

Lend Lease (Millers Point) Pty
Limited

**Barangaroo South - C3
Commercial Building**

Assessment of Interaction with
Sydney Metro - Project Application

Rev B | 26 October 2011

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Job number 220316

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1 Introduction

This report supports a Project Application submitted to the Minister for Planning pursuant to Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act). The Application seeks approval for construction of a commercial building (known as Building C3) and associated works at Barangaroo South as described in the Project Summary Description section of this report.

1.1 Background

The 22 hectare Barangaroo site has been divided into three distinct redevelopment areas (from north to south) – the Headland Park, Barangaroo Stage 2 and Barangaroo Stage 1 (herein after referred to as Barangaroo South).

Lend Lease was successfully appointed as the preferred proponent to develop Barangaroo Stage 1 (otherwise known as Barangaroo South) on 20 December 2009.

1.2 Planning History & Framework

On 9 February 2007 the Minister approved a Concept Plan for the site and on 12 October 2007 the land was rezoned to facilitate its redevelopment. The Approved Concept Plan allowed for a mixed use development involving a maximum of 388,300m² of gross floor area (GFA) contained within 8 blocks on a total site area of 22 hectares.

Modification No. 1 was approved in September 2007 which corrected a number of minor typographical errors.

On 25 February 2009 the Minister approved Modification No. 2 to the Concept Plan. The Approved Concept Plan as modified allowed for a mixed use development involving a maximum of 508,300m² of gross floor area (GFA) contained within 8 blocks on a total site area of 22 hectares.

On 11 November 2009 the Minister approved Modification No. 3 to the Concept Plan to allow for a modified design for the Headland Park and Northern Cove. The Approved Concept Plan as modified allows for a mixed use development involving a maximum of 489,500m² of gross floor area (GFA) across Barangaroo as a whole.

On 16 December 2010 the Minister approved Modification No. 4 to the Barangaroo Concept Plan. The Approved Concept Plan as modified allows for approximately 563,965m² Gross Floor Area of mixed use development across the entire Barangaroo site.

This Project Application forms one of a series of individual Applications that Lend Lease will be submitting to deliver Barangaroo South. This Project Application is consistent with the established planning framework for the site, including the approved Concept Plan (as modified).

A Project Application (MP10_0023) has been approved for the bulk excavation and construction of a basement car park to accommodate up to 880 car parking spaces and associated services and infrastructure to support the initial phases of

the future development of Barangaroo South. A Section 75W Modification Application was subsequently submitted seeking to modify MP10_0023 to extend the area of the approved basement to the south. This modification was approved by the Minister for Planning on 3 March 2011.

A further Section 75W application has been submitted to the Department of Planning and Infrastructure (the Department) and is currently being assessed, which seeks the Minister's approval to modify the depth of the excavation and change the reduced levels of the basement structure, using the same construction methodology as detailed and approved as part of the original project application. This includes:

- reduced excavation and bulk earthworks;
- reduced structural works – foundations, basement levels, perimeter retention system etc; and
- installation of associated services and infrastructure to support the initial phases of the future development of Barangaroo South.

A project application for the first commercial building, known as C4, was submitted to the Department of Planning on 29 October 2010. This application sought consent for construction and use of a new commercial Building C4 with a maximum 98,514m² GFA accommodating commercial and retail uses, a child care centre, bicycle parking and associated use and operation of car parking and loading facilities in the basement. Consent was issued by the Minister on 3 March 2011.

A Section 75W application has been submitted to the Department and is currently being assessed which seeks the Minister's approval to modify certain elements of the approved C4 building, including:

- mix of the uses within the building;
- total GFA;
- shape of floor plates of the podium and the tower elements of the building;
- facade details;
- roof treatment; and
- basement layout.

1.3 Site Location

Barangaroo is located on the north western edge of the Sydney Central Business District, bounded by Sydney Harbour to the west and north, the historic precinct of Millers Point (for the northern half), The Rocks and the Sydney Harbour Bridge approach to the east; and bounded to the south by a range of new development dominated by large CBD commercial tenants.

The Barangaroo site has been divided into three distinct redevelopment areas (from north to south) – the Headland Park, Barangaroo Stage 2 (also known as Barangaroo Central) and Barangaroo South.

The area of land within which development is proposed under this Project Application extends over land generally known and identified in the approved Concept Plan as Block 3 which comprises Lot 5 in DP 876514.

1.4 Project Summary Description

This Project Application seeks approval for the construction of a 49 storey building, comprising ground floor retail, a commercial lobby, childcare, podium and office tower, provision for associated cars and bicycle parking and the construction of the surrounding ancillary temporary public domain which includes access streets and landscaping.

