maximum of 600 basement car parking spaces as a separate public car parking facility; and
- Public domain reconfigurations and improvements.

The need for a project application for the public domain works stems from the Instrument of Approval for the Concept Plan. It states that development with a CIV of more than \$5 million, excluding remediation, is subject to Part 3A of the EP&A Act.

On 9 May 2008, Director General's Requirements (DGRs) were issued pursuant to the Concept Plan for three project applications:

- MP 08_0057 – Bulk excavation and construction of basement structure
- MP 08_0092 – Construction of buildings
- MP 08_0093 – Public domain works, construction of roads

Key issues to be considered included built form, heritage, ecologically sustainable development and safety/public domain/landscaping.

On 2 January 2009, the then Minister for Planning approved the major project application (MP 08_0057) for bulk excavation, basement structure and construction of two 9 storey building. The project application included:

- 67,827m² GFA which comprised:
 - 64,235m² GFA of commercial floor space;
 - 2,592m² GFA of retail floor space; and
 - 1,000 m² GFA for a kids theatre.
- 200 car parking spaces to serve the commercial buildings;
- 600 space public car parking facility;
- Access and egress arrangements; and
- Associated bulk excavation.

Notably, the major project application for the construction of the buildings (MP 08_0092) was absorbed into MP 08_0057.

1.4 STRATEGIC CONTEXT

NSW State Plan

The proposed public domain upgrades are consistent with the objectives of the State Plan in relation to "improving urban environments" and "more visitors people using parks, sporting and recreational facilities". The proposal will provide workers and residents an upgraded public domain space within the central business district (CBD).

Sydney Metropolitan Strategy "City of Cities"

The Sydney Metropolitan Strategy places the City of Sydney Council local government area in the Sydney City Subregion. The strategy sets housing and employment targets for the region at 55,000 dwellings in existing areas and 58,000 new jobs by the year 2031, which are further refined in the Sydney City Subregional Strategy. The proposal is consistent with the Sydney Metropolitan Strategy as it is improving and upgrading one of Sydney's most important cultural event facilities.

Draft Sydney City Subregional Strategy

The proposed public domain upgrades are consistent with the key actions of the draft Sydney City Subregional Strategy as it will promote Darling Harbour as a key tourist and visitor destination, and will upgrade its cultural/commercial public domain areas.

The Subregional Strategy also targets the provision of an additional 58,000 jobs and 55,000 new residents for the Sydney City by 2031. The proposal would therefore assist in contributing to employment capacity targets for the Sydney LGA.

2 PROPOSED DEVELOPMENT

2.1 ENVIRONMENTAL ASSESSMENT (AS EXHIBITED)

The proposal comprises a number of elements including a children's playground, a pedestrian boulevard, civic connector, terraced community green, road works, augmentation to the Bathurst Street pedestrian footbridge and reinstatement of the Liverpool Street male toilets as shown in Figure 2: Location Plan.

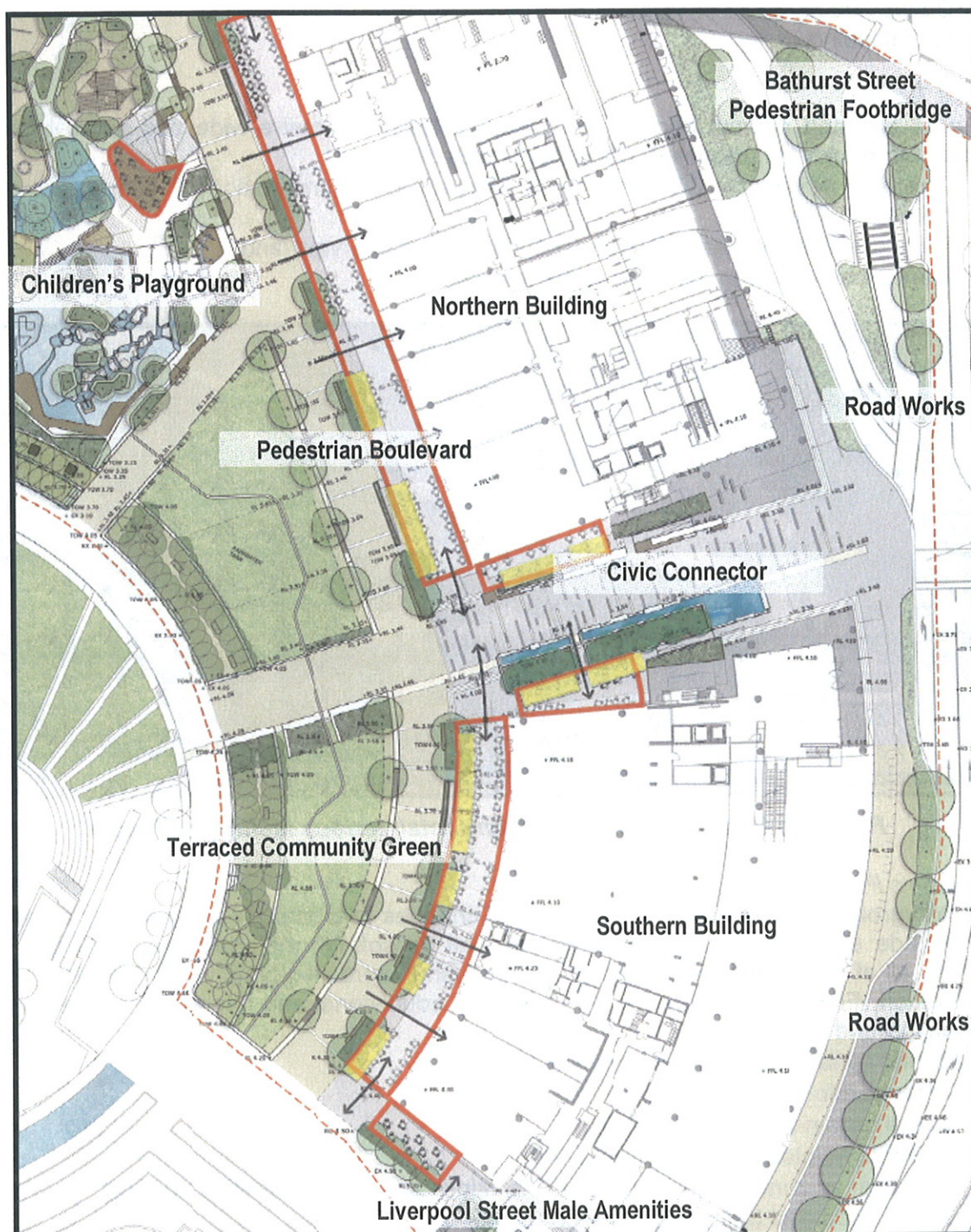


Figure 2: Location Plan

The proposed works as described in the Environmental Assessment seeks approval for the following:

