

APPENDIX A RECOMMENDED CONDITIONS

Development Consent

Section 89E of the *Environmental Planning & Assessment Act 1979*

The Planning Assessment Commission grants consent to the development application referred to in Schedule 1, subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts including economic and social impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.

Commissioner

Commissioner

Commissioner

Sydney

2017

SCHEDULE 1

Application No.:

SSD 6960

Applicant:

Lend Lease (Millers Point) Pty Limited

Approval Authority:

Minister for Planning

Land:

Lot 214 DP1221076

Development:

Construction of the Stage 1B basement including remediation, bulk excavation, interim public domain, interim roadway, services, infrastructure and associated works.

DEFINITIONS

Advisory Notes	Advisory information relating to the approved project but do not form a part of this approval.
Applicant	Lend Lease (Millers Point) Pty Limited, or anyone else entitled to act on this consent
Basement	The Stage 1B basement as described in the EIS and RTS
BCA	Building Code of Australia
BDA	Barangaroo Delivery Authority
Certifying Authority	Has the same meaning as in section 4 and Part 4A of the EP& A Act.
Construction	Any works, including remediation, earth and building works
Council	City of Sydney Council
CPI	Consumer Price Index
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Department	Department of Planning and Environment, or its successors
Development	The development as described in the EIS and RTS
DPI	Department of Primary Industries (NSW Office of Water)
EIS	Environmental Impact Statement entitled ' <i>State Significant Development – Environmental Impact Statement – Stage 1B Basement – Barangaroo South</i> ' and accompanying appendices, prepared by JBA Urban Planning Consultants Pty Ltd and dated February 2016
EPA	Environment Protection Authority, or its successors.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection License
Evening	The period from 6 pm to 10 pm
GFA	Gross Floor Area
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval
Minister	Minister for Planning, or nominee
Night	The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
NOW	NSW Office of Water (Department of Primary Industries)
OEH	Office of Environment & Heritage, or its successors
PCA	Principal Certifying Authority has the same meaning as in section 4 and Part 4A of the EP & A Act.
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Project	Has the same meaning as development
RAP	Remedial Action Plan
RMS	Roads and Maritime Services
RTS	The Response to Submissions report as defined in Condition A2 of this consent.
Reasonable and Feasible	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements. Feasible relates to engineering considerations and what is practical to build.
Statement of Commitments	The Applicant's Statement of Commitments in Schedule 3.
Secretary	The Secretary of the Department (or nominee)
Site	The land referred to in Schedule 1 of this consent.
TNSW	Transport for NSW (including Roads and Maritime Services)

**SCHEDULE 2
PART A - ADMINISTRATIVE CONDITIONS**

A1 DEVELOPMENT DESCRIPTION

Except as amended by this consent, development consent is granted for the following:

- (a) remediation, bulk excavation and construction of the Stage 1B basement including provision of basement slabs over four (4) levels to support future car parking;
- (b) construction, fit out and use of common facilities within the basement such as plant rooms, loading docks, waste rooms and storage;
- (c) construction of structural cores for the future Stage 1B residential buildings and above ground basement elements such as access ramps, risers, fire stairs and lifts;
- (d) use of 26 m² of gross floor area (GFA) within level B1 of the basement for basement uses;
- (e) provision of interim public domain, associated landscaping and temporary construction of part of Barangaroo Avenue; and
- (f) provision of services and infrastructure within and adjacent to the basement and permanent stormwater infrastructure between Hickson Road and Darling Harbour.

A2 DEVELOPMENT IN ACCORDANCE WITH PLANS AND DOCUMENTATION

The development will be undertaken in accordance the following documents and plans:

Environmental Impact Statement entitled 'State Significant Development – Environmental Impact Statement – Stage 1B Basement – Barangaroo South' and accompanying appendices, prepared by JBA Urban Planning Consultants Pty Ltd and dated February 2016
Response to Submissions report entitled 'Response to Submissions – Barangaroo Stage 1B Basement (SSD_6960)' and accompanying appendices, prepared by JBA Urban Planning Consultants Pty Ltd and dated 8 September 2016, as updated by: <ul style="list-style-type: none"> • The document entitled 'Stage 1B Basement (SSD 15_6960) - Detailed Response to Submissions Addendum – TfNSW Submission' submitted by Lend Lease on 22 September 2016; • Email entitled 'Stage 1B Basement RTS Documentation' and accompanying attachments, prepared by Lend Lease and submitted on 10 October 2016; • Email entitled 'Stage 1B Basement RTS Further Information' and accompanying attachments, prepared by Lend Lease and submitted on 1 November 2016; and • The document entitled 'Stage 1B Basement (SSD 15_6960) – Response to Further Council Submission' submitted by Lend Lease 15 November 2016.
'Barangaroo South – Stage 1B Basement and Residential Towers, Revised SEPP 55 Letter, Hickson Road, Millers Point. State Significant Development Applications 6960, 6964, 6965 & 6966', prepared by AECOM Australia Pty Limited and dated 27 June 2016
'Human Health and Ecological Risk Assessment, Declaration Site (Development Works) Remediation Works Area – Barangaroo', prepared by AECOM Australia Pty Limited and dated 9 June 2011
'Human Health and Ecological Risk Assessment, VMP Remediation Works (Addressing the NSW EPA Declaration 21122, Millers Point)', prepared by AECOM Australia Pty Limited and dated 25 October 2012
'Remedial Action Plan, NSW EPA Declared Remediation Site 21122 and Block 4 (Stage 1b) Development Works, Barangaroo, Millers Point, NSW', prepared by AECOM Australia Pty Limited and dated 24 July 2013
'Site Audit Report - Remedial Action Plan, Declaration Area and Block 4, Barangaroo', prepared by ENVIRON Australia Pty Ltd and dated July 2013'
Site Audit Statements (No. GN 447A and No. GN 439B-3), approved by Mr. Graeme Nyland (EPA accredited Site Auditor) and dated 31 July 2013
'Addendum to the Remedial Action Plan, NSW EPA Declared Remediation Site 21122 and Block 4 (Stage 1b) Development Works, Barangaroo, Millers Point, NSW - Offsite Treatment/Transport of Contaminated Material', prepared by AECOM Australia Pty Limited and dated 15 October 2016

'VMP/Block 4 Remedial Action Plan Addendum - Part Stage 1B Public Domain (Watermans Quay), Hickson Road, Millers Point, Barangaroo South', prepared by AECOM Australia Pty Limited and dated 19 April 2016			
'Human Health and Ecological Risk Assessment, Stage 1C Development (ROWN Area), Barangaroo South', prepared by AECOM Australia Pty Limited and dated 10 December 2014			
'Remedial Action Plan Barangaroo South Stage 1B Waterfront Public Domain', prepared by AECOM Australia Pty Limited and dated 22 January 2016			
'Site Audit Report, Remedial Action Plan, Barangaroo South, Stage 1B Waterfront Public Domain', prepared by Ramboll Environ Australia Pty Ltd and dated 24 February 2016			
Site Audit Statement (No. GN 439B-4), approved by Mr. Graeme Nyland (EPA accredited Site Auditor) and dated 24 February 2016			
EPA Accredited Site Auditor Letter entitled 'Re: Barangaroo, Stage 1B Basement and Residential Towers (SSD 6960), Associated Works Areas, SEPP 55 Consideration', prepared by Ramboll Environ Australia Pty Ltd and dated 1 August 2016			
Statement of Commitments in Schedule 3			
Architectural drawings prepared by Lend Lease Design and Renzo Piano Building Workshop and landscape drawings prepared by Grant Associates			
Drawing No.	Revision	Name of Plan	Date
BB2_PA2_A000	B	Title Sheet	19/05/2016
BB2_PA2_A001	B	Aerial Location Plan	30/08/2016
BB2_PA2_A002	B	Survey Plan	19/05/2016
BB2_PA2_A003	B	Demolition, Excavation and Services Zone Plan	30/08/2016
BB2_PA2_A100	B	Basement Plan Level B0	19/05/2016
BB2_PA2_A101	B	Basement Plan Level B1	19/05/2016
BB2_PA2_A102	B	Basement Plan Level B2	19/05/2016
BB2_PA2_A103	B	Basement Plan Level B3	19/05/2016
BB2_PA2_A104	B	Basement Plan Level B4	19/05/2016
BB2_PA2_A105	B	Basement Plan Level B5	19/05/2016
BB2_PA2_A300	B	Section 01	19/05/2016
BB2_PA2_A301	B	Section 02	19/05/2016
BB2_PA2_A302	B	Section 03	19/05/2016
BB2_PA2_A303	B	Section 04	19/05/2016
BB2_PA2_A400	B	Building Elements – Ground Floor	30/08/2016
BB2_PA2_A401	B	Building Elements – Podium P1	19/05/2016
BB2_PA2_A402	B	Building Elements – Podium P2	19/05/2016
BB2_PA2_A501	B	Building Elements – Elevations	19/05/2016
RPB430_GE_BMT000	H	Extent of Landscape Works	15/06/2016
RPB430_GE_BMT001	M	General Arrangement	26/08/2016
RPB430_SE_BMT002	M	Section: Watermans Quay	26/08/2016
RPB430_SE_BMT003	M	Section: Barangaroo Avenue	26/08/2016
RPB430_SE_BMT004	H	Section: Hickson Road	26/08/2016
RPB430_SE_BMT005	I	Section: Watermans Quay (Northern Footpath)	26/08/2016
RPB430_SE_BMT006	J	Section: Barangaroo Avenue (Western Footpath)	26/08/2016
RPB430_SE_BMT007	M	Section: Barangaroo Avenue (Eastern Footpath)	26/08/2016

except for:

- (a) any modifications which are 'Exempt and Complying Development' as identified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 or as

- may be necessary for the purpose of compliance with the BCA and any Australian Standards incorporated in the BCA; or
- (b) otherwise provided by the conditions of this consent.