1.5 Purpose of this Report

This report has been prepared to accompany the Project Application for the C3 Commercial Building and associated works at Barangaroo South. It addresses the relevant Director-General Requirements for the project. These Director-General Requirements are discussed in the Environmental Assessment Report (EAR) that has been prepared to support the application.

2 Relevant Information

Arup has reviewed the following documents that are relevant to this commission:

A document entitled 'Sydney Metro, CBD Metro Development Guidelines within the vicinity of Sydney Metro Network Line 1', Document Number CBD 2100 PBACH R GN 0159 dated March 30 2010, FINAL;

An Arup document detailing the interaction with the Metro of the basement associated with Stage 1 (which C3 will be located within), Arup report 'Barangaroo Stage 1 – PA1 – Bulk Excavation and Basement Car Parking (MP10_0023) – Assessment of Interaction with Sydney Metro – Project Application – Rev A dated 25 June 2010'

3 Geotechnical Information

Reference is made to the Geotechnical Report for this Project Application. The report is a desktop study based on existing information about the site and surroundings, which provides a description of the site history, geology, and ground conditions. The report contains sufficient information to provide confidence that an adequate foundation solution for C3 can be developed and its potential impact on the Metro can be assessed.

4 Discussion

The building sits entirely within a common basement structure intended to be shared with other commercial, retail and residential buildings to be located on the site in the future (subject to separate Project Applications).

The proximity of Building C3 to the future Sydney Metro rail corridor is shown in Figure 1 below.

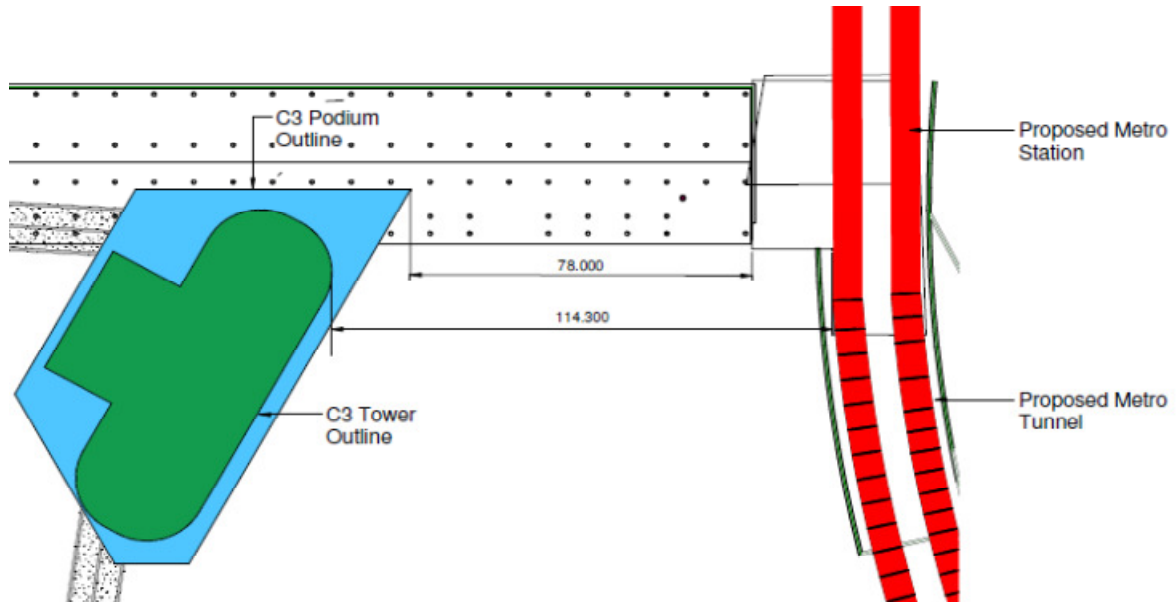


Figure 1: Proximity of Building C3 to Future Metro Tunnel

The building's footprint lies outside the Metro protection corridor defined by the first and second reserve documented in the Development Guidelines within the vicinity of Sydney Metro Network Line 1, prepared by the Sydney Metro Authority, CBD Metro, document reference CBD-2100-PBACH-R-GN-0159 dated 30 March 2010, Revision A-1, Status Final. The proposed foundations of C3 are approximately 114m from the face of the Metro tunnel at the nearest point, with all load transferred to foundations below the top of rock. The top of sandstone bedrock is located at between RL -24m AHD to -10m AHD at the location of C3.

5 Conclusion

Arup has considered the relevant DGR's, in the context of the Lend Lease proposal for the C3 Commercial Building Project Application and other documentation provided, and is satisfied that the proposed development will not impede the Metro rail corridor or affect the future operations of the Metro project.