Public Domain Works

Pedestrian Boulevard

A 7 metre wide north-south pedestrian connection (**Figure 3**) which consists of:

- Brick pavers by Austral Bricks in "Gertrudis Brown" to match the existing within the Darling Harbour precinct;
- Pre-cast concrete seating;
- Canopy trees; and
- Landscaping

Retail Terrace

An area elevated 450mm above natural ground level, 7.7 metre wide and parallel to the pedestrian boulevard (**Figure 4**) which comprises of:

- Concrete pavers by C&M Paving in "Raven" in a combination of honed and shot blasted finishes;
- Ramps, stairs and seats at intermittent levels and intervals; and
- Planters surrounding the edge of the terrace.



Figure 3: Pedestrian boulevard and retail terrace facing north-east

Children's Playground

The playground will comprise numerous level changes to create a variety of play areas. It will include shade structures and trees as well as soft-fall materials (sand, rubber and mulch), all of which aim to provide for dynamic and interactive play, water play and forest exploration (**Figure 6**). There are 11 dedicated educational and interactive spaces within the playground comprising:

- Senior dynamic play area for ages 5-12;
- Forest exploration area for ages 2-12;
- Mogul terrain zone for ages 2-5;
- Junior dynamic play area for ages 2-5;
- Observation zone which includes a 35m² kiosk and 23m² amenities building;
- Junior Slide and Sand play area for ages 5-12;
- Senior slide and spinning area for ages 5-12;
- Baby toddler play area for ages 0-2;
- Pumping station for ages 5 and over;

- Water play/channels area for ages 2 and over;
- Synchronised jets area for ages 0 and over; and
- Seating areas and a Melaleuca grove.

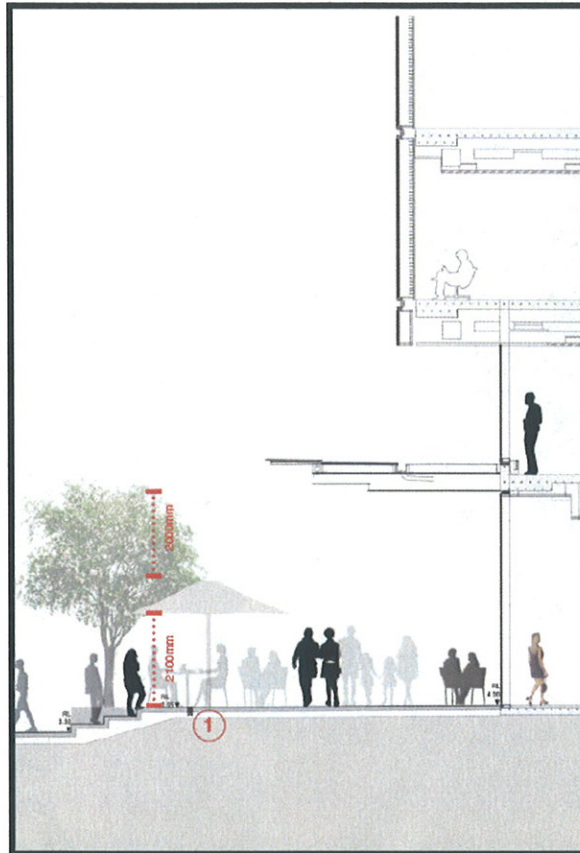


Figure 4: Retail Terrace Sectional Elevation

Terraced Community Green and Melaleuca Grove Extension

Two large terraced lawn areas are proposed for passive recreation which will be bound by the existing Melaleuca grove and the pedestrian boulevard (**Figure 5**). The Melaleuca Grove will be extended at the southern end of the Children's Playground, and will provide an area for shade and bench seating.



Figure 5: Terraced Community Green facing north



Figure 6: Children's Playground

Civic Connector

The Civic Connector is a pedestrian extension of Day Street (**Figure 7**) and changes in width from 9 metres to 11.7 metres connecting to the pedestrian boulevard running in a north-south direction. It traverses the site in an east-west manner and includes:

- Concrete pavers by C&M Paving in "Raven" in a combination of honed and shot blasted finishes;
- A water feature at the eastern end;
- Plantings and informal seating at the western end;
- Heritage interpretation incorporated into the paving; and
- Feature lighting incorporated into the paving, beneath benches and in planter walls.



Figure 7: Civic Connector facing west

Harbour Street Landscape Upgrades

Kerbs, pavements and planting outside the new northern and southern buildings along Harbour Street are proposed to be upgraded. New lighting will also be installed at the new Harbour Street/Day Street intersection (described below).

Bathurst Street Pedestrian Footbridge

Augmentation works to the existing Bathurst Street Pedestrian Footbridge will be undertaken (**Figure 8**) comprising:

- New awnings to stretch the length of the footbridge to be made of transparent polycarbonate roofing;
- A new public lift at the western end of the bridge; and
- Metal cladding covering the galvanized steel framework of the footbridge.