A3 DEEP SOIL ZONE PLANS

- (1) Prior to the issue of any Construction Certificate for the basement structure (excluding piling) within the footprint of Hickson Park, the basement design drawings in Condition A2 of this consent shall be amended to provide a reduced basement slab level to facilitate a deep soil zone with an area of at least 2,000 m² of soil with a depth of at least 3 m to support large mature trees in Hickson Park. The location of the deep soil zone must generally reflect the final location of large mature trees in Hickson Park as determined by the Stage 1B Public Domain Works application (SSD 7944).
- (2) Pursuant to determination of SSD 7944, the Applicant may submit alternative basement design drawings (or other documentation) to the Secretary for approval documenting any adjustments required to the basement design to reflect the final form of deep soil zones in Hickson Park as determined by SSD 7944 (note: this may amend the information submitted that to satisfy subsection (1) above).

Any plans/documentation submitted in accordance with subsection (1) of this condition must be consistent with final plans for the determined SSD 7944 and must be approved by the Secretary prior to the issue of any Construction Certificate for the basement structure.

A4 INCONSISTENCY BETWEEN DOCUMENTS

In the event of any inconsistency between conditions of this consent and the drawings/documents referred to above, including the Applicant's Statement of Commitments, the conditions of this consent prevail.

A5 PRESCRIBED CONDITIONS

The Applicant shall comply with the prescribed conditions of consent under clause 98 of the EP&A Regulation in relation to the requirements of the BCA.

A6 LAPSING OF CONSENT

The development consent shall lapse 5 years after the determination date in Part A of Schedule 1, unless the construction works authorised by this development consent have been commenced.

A7 MEDIATION

Where this approval requires further consent/approval from Council or another authority, the parties shall not act unreasonably preventing an agreement from being reached. In the event that an agreement is unable to be reached within 3 months or a timeframe otherwise agreed to by the Secretary, the matter is to be referred to the Secretary for resolution. All areas of disagreement and the position of each party are to be clearly stated to facilitate a resolution.

A8 LEGAL NOTICES

Any advice or notice to the consent authority shall be served on the Secretary.

A9 LIMITS ON CONSENT

The approval of the development in no way implies approval for the following:

- (a) allocation and use of car parking spaces within the basement;
- (b) use of the basement for the purpose of a public car park;
- (c) construction of the Stage 1B residential buildings (excluding elements such as structural cores described in the EIS);
- (d) other uses reliant on the parking areas proposed (excluding construction related activities described in the EIS);
- (e) construction of the Stage 1C basement structure; and

(f) development that is not described in Condition A1.

Separate approval(s) must be obtained from the relevant approval/consent authority for the above works and uses (where required).

End of Section

PART B – PRIOR TO ISSUE OF THE RELEVANT CONSTRUCTION CERTIFICATE

B1 COMPLIANCE WITH THE BUILDING CODE OF AUSTRALIA

Details shall be provided to the satisfaction of the Certifying Authority, with each application for a Construction Certificate, which demonstrate that the proposal complies with the prescribed conditions of approval under clause 98 of the EP&A Regulation in relation to the requirements of the BCA.

B2 STRUCTURAL DETAILS

Prior to the issue of each relevant Construction Certificate, the Applicant shall submit to the satisfaction of the Certifying Authority, structural drawings/statement prepared and signed by a suitably qualified practising Structural Engineer that complies with:

- (a) the relevant clauses of the BCA;
- (b) the relevant development consent;
- (c) drawings and specifications comprising the Construction Certificate; and
- (d) the relevant Australian Standards listed in the BCA (Specification A1.3).

B3 TEMPORARY GROUND ANCHORS, TEMPORARY SHORING AND PERMANENT BASEMENT/RETAINING WALLS AFFECTING THE ROAD RESERVE

For temporary shoring including ground anchors affecting the road reserve, a separate application under Section 138 of the *Roads Act 1993* must be lodged with the relevant road authority.

For new permanent basement wall/s or other ground retaining elements (not being anchors projecting under the road reserve):

- (a) Prior to the relevant Construction Certificate being issued, the following documents must be submitted to the satisfaction of the Certifying Authority and a copy to the relevant road authority:
 - (i) Dilapidation Report of adjoining buildings/structures; and
 - (ii) evidence that public utility services have been investigated.
- (b) If adjoining a Public Way:
 - (i) evidence of a \$10 million dollar public liability insurance policy specifically indemnifying the relevant road authority, valid for at least the duration of the project. The original document must be submitted to the relevant road authority; and
 - (ii) bank guarantee in accordance with the relevant road authorities fees and charges. The original document must be submitted to relevant road authority.
- (c) Prior to commencement of work:
 - (i) the location of utility services must be fully surveyed and the requirements of the relevant public utility authority complied with; and
 - (ii) the following documents must be submitted to and approved by the PCA and a copy to the relevant road authority:
 - a. structural drawings and certification as prescribed elsewhere in this approval; and
 - b. geotechnical report and certification as prescribed elsewhere in this approval.
- (d) Prior to issue of the final Occupation Certificate, the Certifying Authority must receive written and photographic confirmation that the restoration of the public way has been completed in accordance with the following:
 - (i) all ground anchors must be de-stressed and isolated from the building prior to completion of the project;
 - (ii) all timber must be removed;
 - (iii) all voids must be backfilled with stabilised sand (14 parts sand to 1 part cement); and
 - (iv) all costs for any reinstatement of the public way made necessary because of an unstable, damaged or uneven surface to the public way must be borne by the owner of the land approved for works under this approval.
- (e) The Bank Guarantee may be released after the Civil Engineer submits certification to the PCA and the relevant road authority that all the works described in (d) above have been

completed and that there is no remaining instability, damage or unevenness to the public domain as a result of the development. This certification is to include relevant photographs and must be to the satisfaction of the relevant road authority.

B4 CAR PARKING DESIGN

The design of car parking associated with the proposal (including queuing areas, grades, turn paths, sight distance requirements, aisle widths, lighting and parking bays) shall be in accordance with *AS 2890.1-2004 Parking Facilities Part 1: Off-street Car Parking*, *AS 2890.6-2009 Parking Facilities Part 6: Off-street Parking for People with Disabilities for accessible spaces* and *AS 2890.2-2002 Parking Facilities Part 2: Off-street Commercial Vehicle Facilities*.

B5 DESIGN FOR SERVICE VEHICLES

- (1) The swept path of the longest vehicle (including garbage trucks) entering and exiting the site, as well as manoeuvrability through the site, shall be in accordance with AUSTROADS.
- (2) The design, layout, signage, line making, lighting and physical controls for all service vehicles shall be in accordance with *AS 2890.2-2002 Parking Facilities Part 2: Off-street Commercial Vehicle Facilities*.

B6 ROAD AND FOOTWAY DESIGN – INTERIM BARANGAROO AVENUE

- (1) Detailed design and construction documentation of all roads and footways must be prepared by suitably qualified practising professional Civil Engineer in consultation with the relevant roads authority. The documentation is to be submitted to and approved by the relevant road authority prior to the relevant Construction Certificate being issued. Documentation shall include but not be limited to the following:
 - (a) general plan and typical cross sections showing road, and footway widths and levels, pavement configuration, batter slopes, retaining walls, kerb and gutter details;
 - (b) the design of any intersections and details of traffic control measures to be installed;
 - (c) design of pavement structure, including types of materials and layer thickness, kerb and gutter details;
 - (d) details of how road widths and footways for Barangaroo Avenue and how it would integrate with the configuration of existing sections of road;
 - (e) detailed design documentation of how the road pavement and footways match into the existing public domain; and
 - (f) stormwater drainage works plan, schedule of drainage elements including pipes and pits, drainage profiles and longitudinal sections.

The design of these roads and intersections including traffic control measures shall meet the relevant requirements/design specifications of TNSW and Roads and Maritime Services.

The works are to be completed in accordance with the approved plan/s.

B7 ALIGNMENT LEVELS – HICKSON ROAD, WATERMANS QUAY, BARANGAROO AVENUE

- (1) Prior to the relevant Construction Certificate being issued, documentation detailing the final footpath alignment levels for the development must be prepared to the satisfaction of the relevant roads authority and submitted to the Certifying Authority for approval. The plans and associated documentation shall include but not be limited to the following:
 - (a) general plans and typical cross sections showing the ground level plan and the existing footpath levels;
 - (b) the design and treatment of the slab edge and details of how the level changes between the ground plane and the surrounding public domain will be resolved;

- (c) any stairs, ramps and the like proposed to facilitate movement between the ground floor plane and the existing footpath levels; and
 - (d) a plan prepared by a Registered Surveyor showing the existing location, size and levels (AHD) of all service covers, trees, poles and street furniture, kerb, gutter and alignment levels of 10m cross sections, alignment levels at proposed and existing vehicular and/or pedestrian entrances within the footway adjacent to and extending 20 metres past either side of the site.
- (2) Details confirming compliance with this condition are to be submitted to the Certifying Authority prior to the issue of the relevant Construction Certificate.

B8 DRIVEWAY CROSSOVERS

All driveway crossovers, including those for service vehicles, must be designed in accordance with all relevant Australian Standards, the BCA and AUSTRROADS guidelines. All crossovers should be designed to give pedestrians priority and with no grade change for pedestrians. Details demonstrating compliance with the above requirements must be submitted to the satisfaction of the Certifying Authority prior to the issue of the relevant Construction Certificate.

B9 CHANGES TO KERBSIDE PARKING RESTRICTIONS

A separate submission must be made to the relevant road authority for approval for any changes proposed to kerbside parking restrictions.

B10 COST OF SIGNPOSTING

All costs associated with signposting for any kerbside parking restrictions and traffic management measures associated with the development shall be borne by the developer.

