

Thursday, 3 December 2015

Project number: S14045  
Letter reference: S14045LT2

Tim Piirto  
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UNSW Sydney NSW 2052

Dear Tim,

**UNSW Kensington Campus Noise, Vibration and EMI from Light Rail  
Review of SLR Modification**

Resonate Acoustics has been engaged by UNSW to review the "*Modification 4 - CBD and South East Light Rail Project*". Documents related to the light rail project were accessed from:

[http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7412](http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7412)

The location of the High Street stop is to be moved away from UNSW as part of this proposed modification as shown in the Figure 1.

As noted in the Conditions of Approval (CoA), (CBD and South East Light Rail MOD 2\_Consolidated instrument (vA4528169).pdf) "Specific additional conditions B17 and B18 have already been developed for Health Infrastructure and UNSW". This reflects that the sensitive equipment installed and operated at UNSW is significantly more sensitive than typically observed for commercial and residential receivers.

Table 1 provides our comments following review of the "*Modification 4 - CBD and South East Light Rail Project*". It is anticipated that additional meetings and/or reviews will be required to help ensure that the proponents address the particular issues related to UNSW.



Figure 1 Proposed Relocated Light Rail Location

Table 1 Summary of “Modification 4” Review Comments

Point	Management Plan (section and relevant text)	Response
1	CSELR Main Report General	<p>The key features relevant to the UNSW in this modification (from a vibration, noise and EMI perspective) are:</p> <ul style="list-style-type: none"> <li>• Tram track moved further away from the Lowy Building</li> <li>• Likely reduction of noise, vibration and EMI from the proposed Light Rail</li> </ul> <p>While there is some mention of the UNSW there is no specific consideration of Approval Conditions B17 and B18. This needs to be addressed (in a separate document) so that UNSW specific concerns are mitigated to a suitable level.</p> <p>While the Lowy Building is stated to be sensitive, the Wallace Wurth Building is also sensitive and should be addressed. This aspect is particularly critical for sensitive equipment such as Electron Microscopes and/or Animal Research Facilities.</p>

Point	Management Plan (section and relevant text)	Response
2	CSELR Main Report Table 3.1	The main report notes (page 24) that the proposal benefits include <i>“potentially reduced conflict between the light rail and sensitive equipment utilised by the UNSW, in particular the Lowy Cancer Research Centre”</i>  We agree that this comment is correct. It has however not been shown that there is no conflict.
3	CSELR Main Report Section 5.10	Electromagnetic Interference is considered in some detail in this section. However, it is not clear what mitigation is required and what performance standards are to be met at UNSW. This is subject to additional review as outlined in MCoA B17 and B18.
4	CSELR Appendix C Noise and Vibration Impact	The Noise & Vibration impact report does not address or reference MCoA B17 and B18. These conditions are yet to be assessed and satisfied.
5	Vibration	Mitigation and controls for impacts on UNSW to be assessed.
6	Electromagnetic Fields and Vibration	Mitigation and controls for impacts on UNSW to be assessed.
7	Noise	Mitigation and controls for impacts on UNSW to be assessed.

As previously noted, a separate assessment of Vibration and EMI is required in accordance with the Conditions of Approval B17 and B18 in particular.

Please contact me with any further queries.

Yours sincerely,



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