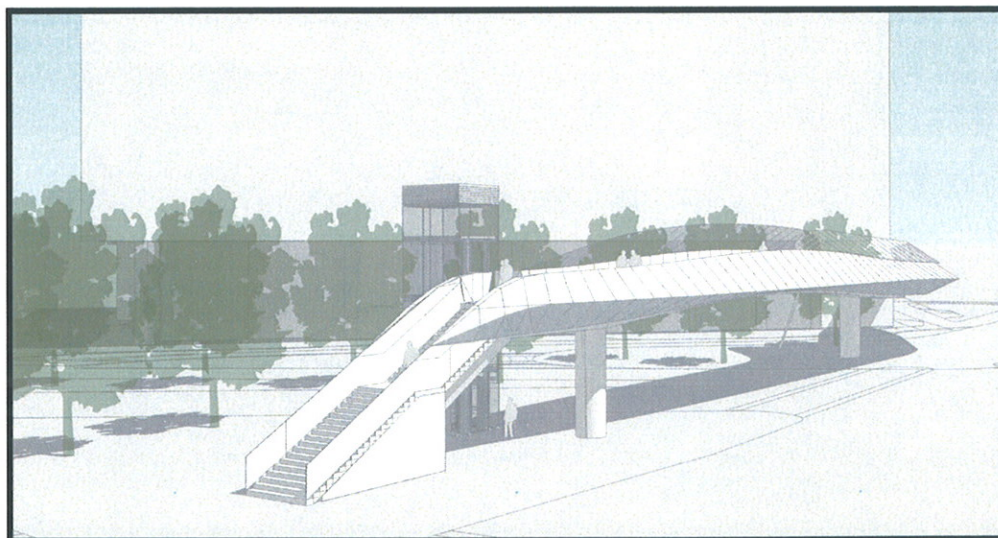


Figure 8: View of Pedestrian Footbridge from Bathurst Street (east)

Harbour Street Road Works

Within the site boundary, road works to Harbour Street and Day Street are proposed as follows:

- A pick up and set down access lane along the Harbour Street frontage on the eastern side for the new building;
- A left-hand turn slip lane off Harbour Street into the site;
- Entry/exit roads into and out of the site; and

- Road works for a McDonalds drive through at the northern end of the site (operation of the drive thru does not form part of this proposal).

Reinstatement of the Liverpool Street Pedestrian Footbridge male toilets

The male toilets under the northern end of the Liverpool Street pedestrian footbridge were removed as part of the stormwater drain diversion approved under SHFA DA 122-08-08. As the reinstatement of these bathrooms did not form part of the consent, they have been included as part of the major project application. The new design complements the built form that was previously demolished.

2.2 RESPONSE TO SUBMISSIONS

The proponent was provided with copies of the submissions received by the Department and was requested to respond to the submissions in accordance with section 75H of the Act. On 22 December 2009, the proponent submitted a response to the submissions and a revised statement of commitments. The amendments did not warrant re-notification of the application as they were relatively minor and responded to the issues raised, including the design changes to the children's playground, archaeological matters and water quality. The following key amendments were made:

- Redesign of the north-western corner of the children's playground to relieve weight from over the Sydney Water stormwater channel;
- Length of shade structures reduced and their angle altered to provide more shade space over the kiosk seating area. The span covering the toilet block was also removed due to structural load and engineering issues;
- Menu display boards proposed to be located adjacent to each tenancy, while tenancy name totems will be located alongside the pedestrian boulevard; and
- A section of the eastern façade of the kiosk dedicated to advertising/signage.

3 STATUTORY CONTEXT

3.1 MAJOR PROJECT DECLARATION

On 18 April 2006, the then Minister for Planning formed an opinion that the project is a major project under clause 10 of Schedule 2 of the MD SEPP, as it has a CIV of more than \$5 million. The Minister is the approval authority.

3.2 PERMISSIBILITY

The site is unzoned under the Darling Harbour Development Plan No. 1 (DHDP). Parks, gardens and public utility undertakings are permissible with consent under Schedule 1 of the DHDP.

The proposal is consistent with the objectives of the DHDP as it encourages the development of tourist, educational, recreational, entertainment, cultural and commercial facilities.

3.3 DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (DGR'S)

On 9 May 2008, the Director General issued DGR's for numerous project applications (MP 08_0057, MP 08_0092, MP 08_0093) pursuant to section 75F of the Act. The DGR's required the following key issues to be addressed:

- Compliance with Concept Plan;
- Built Form;
- Excavation and Construction;
- Urban Design;
- Heritage;
- Safety/Public Domain/Landscaping;
- Environmental and Residential Amenity;
- Car Parking/Traffic Impacts; and
- Ecological Sustainable Development.

The DGR's are contained in **Appendix A**. Due to the nature of the subject application, the key issues that are relevant for consideration include safety/public domain/landscaping, urban design, heritage, environmental amenity and ecological sustainable development. The EA lodged by the proponent on 17 August 2009, was deemed adequate for exhibition by the Department on 9 September 2009.

3.4 OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 (EP&A ACT)

The objects provide an overarching framework that informs the purpose and intent of the legislation and gives guidance to its operation. The Minister's consideration and determination of a project application under Part 3A must be informed by the relevant provisions of the EP&A Act, consistent with the objects of the EP&A Act.

The objects of the EP&A Act in section 5 are as follows:

(a) *To encourage:*

- (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*

- (ii) the promotion and co-ordination of the orderly and economic use and development of land,*
- (iii) the protection, provision and co-ordination of communication and utility services,*
- (iv) the provision of land for public purposes,*
- (v) the provision and co-ordination of community services and facilities,*
- (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats,*
- (vii) ecologically sustainable development,*
- (viii) the provision and maintenance of affordable housing,*
- (b) To promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) To provide increased opportunity for public involvement and participation in environmental planning and assessment.*

The Department has considered the objects of the EP&A Act, and it is determined that the application is consistent with the relevant objects. The assessment of the application in relation to these relevant objects is provided in section 3.5 and section 5.

3.5 ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES (ESD)

There are five accepted ESD principles:

- (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations (the integration principle);*
- (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle);*
- (c) the principle of inter-generational equity - that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the inter-generational principle);*
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the biodiversity principle); and*
- (e) improved valuation, pricing and incentive mechanisms should be promoted (the valuation principle).*

The Department has considered the development in relation to the ESD principles and has made the following conclusions:

- (a) Integration Principle** – The proposal has positive social and economic impacts supporting the revitalisation of Darling Harbour as a long-term visitor destination and employment generating use. The proposed development also encourages the sustainable use of existing facilities within the Darling Harbour locality such as transport, entertainment, leisure and sporting facilities located in proximity to the site and does not adversely impact on the environment.
- (b) Precautionary Principle** – There is no threat of serious or irreversible environmental damage as a result of the proposal. The site has a low level of environmental sensitivity and does not contain any threatened or vulnerable species, populations, communities or significant habitats. No significant climate change risks are identified as a result of this proposal.
- (c) Inter-Generational Principle** – The proposed development represents a sustainable use of the site, utilises existing infrastructure within the Darling Harbour locality and contributes to the vibrancy of the area for the benefit of future generations.

