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20160966.2/2909A/R2/TT

12/10/2016

Multiplex Constructions Pty Ltd

ATTN: ANTHONY BURKE

UNSW Biological Sciences – Section 96 Amendment of Plans to SSD 6674 - Acoustic Advice

Acoustic Logic has been engaged to provide comment on acoustic impacts associated with proposed changes to the UNSW Biological Sciences Development (approved in SSD 6674).

We have reviewed architectural plans A1000, A1302-1307, A2201-2210 and A3001, 3002, 3010 Revision E by Woods Bagot dated September 2016.

Proposed changes involve:

- Ground floor layout.
- Facades.
- Awning and Terrace.
- Roof top plant enclosure including levels 7, 8 and roof.

Acoustic controls applicable to the site are set out in condition of consent B4, which states:

> *Prior to commencement of relevant works, the applicant shall demonstrate that the detailed design has adopted the necessary noise attenuation measures to ensure that the noise impacts from the mechanical services have been mitigated to comply with the recommended sound levels in the UNSW Biological Sciences Project Acoustic Assessment of Secretary Environmental Assessment Requirements prepared by Acoustic Logic and submitted with the EIS.*

The recommended sound levels nominated in the Acoustic Logic report submitted with the EIS were as follows:

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Table 1 – Operational Noise Emission Goals

Receiver Type	***Time of Day***	***Intrusiveness Noise Objective dB(A)$L_{eq(15min)}$***	***Amenity Noise Objective dB(A)$L_{eq(Period)}$***
Residential Receivers	*Day*	*55*	*55*
	Evening	*49*	*45*
	Night	*47*	*40*
Commercial and other non-residential UNSW receivers	*All times of the day and night*	*N/A*	*65*
UNSW Teaching Spaces (Internal Areas)	*When in Use*	*N/A*	*40*
Hospitals (external areas)	*When in Use*	*N/A*	*50*

**These criteria are proposed for equipment used during typical operation. Emergency generator to be designed to comply with noise levels 5dB(A) above the levels stated in the table above.*

With respect to the above, we note:

- The proposed changes at ground level will have no change in operational noise associated with the site.

- Regardless of any change to the Building D26 plant rooms, the plant noise levels required to be achieved pursuant to condition B4 remain applicable.

- Provided that mechanical plant installed as part of the reconfigured Levels 7, 8 and roof are adequately treated, noise emissions compliant with condition B4 will be achieved.

- Most critical is the acoustic design of a diesel generator located towards the eastern façade of building D26 (facing the Botany Street residences). This generator is to be housed within a proprietary sound enclosure (including acoustically treated air intakes/discharges and exhaust gas discharges). With this treatment, noise levels complying with those in table 1 can be achieved.

- Other significant plant items are located away from the eastern façade (the nearest façade to the Botany Street residences). Acoustic design of remaining plant items is to be conducted such that cumulative noise emission from all plant items will comply with the permissible noise levels set out in table 1.

As such, the acoustic requirements of condition B4 will be achieved.

Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Consultancy Pty Ltd
Thomas Taylor