

BARANGAROO SOUTH – BUILDING C1 STORMWATER & EROSION MANAGEMENT PLAN

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DOCUMENT CONTROL				
Date	Revision	Purpose and Summary of Amendments	Reviewed by	Approved by
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SEDIMENT & EROSION ACRONYMS & GLOSSARY

Air Monitoring	Sampling for and measuring of pollutants present in the atmosphere
Air Pollutants	Amounts of foreign and/or natural substances occurring in the atmosphere that may result in adverse effects to humans, animals, vegetation, and/or materials
Ambient Level	Existing level of a phenomenon without the influence of construction activities
Background Dust Level	Dust level in the absence of construction activities
BoM	Bureau of Meteorology
COA	Development Consent Conditions of Approval
DP&E	Department of Planning and Environment (formerly DP&I)
Dust	Particles of mostly mineral origin generated by erosion of surfaces and handling of materials
Dust Concentration	The amount of a substance, expressed as mass or volume, in a unit volume of air
Emission	A discharge of a substance (e.g. dust) into the environment
EPA	Environment Protection Authority (formerly part of OEH, DECCW)
Mitigation Measures	Measures employed to reduce (mitigate) an impact
OEH	Office of Environment and Heritage
Particulate Matter	Small solid or liquid particles suspended in or falling through the atmosphere – sometimes expressed by the term particulates
PM₁₀	Particulate matter <10µm in diameter
Pollution	The alteration of air, soil, or water as a result of human activities such that it is less suitable for any purpose for which it could be used in its natural state
SMACNA	Sheet Metal and Air Conditioning National Contractors Association
TSP	Total Suspended Particulate

1. SCOPE OF PROJECT AND SUB PLAN

Project specific information	
Scope:	<p>This Sediment and erosion control plan (SECP) outlines mitigation measures to control erosion and sediment risks associated with the construction of Commercial Building C1 of Barangaroo South. Mitigation measures to be implemented during relevant construction activities are included in this sub-plan.</p> <p>This Sub-plan forms part of the Lendlease Building (LLB) EHS management system and the C1 Barangaroo South EHS Management Plan, which has been updated to include requirements of the Construction Environmental Management Plan (CEMP) outlined within Condition C3 of development consent SSD 8529.</p> <p>This sub-plan must be read in conjunction with the Lendlease GMRs, the Project EHS Plan, and the Lendlease Building Workplace Delivery Code. These documents detail Lendlease's approach and commitment to pro-active and responsible site management.</p>
Objectives:	<ul style="list-style-type: none"> • Ensure that construction activities are managed to meet requirements outlined in relevant development consent conditions, regulations and licences. • Effectively manage construction activities to prevent potential erosion and sediment issues.
Key issues & Risks:	<p>Potential environmental impacts identified in the Commercial Building C1 Barangaroo South EIS include:</p> <ul style="list-style-type: none"> • Altered overland flow patterns causing flooding • Increased sediment and erosion runoff • Diminished water quality levels <p>The above risks were assigned a low/medium residual impact when proposed mitigation measures are adopted.</p>
Key Legislation / Standards / Guidance	<p>EPA Licence 13336 no longer applies to the Barangaroo South Stage 1A area.</p> <p>Development consent condition C8 within SSD 8529 states that the SECP prepared for the construction of Commercial Building C1 Barangaroo South must be in accordance with the guideline <i>Managing Urban Stormwater – Soils & Construction Volume 1 (2004)</i>. This sub-plan addresses all of the requirement outlined within the guideline.</p>
Site Control Measures:	<p>Site specific controls and performance measurements have been identified in this sub-plan to minimise adverse impacts of construction upon the environment and community with respect to erosion and sediments. Mitigation measures are tabulated below.</p> <p>All controls are compliant with Lendlease GMRs.</p>