- (d) **Biodiversity Principle** – The proposal does not impact upon biological diversity or ecological integrity. The development site has been previously developed and has a low level of environmental sensitivity.
- (e) **Valuation Principle** – The approach taken for this project has been to assess the environmental impacts of the proposal and identify appropriate safeguards to mitigate adverse environmental effects. The mitigation measures include the cost of implementing these safeguards in the total project cost.

3.6 STATEMENT OF COMPLIANCE

Under section 75I of the EP&A Act 1979, and clause 8B of the EP&A Regulation 2000, the Director General's report is required to include a statement relating to compliance with the environmental assessment requirements with respect to the project.

The Department is satisfied that the environmental assessment requirements have been complied with.

3.7 SECTION 75I (2) OF THE ACT

Section 75I (2) of the EP&A Act and clause 8B of the EP&A Regulation 2000 provides that the Director General's report is to address a number of requirements. These matters and the Department's response are set out as follows:

Section 75I(2) criteria	Department Response
Copy of the proponent's environmental assessment and any preferred project report	The proponent's EA is located on the assessment file (attached).
Any advice provided by public authorities on the project	All advice provided by public authorities on the project application for the Minister's consideration is within Section 4 of this report.
Copy of/or reference to the provisions of any State Environmental Planning Policy that largely govern the carrying out of the project	Each relevant SEPP that substantially governs the carrying out of the project application is identified in Section 3.8.
Except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division	An assessment of the development relative to the prevailing environmental planning instrument is provided in Section 3.8 in this report.
Any environmental assessment undertaken by the Director-General or other matter the Director-General considers appropriate.	The environmental assessment of the project application is this report in its entirety.
A statement relating to compliance with the environmental assessment requirements under this Division with respect to the project.	The Department is satisfied that the environmental assessment requirements have been complied with.
Clause 8B criteria	Department Response
An assessment of the environmental impact of the project	An assessment of the environmental impact of the proposal is discussed in this report.
Any aspect of the public interest that the Director-General considers relevant	The public interest is discussed in this report.
The suitability of the site for the project	The site is suitable for the public domain works.
Copies of submissions received by the Director-General in connection with public consultation under section 75H or a summary of the issues raised in those submissions.	A summary of the issues raised in the submissions is provided in section 4 of this report.

Table 1 – Section 75I (2) requirements for Director-Generals Report

3.8 ENVIRONMENTAL PLANNING INSTRUMENTS (EPI'S)

3.8.1 Application of EPI's to Part 3A projects

To satisfy the requirements of section 75I(2)(d) and (e) of the EP&A Act, this report includes references to the provisions of the EPIs that govern the carrying out of the project and have been taken into consideration in the assessment of the project application. An assessment of compliance with the relevant EPI's is provided immediately below which concludes that the proposal complies with these instruments.

The primary controls guiding the assessment of the proposal are:

- State Environmental Planning Policy (Major Development) 2005;
- Darling Harbour Development Plan No.1 (DHDP);
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;
- State Environmental Planning Policy (Infrastructure) 2007; and
- State Environmental Planning Policy No. 55 (Remediation of Land).

Other planning controls to be considered in the assessment of the proposal are:

- Draft Sydney City Sub Regional Strategy.

The Department has considered the proposed project application against the objectives and aims of these instruments, and is satisfied that the proposed project is consistent with the provisions of all of these instruments. Assessment of each of these is considered as follows:

3.8.2 State Environmental Planning Policy (Major Development) 2005

On 18 April 2006, the Director General as delegate for the Minister for Planning, formed an opinion that the project is a major project under clause 10 of Schedule 3 of the MD SEPP as it is located within Map 9 – Darling Harbour, and has a CIV of more than \$5 million. The Minister is the approval authority.

3.8.3 Darling Harbour Development Plan No. 1 (DHDP)

The proposal is consistent with the objectives for the site as it encourages uses that will provide for tourist, educational, recreational, entertainment, cultural and commercial facilities. Schedule 1 of the DHDP sets out the types of development which can be carried out with 'a permit' (development consent), and this includes parks and gardens and public utility undertakings. The proposal is permissible development with consent under the DHDP.

3.8.4 Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

The proposal is consistent with the principles for the area in that it will regenerate and activate an underused site, provide for increased public access to the foreshore area, enhance the diverse range of uses at Darling Harbour for existing and future generations, and will achieve a high quality and ecologically sustainable development on the site through its urban and public domain design. The proposal will provide a vibrant place for people, enabling the use of an improved public domain environment. The proposed development will not adversely affect the natural assets of Sydney Harbour and is generally consistent with the considerations and objectives of the SREP.

3.8.5 State Environmental Planning Policy (Infrastructure) 2007

The proposed development meets the aims of the Infrastructure SEPP as it allows for the efficient redevelopment of surplus government owned land. Schedule 3 of the Infrastructure SEPP (Traffic Generating Development) required MP 08_0057 to be referred to the RTA. The proposal was considered by the Sydney Regional Traffic Committee (SRTC) which raised matters relating to signposting, entry and exits, car parking, mobile

storage facilities, public utility adjustments, road works, construction zones, alterations to the traffic signals and design requirements. The subject application was not referred to the SRTC as it poses no additional impacts to that already considered under MP 08_0057 and does not require referral under the Infrastructure SEPP

3.8.6 State Environmental Planning Policy No.55 – Remediation of Land

A Preliminary Environmental Site Assessment of the existing built up part of the Darling Walk site was commissioned in April 2007 (Stage 1). The assessment recommended the preparation of an Acid Sulphate Soils Management Plan (ASSMP), and further investigation following the demolition of the building for levels of benzo (a) pyrene and nickel, including additional boreholes across the whole site to meet minimum sampling density.