B11 PRE-CONSTRUCTION DILAPIDATION REPORTS

If not already undertaken, the Applicant is to engage a suitably qualified person to prepare a Pre-Construction Dilapidation Report detailing the current structural condition of all existing and adjoining buildings, infrastructure and roads. The report shall be submitted to the satisfaction of the Certifying Authority prior to the issue of the first Construction Certificate. A copy of the report is to be forwarded to the Secretary and Council.

B12 FOOTPATH DAMAGE BANK GUARANTEE

- (1) If not already obtained, a Footpath Damage Bank Guarantee to cover the site frontage and all areas of the public domain which may be damaged as a result of the development must be lodged with the relevant road authority. A suitable bank guarantee must be submitted in favour of the relevant road authority as security for repairing any damage to the public domain in the vicinity of the site.
- (2) The guarantee must be lodged with the relevant road authority prior to issue of the relevant Construction Certificate.

B13 LIGHTING – INTERIM PUBLIC DOMAIN AND PUBLICLY ACCESSIBLE AREAS

Interim public domain lighting associated with the development must be designed to complement the lighting treatment of the adjoining public domain (i.e. the Barangaroo Stage 1A public domain area). Details are to be submitted to Certifying Authority for approval prior to the relevant Construction Certificate being issued.

B14 OUTDOOR LIGHTING

All outdoor lighting shall comply with, where relevant, *AS/NZ1158.3: 1999 Pedestrian Area (Category P) Lighting* and *AS4282: 1997 Control of the Obtrusive Effects of Outdoor Lighting*. Details demonstrating compliance with these requirements are to be submitted to the satisfaction of the Certifying Authority prior to the issue of a relevant Construction Certificate.

B15 DISABLED ACCESS

Access and facilities for people with disabilities shall be designed in accordance with Part D3 of the BCA Access Policy. Prior to the issue of the relevant Construction Certificate, a certificate certifying compliance with this condition from an appropriately qualified person shall be submitted to the satisfaction of the Certifying Authority.

B16 DISABLED ACCESS – INTERIM PUBLIC DOMAIN

The public domain must be designed and constructed to provide access to facilities for people with a disability in accordance with the relevant Australian Standards. Full details of paths, proposed handrails, tactile ground indicators, ramps and the like are to be submitted to the satisfaction of the Certifying Authority demonstrating compliance with the relevant Australian Standards prior to the issue of the relevant Construction Certificate.

B17 PAVING MATERIALS – INTERIM PUBLIC DOMAIN

The surface of any material proposed to be used for the paving of footways, thoroughfares, plazas and the like which are used by the public must comply with AS/NZS 4586:2004 (including amendments) “*Slip resistance classification of new pedestrian surface materials*”. Details confirming compliance with these requirements must be provided to the satisfaction of the PCA prior to the issue of the relevant Construction Certificate.

B18 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

- (1) Prior to the issue of the relevant Construction Certificate, the Applicant shall prepare a updated **Construction Environmental Management Plan (CEMP)** for Barangaroo South incorporating the development to be submitted to the satisfaction of the Certifying Authority. The CEMP must:
 - (a) describe the relevant stages and phases of construction including work program outlining relevant timeframes for each stage/phase;
 - (b) describe all activities to be undertaken on the site during site establishment and construction of the development;
 - (c) clearly outline the stages/phases of construction that require ongoing environmental management monitoring and reporting;
 - (d) detail statutory and other obligations that the Applicant is required to fulfil during site establishment and construction, including approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
 - (e) include specific consideration of measures to address any requirements of the Council, EPA, NOW, TNSW, DPI and other government relevant authorities during site establishment and construction;
 - (f) describe the roles and responsibilities for all relevant employees involved in the site establishment and construction of the works;
 - (g) detail how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified potential environmental impacts;
 - (h) document and incorporate all environmental management plans (Sub-Plans), studies and monitoring programs required under this consent; and
 - (i) include arrangements for community consultation and complaints handling procedures during construction.
- (2) In the event of any inconsistency between the consent and the CEMP, the consent shall prevail.
- (3) The CEMP and any associated Sub-Plans should be revised:
 - (a) at each key stage of the works;
 - (b) in response to future development consents;
 - (c) in response to major changes in site conditions or work methods; and
 - (d) in support of licence variations as necessary.

- (4) A copy of the final CEMP is to be provided to the Secretary.

B19 CONSTRUCTION NOISE AND VIBRATION MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, an updated **Construction Noise and Vibration Management Sub-Plan** (CNVMSP) for Barangaroo South prepared by a suitably qualified person shall be submitted to the EPA for review and submitted to the satisfaction of the Certifying Authority.

The CNVMSP must be consistent with and adopt all recommendations of the Construction Noise and Vibration Assessment (dated November 2015) in Appendix H of the RTS and comply with Environment Protection Licence number 13336. The CNVMSP must include (at a minimum):

- (a) a process to ensure that wherever feasible electricity is supplied by the grid;
- (b) measures to ensure attenuation devices (e.g. silencers) and localised treatments (e.g. acoustic containers and barriers) are used to reduce noise from fixed plant and equipment (including odour ventilation equipment) and odour ventilation equipment (if required) is reduced in speed at night;
- (c) procedures for selection of low noise equipment and use of rock saws where feasible;
- (d) a suitable real-time noise monitoring program, early warning system and reactive management system to ensure corrective actions are implemented prior to exceedances of the relevant construction noise criteria identified in Condition D8;
- (e) procedures for notification of nearby sensitive receivers prior to noise and/or vibration intensive works;
- (f) procedures to ensure the smallest practicable size vibratory roller/s are used during works;
- (g) detail the methodology for trial testing of vibration intensive equipment at the closest buildings to determine safe working distances and ensure the vibration criteria in Condition D9 are not exceeded; and
- (h) a suitable vibration monitoring program.

A copy of the CNVMSP must be provided to the Secretary.

B20 EXCAVATION AND REMEDIATION PROGRAM OF WORKS

Prior to the issue of any Construction Certificate, a suitable program of works for excavation and remediation which has been reviewed and endorsed by an EPA-accredited site auditor shall be submitted to the EPA for review and submitted to the satisfaction of the Certifying Authority.

The program must provide a methodology of how site validation (including any additional validation sampling required) will be managed/staged to ensure that where the site (or a part of the site) is contaminated in such a way that it requires remediation, no excavation (non-remediation) works would be undertaken until the site (or relevant part of the site) has been remediated, progressively validated and verified by an EPA-accredited site auditor to have been successfully remediated and to be suitable for the proposed uses (refer to the site validation requirements of Condition E1).

The program shall ensure there is no risk of excavation (non-remediation) works inadvertently disturbing contamination in the adjacent area and must satisfactorily address any requirements of the EPA.

A copy of the program must be provided to the Secretary.

B21 DETAILED DESIGN – REMEDIATION ENCLOSURES AND EMISSIONS CONTROL SYSTEMS

Prior to the issue of any relevant Construction Certificate for remediation works, the Applicant shall submit detailed design plans of each remediation enclosure and emissions control system prepared by a suitably qualified and experienced person to the EPA for review and the Secretary for approval.

The information submitted must include detailed design plans of each enclosure including information on:

- (a) final location and visual appearance including dimensions (bulk, height and scale), materials and finishes;
- (b) stormwater, erosion and sediment management/control devices;
- (c) nomination of all point source discharge parameters;
- (d) ventilation arrangements, including location details and emissions performance specifications for pollution control equipment for all compounds of interest; and
- (e) the proposed monitoring program/s for the emissions control systems, including arrangements for monitoring of activated carbon breakthrough.

The enclosures and associated air emissions control systems must operate under negative pressure, be designed in consultation with the EPA using appropriate available control technology, comply with Environment Protection Licence number 13336 and meet any relevant requirements of the *Protection of the Environment Operations (Clean Air) Regulation 2010*.

The Secretary may confirm remediation works are not required to be undertaken in enclosures following a written request from the Applicant demonstrating the works would not result in adverse air emissions (particularly odour). Any such request must be approved in writing by the EPA and the Secretary, prior to the issue of any relevant Construction Certificate for remediation works.

B22 AIR QUALITY AND ODOUR MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, an updated **Air Quality and Odour Management Sub-Plan** (AQMSP) prepared by a suitably qualified person shall be submitted to the EPA for review and submitted to the satisfaction of the Certifying Authority.

The AQMSP must be consistent with and adopt all recommendations of the Air Quality Impact Assessment (dated 6 September 2016) in Appendix N of the RTS. The AQMSP must include:

- (a) proactive and reactive management strategies, including trigger levels for reactive management;
- (b) for all pollutant emissions sources, key performance indicators for emission controls, monitoring methods (frequency, location and duration), response mechanisms, responsibilities, records keeping and compliance reporting;
- (c) measures for reviewing the adequacy of reactive management measures, including a continuous improvement program;
- (d) measures to ensure the development complies with the particulate matter controls outlined in Condition D11 of this consent;
- (e) suitable contingency measures for the control and management of air emissions (including odour) in the event unexpected contaminated/odorous material is encountered during construction;
- (f) detailed design of odour control measures to be implemented for the transport of untreated contaminated material is off-site for treatment including (but not limited to) the use of odour suppressants, sealed trucks and covering of loads; and
- (g) a suitable real-time air monitoring program.

The AQMSP must comply with Environment Protection Licence number 13336. A copy of the AQMSP must be provided to the Secretary.