2. MITIGATION MEASURES

Ref.	Mitigation Measure	Design	Construction	Relevant Location / Activity	Relevant Approval Conditions	Responsibility	Timing
PRIOR CONSTRUCTION							
MM1.	<p>Prior to any works commencing on site, all erosion and sediment control measures would be installed. These measures include supplementary erosion and sediment controls implemented as part of Barangaroo South, as deemed necessary:</p> <ul style="list-style-type: none"> • Installation of additional sediment fencing, or jersey kerbs with bitumen to provide seals; • Installation of silt arrestors to collect site runoff and retain suspended particles; and • Placement of sediment controls around and along any catch drains. 	■	■	Entire site	Commercial Building C1 ECSMP	Site manager EHS manager	Prior construction
MM2.	Dust suppression, erosion and sediment control measures implemented prior to construction works capable of generating sediments and maintained throughout duration of project.	■	■	Entire site	Commercial Building C1 EIS Appendix K, Commercial Building C1 ECSMP	Site manager EHS manager	Prior construction
DURING CONSTRUCTION							
MM3.	Refuelling using mini-tankers would be undertaken on site for construction equipment, such as loaders, mobile cranes and other plant/equipment operating on site.	■	■	Entire site	Commercial Building C1 ECSMP	Site manager EHS manager	Throughout construction
TRAINING							
MM4.	Prior to commencing work on the project, all staff and subcontractors will receive induction training that covers key environmental issues and controls (environmental issues related to air quality, water quality, erosion and sedimentation, noise, traffic and access where relevant to the project).	■	■	Entire site	Commercial Building C1 ECSMP	Site manager EHS manager	Throughout construction

3. MONITORING

Detail	Frequency	Applicable standards	Reporting	Responsibility
Daily visual inspection of all erosion and sediment controls; repair, amendment or replacement of controls where required.	Daily	As per checklist	Environmental Site Checklist	Site manager

APPENDIX A: BACKGROUND

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

The Barangaroo site has been divided into three distinct redevelopment areas – Headland Park, Barangaroo Central and Barangaroo South. Lendlease Millers Point (LLMP) was successfully appointed to develop Barangaroo South in 2009. Barangaroo Central and Headland Park are being managed separately by the BDA.

The footprint of building C1 is entirely within Barangaroo South, and specifically part of Stage 1A of Barangaroo South.

The remaining phases of Barangaroo South consist of construction of building C1 and road and infrastructure works in Hickson Road. This management sub-plan covers construction of Building C1 and is updated when needed to reflect the various stages of work. The current scope of this management sub-plan is summarised below.

Approval	Phase	Construction Activities	Incl. in sub-plan	Status
SSD 8529	Building C1	<ul style="list-style-type: none"> • construction of a seven-storey commercial building (maximum height RL 33.2), comprising retail on the ground floor and commercial on levels one to six; • provision of an outdoor terrace on level 6 of the building; • installation of photovoltaic cells on the rooftop of the building; • business and building identification signage zones; • allocation and use of 18 car spaces within the approved basement below and provision of end-of-trip facilities • public domain works; and • alterations to basement structures below. 	Yes	Pending construction certificate

APPENDIX B: PLANNING APPROVAL REQUIREMENTS

COMMERCIAL BUILDING C1 (SSD 8529)

No.	Original Ref.	Relevant Requirement	Reference
1.	C8	Prior to the commencement of works, a Sediment Erosion Control Plan (SECP) shall be prepared by a suitably qualified person in accordance with Managing Urban Stormwater — Soils & Construction Volume 1 (2004) and submitted to the PCA. Prior to the commencement of works, a copy of the SECP must be provided to the Barangaroo Delivery Authority and the Secretary.	This sub-plan
2.	D13	The Applicant must ensure the requirements of the Construction Environmental Management Plan, Construction Noise and Vibration Management Plan, Air Quality Management Plan, Waste Management Plan, Construction Pedestrian Traffic Management Plan and Erosion Sediment Control Plan required by Part C of this consent are implemented during construction.	This sub-plan
3.	D17	Prior to the commencement of work, suitable measures are to be implemented to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the Site. It is an offence to allow, permit or cause materials to pollute or be placed in a position from which they may pollute waters.	Mitigation measures
4.	D18	All erosion and sediment control measures are to be effectively implemented and maintained at or above design capacity for the duration of the construction works and until such time as all ground disturbed by the works has been stabilised and rehabilitated so that it no longer acts as a source of sediment.	Mitigation measures