On 1 December 2008, DA 133-08-2008 was approved by the Minister for Planning for the remediation of contamination at the Darling Walk site, the removal of acid sulphate soils within the area to be excavated and the installation of a piling/shoring system around the perimeter of the proposed in-ground basement to facilitate the remediation works.

Based on the approval of DA 133-08-2008, it is considered that the site is suitable for the use and thus satisfactorily meet the requirements of SEPP 55.

3.8.7 Draft Sydney City Subregional Strategy

The Draft Sydney City Subregional Strategy aims to provide for sustainable development of major urban renewal projects, as well as, improving the quality of the built and natural environment. One of the key actions identified in the Draft Strategy is to continue to upgrade access and important areas of public domain within the Sydney City subregion. Darling Walk is located within Darling Harbour, a prominent and identifiable public domain space within the Sydney CBD. The proposed public domain improvements at Darling Walk are consistent with the key actions of the Draft Strategy.

4 CONSULTATION

4.1 PUBLIC EXHIBITION DETAILS

Under section 75J of the EP&A Act, the Director General is required to make the EA publicly available for at least 30 days.

After accepting the EA, the Department:

- made it publicly available from 23 September to 23 October 2009:
 - on the Department's website
 - at the Department's Information Centre
 - at the City of Sydney Council's One Stop Shop
- notified landowners in the vicinity of the site about the exhibition period;
- notified relevant State government authorities and City of Sydney Council; and
- advertised the exhibition in the Daily Telegraph and Sydney Morning Herald newspapers.

The Project Application, Director General's environmental assessment requirements, Environmental Assessment, and response to issues raised in submissions were placed on the Department's Website. This satisfies the requirements of section 75H (3) of the EP&A Act.

4.2 SUBMISSIONS RECEIVED ON ENVIRONMENTAL ASSESSMENT

The Department received four submissions from public authorities, two from council and no public submissions. The issues raised are summarised below, and a full copy of the submissions is attached at **Appendix D**.

4.2.1 NSW Transport and Infrastructure

NSWTI has raised no objections to the project application, however they note that bicycle access and its implications for the site should be considered under the Department of Planning's *Guidelines for Walking and Cycling*.

Comment

Bicycle access and end of journey facilities were included in the project application MP 08_0057. There will be 415 bicycle racks on Basement Level 2 within a specified cycle area and within the public domain. 'At grade' linkages to the pedestrian network will facilitate pedestrian movements through and around the site, as well as providing linkages to the proposed pedestrian/cycle route to be introduced along the eastern side of Harbour Street. This will assist with access and ensure consistency with the Department's *Guidelines for Walking and Cycling*.

4.2.2 NSW Health

NSW Health supports the recycling and reuse of water as proposed by the subject project application. They noted that there are high public health risks created through human exposure to water, increasing the risk of transmission of organisms and chemicals via inhalation, ingestion or absorption. Therefore, NSW Health advised the water systems at Darling Walk should be appropriately treated and managed to protect human health. Further, NSW Health requested that a risk assessment should be carried out to ensure that the systems are properly engineered and maintained to ensure the water is potable.

Comment

The proponent has committed to using the rainwater re-use system for the water feature in the Civic Connector, the flushing of public toilets and the irrigation system. Domestic water (potable water) will be used for the water elements within the playground and within the

public domain. This will ensure that people using the water activities in the playground will not be exposed to possible water contaminants found in the rainwater re-use system that cannot be removed from the filtration process. The proponent has also committed to implementing the risk management measures in accordance with the Rainwater Quality Report prepared by Warren Smith & Partners, dated 29 October 2009.

4.2.3 Department of Planning – Heritage Branch

The Heritage Branch of the Department note that the site has the potential for a range of state significant archaeological resources. Excavation of the site for the children's playground will possibly impact on ground levels from the 19th century. Largely, their submission requested the implementation of the recommendations found in the Heritage Impact Statement (HIS) prepared by Tanner & Associates, dated 11 July 2008, and the Non-Indigenous Archaeological Assessment (NIAA) prepared by Casey & Lowe, dated 2008.

Comment

The proponent has submitted a Public Domain Archaeological Issues Report, prepared by Casey & Lowe in their Response to Submissions report, which recognises that excavation for the plant room that is to be located under the Kiosk may impact on potential archaeological deposits. As such, the proponent has committed to implementing the recommendations within the HIS prepared by Tanner & Associates, dated 11 July 2008, and the Non-Indigenous Archaeological Assessment (NIAA) prepared by Casey & Lowe, dated 2008. This will ensure appropriate measures and procedures are undertaken, should any archaeological features be discovered during construction.

4.2.4 Roads and Traffic Authority (RTA)

The RTA has no objections to the project application. They note that traffic implications for the subject proposal have been considered in previous Darling Walk project applications and therefore have no further requirements to add.

Comment

Noted.

4.2.5 City of Sydney Council

Council raised a number of concerns, mainly in relation to lighting, connectivity and enhancement of the Civic Connector. In summary, they include: -

- *Civic Connector:* The civic connector should have elements of injecting or moving water to act as background noise to the traffic noise that will be heard from Harbour Street. Proposed alignments of levels of footways are unclear and it is assumed that they will be graded accordingly. Signage should also be introduced to reinforce the connections between Darling Walk and the CBD.
- *Pedestrian Footbridge:* Council recommend that lighting should be provided to the pedestrian footbridge as it is a key pedestrian link.
- *Paving:* the proposed Austral "Gertrudis Brown" is not the same as that of other locations within the Darling Harbour precinct and as such consideration should be given to finding a paver that would match the precinct.
- *Irrigation and Flood Levels:* Council recommends investigating the use of stormwater for the public toilets and note that the Flood Study should be completed.