B23 HEALTH MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, a **Health Management Sub-Plan** (HMSP) prepared by a suitably qualified person for the development shall be submitted to NSW Health and WorkCover NSW for review and submitted to the satisfaction of the Certifying Authority. The HMSP must:

- (a) ensure the development complies with the relevant requirements of the *Work, Health and Safety Regulation 2011*;

- (b) detail all pollutant management measures and controls to be implemented during construction to minimise potential impacts on health for nearby sensitive receivers and workers on or adjacent to the site including engineering controls, safe work practices, safe work methods statements, hygiene and decontamination procedures and personal protective equipment requirements;
- (c) be consistent with and adopt all relevant recommendations of contained within the documents listed in Condition D5 of this consent;
- (d) ensure an induction process is in place for site workers and visitors regarding the safe work practices and methods to be followed to minimise the potential for human exposure to pollutants; and
- (e) include a suitable occupational health monitoring program that ensures potential and identified exceedences of the adopted health impact assessment criteria are linked to appropriate corrective work actions and the implementation of additional controls.

A copy of the HMSP must be provided to the Secretary.

B24 CONSTRUCTION TRAFFIC MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, a **Construction Traffic Management Sub-Plan** (CTMSP) prepared by a suitably qualified person for the development shall be submitted to the BDA and TNSW for review and submitted to the satisfaction of the Certifying Authority.

The CTMSP must be consistent with and adopt all recommendations of the Transport Management and Accessibility Plan (dated 23 June 2016) prepared by ARUP in Appendix E of the RTS, detail the measures that would be implemented to minimise the impact of the development on the safety and capacity of the surrounding road network and ensure compliance with Condition D12 of this consent. As a minimum, the CTMSP must include:

- (a) proposed construction hours;
- (b) construction program including the duration of each stage of work;
- (c) community consultation strategy for surrounding stakeholders;
- (d) potential impacts to traffic, cyclists, pedestrians and public transport services within the vicinity of the site from construction vehicles;
- (e) consideration of cumulative construction traffic impacts and existing management plans for all developments to be undertaken concurrently to ensure effective coordination of work to minimise impacts on the road network; and
- (f) should impacts be identified, the duration of impacts and mitigation measures to address impacts to traffic, cyclists, pedestrians and public transport services.

A copy of the CTMSP must be provided to the Secretary.

B25 LOADING DOCK MANAGEMENT PLAN

Prior to the issue of the relevant Construction Certificate, a **Loading Dock Management Plan** (LDMP) prepared by a suitably qualified person for the development shall be submitted to the BDA and TNSW for review and submitted to the satisfaction of the Certifying Authority.

The LDMP must outline all measures that would be implemented to ensure the safe and efficient operation of the loading dock. The LDMP must include (but not be limited to):

- (a) loading bay management details including service vehicle movements during peak periods;
- (b) management of incidents at the access to the basement and at the loading bays;
- (c) management of conflicts between vehicles accessing the basement and vehicle movements to/from loading bays; and
- (d) management of conflicts between vehicles accessing the site and pedestrian movements adjacent to the site.

A copy of the LDMP must be provided to the Secretary.

B26 METRO CORRIDOR

Prior to the issue of the relevant Construction Certificate, the Applicant shall engage an Independent Engineering Organisation (IEO) to confirm there is no conflict between the proposed development and the future Metro Corridor. The documentation must be provided to TNSW for its information prior to the issue of the relevant Construction Certificate.

B27 AREAS FOR BICYCLE PARKING AND END OF TRIP FACILITIES

Prior to the issue of the relevant Construction Certificate, documentation including plans shall be submitted to the satisfaction of the Certifying Authority identifying the location of areas for bicycle parking and end of trip facilities (storage, change rooms and showers) within the basement.

The areas shall be provided in the upper levels of the basement, grouped together in convenient, accessible areas close to main entries. The areas shall be sized to accommodate the provision of bicycle parking and end of trip facilities (storage, change rooms and showers) in accordance with the rates identified in the Barangaroo Concept Plan MP 06_0162 (as modified).

B28 WATER AND STORMWATER MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, an updated **Water and Stormwater Management Sub-Plan** (WSMSP) for Barangaroo South prepared by a suitably qualified person shall be submitted to the EPA and DPI for review and submitted to the satisfaction of the Certifying Authority.

The WSMSP must ensure that any effluents/liquid waste streams associated with the development that are directed to the site Wastewater Treatment Plant (WTP) would be sufficiently treated to ensure:

- (a) compliance with the relevant concentration limits required by Environment Protection Licence No. 13336 prior to discharge to Sydney Harbour; and/or
- (b) compliance with the relevant requirements of an executed Trade Waste Agreement with Sydney Water Corporation prior to discharge to sewer.

The WSMSP shall include a suitable short period intensive monitoring program to characterise key pollutants in liquid waste inflows to and discharges from the WTP associated with the development to ensure this waste is treated to an acceptable level.

The WSMSP must be consistent with and adopt all recommendations of the Stormwater Management and Infrastructure Servicing Strategy prepared by Cardno (dated August 2015) in Appendix I of the EIS. A copy of the WSMSP must be provided to the Secretary.

B29 STORMWATER AND DRAINAGE

- (1) Prior to the relevant Construction Certificate being issued, details of any proposed stormwater disposal and drainage from the development including a system of on-site stormwater detention (if required) and details of the provision and maintenance of overland flow paths must be submitted to the satisfaction of the Certifying Authority. All details for the disposal of stormwater and drainage are to be implemented in the development.
- (2) Any proposed connection to the Council's or Sydney Water's underground drainage system will require the owner to enter into a Deed of Agreement, if required, with the Council or Sydney Water prior to the commencement of any relevant work within the public way.
- (3) Where relevant, an "Application for Approval of Stormwater Drainage Connections" must be submitted to the Council with the appropriate fee at the time of lodgement of the proposal for connection of stormwater to the Council's drainage system.

B30 SYDNEY WATER

Prior to the issue of any relevant Construction Certificate, a Notice of Requirements under Part 6, Division 9 of the *Sydney Water Act 1994* shall be obtained and a copy must be submitted to the satisfaction of the Certifying Authority (Council or a private accredited certifier).

B31 EROSION AND SEDIMENT CONTROL

Soil erosion and sediment control measures shall be designed in accordance with the document *Managing Urban Stormwater – Soils & Construction Volume 1 (2004)* by Landcom. Details are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the relevant Construction Certificate.

B32 SPOIL AND WASTE MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, an updated **Spoil and Waste Management Sub-Plan** (SWMSP) for Barangaroo South prepared by a suitably qualified person shall be submitted to the EPA for review and submitted to the satisfaction of the Certifying Authority.

The SWMSP must be consistent with and adopt all recommendations of the Construction Waste Management Plan prepared by Lend Lease (dated 23 June 2016) in Appendix G of the RTS. The SWMSP must ensure contaminated spoil and waste would be managed and disposed of in accordance with the relevant requirements of the following documents:

- (a) *'Barangaroo South – Stage 1B Basement and Residential Towers, Revised SEPP 55 Letter, Hickson Road, Millers Point. State Significant Development Applications 6960, 6964, 6965 & 6966'*, prepared by AECOM Australia Pty Limited and dated 27 June 2016;
- (b) *'Remedial Action Plan, NSW EPA Declared Remediation Site 21122 and Block 4 (Stage 1b) Development Works, Barangaroo, Millers Point, NSW'*, prepared by AECOM Australia Pty Limited and dated 24 July 2013;
- (c) *'Addendum to the Remedial Action Plan, NSW EPA Declared Remediation Site 21122 and Block 4 (Stage 1b) Development Works, Barangaroo, Millers Point, NSW - Offsite Treatment/Transport of Contaminated Material'*, prepared by AECOM Australia Pty Limited and dated 15 October 2015;
- (d) *'VMP/Block 4 Remedial Action Plan Addendum - Part Stage 1B Public Domain (Watermans Quay), Hickson Road, Millers Point, Barangaroo South'*, prepared by AECOM Australia Pty Limited and dated 19 April 2016; and
- (e) *'Remedial Action Plan Barangaroo South Stage 1B Waterfront Public Domain'*, prepared by AECOM Australia Pty Limited and dated 22 January 2016.

The SWMSP must comply with Environment Protection Licence number 13336. A copy of the SWMSP must be provided to the Secretary.

B33 STORAGE AND HANDLING OF WASTE

The design and management of facilities for the storage and handling of operational waste must comply with the requirements of *City of Sydney Development Control Plan 2012*. Details are to be submitted to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate.

B34 ACID SULPHATE SOILS MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, an updated **Acid Sulphate Soil Management Sub-Plan** shall be prepared by a suitably qualified person in accordance with the *Acid Sulphate Soil Assessment Guidelines* (Acid Sulphate Soil Management Advisory Committee, 1998) and submitted to the satisfaction of the Certifying Authority.

B35 ASBESTOS MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, an **Asbestos Management Sub-Plan** (AMSP) prepared by a suitably qualified person for the development shall be submitted to the

EPA and WorkCover NSW for review and submitted to the satisfaction of the Certifying Authority. The AMSP must:

- (a) be consistent with Safe Work Australia's codes of practice *How to Safely Remove Asbestos 2011* and *How to Manage and Control Asbestos in the Workplace 2011*;
- (b) identify any known or potential areas of concern on site for asbestos containing materials;
- (c) outline the procedures for identification, handling, disposal and/or re-use of asbestos containing materials;
- (d) ensure that all asbestos would be handled and disposed of by a suitably licensed asbestos removalist in accordance with the relevant guidelines and legislation;
- (e) ensure an induction process is in place for site workers and visitors regarding the identification of asbestos and the formal procedures to be followed in the event that asbestos is identified on site;
- (f) ensure that the development would comply with the requirements of Condition D22 of this consent;
- (g) include a suitable airborne asbestos fibre monitoring program for all asbestos removal works areas; and
- (h) outline the procedures for soil validation and inspection following the completion of asbestos removal works and issuing of asbestos clearance certificates.

A copy of the AMSP must be provided to the Secretary.

