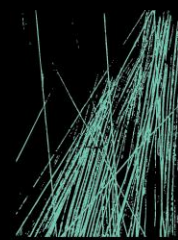


POST COMMENCEMENT NOISE EMISSION ASSESSMENT

**MOSMAN HIGH SCHOOL – STAGE 1**



**JHA**

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## DOCUMENT CONTROL SHEET

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Project Name	Mosman High School – Stage 1
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# 1 INTRODUCTION

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JHA Consulting Engineers has been engaged by Multiplex to provide post occupational acoustic compliance testing for Mosman High School in Mosman, NSW. Acoustic compliance testing was conducted to address the SEARs requirements of Condition of Consent E10 of SSD-10465.

Condition of Consent E10 is as follows:

***“Operational Noise Limits.***

*The Applicant must undertake short term noise monitoring in accordance with the Noise Policy for Industry where valid data is collected following the commencement of use of the development. The monitoring program must be carried out by an appropriately qualified person and a monitoring report must be submitted to the Planning Secretary within two months of commencement use of each stage of the development or other timeframe agreed to by the Planning Secretary to verify that operational noise levels do not exceed the recommended noise levels for mechanical plant identified in Noise and Vibration Impact Assessment for SSDA (SSD-10465) - Mosman High School Upgrade prepared by JHA Acoustic Services dated 30 March 2021. Should the noise monitoring program identify any exceedance of the recommended noise levels referred to above, the Applicant is required to implement appropriate noise attenuation measures so that operational noise levels do not exceed the recommended noise levels or provide attenuation measures at the affected noise sensitive receivers.”*

The above Condition of Consent applies for Stage 1 – new Building G, Stage 2 – demolition of existing Building C, and Stage 3 – wide landscaping and carpark. This certificate applies only to Stage 1 – new Building G.

On site acoustic testing was conducted by JHA Engineers on Wednesday 6<sup>th</sup> of September 2023. The results of the testing have been presented in this report and assessed against the criteria in the Noise and Vibration Impact Assessment for SSDA, prepared by JHA.

The following documentation has been used for the preparation of this report:

- Noise and Vibration Impact Assessment for SSDA prepared by JHA Consulting Engineers, dated 30<sup>th</sup> March 2021.
- Architectural drawings of the proposed development prepared by Woods Bagot.
- Mechanical shop drawings and schedules prepared by Equilibrium Air Conditioning.
- Noise data collected on site using a hand-held sound level meter.

All noise assessment / measurements were undertaken in accordance with the methodology described in the NSW Noise Policy for Industry 2017 (NPI) and AS/NZS 1055:2018 ‘Acoustics – Description and measurement of environmental noise’.

This document and related work have been prepared following JHA Consulting Engineers Quality Management System, which is based on AS/NZS ISO 9001:2015 and ISO 14001:2015 Environmental Management Systems.



## 2 DESCRIPTION OF THE SITE

Mosman is a suburb of Sydney, in the Local Government Area of Mosman. Mosman High School (the site) is located at 745 Military Road and is surrounded by a mix of commercial and residential receivers. The surrounding land uses are as follows:

- *North: Immediately North of the site is currently a mix of residential, commercial, place of worship and active recreational noise receivers along Belmont and Military Roads.*
- *East: Land to the East is occupied by Military Road with a mix of commercial and residential properties.*
- *South: Land immediately to the South is occupied by commercial and residential receivers.*
- *West: Land to the West is occupied by largely residential development with a small commercial property.*

Figure 1 shows the Stage 1 development site (red shade) surrounding area and highlights the location of Mosman High School (yellow line).