Comment

The water features will create some noise and low water sounds, however, the proponent notes their primary use will not be for the use of an acoustic barrier from traffic on Harbour Street as they have not been designed for this purpose. The proponent has submitted a Footpath Alignment Level Statement prepared by Hyder Consulting Pty Ltd, dated 24 November 2009, which notes that all footpath levels are graded accordingly and will comply

with *AS 1428.1 Design for Access and Mobility – Part 1: General Requirements for Access – New Building Work*. The proponent also submitted a Signage Plan which has way-finding information for visitors to the Darling Walk precinct and replicates the visual identity already within Darling Harbour, and is consistent with the Darling Harbour Commercial Signage Policy.

Lighting is to be provided to the pedestrian footbridge and recommended conditions of consent ensure compliance with appropriate Australian Standards. Should no pavers be found that will match the existing pavers within Darling Harbour, the proponent will seek to blend the proposed Gertrudis Brown paver into the existing pavers which surround the Darling Walk site. The rainwater re-use system will be used to supply water for toilet flushing within the public toilets instead of council's recommended stormwater.

4.2.6 City of Sydney Council's Health Compliance Unit (HCU)

NSW Health forwarded a copy of their submission to Council's HCU for additional comments. The HCU fully endorse NSW Health's submission and reinforce the need for ongoing maintenance and good design of the water recycling systems.

Comment

Noted.

5 ASSESSMENT OF ENVIRONMENTAL IMPACTS

The DGR's and following key issues raised during the exhibition period were considered in the Department's assessment of the application:

- Public domain and pedestrian access;
- Vehicular access and road works;
- Rainwater re-use and potable water quality;
- Heritage interpretation and archaeological investigations;
- Stormwater;
- Ecologically sustainable development (ESD); and
- Construction Impacts.

5.1 PUBLIC DOMAIN AND PEDESTRIAN ACCESS

The proposed public domain works are considered to be an improvement to the existing environment and will contribute to rejuvenating and reactivating the site. By upgrading the existing pedestrian linkages between the CBD and the site and providing new path connectors, Darling Walk will be easily accessed and connected with the CBD and the Darling Harbour precinct. In this regard, the Department notes the following key improvements to pedestrian access and linkages included in the proposal:

- Augmentation to the Bathurst Street footbridge will provide an awning spanning the length of the bridge for weather protection and a new lift for disabled access. It will encourage walking and pedestrian access to the site which improves connectivity.
- To the immediate west of the new Darling Walk buildings a new north-south 7 metre wide pedestrian boulevard will be constructed. This at-grade pedestrian connection also promotes the movement of people around the north and south buildings as well as strengthening the connections between the north and south precincts of Darling Harbour.
- The civic connector, located between the northern and southern buildings provides a new pedestrian link and vista to Darling Harbour. It will strengthen the site's accessibility to and from the CBD as well as enhance sight lines between Day Street and Darling Harbour. The civic connector traverses the pedestrian boulevard which will improve pedestrian access and connectivity.

The proposal also provides open space within walking distance to the CBD which is consistent with the key actions under the Draft Sydney City Subregional Strategy. The existing environment will be reactivated by upgrading the children's facilities to a new children's playground area which will provide several distinct sections relating to age and ranging in degree of difficulty. The playground is designed as an open plan space and aims to promote active and imaginative play for children and carers. Reduction in levels improves sightlines from the perimeter zones, consistent with Crime Prevention through Environmental Design (CPTED) principles. The children's playground facilities will benefit Darling Harbour's visitor population as it will provide a place for families to congregate and it will diversify the types of activities available within the Darling Harbour precinct. A kiosk, shade structures, casual seating and trees provide shade and passive recreational areas for carers and children. The Department views the public domain improvements as an appropriate use for the site.

Adjacent to the children's playground is a large terraced community green designed for passive recreation and is intended to be used primarily by workers from the CBD during the week and tourists/visitors on weekends. It is bounded primarily by Melaleuca trees and casual benches which would provide shade and seating. This local open space is within walking distance from the CBD and therefore its upgrade is consistent with the Draft Sydney City Subregional Strategy's key actions for the continuation of upgrading foreshore access and important parts of the public domain.

A recommended condition of approval requires the public domain works, works to the Bathurst Street pedestrian footbridge, the Liverpool Street male amenities and landscaping to be complete prior to occupation of the kiosk to ensure that facilities are available to patrons upon occupation.

5.2 VEHICULAR ACCESS AND ROAD WORKS

Vehicular access to the site will be via Harbour Street which is closely linked to the western distributor and the Cross City Tunnel. An upgrade of the old site entrance to a left hand turn slip lane from Harbour Street into the northern section of the site doubles as the proposed access point into the McDonalds drive through and the Darling Walk car park. This is to ensure a single address is established for the site. The car park exit will be located at the southern side of the southern building, near to the Liverpool Street/Harbour Street intersection. The Department considers these works will improve access into and out of the site and will alleviate congestion and traffic more evenly.

A set-down/pick-up lane is also proposed along the Harbour Street frontage on the eastern side of the southern building. This provides the site with a location for a short stay set-down/pick-up access lane. The RTA raised no objections to the road works proposal and advised that any traffic implications had already been considered in previous applications for Darling Walk. Accordingly, the Department considers the proposed set-down/pick-up lane as appropriate for the site.

5.3 RAINWATER RE-USE AND POTABLE WATER QUALITY

A 300,000 litre water tank located under the northern section of the terraced community garden would be used to store water captured from the roof of the northern building, external roof service areas and part open plant room areas. This rainwater would be treated in accordance with Australian Standards as well as relevant policies and guidelines. The captured water would be filtered to remove particles and would be passed through a UV treatment system to control bacteria, making the captured water of potable quality.

NSW Health and Council raised concerns about the quality, maintenance and management of water to be used within the site, particularly for the water being used in the playground. In response to issues raised by Council and NSW Health the proponent prepared a Rainwater Quality Report. The report advised that unusual pollutants or chemical spills would not be removed through such processes and therefore the captured rainwater could not be re-used where it would be in contact with the public, including the children's playground and bathroom basins. As such, the report recommends that these elements use domestic (potable) water which has been filtered and reticulated. The water from the rainwater re-use system would therefore be used for the water feature in the civic connector, the irrigation system for grassed public domain areas and the flushing of public toilets.

