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Dear Sir/Madam

Barangaroo South - Commercial Building C3 - Section 75W MOD2 Waste Management Plan

This letter has been prepared to support an Application made pursuant to section 75W of the Environmental Planning and Assessment Act 1979 to modify Project Approval granted by the Minister for Planning in respect of MP11_0044 for the C3 commercial building within Barangaroo South. The C3 Project Application was approved by the Minister for Planning under section 75J of the EP&A Act on 24 April 2012.

The approved C3 Project Application approves the construction and use of a 49 storey commercial building and allocation of car parking spaces from the Bulk Excavation and Basement Car Parking Project Application, within the area of land known generally as Block 3 at Barangaroo South. More specifically, consent was granted for development including:

- Piling and associated earthworks and remediation;
- Construction and use of a commercial building with a maximum GFA of 115,448m²;
- Operation and use of 175 car parking spaces and 8 parking spaces for all other uses;
- 401 bicycle parking spaces (65 to be located temporarily on grade in the landscaped forecourt adjacent to Hickson Road and 336 in the basement car park); and
- Construction of certain temporary public domain works.

The proposed MOD 2 seeks to modify the following elements of the approved C3 building:

- Podium design and ground floor lobby;
- Total GFA;
- Facade details;
- Structural bracing; and



- Roof treatment.

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

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

The C3 Site extends over land generally known and identified in the approved Concept Plan as Block 3 which comprises Lot 5 in DP 876514.

Arup has reviewed the following drawing series prepared in respect to the Section 75W submission as below:

- Architectural drawings of Ground Level and above prepared by Rogers Stirk Harbour & Partners (RSHP), dated 13 September 2013.

The Waste Management Plan – Rev D (dated 26 October 2011) prepared by Arup to support the original Project Application addressed the construction and operational waste management issues associated with Building C3 in the context of the wider Barangaroo South site. The modifications to C3 as part of this Section 75W submission are within the scope of the original report. The following clarifications are noted:

- The project summary description in Section 1.4 is superseded by the revised GFA numbers described in the Section 75W MOD 2.
- Section 5.1, Table 2 is superseded by the Table below showing revised GFA numbers.

Table 2: Barangaroo, C3 Commercial Building GFA's

Description	GFA (m ²)	Waste generation rate source
Commercial (Office, incl. lobby)	109,238	CoS Waste Policy generation rate for office
Retail	6,111	CoS Waste Policy generation rates for retail
Childcare	1,250	Assumed half the Cos Waste Policy generation rates for boarding house

- Section 5.1, Tables 3 and 4 which estimate the total waste generation are superseded by the tables below.

Table 3: Barangaroo C3 Commercial Building General Waste Estimation

Description	General Waste Generation Rate		General Waste (L/day)
Commercial (Office)	10	L/100m ² /day	10,924
Childcare centre	20	L/pp/week	257
Retail - Anchor Store	50	L/100m ² /day	7,887
Retail <100m ²	50	L/100m ² /day	
Retail >100m ²	50	L/100m ² /day	
Retail >100m ² (Greengrocer)	240	L/100m ² /day	
Retail Restaurant	10	L/1.5m ² /day	
Retail Takeaway	80	L/100m ² /day	

Description	General Waste Generation Rate		General Waste (L/day)
Retail Gym/Common	10	L/100m ² /day	
TOTAL			18,439

Table 4: Barangaroo C3 Commercial Building Recyclables Estimation

Description	Recyclables Waste Generation Rate		Recyclables (L/day)
Commercial (Office)	10	L/100m ² /day	10,924
Childcare	10	L/pp/week	129
Retail - Anchor Store	50	L/100m ² /day	4,988
Retail - <100m ²	25	L/100m ² /day	
Retail >100m ²	50	L/100m ² /day	
Retail - >100m ² (Greengrocer)	120	L/100m ² /day	
Retail - Restaurant	2	L/1.5m ² /day	
Retail - Takeaway	0	L/100m ² /day	
Retail - Gym/Common	10	L/100m ² /day	
TOTAL			

- Section 5.2, Table 5 estimates the bin requirements for the commercial waste and remains unchanged.
- Section 5.2, Table 6 estimates the bin requirements for the retail waste and is superseded by the table below.

Table 6: Retail Waste Storage Options (daily collection with 2:1 compaction on general waste and paper/cardboard) (all figures rounded up to nearest m²)

Bin Capacity Options (L)	No. Bins: General Waste	No. Bins: Paper & Card	No. Bins: Other Recyclables	Plan Area Bin (m ²)	Total Plan Area: General Waste (m ²)	Total Plan Area: Recyclables (m ²)
240	17	4	14	0.43	7.3	7.7
660	6	2	5	0.96	5.8	6.7
1100	4	1	3	1.58	6.3	6.3
1500	3	1	3	1.87	5.6	7.5
3000	2	1	2	2.77	5.54	8.3

This changes the optimal bin configuration for general waste to 3 x 1500L and recyclables to 7 x 660L and the required space allocation changes to 12.5m² (plus additional space to move bins).

- The targets and strategies described in principle for construction and operations waste remain valid for the modified building.

On this basis, Arup is of the opinion that the proposed modification as contained in the Section 75W MOD 2 submission for MP11_0044 will not result in any additional impact on the waste management strategy from that identified within the Waste Management Plan and requires no further investigation or analysis at this stage of planning and design.

Yours faithfully

A handwritten signature in black ink, appearing to read "Stuart Hood", is enclosed within a light gray rectangular box.

Stuart Hood
Engineer