

Subject R8/R9 CTMP Supplementary Information

Date 5 April 2013

Job No/Ref 220316

This supplementary information responds to Item 13 in the Transport for NSW section of the Response to Submissions for MP11 0002 Residential Buildings R8 & R9.

Construction Traffic Management Plan (CTMP)

The CTMP has not considered the cumulative traffic generation and impacts associated with the construction of Barangaroo Central – Waterfront Promenade and Interim Public Domain Works (on exhibition at the same time).

Arup has reviewed the Barangaroo Central Waterfront Promenade and Interim Public Domain – Development Application, Traffic Impact Assessment prepared by Aurecon (Rev 4, 30 Oct 12). The report assesses the anticipated construction traffic impacts for these development works.

The time frame for construction is from January 2014 to March 2015. The construction traffic generated by Barangaroo Central during the morning peak period has been determined by Aurecon as:

- Number of truck movements – 20 vehicles (in) and 20 vehicles (out)
- Number of light vehicle movements – 40 vehicles (in) and 20 vehicles (out)

The R8/R9 CTMP considered the cumulative construction and operational traffic movements for the following construction projects:

Barangaroo South Basement
 C3 Commercial
 C4 Commercial
 C5 Commercial
 R8/R9 Residential

Headland Park
 Wynyard Walk

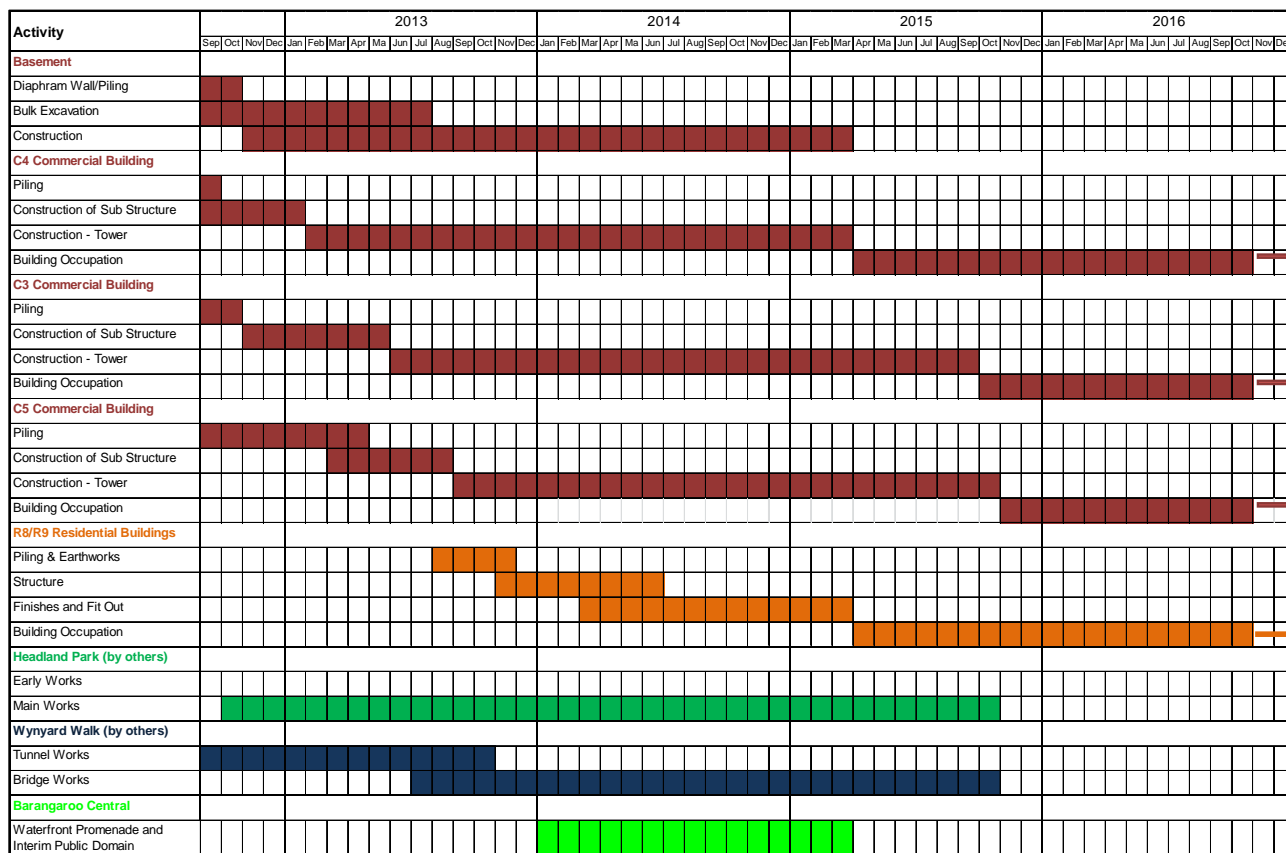
The Barangaroo Central project has been added as shown in Figure 1.

This busiest AM peak vehicle activity was determined as occurring in August 2013 when 351 two-way truck and car movements are predicted to occur. The Barangaroo Central construction works start in January 2014 when overall vehicle activity has reduced. Table 1 compares the Aug 2013 traffic flows (analysed by Arup for R8/R9) with the March 2014 combined flows. It shows that the number of truck movements will be 6% less and the number of car movements will be 24% higher.

Table 1: Comparison of construction traffic activity

AM Peak Veh Movements	Combined (without Barangaroo Central)		Barangaroo Central	Total Combined	% Change from Aug 2013
	Aug 2013	Mar 2014	Mar 2014	Mar 2014	
Trucks in+out	121	74	40	114	-6%
Cars in+out	230	225	60	285	+24%
Total in+out	351	299	100	399	+14%

Figure 1: Combined construction program



The effect of the estimated additional peak hour traffic during the peak period of construction generated traffic activity in March 2014 (for the Barangaroo Central works added to Basement Works, C4, C3 and C5 Commercial Buildings, R8/R9 Residential Buildings, Wynyard Walk and Headland Park works combined) has been investigated for each affected intersection. The modelling results for the future peak hour traffic movements from all the construction activities combined are summarised in Table 2.

Table 2: Intersection Analysis

Peak	Intersection	Existing/Background Traffic Only			Construction Peak Traffic, Aug 2013			Construction Peak Traffic with Barangaroo Central, March 2014		
		LOS	DOS	AVD (sec)	LOS	DOS	AVD (sec)	LOS	DOS	AVD (sec)
AM	Hickson Rd & Napoleon St	A	0.74	10	A	0.77	7	A	0.78	7
	Sussex St & Shelley St	B	0.89	26	C	0.92	36	D	0.95	40
	Sussex St & Erskine St	C	0.82	36	D	0.94	46	D	0.97	50
	Erskine St & Shelley St	B	0.79	16	B	0.85	19	B	0.87	19

Legend: AVD – Average Vehicle Delay, LOS – Level of Service, DOS – Degree of Saturation

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The results of the LinSig intersection analysis forecast minimal changes in the operation of key intersections surrounding the site as a result of the additional Barangaroo construction traffic, when compared with the base case scenario. The additional construction vehicles associated with the Barangaroo Central works has only a minor impact on forecast road network performance compared to that previously forecast (and subsequently approved) in the Barangaroo South building applications.