B36 FIRE SAFETY STRATEGY

Prior to the issue of the relevant Construction Certificate, the Applicant shall prepare a **Fire Safety Strategy** (FSS) for the development. The FSS shall consider all fire hazards associated with the development (e.g. emergency egress) including the issues raised by Fire and Rescue NSW in its submission dated 7 April 2016.

The FSS shall be prepared by a suitably qualified and experienced expert and submitted to the satisfaction of the Certifying Authority and Fire and Rescue NSW. A copy of the FSS shall be submitted to the Secretary within two weeks of its completion.

B37 DIESEL FILLING MANAGEMENT PLAN

Prior to the issue of the relevant Construction Certificate, the Applicant shall prepare a **Diesel Filling Management Plan** (DFMP) for the development outlining all procedures to be followed and implemented to address all potential hazards and risks (including road safety risks) associated with the diesel tank filling process. The DFMP must meet the requirements of TNSW and Fire and Rescue NSW.

The DFMP must be prepared by a suitably qualified and experienced expert and submitted to the satisfaction of the Certifying Authority, Transport for NSW and Fire and Rescue NSW. A copy of the DFMP shall be submitted to the Secretary within two weeks of its completion.

B38 MECHANICAL VENTILATION

All mechanical ventilation systems shall be installed in accordance with Part F4.5 of the BCA and shall comply with AS 1668.2 and AS 3666.1 *Microbial Control of Air Handling and Water Systems of Building*, to ensure adequate levels of health and amenity to the occupants of the building and to ensure environment protection. Details shall be submitted to the satisfaction of the Certifying Authority, prior to the issue of a relevant Construction Certificate.

B39 TREE MANAGEMENT SUB-PLAN

Prior to the issue of the relevant Construction Certificate, a **Tree Management Sub-Plan** (TMSP) prepared by a suitably qualified person for the development shall be submitted to Council for review and submitted to the satisfaction of the Certifying Authority.

The TMSP must be consistent with and adopt all recommendations (tree protection and retention measures) of the Arboricultural Impact Assessment prepared by Tree Talk

Arboricultural Consulting (dated June 2016) in Appendix K of the RTS. The TMSP must include measures to ensure trees removed as a result of the development are replaced following the completion of works. The replacement trees must be of the same species in the same location and condition as those removed and must be of a suitable size that complies with the requirements of the NATSPEC guide '*Specifying Trees – a guide to assessment of tree quality*'.

Any variation to the species, location and size of replacement trees must be agreed to in writing by the Secretary. The replacement trees must comply with the requirements of the NATSPEC guide '*Specifying Trees – a guide to assessment of tree quality*'.

A copy of the TMSP must be provided to the Secretary.

B40 COMPLIANCE REPORT

Prior to the issue of a Construction Certificate, the Applicant, or any party acting upon this approval, shall submit to the Certifying Authority a report addressing compliance with all relevant conditions of this Part.

End of Section.

PART C – PRIOR TO THE COMMENCEMENT OF CONSTRUCTION WORKS

C1 ENVIRONMENTAL PROTECTION LICENCE

Prior to the commencement of works, the Applicant must ensure that the existing Environment Protection Licence (EPL) issued to the Barangaroo Delivery Authority is varied, if required, to reflect and permit the works conducted on site. All works undertaken on site must be done in a manner which ensures compliance with EPL conditions at all times.

C2 NOTICE TO BE GIVEN PRIOR TO WORKS

The PCA, the Secretary and Council shall be given written notice, at least 48 hours prior to the commencement of excavation, shoring or underpinning works on the site.

C3 CONTACT TELEPHONE NUMBER

Prior to the commencement of the works, the Applicant shall forward to Council a 24 hour telephone number to be operated for the duration of the construction works.

C4 HOARDING

- (1) A separate application under section 138 of the *Roads Act 1993* is to be made to the relevant road authority to erect a hoarding and/or scaffolding in a public road and such application is to include:
 - (a) architectural, construction and structural details of the design as well as proposed artwork; and
 - (b) structural certification prepared and signed by an appropriately qualified practising structural engineer.
- (2) Evidence of the issue of a Structural Works Inspection Certificate and structural certification will be required prior to the commencement of construction works on site.

C5 ROAD OCCUPANCY LICENCE

A Road Occupancy Licence (ROL) must be obtained from the relevant road authority under section 138 of the *Roads Act 1993* for any activity that may impact on the operation of the road network. The ROL allows the Applicant to use a specified road space at approved times, provided certain conditions are met. The Applicant must allow a minimum of 10 working days for processing ROL applications. Traffic Control Plans are to accompany each ROL application(s) for any such activities.

C6 GEOTECHNICAL REPORTS

- (1) Prior to the commencement of any drilling/piling works on site, the Applicant shall submit to the PCA, the results of a detailed geotechnical investigation on the site. The report is to address such matters as:
 - (a) appropriate drilling methods and techniques;
 - (b) vibration management and monitoring;
 - (c) dilapidation survey;
 - (d) support and retention of excavated faces; and
 - (e) hydrogeological considerations.
- (2) The recommendations of the report are to be implemented during the course of the works.

C7 BARRICADE PERMIT

Where construction/building works require the use of a public place including a road or footpath, approval under section 138 of the *Roads Act 1993* for a Barricade Permit is to be obtained prior to the commencement of work. Details of the barricade construction, area of enclosure and period of work are required to be submitted to the satisfaction of the relevant road authority.

C8 COMPLIANCE REPORT

Prior to the commencement of works, the Applicant, or any party acting upon this approval, shall submit to the PCA a report addressing compliance with all relevant conditions of this Part.

End of Section.

PART D - DURING CONSTRUCTION

D1 HOURS OF WORK

- (1) The hours of construction, including the delivery of materials to and from the site, shall be restricted as follows:
- (a) between 7 am and 6 pm, Mondays to Fridays inclusive;
 - (b) between 7 am and 5 pm, Saturdays;
 - (c) no work on Sundays and public holidays;
 - (d) works may be undertaken outside these hours where:
 - i) the delivery of vehicles, plant or materials is required outside these hours by the Police or other authorities;
 - ii) it is required in an emergency to avoid the loss of life, damage to property and/or to prevent environmental harm; and
 - iii) a variation is approved in advance in writing by the Secretary (or nominee).
- (2) Works may also be undertaken outside the approved hours of construction in subsection (1) of this condition where:
- (a) operation of the emission control systems or soil vapour extraction systems is required to ensure emissions and odour is effectively controlled outside the approved hours of construction, including operation of the ventilation and air emissions control systems; and
 - (b) operation of the Wastewater Treatment Plant (if utilised) is required including dewatering to prevent flooding, treatment systems and discharge.

D2 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

The Applicant must undertake all works in accordance with the requirements of the CEMP and associated Sub-Plans approved under Condition B18.

Note: the CEMP must document and incorporate all Sub-Plans required under this consent.

D3 UNEXPECTED FINDS PROTOCOL

The Applicant shall implement the Unexpected Finds Protocol outlined in Section 9.0 of the revised SEPP 55 letter prepared by AECOM (dated 24 August 2016) in Appendix I2 of the RTS for the duration of construction.

D4 EXCAVATION AND REMEDIATION PROGRAM OF WORKS

- (1) The Applicant must ensure that where the site (or a part of the site) is contaminated in such a way that it requires remediation, no excavation (non-remediation) works shall be undertaken until the site (or relevant part of the site) has been remediated, validated and verified by an EPA-accredited site auditor to have been successfully remediated and to be suitable for the proposed uses (refer to the site validation requirements of Condition E1).
- (2) The Applicant must undertake all works in accordance with the excavation and remediation program of works approved under Condition B20.

D5 REMEDIAL ACTION PLANS (RAP) AND HUMAN HEALTH ECOLOGICAL RISK ASSESSMENTS (HHERA)

All remediation works are to be undertaken in accordance with the following Remedial Action Plans (RAP), Human Health Ecological Risk Assessments (HHERAs) and accompanying documents (where relevant):

- (a) 'Barangaroo South – Stage 1B Basement and Residential Towers, Revised SEPP 55 Letter, Hickson Road, Millers Point. State Significant Development Applications 6960, 6964, 6965 & 6966', prepared by AECOM Australia Pty Limited and dated 27 June 2016;

- (b) *'Human Health and Ecological Risk Assessment, Declaration Site (Development Works) Remediation Works Area – Barangaroo'*, prepared by AECOM Australia Pty Limited and dated 9 June 2011;
- (c) *'Human Health and Ecological Risk Assessment, VMP Remediation Works (Addressing the NSW EPA Declaration 21122, Millers Point)'*, prepared by AECOM Australia Pty Limited and dated 25 October 2012;
- (d) *'Remedial Action Plan, NSW EPA Declared Remediation Site 21122 and Block 4 (Stage 1b) Development Works, Barangaroo, Millers Point, NSW'*, prepared by AECOM Australia Pty Limited and dated 24 July 2013;
- (e) *'Site Audit Report - Remedial Action Plan, Declaration Area and Block 4, Barangaroo'*, prepared by ENVIRON Australia Pty Ltd and dated July 2013';
- (f) Site Audit Statements (No. GN 447A and No. GN 439B-3), approved by Mr. Graeme Nyland (EPA accredited Site Auditor) and dated 31 July 2013;
- (g) *'Addendum to the Remedial Action Plan, NSW EPA Declared Remediation Site 21122 and Block 4 (Stage 1b) Development Works, Barangaroo, Millers Point, NSW - Offsite Treatment/Transport of Contaminated Material'*, prepared by AECOM Australia Pty Limited and dated 15 October 2016;
- (h) *'VMP/Block 4 Remedial Action Plan Addendum - Part Stage 1B Public Domain (Watermans Quay), Hickson Road, Millers Point, Barangaroo South'*, prepared by AECOM Australia Pty Limited and dated 19 April 2016;
- (i) *'Human Health and Ecological Risk Assessment, Stage 1C Development (ROWN Area), Barangaroo South'*, prepared by AECOM Australia Pty Limited and dated 10 December 2014;
- (j) *'Remedial Action Plan Barangaroo South Stage 1B Waterfront Public Domain'*, prepared by AECOM Australia Pty Limited and dated 22 January 2016;
- (k) *'Site Audit Report, Remedial Action Plan, Barangaroo South, Stage 1B Waterfront Public Domain'*, prepared by Ramboll Environ Australia Pty Ltd and dated 24 February 2016; and
- (l) Site Audit Statement (No. GN 439B-4), approved by Mr. Graeme Nyland (EPA accredited Site Auditor) and dated 24 February 2016.

