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PROPOSED PUBLIC DOMAIN WORKS ASSOCIATED WITH DARLING WALK, DARLING HARBOUR

PRE DA BCA REVIEW FOR DA SUBMISSION

Report prepared for:	Bovis Lend Lease Level 4, 30 The Bond, 30 Hickson Road, MILLERS POINT NSW 2000 Attention: Abbey Johnson
Report prepared by:	Philip Chun Building Surveying Suite 404 44 Hampden Road ARTARMON NSW 2064
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DOCUMENT ACCEPTANCE

	Name	Signed	Date
Prepared by	Frank De Pasquale		07/07/09

REVISION HISTORY

Revision No.	Prepared by	Description	Date
R01	Frank De Pasquale	EA Submission Review	07/07/09

1.0 Introduction and Documentation

Introduction
This report contains a design philosophy review concerning the capability of the design to meet Building Code of Australia 2009 requirements.

At the request of Bovis Lend Lease Pty Ltd, this report contains details of compliance with respect to the Building Code of Australia 2009 for the proposed construction of public domain which includes pedestrian link bridge to City/Town Hall, kids play zones, kiosk, toilet amenities block with basement plant room, shade structures, raised plant seating, raised podium terraces, reinstatement of male toilet block under walkway, water features and associated landscaping.

The outbuildings are single storey type C construction and form an integrated component of the public domain works which link the development of the two offices towers currently under construction (also known as Darling Walk, Darling Harbour).

We have reviewed the submitted documentation (provided to date) for compliance with the deemed-to-satisfy provisions of the Building Code of Australia. Where compliance with the deemed to satisfy provisions is not possible a schedule of alternate solutions will be provided prior to the issue of a construction certificate. We have made every attempt to cover the main issues under Parts C, D, E, F and J of the Building Code of Australia. Areas of the design are still being refined so that resolution will be possible prior to the issue of the Construction Certificate for the works.

Methodology is principally inspection of the available documentation for the building at this point in time prepared by FJMT, Lend Lease Design and Aspect Studios (Landscape Architects).

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Documentation available and assessed
The Design Development scheme assessed comprises of the following design drawings as per the attached drawing schedule.

Drawings
LD44510/D, LD44511/D, LD44512/D, LD44513/D, LD44514/D, LD44515/D, LD44516/D, LD44517/D, LD44518/D, LD44519/D, LD44520/D, LD44521/D, LD44522/D, LD4423/D, LD44524/D,LD44525/D, LD44530/D, LD44531/D dated 29/06/09 as prepared by Aspect Studios and AD900000, AD900001, AD901001, AD951001, AD951002, AD951003, AD951004, AD951005, AD951006, AD951007 dated 17/06/09 as prepared by FHMT Architects.

2.0 Use and Class of Buildings

The development consists of outbuilding as described above associated with the public domain works linked with the Darling Walk, Darling Harbour re-development.

Location / Level	Proposed Use	Building Code of Australia Class
Ground level	Retail kiosk	Class 6
Ground level	Toilet amenities x 2	Class 10a
Ground level	Shade Structures & Retaining walls	Class 10b
Basement level	Plant room	Class 10a

The out-buildings and structures will be documented so that they will comply with the requirements of Type C construction. The required fire ratings are specified in the following report.

3.0 Construction and fire resistance ratings

The buildings are to be constructed of structural reinforced concrete, masonry and steel construction.
Given the location of the out-buildings i.e. greater than 3m from any boundary (fire source feature) no fire ratings required.

The service plant in the basement is not required to be separated from the remainder of the amenities building via 120/120/120 FRL as the plant room will not sustain emergency equipment.

Fire compartment areas and volumes
The maximum area and maximum volume of fire compartments allowed as specified in Part C2.2 of the BCA for Type C construction is 2,000m^2 and 12,000m^3 for the class 6 parts of the building – will comply.

Protection of Openings
Not required as the setback to boundaries exceeds 3metres.

4.0 Access and Egress

Principles
The buildings' egress system has been assessed and designed to ensure compliance with the following principles:

- Every building is provided with at least one exit. The basement floor area is not more than 50m^2 - complies.
- The maximum distance of travel to an exit in Class 6 will be 30 metres – complies.
- The construction and discharge of stairs, landings, thresholds, balustrades and handrails will need to meet the requirements of the BCA.
- All paths of travel are to be a minimum of 1000mm in clear width.
- Widths of exits and corridors must be sufficient to provide safe passage for occupant egress.

At this stage the proposed buildings will be compliant however should any variations from the above arise during design development phase then justification will be provided by a fire engineer prior to the issue of a construction certificate.

Disabled access considerations

- Access for persons with disabilities will meet the requirements of AS 1428.1 and Part D3 of the BCA. A separate Access Consultant report will also form the basis of issue of any construction certificate.
- Braille and tactile signage complying with AS 1428.1 is required to identify each sanitary facility for persons with disabilities.