To ensure that the water is appropriately treated and managed to protect human health, the report has identified steps in which to manage the risk particularly relating to the co-management of the system between the operator (Lend Lease Development) and the Sydney Harbour Foreshore Authority. Pre and post treatment will be coordinated by the operator with other responsibilities such as ensuring roof cleaning agents are non toxic, and roof materials are selected on their suitability for rainwater collection. SHFA are to maintain the rainwater re-use system by means of a three monthly inspection after the initial 12 month defects period and then every 12 months after.

The Department considers these methods of water re-use and water management processes as satisfactory as they address water quality concerns and are acceptable.

5.4 STORMWATER

The proposed works and adjacent building structures within the Darling Walk precinct have been designed to manage and re-use stormwater. Specifically, the paved areas would be graded and designed to direct water away from the buildings, and where possible, towards soft landscape areas such as the Terraced Community Green. Within the children's playground, large areas of permeable surfaces allow run-off to filtrate into the soil. The proponent has submitted a Water Re-use and Stormwater Management Plan which details where stormwater will be collected from and drained to. The Department considers this plan an acceptable form of stormwater management.

5.5 HERITAGE INTERPRETATION AND ARCHAEOLOGICAL INVESTIGATIONS

There are no items of heritage significance on the site which are listed on the State Heritage Register, however the site has potential to retain a range of significant archaeological resources such as evidence of early industry (1830s+), urbanisation and foreshore reclamation. There is the possibility of the excavation for the public domain works to impact upon ground levels and features from the 19th century.

The Department's Heritage Branch was concerned that the information the proponent provided regarding archaeological management, investigation and salvage programs (should any items of state significance be found during construction) was inadequate due to the lack of a Heritage Impact Statement (HIS). The Heritage Branch were advised that the HIS and Non-Indigenous Archaeological Assessment (NIAA) were submitted for the Darling Walk site with MP 08_0057. In response, the proponent has committed to implementing the HIS prepared by Tanner & Associates, dated 11 July 2008, and the NIAA prepared by Casey & Lowe, dated 2008. These heritage reports require any archaeological investigation and archaeological recording to be undertaken in accordance with best practise standards. The Heritage Branch subsequently advised the Department that it is satisfied with the proposed management of heritage and archaeology.

The proponent has committed to documenting and incorporating heritage interpretation works should any significant heritage items be salvaged. An Interpretation Plan is to be compiled in consultation with a Heritage practitioner and in accordance with the NSW Heritage Office Interpretation Policy.

Subject to the implementation of the recommendations made in the heritage reports listed above, the Department considers the public domain works and related excavation can be managed appropriately without impact on the heritage significance of the site.

5.6 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)

An ESD Report was lodged with MP 08_0057 which was for the bulk excavation and construction of the basement structure. This report outlined that the design for the Darling Walk site, including the public domain improvements, will achieve a 5 star ABGR design rating and a 6 star Green Star rating in design.

The proponent has therefore committed to ESD principles that will deliver a minimum 6 star Green Star rating in environmental performance, achieved via the incorporation of the following measures:

- Water sensitive urban design;
- Use of plants that require low levels of irrigation;
- Use of recycled site water for irrigation;
- Use of recycled materials; and
- Use of highly energy efficient lights.

The public domain, walkways and children's playground have been designed to be water use efficient. Through the orientation of the building, natural ventilation, thermal insulation, minimisation of water usage as well as the rainwater re-use system proposed under this project application, Darling Walk aims to achieve a 6 Green Star rating. The Department is satisfied the proposed development has appropriate ESD measures and represents a sustainable use of the site.

5.7 CONSTRUCTION IMPACTS

Construction impacts have been previously assessed by the Department for the Darling Walk site which concluded that any issues such as construction noise, dust and construction hours could be mitigated by the imposed conditions of consent. Extended hours of construction were approved as part of MP 08_0057 MOD 1. These were Monday to Friday 7.00 am – 7.00 pm, Saturdays 7.00 am – 5.00 pm and no works on Sundays. This was to align with the construction hours approved under DA 133-08-2008 (remediation) and DA 122-08-2008 (stormwater diversion), maintain consistency with standard construction hours for City of Sydney Central Business District (CBD) hours, assist in minimising traffic disruptions during peak periods, and assist in avoiding prolonging overall construction programme.

The Proponent submitted detailed information relating to the demolition works in the response to submissions to the Concept Plan, including a description, demolition plan, construction management plan, hazardous materials survey and decommissioning reports.

For the proposed works, the proponent has submitted a Construction Management Plan (CMP) prepared by Bovis Lend Lease, dated 2 June 2009 that outlines the manner in which construction of the project will be managed and includes measures to be implemented to mitigate potential impacts on adjoining properties, traffic and pedestrians during the construction phase. Specifically, all materials handling and delivery will be via Harbour Street with a construction zone being temporarily established to allow traffic, pedestrians and construction vehicles to operate safely. The Department is satisfied that the CMP can adequately manage construction impacts.

5.8 PUBLIC INTEREST

On balance the proposal will provide significant benefits to the community, including:

- Activation and rejuvenation of the Darling Walk precinct;
- Improved public domain areas, including engagement between the private and public realms; and
- Improved pedestrian connectivity and accessibility between the site and interface with the CBD to the east and Darling Harbour to the west.

Accordingly, the proposal is considered in the public interest.

6 CONCLUSION

The Department has assessed the project application and considered the submissions in response to the proposal. Key issues assessed by the Department included public domain and pedestrian access, vehicular access and road works, rainwater re-use and potable water quality, heritage interpretation and archaeological investigations, stormwater, ESD, and construction impacts.. The Department has determined that the proposal is well designed and the proposed rainwater re-use system is considered appropriate. The proponent's EA, response to submissions and final statement of commitments will ensure there are minimal environmental impacts as a result of the proposal, subject to modifications and post determination requirements.

The public benefit of the redevelopment is highly desirable, as it will activate and rejuvenate the Darling Walk precinct and provide employment, leisure and recreational opportunities through the various proposed land uses. The variation of uses will maximise public transport patronage and encourage activities such as walking and cycling, and will retain and enhance the precinct's role as a safe and family oriented location within a pedestrianised environment. The proposed public domain works are well designed and provide an appropriate interface between surrounding land uses. Integrated with pedestrian linkages, open space and water features will create a healthy and enjoyable public space for visitors to the Darling Harbour precinct.