D6 REMEDIATION WORKS IN ENCLOSURES

Unless otherwise agreed in writing by the Secretary (refer to Condition B21), the Applicant must ensure that all remediation works are undertaken within a remediation enclosure that has been approved by the Secretary in accordance with Condition B21.

D7 RESTRICTED HOURS OF WORK – HIGH NOISE IMPACT ACTIVITIES

The Applicant must ensure that any work generating high noise impact (e.g. rock hammering) must only be undertaken:

- (a) between the hours of 8 am and 6 pm Monday to Friday;
- (b) between the hours of 8 am and 1 pm Saturday; and
- (c) in continuous blocks of no more than 3 hours, with at least a 1 hour respite between each block of work generating high noise impact, where the location of the work is likely to impact the same receivers.

For the purposes of this condition 'continuous' includes any period during which there is less than a 1 hour respite between ceasing and recommencing any of the work the subject of this condition.

D8 CONSTRUCTION NOISE CRITERIA

The Applicant must ensure that noise generated by the development does not exceed 75 dB(A) $L_{Aeq}(15 \text{ minute})$ at any affected sensitive receiver during the day.

To ensure the construction noise criteria are not exceeded, all reasonable and feasible noise mitigation measures outlined in the CNVMSP approved under Condition B19 must be implemented.

Note: to identify the receiver locations refer to the Construction Noise and Vibration Assessment (dated November 2015) in Appendix H of the RTS. Noise generated by the development is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

D9 VIBRATION CRITERIA

- (1) Vibration caused by construction at any residence or structure outside the subject site must be limited to:
 - (a) for structural damage vibration to buildings (excluding heritage buildings), *British Standard BS 7385 Part 2-1993 Evaluation and Measurement for Vibration in Buildings*;
 - (b) for structural damage vibration to heritage buildings, *German Standard DIN 4150 Part 3 Structural Vibration in Buildings Effects on Structure*; and
 - (c) for human exposure to vibration, the evaluation criteria presented in *British Standard BS 6472- Guide to Evaluate Human Exposure to Vibration in Buildings (1Hz to 80 Hz)* for low probability of adverse comment.
- (2) These limits apply unless otherwise approved in the CNVMSP approved under Condition B19.

D10 VIBRATION MANAGEMENT

- (1) Vibratory compactors must not be used closer than 30 m from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified above.
- (2) The Applicant must undertake trial testing of vibration intensive equipment that is identified as having the potential to exceed the vibration criteria identified in Condition D8 to ensure it is not exceeded at any residence or structure outside the subject site.

D11 PARTICULATE MATTER CONTROLS

- (1) Adequate measures shall be taken to prevent particulate matter from affecting the amenity of the neighbourhood during construction. In particular, the following measures should be adopted:
 - (a) physical barriers shall be erected at right angles to the prevailing wind direction or shall be placed around or over dust sources to prevent wind or activity from generating dust emissions;
 - (b) wind break shall be erected along the site boundary and around any exposed stockpiles;
 - (c) earthworks and scheduling activities shall be managed to coincide with the next stage of development to minimise the amount of time the site is left cut or exposed;
 - (d) all materials shall be stored or stockpiled at suitable locations;
 - (e) all bulk excavation and spoil handling points (including any screening and crushing activities) must be fitted with directional water sprays or mist units. The wet suppression mechanisms must be utilised at least every hour;
 - (f) wet suppression mechanisms must be utilised at stockpile areas, distributed areas and haul routes;
 - (g) all vehicles carrying spoil or rubble to or from the site shall at all times be covered to prevent the escape of dust or other material;
 - (h) all equipment wheels shall be washed before exiting the site using manual or automated sprayers and drive-through washing bays;
 - (i) gates shall be closed between vehicle movements and shall be fitted with shade cloth; and
 - (j) cleaning of footpaths and roadways shall be carried out regularly.

D12 CONSTRUCTION TRAFFIC MANAGEMENT PLAN

The Applicant must undertake all works in accordance with the CTMSP approved under Condition B24 except where modified below.

- (1) Under the current legislation the use of lengthy vehicles in the CBD is prohibited within certain time frames. All lengthy vehicles must comply with this regulation as stipulated in the NSW

Road Rules. A map indicating the prohibited area and definitions of lengthy vehicles are included in the Road Rules.

- (2) Personnel using stop/slow signage are not permitted in Hickson Road or Sussex Street on weekdays between the hours of 7 am and 9 am and 4 pm and 7 pm. However, personnel using stop/slow signage will be permitted on Hickson Road, north of the intersection of Hickson Road and Napoleon Street, when it is required to ensure safe truck access at designated site access points, provided that vehicle queue lengths generated as a result of the traffic control do not exceed more than six vehicles in either direction.
- (3) Truck movements should be staged and coordinated to prevent trucks circling CBD streets whilst awaiting access to the site. There should be holding areas outside the CBD on the fringes or sufficient space within the site to store trucks and heavy vehicles.
- (4) To minimise impacts on public transport, trucks should avoid where possible the use of York Street to access the development site between 6 am and 10 am and 2 pm and 8 pm Monday to Friday.
- (5) Truck movements to and from the site associated with the development must be minimised as far as practicable during the peak AM and PM periods.

D13 WORK, HEALTH AND SAFETY REQUIREMENTS

The Applicant must ensure that all works are carried out in accordance with the relevant requirements of the *Work, Health and Safety Regulation 2011*.

D14 EROSION AND SEDIMENT CONTROL

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.

D15 STOCKPILE MANAGEMENT

The Applicant must ensure that stockpiles are managed in accordance with the Spoil and Waste Management Sub-Plan approved under Condition B32 and the Air Quality and Odour Management Sub-Plan approved under Condition B22.

D16 DISPOSAL OF SEEPAGE AND RAINWATER

Any seepage or rainwater collected on-site during construction shall be managed in accordance with the WSMSP approved under Condition B28.

D17 WATER QUALITY

All works should be undertaken in a manner that ensures the protection of the water quality objectives and environmental values for Sydney Harbour estuarine waters in accordance with the following guideline documents:

- (a) *NSW Water Quality Objectives*; and
- (b) *The Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)* for the environmental values under the ANZECC guidelines.

D18 WATER DISCHARGES

The Applicant must ensure that all surface water discharges from the site comply with:

- (a) Section 120 of the *Protection of the Environment Operations Act 1997*; or
- (b) the discharge limits (both volume and quality) set for the development Environment Protection Licence No. 13336, unless otherwise agreed to in writing by the EPA.

D19 CONTAMINATED AND TREATED WATER

- (1) Any effluents/liquid waste streams associated with the development that are directed to the site Wastewater Treatment Plant (WTP) are sufficiently treated to ensure:
 - (a) compliance with the relevant concentration limits required by Environment Protection Licence No. 13336 prior to discharge to Sydney Harbour; and/or
 - (b) compliance with the relevant requirements of an executed Trade Waste Agreement with Sydney Water Corporation prior to discharge to sewer.
- (2) No contaminated or treated site waters (surface, collected groundwater or contaminated construction waters) are permitted to be discharged into Sydney Harbour unless in accordance with the conditions attached to Environmental Protection Licence No. 13336, unless otherwise agreed to in writing by the EPA.
- (3) No contaminated or treated site waters (surface, collected groundwater or contaminated construction waters) are permitted to be discharged to sewer unless in accordance with the conditions of an executed Trade Waste Agreement with Sydney Water Corporation.

D20 BUNDING

The Applicant shall store all chemicals, fuels and oils used on-site in appropriately banded areas in accordance with the requirements of all relevant *Australian Standards*, EPL requirements and/or EPA's *Storing and Handling Liquids: Environmental Protection – Participants Handbook*.

D21 WASTE CLASSIFICATION AND DISPOSAL

- (1) The Applicant must ensure that all waste generated by the development is classified and disposed of in accordance with the EPA's *Waste Classification Guidelines 2014*.
- (2) The Applicant must ensure that all waste generated by the development is treated and/or disposed of at a facility that has sufficient capacity to and may lawfully accept that waste.

D22 ASBESTOS WASTE MANAGEMENT

- (1) All excavation works involving the removal and disposal of asbestos must only be undertaken by contractors who hold a current WorkCover Asbestos or "Demolition Licence" and a current WorkCover "Class 2 (Restricted) Asbestos Licence and removal must be carried out in accordance with Safe Work Australia's NOHSC: Code of Practice for the Safe Removal of Asbestos 2005.
- (2) An asbestos clearance certificate (or certificates) prepared by a suitably licenced asbestos removalist shall be provided to the Department and the Principal Certifying Authority upon completion of all asbestos removal works. The Applicant shall ensure the asbestos removal works comply with the relevant requirements of the *Work, Health and Safety Regulation 2011*.

D23 IMPACTS OF BELOW GROUND (SUB SURFACE) WORKS – NON-ABORIGINAL OBJECTS

If during the course of construction the Applicant becomes aware of any previously unidentified heritage object(s), all work likely to affect the object(s) shall cease immediately and the Heritage Council of New South Wales shall be notified immediately in accordance with section 146 of the *Heritage Act 1977*. Relevant works shall not recommence until written authorisation from the Heritage Council of NSW is received by the Applicant.