Should any variations from the above arise during design development phase then justification will be provided by an access consultant prior to the issue of a construction certificate.

5.0 Fire Services and Equipment

The following is a status of the services required and to be provided to the buildings.

Fire services

Fire Hydrants	Not required – fire compartments are less than 500m^2
Fire Hose-Reels	Not required – fire compartments are less than 500m^2
Sprinklers	Not applicable
Sprinklers - External Wall Wetting	Not applicable

Fire Control Room

Not applicable

Smoke hazard management

Not applicable

Lift systems

Not applicable

Emergency Lighting, Exit Signs and Warning Systems

Exit and emergency lighting	Requirements
A system of emergency lights and exit signage will be installed in the buildings to E4.2, E4.4 – E4.8 and AS 2293.1-2005.	Electrical services consultant to provide electrical drawings for review with the construction certificate.

Emergency warning and intercommunication systems	Requirements
Not applicable	

6.0 Health and amenity issues

The following criteria detail the required sanitary facilities to be provided.

Sanitary facilities

Class 6
Sanitary facilities are proposed at the rear of the kiosk and will cater for the proposed number of chairs. A unisex disabled accessible facility is also located within the amenities block and the fit out is likely to comply with AS1428.1 the finer details to be provided prior to the issue of a construction certificate.

Swing and operation of doors to the WC's
Doors to fully enclosed sanitary compartments to open outwards, or slide or have 1.2 metres clear space between door and closet plan or be readily removable from the outside of the sanitary compartment.

Room Sizes
The ceiling minimum height of 2.4m will be provided to kiosk and 2.9m to the plant room and over 3.0m to the reinstated toilet block – will comply.

Light and ventilation
Natural ventilation in accordance with F4.6 or mechanical ventilation to AS1668.2 will be provided to the buildings.

Kitchen local exhaust ventilation
The kiosk is unlikely to include full commercial kitchen hence cooking on site is to be limited. Should a commercial kitchen be required the kiosk will be provided with a complying ventilation system to AS1668.1 and 2.

7.0 Energy Efficiency

The building will be designed in accordance with the requirements of Part J of the BCA in terms of Energy Efficiency specifically relating to the class 6 component. These details will be provided with an application for construction certificate.

Access for maintenance
The following criteria must be observed in the special design of the plant areas apart from the issues that may be raised by an Energy Efficiency consultant.

NSW SECTION J ENERGY EFFICIENCY

NSW J8.2 Access for maintenance
Access for maintenance must be provided to—
(a) all services and their components, including—
(i) time switches and motion detectors; and
(ii) room temperature thermostats; and
(iii) plant thermostats such as on boilers or refrigeration units; and
(iv) outside air dampers; and
(v) reflectors, lenses and diffusers of light fittings; and
(vi) heat transfer equipment; and
(b) adjustable or motorised shading devices.

8.0 Window cleaning

Not applicable

9.0 Alternate solutions / fire engineering

None required for scope of works.

10.0 Approvals from the New South Wales Fire Brigade

Not required

11.0 Conclusion

This report addresses the proposed buildings and structure works and excludes compliance of all soft play zones which our understanding is that a separate assessment and report will be provided by others.

Accordingly we have assessed the architectural building design to date and have reviewed the scheme with respect to the Building Code of Australia. The design is at a point where the inherent BCA philosophies have been checked and development consent can be sought. The finer details with respect to BCA 2009 compliance can be finalised prior to the issue of a Construction Certificate.

Our Ref: 2008001237

Abbey Johnson
Bovis Lend Lease
30 The Bond
30 Hickson Road
MILLERS POINT NSW 2000

6 July 2009

Dear Abbey,

Our Consultant A/Professor David Eager (representative on various Australian Standards Committees including Playground Equipment CS005; Indoor Play Areas ME051-03–Chair; Adventure Rides and Devices ME051; Artificial Climbing Structures SF047–Chair; Flying Foxes SF047–Chair; Trampolines CS100–Chair; and Sports and Recreational Equipment CS101) has reviewed the following drawings with regard to compliance with relevant Australian Standards for playground equipment and surfacing:

LD44513	D	Landscape Master Plan, 29 June 2009
LD44514	D	Playground Master Plan, 29 June 2009
LD44515	D	Overview of Play Precincts, 29 June 2009
LD44516	D	Play Precincts – Precedents, 29 June 2009

The proposed playground design is generally in accordance with the requirements contained within the relevant Australian Standards, namely: AS/NZS 4422:1996; AS/NZS 4486.1:1997; and AS4685:2004 Parts 1 to 6.

The playground concept design includes play areas and equipment for three age groups; 0-2, 2-5, and 5-12. The proposed equipment and play spaces have been designed and chosen to be appropriate for these age groups.

Regards,

Craig Archer
Project Manager

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