The project is consistent with key objectives in the State Plan, Sydney Metropolitan Strategy and Draft Sydney City Subregional Strategy and will provide significant public benefits to the broader community resulting in a well designed public domain space for the Sydney City region.

The Department is therefore satisfied this proposal is of a low impact to the surrounding environment and can be suitably managed to ensure a satisfactory level of environmental performance, pursuant to section 75J of the EP& A Act. Accordingly, the Department recommends the project application be approved, subject to conditions.

7 RECOMMENDATION

It is recommended that the Deputy Director General acting under delegation from the Minister for Planning:

- a) **Consider** all relevant matters prescribed under section 75J(2) of the EP&A Act, including those relevant matters prescribed by 75I(2) as contained in the findings and recommendations of this report;
- b) **Approve** the project application, subject to conditions, under section 75J(1) of the EP&A Act, having considered all relevant matters in accordance with (a) above; and
- c) **Sign** the attached instrument of approval (**TAG A**).

Prepared by:

E. Caldwell 19/2/10

Ellie Caldwell
Planning Officer

Daniel Keary 19/2/10

Daniel Keary
Director
Government Land & Social Projects

Chris Wilson 23.2.10

Chris Wilson
Executive Director
Major Projects Assessment

APPENDIX A. DIRECTOR-GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Application number	MP 08_0057/ MP 08_0092/ MP 08_0093
Project	Bulk excavation and construction of new buildings and associated domain works and road works. It is proposed that three separate Major Project Applications (MP) will be submitted for approval. MP 08_0057 – Bulk excavation and construction of basement structure. MP 08_0092 – Construction of buildings MP 08_0093 – Public Domain works, construction of roads.
Location	Darling Walk, Darling Harbour
Proponent	Lend Lease Development
Date issued	09/05/08
	If the environmental assessment is not exhibited within 2 years after this date, the applicant must consult further with the Director-General in relation to the preparation of the environmental assessment.
Key issues	The Environmental Assessment must address the following key issues: Relevant EPIs and Guidelines to be Addressed - Planning provisions applying to the site, including permissibility and the provisions of all plans and policies including: - Darling Harbour Development Plan 1; - State Environmental Planning Policy (Major Projects) 2005; - Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005; - State Environmental Planning Policy (Infrastructure) 2007; and - State Environmental Planning Policy No. 55 – Remediation of Land - Nature and extent of any non compliance with relevant environmental planning instruments, plans and guidelines and justification for any non-compliance; and - Concept Plan (MP06_0054) Concept Plan The EA shall address compliance with all relevant aspects of the Concept Plan. Built Form The EA shall address the height, bulk and scale of the proposed development within the context of the locality. Excavation and Construction The EA shall address the requirement for the excavation stage of the proposal to be combined with construction to at least ground floor level with hoardings. Urban Design

The EA shall address the design quality with specific consideration of the façade, massing, setbacks, building articulation, use of appropriate colours, materials/finishes, landscaping, safety by design and public domain.

6. Heritage

The EA shall provide a Heritage Impact Statement should be prepared in accordance with the NSW Heritage Office publication "Statements of Heritage Impact."

7. Safety/Public Domain/Landscaping

Demonstrate how the proposal will: -

- Maximise safety and security, activity and surveillance within the public domain and basement car park and show consistency with 'Safer by Design' principles.
- Minimise potential for vehicle and pedestrian conflicts.
- Ensure access for people with disabilities.

8. Environmental and Residential Amenity

The EA must address solar access, acoustic privacy, visual privacy, view loss and wind impacts and achieve a high level of environmental and residential amenity.

9. Car parking / Traffic Impacts (Construction and Operational)

- The EA must demonstrate the provision of sufficient on-site car parking for the proposal having regard to local planning controls and RTA guidelines.
- The EA shall also provide a Traffic Impact Study prepared in accordance with the RTA's Guide to Traffic Generating Developments, considering traffic generation, any required road / intersection upgrades, access, loading dock(s), car parking arrangements, measures to promote public transport usage and pedestrian bicycle linkages.
- The EA shall provide detailed excavation plans for any works in the vicinity of the piers for the Western Distributor and associated infrastructure
- The EA must include a report reviewing the proposals to ensure that any new structures do not introduce a security risk to the Western Distributor and associated infrastructure.

10. Environmental Management Plan

An environmental management plan shall be submitted as part of the EA, it should contain, however not be limited to, the following: -

- Noise and Vibration Management Plan;
- Acid Sulphate Management Plan;
- Erosion and Sediment Control Plan;
- Air Pollution Control Management; and
- Hazardous Materials Management Plan.

11. Ecologically Sustainable Development (ESD)

The EA shall detail how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development.

12. Contributions

12. Contributions

The EA shall address provision of public benefit, services and infrastructure having regard to the applicable Section 94 Contribution Plan and/or details of any Voluntary Planning Agreement.

13. Drainage

The EA shall address drainage/flooding issues associated with the development/site, including: stormwater, drainage infrastructure and incorporation of Water Sensitive Urban Design measures.

14. Flooding

Provide an assessment of any flood risk on site in consideration of any relevant provisions of the NSW Floodplain Development Manual (2005) including the potential effects of climate change, sea level rise and an increase in rainfall intensity.

15. Groundwater

The EA must identify groundwater issues and potential degradation to the groundwater source.

When potential impact/s are identified the EA must identify limits to the level of impact, and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource, and any dependent groundwater environment or water users.

16. Infrastructure

In consultation with relevant agencies the EA must address impacts on and proposed mitigation measures for the existing infrastructure and the supply of utility services to the site and surrounding areas.

17. Consultation

Undertake an appropriate and justified level of consultation in accordance with the Department's *Major Project Community Consultation Guidelines October 2007*.

APPENDIX B. ENVIRONMENT ASSESSMENT

Refer to attached disk.

APPENDIX C. RESPONSE TO SUBMISSIONS

Refer to attached disk.

APPENDIX D. SUBMISSIONS

Refer to attached disk.