D24 IMPACTS OF BELOW GROUND (SUB SURFACE) WORKS – ABORIGINAL OBJECTS

If during the course of construction the Applicant becomes aware of any previously unidentified Aboriginal object(s), all work likely to affect the object(s) shall cease immediately and the Office of Environment and Heritage informed in accordance with section 89A of the *National Parks and Wildlife Act 1974*. Relevant works shall not recommence until written authorisation from Office of Environment and Heritage is received by the Applicant.

D25 EXTERNAL LIGHTING

External Lighting shall comply with AS4282: 1997 *Control of the Obtrusive Effects of Outdoor Lighting*. Upon installation of lighting, but before it is finally commissioned, the Applicant shall submit to the approval authority evidence from an independent qualified practitioner demonstrating compliance in accordance with this condition.

D26 APPROVED PLANS TO BE ON SITE

A copy of the approved and certified plans, specifications and documents incorporating conditions of consent and certification shall be kept on the site at all times and shall be readily available for perusal by any officer of the department, the relevant authority or the PCA.

D27 SITE NOTICE

A site notice(s) shall be prominently displayed at the boundaries of the site for the purposes of informing the public of project details including, but not limited to the details of the Builder, PCA and Structural Engineer. The notice(s) is to satisfy all but not be limited to, the following requirements:

- (a) minimum dimensions of the notice are to measure 841 mm x 594 mm (A1) with any text on the notice to be a minimum of 30 point type size;
- (b) the notice is to be durable and weatherproof and is to be displayed throughout the works period
- (c) the approved hours of work, the name of the site/project manager, the responsible managing company (if any), its address and 24 hour contact phone number for any inquiries, including construction/noise complaint are to be displayed on the site notice; and
- (d) the notice(s) is to be mounted at eye level on the perimeter hoardings/fencing and is to state that unauthorised entry to the site is not permitted.

D28 CONTACT TELEPHONE NUMBER

The Applicant shall ensure that the 24 hour contact telephone number is continually attended by a person with authority over the works for the duration of the development.

D29 SETTING OUT OF STRUCTURES

The basement shall be set out by a registered surveyor to verify the correct position of the structure in relation to property boundaries and the approved alignment levels. The registered surveyor shall submit a plan to the PCA certifying that structural works are in accordance with the approved development application.

D30 COMPLIANCE REPORT

The Applicant, or any party acting upon this consent, shall, for the duration of the construction period, submit to the department a three monthly report addressing compliance with all relevant conditions of this Part.

End of Section.

PART E – PRIOR TO OCCUPATION OR COMMENCEMENT OF USE

E1 SITE VALIDATION

- (1) Within 6 months of the completion of remediation works on site (including validation of remediation-related construction works), and prior to the issue of any Occupation Certificate, the Applicant shall submit a detailed Site Audit Summary report and Site Audit Statement and Validation Report to the EPA, the Secretary, the Certifying Authority, and the Council. The validation and audit process may occur progressively to the satisfaction of the site auditor.
- (2) The site audit must be prepared in accordance with the *Contaminated Land Management Act 1997* and completed by a site auditor accredited by the EPA to issue site audit statements. The site audit must verify that the land is suitable for the proposed uses.
- (3) The site auditor must also verify that any excavated material re-used on site or disposed off-site, has been appropriately classified, validated, managed and the relevant approvals obtained in accordance with the relevant legislation and any relevant approved materials management plan/s.
- (4) On completion of remediation works, the relevant requirements of Clauses 17 and 18 of *SEPP 55 - Remediation of Land*, being notification to the Council, shall be complied with.

E2 FIRE SAFETY CERTIFICATE

A Fire Safety Certificate shall be furnished to the PCA for all the essential fire or other safety measures forming part of this approval prior to issue of any Occupation Certificate. A copy of the Fire Safety certificate must be submitted to the approval authority and Council by the PCA.

E3 GFA CERTIFICATION

A Registered Surveyor is to certify that the Gross Floor Area (GFA) of the development approved by this consent does not exceed 26 m². Details shall be provided to the Certifying Authority demonstrating compliance with this condition prior to the issue of the relevant Occupation Certificate.

E4 MECHANICAL VENTILATION

- (1) Following completion, installation and testing of all the mechanical ventilation systems, the Applicant shall provide evidence to the satisfaction of the PCA, prior to the issue of any Occupation Certificate, that the installation and performance of the mechanical systems complies with:
 - (a) the BCA;
 - (b) *Australian Standard AS1668.2-2002 – The Use of Ventilation and Air Conditioning in Buildings – Ventilation Design for Indoor Air Contaminant Control* and other relevant code;
 - (c) the development approval and any relevant modification; and
 - (d) any dispensation granted by the New South Wales Fire Brigade.

E5 STRUCTURAL INSPECTION CERTIFICATE

- (1) A Structural Inspection Certificate or a Compliance Certificate must be submitted to the satisfaction of the PCA prior to the issue of any Occupation Certificate and/or use of the premises. A copy of the Certificate with an electronic set of final drawings (contact approval authority for specific electronic format) shall be submitted to the approval authority and the Council after:
 - (a) the site has been periodically inspected and the Certifier is satisfied that the Structural Works is deemed to comply with the final design drawings; and
 - (b) the drawings listed on the Inspection Certificate have been checked with those listed on the final Design Certificate/s.

E6 ROAD DAMAGE

The cost of repairing any damage caused to Council or other public authority's assets in the vicinity of the subject site, as a result of construction works associated with the approved development, is to be met in full by the Applicant/developer prior to the issue of any Occupation Certificate.

E7 SYDNEY WATER

- (1) A Section 73 Compliance Certificate under the *Sydney Water Act 1994* must be obtained from Sydney Water Corporation, if relevant.
- (2) Application must be made through an authorised Water Servicing Coordinator. Please refer to the "Your Business" section of the web site www.sydneywater.com.au then follow the "e-Developer" icon or telephone 13 20 92 for assistance.
- (3) Following application a "Notice of Requirements" will advise of water and sewer extensions to be built and charges to be paid. Please make early contact with the Coordinator, since building of water/sewer extensions can be time consuming and may impact on other services and building, driveway or landscape design.
- (4) The Section 73 Certificate must be submitted to the PCA prior to occupation of the development or release of the plan of subdivision.

E8 POST CONSTRUCTION DILAPIDATION REPORT

- (1) The Applicant shall engage a suitably qualified person to prepare an updated post- construction dilapidation report at the completion of the construction works. This report is to ascertain whether the construction works caused any structural damage to adjoining buildings, infrastructure or roads. The dilapidation reports are to be prepared and submitted to the PCA:
 - (a) at the completion of all excavation and piling works associated with the development; and
 - (b) at the completion of all construction works associated with the development.

A copy of the report must be provided to the Secretary.

E9 WASTE AND RECYCLING COLLECTION

Prior to an Occupation Certificate being issued and/or commencement of use, whichever is the sooner, the building owner must ensure that there is a contract with a licensed contractor for the removal of all trade waste. No garbage is to be placed on the public way (e.g. footpaths, roadways, plazas, and reserves at any time).

E10 FURTHER REQUIREMENTS

The Applicant shall comply with all reasonable requirements of Secretary in respect of the implementation of any measures arising from the reports submitted in respect of Condition B40, Condition C8, Condition D30 and Condition E10 inclusive, within such time as the Secretary may agree.

End of Section.

PART F – POST OCCUPATION

F1 ANNUAL FIRE SAFETY CERTIFICATION

The owner of the building shall certify to Council every year that the essential services installed in the building for the purpose of fire safety have been inspected and at the time of inspection are capable of operating to the required minimum standard. This purpose of this condition is to ensure that there is adequate safety of persons in the building in the event of fire and for the prevention of fire, the suppression of fire and the prevention of spread of fire.

F2 FIRE SAFETY STRATEGY

The development shall operate at all times in accordance with the FSS approved in accordance with Condition B36 of this consent.

F3 LOADING AND UNLOADING

All loading and unloading of service vehicles in connection with the use of the premises shall be carried out wholly within the site at all times.

F4 VEHICLE ACCESS

All vehicles must enter and exit the basement in a forward direction.

F5 UNOBSTRUCTED DRIVEWAYS AND PARKING AREAS

All driveways and parking areas shall be unobstructed at all times.

F6 PUBLIC WAY TO BE UNOBSTRUCTED

The public way shall be unobstructed at all times.

F7 EMERGENCY ACCESS

- (1) Access to all fire exits and utilities must be maintained at all times.
- (2) Emergency vehicle access shall be maintained at all times.

F8 DIESEL FILLING MANAGEMENT PLAN

The development shall operate at all times in accordance with the DFMP approved in accordance with Condition B37 of this consent.

F9 LOADING DOCK MANAGEMENT PLAN

The development shall operate at all times in accordance with the LDMP approved in accordance with Condition B25 of this consent.

F10 INTERIM PUBLIC DOMAIN WORKS

All public domain areas are to be maintained at all times in a physically sound condition and of an appearance which is consistent with the approved plans.

End of Section.

ADVISORY NOTES

AN1 SYDNEY WATER

An application shall be made to Sydney Water for a Certificate under Part 6, Division 9, Section 73 of the *Sydney Water Act, 1994* (Compliance Certificate). Evidence that a Compliance Certificate has been applied for (i.e. Notice of Requirements) shall be produced to the satisfaction of the PCA prior to the issue of a Construction Certificate. The Section 73 Certificate shall be submitted to the PCA prior to the occupation of the development.

AN2 COMPLIANCE CERTIFICATE

- (1) Prior to issuing a subdivision certificate, a Compliance Certificate shall be provided to the approval authority showing that the development has met with the detailed requirements of the relevant water supply authority for the region that the subject site is located within.
- (2) The developer shall obtain the Compliance Certificate from the relevant local water supply authority and produce this to the satisfaction of:
 - (a) the certifying authority before release of the relevant Construction Certificate;
 - (b) the approval authority before the release of the relevant subdivision certificate; and
 - (c) the PCA prior to occupation.

AN3 REQUIREMENTS OF PUBLIC AUTHORITIES

The Applicant shall comply with the requirements of any public authorities (e.g. Ausgrid, Sydney Water, Telstra Australia, AGL, etc) in regard to the connection to, relocation and/or adjustment of the services affected by the construction of the proposed structure. Any costs in the relocation, adjustment or support of services shall be the responsibility of the Applicant. Details of compliance with the requirements of any relevant public authorities are to be submitted to the satisfaction of the PCA prior to the issue of the Construction Certificate.

Access to utilities must be maintained at all times.

AN4 COMPLIANCE WITH BCA

The Applicant is advised to consult with the PCA about any modifications needed to comply with the BCA prior to submitting the application for a Construction Certificate.

AN5 STRUCTURAL CAPABILITY FOR STRUCTURES

The structural capabilities of an existing structure will need to meet the requirements of the BCA and may require engaging a structural engineer.

AN6 USE OF MOBILE CRANES

- (1) The Applicant shall obtain all necessary permits required for the use of mobile cranes on or surrounding the site, prior to the commencement of works. In particular, the following matters shall be complied with to the satisfaction of the PCA:
 - (a) for special operations including the delivery of materials, hoisting of plant and equipment and erection and dismantling of on site tower cranes which warrant the on street use of mobile cranes, permits must be obtained from Council:
 - (i) at least 48 hours prior to the works for partial road closures which, in the opinion of Council will create minimal traffic disruptions, and
 - (ii) at least 4 weeks prior to the works for full road closures and partial road closures which, in the opinion of Council, will create significant traffic disruptions; and
 - (b) the use of mobile cranes must comply with the approved hours of construction and shall not be delivered to the site prior to 7 am without the prior approval of the relevant authority.

AN7 MOVEMENT OF TRUCKS

The Applicant shall notify Roads and Maritime Services Traffic Management Centre (TMC) of the truck route(s) to be followed by trucks transporting waste material from the site, prior to the commencement of the removal of any waste material from the site.

AN8 CONSTRUCTION INSPECTIONS

- (1) Compliance certificate/s shall be issued by the PCA and submitted to Council in accordance with the mandatory inspection requirements of the *Building Legislation Amendment—Quality of Construction Act, 2002* for each stage of construction (where relevant or required), such as the following:
 - (a) foundations;
 - (b) footings;
 - (c) damp proof courses and waterproofing installation;
 - (d) structural concrete, including placing of reinforcement and formwork prior to pouring;
 - (e) structural beam and column framing;
 - (f) timber wall and roof framing; and
 - (g) stormwater disposal.
- (2) Any Compliance Certificate issued for the above stages of construction shall certify that all relevant ancillary or dependent work has been undertaken in accordance with the BCA and any other conditions of approval.

AN9 ROADS ACT 1993

- (1) A separate approval under Section 138 of the *Roads Act 1993* is required to undertake any of the following:
 - (a) erect a structure or carry out a work in, on or over a public road;
 - (b) dig up or disturb the surface of a public road;
 - (c) remove or interfere with a structure, work or tree on a public road;
 - (d) pump water into a public road from any land adjoining the road; and
 - (e) connect a road (whether public or private) to a classified road.

AN10 ASBESTOS REMOVAL

All works involving the removal and disposal of asbestos must only be undertaken by contractors who hold a current WorkCover Asbestos or "Demolition Licence" and a current WorkCover "Class 2 (Restricted) Asbestos Licence and removal must be carried out in accordance with NOHSC: "Code of Practice for the Safe Removal of Asbestos".

AN11 DISABILITY DISCRIMINATION ACT

- (1) This application has been assessed in accordance with the *Environmental Planning and Assessment Act 1979*. No guarantee is given that the proposal complies with the *Disability Discrimination Act 1992*.
- (2) The Applicant/owner is responsible to ensure compliance with this and other anti-discrimination legislation. The *Disability Discrimination Act 1992* covers disabilities not catered for in the minimum standards called up in the Building Code of Australia which references AS 1428.1 - *Design for Access and Mobility*. AS1428 Parts 2, 3 & 4 provides the most comprehensive technical guidance under the *Disability Discrimination Act 1992* currently available in Australia.

AN12 ROAD CLOSURE

A temporary road closure permit is to be obtained from the relevant road authority prior to the closure of any roads.

End of Section.

SCHEDULE 3 APPLICANT'S STATEMENT OF COMMITMENTS

The following are the commitments made by Lend Lease (Millers Point) Pty Ltd to manage and minimise potential impacts arising from the development.

Mitigation Measures
Traffic and Parking
A Travel Demand Management Plan in accordance with the Transport Assessment prepared by ARUP and dated September 2015, and will be prepared and implemented prior to occupation of the building.
Air and Odour
The Stage 1B Basement construction works are to be incorporated into the existing environmental management plans.
Soil and Water
<ul style="list-style-type: none"> ▪ Water Sensitive Urban Design (WSUD) measures as described above will be implemented in the development. ▪ A detailed Water and Stormwater Management Plan that addresses water quality and water monitoring requirements for the duration of construction works associated with the development of Stage 1B will be prepared. This will incorporate measures such as: <ul style="list-style-type: none"> – Criteria for nominating areas and different sources of site water as clean or contaminated; – Water monitoring protocols and decision criteria for whether site water will be directed to stormwater, a waste water treatment plant, to sewer or to a liquid waste facility; – Water discharge criteria and monitoring frequency for parameters listed in the 'Water Quality Monitoring Requirements' document prepared as part of the Environmental Assessment; – An initial more intensive monitoring program for sediment basins, stormwater discharges, reused water and ambient waters to help determine potential water quality impacts and ongoing monitoring protocols; – Specific discharge and monitoring points for on-site generated water including collected groundwater seepage into excavations, sediment basins for clean or contaminated areas, discharge points to stormwater drains, and confirmation of ambient monitoring locations in Darling Harbour and Johnstons Bay; – Suitability of chosen reference site(s) based on turbidity data from a proposed monitoring program; – Consideration of tidal currents, circulation patterns in Darling Harbour and the position of stormwater discharge points with regard to the positioning of monitoring location(s) outside the turbidity (silt) curtain. The location will not be a fixed point so that it can account for potential plume movement under different conditions. Alternatively, more than one location may be needed; and – The development of criteria for wastewater discharges that would trigger a review of water management systems. These criteria will trigger operational responses that help in ensuring licence conditions are not exceeded. It is noted that this element may fall under approval of the site recycled water/treatment devices and may be separated from the Concept Approval ▪ The Stage 1B Basement construction works are to be incorporated into the existing environmental management plans.
Noise and Vibration
<ul style="list-style-type: none"> ▪ Acoustic containers on the generators or power supplied by the grid; ▪ Localised treatment such as barriers, silencers or speed control on fixed odours plant; and ▪ Selection of low noise equipment such "quiet type" hammers and use of rocksaws where feasible. ▪ It is recommended that trial testing of vibration levels be conducted where equipment identified as having the potential to exceed the human comfort criteria is proposed. ▪ Selection of low noise equipment such as "quiet hammers". ▪ Plant Noise Audit – Noise emission levels of all critical items of mobile plant and equipment should be checked for compliance with noise limits appropriate to those items prior to the equipment going into regular service. To this end, testing should be established with the contractor. ▪ Operator Instruction – Operators should be trained in order to raise their awareness of potential noise problems and to increase their use of techniques to minimise noise emission. ▪ Equipment Selection – All fixed plant at the work sites should be appropriately selected, and where necessary, fitted with silencers, acoustical enclosures and other noise attenuation measures in order to ensure that the total noise emission from each work site complies with EPA guidelines. ▪ Site Noise Planning – Where practicable, the layout and positioning of noise-producing plant and activities on each work site should be optimised to minimise noise emission levels. ▪ Use rocksaws and rippers where feasible.

Mitigation Measures

- Install a noise barrier between the site and street frontages. This should be a minimum 17mm thick structural plywood or equivalent panel. (Included in noise modelling)

Human Health

- Excavations will be visually inspected by a qualified environmental engineer/scientist;
- If the subsurface soils encountered during the excavation are significantly different to those described in Section 7.0 (i.e. based on visual and olfactory observations), validation soil sampling of the excavation base and walls will be conducted. If required, the validation soil samples will be collected as follows:
 - wall validation samples will be collected at 10 m lineal metre intervals in material identified to be the most impacted (either by visual observations of field screening of samples using a Photoionisation Detector);
 - base validation samples will be collected at 10 m lineal metres along the base of the trench;
 - the soil analytical results will be compared to the ASC NEPM (NEPC, 2013) soil criteria for commercial/industrial land use. If these criteria are exceeded a site specific risk assessment could be undertaken to assess the suitability of the material to remain in situ; and
 - based on the assessment of the above soil validation results, undertake additional remediation and validation works (as required).
- Materials used to backfill the trenches will be validated to ensure they meet the ASC NEPM (NEPC, 2013) soil assessment criteria for a commercial/industrial land use;
- If Virgin Excavated Natural Material (VENM) is to be used for backfilling, a VENM validation certificate will be sought from the source quarry/site; and
- An Asbestos Management Plan will be prepared for the excavation works to ensure any asbestos impacted fill material is appropriately managed and disposed of to a licensed landfill facility.

Waste Management

Waste will be managed in accordance with the Waste Management Plan prepared by ARUP, and dated September 2015.

Construction Framework Environmental Management Plan

The CFEMP should be implemented into the construction phase of the development.

Tree Removal

Should the trees be able to be retained, they will be protected in accordance with the management and mitigation measures in the Arboricultural Report prepared by Tree Talk dated September 2015.