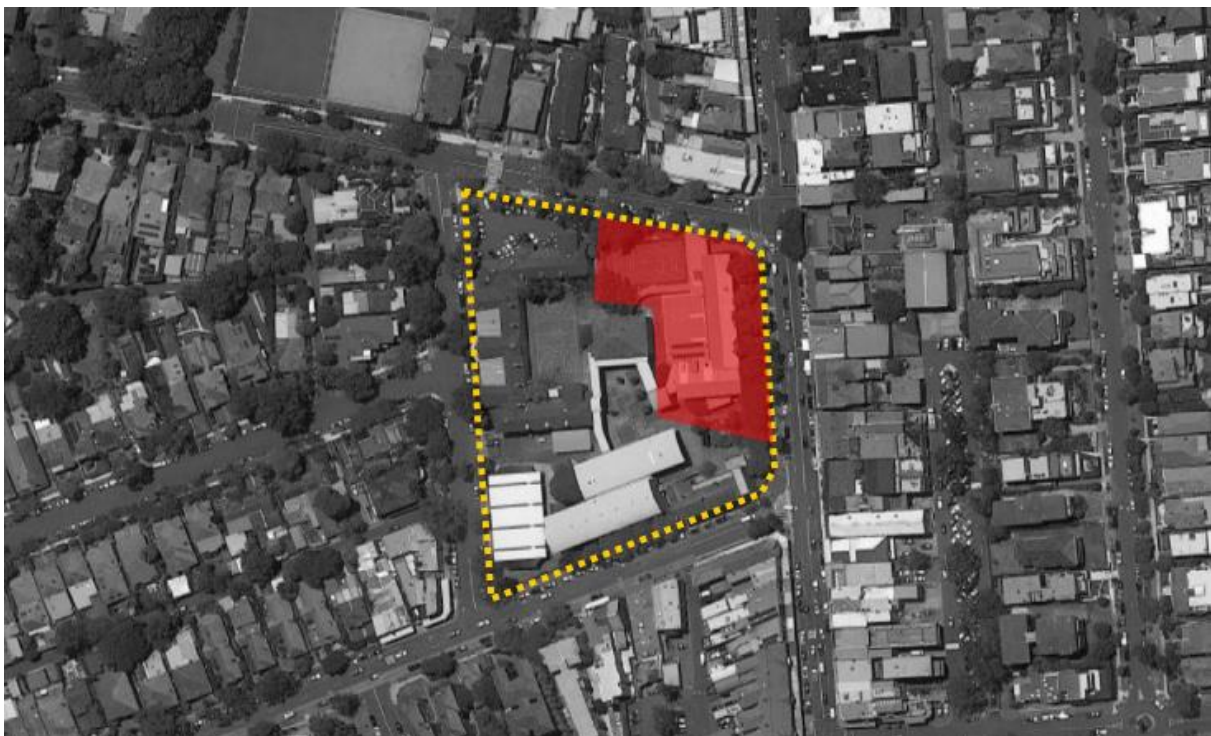


Figure 1: Aerial image of Mosman High School.

### 3 PROJECT CRITERIA

Condition of Consent E10 of SSD-10465 refers to the recommended noise levels for operational noise levels for mechanical plant within the Noise and Vibration Impact Assessment for SSDA, prepared by JHA. Project Noise Trigger Levels from external mechanical plant as per acoustic report are shown in Table 1.

<i>Indicative Noise Amenity Area</i>	<i>Time Period</i>	<i>Project Noise Trigger Levels dB(A)</i>
General Residential (Belmont Road)	Day (7am – 6pm)	49
	Evening (6pm – 10pm)	43
	Night (10pm – 7am)	38
General Residential (Gladstone Road)	Day (7am – 6pm)	54
	Evening (6pm – 10pm)	52
	Night (10pm – 7am)	41
Commercial	(When in use)	63
Place of worship	(When in use)	48
Active recreation	(When in use)	53

**Table 1:** Project Noise Trigger Levels taken from Noise and Vibration Impact Assessment.

## 4 ATTENDED NOISE SURVEYS

Attended noise surveys were conducted by JHA Engineers as per the locations shown in Figure 2 in accordance with AS/NZS 1055:2018 'Acoustics – Description and measurement of environmental noise'.

Short-term noise measurements were carried out with a NTi XL-3 hand-held Sound Level Meter (SLM) (Serial Number A3A-00494-D1). The calibration of the SLMs was checked before and after each use, and no deviations were recorded.

The SLM microphone was mounted 1.5 metres above the ground, and a windshield was used to protect the microphone. Measurements were undertaken in the free field – i.e., more than 3 metres away from any building façade or vertical reflective surface. Weather conditions were calm and dry during the attended noise monitoring.

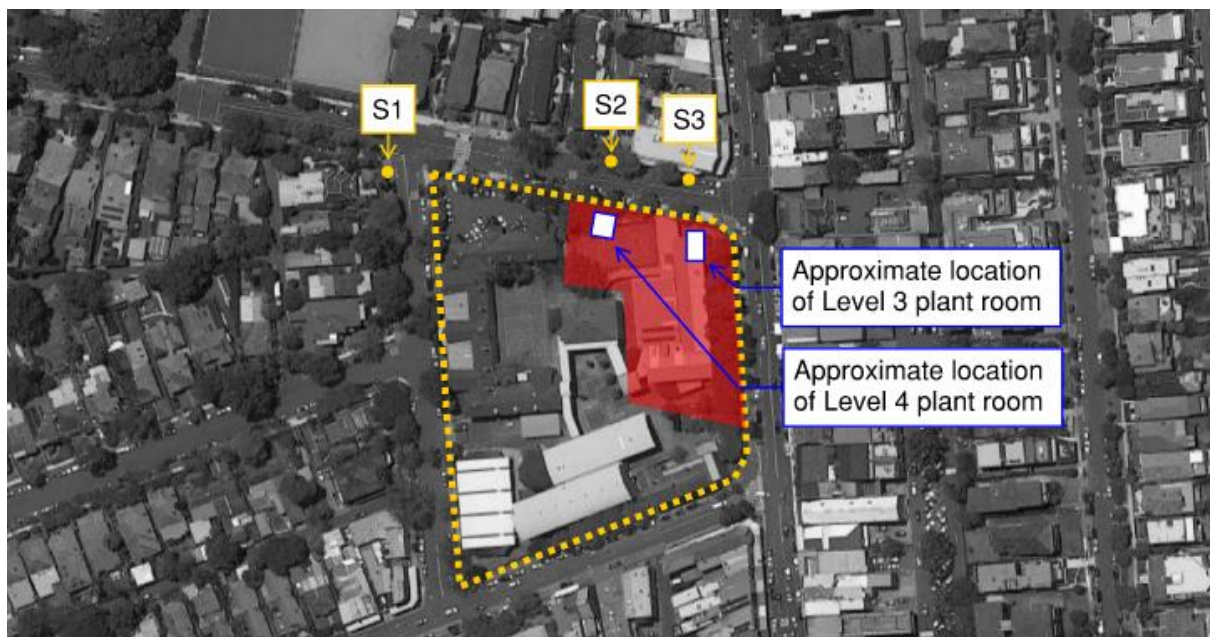


Figure 2: Attended noise testing locations.

On Wednesday 6<sup>th</sup> of September 2023, attended noise measurements were undertaken during the day-time period. During this noise survey the mechanical plant was running at full capacity. It was confirmed to the JHA operator onsite that the mechanical plant within the plantrooms were running at full capacity during the noise survey. Noise level measurements were undertaken within the plantrooms in order to confirm this.

A summary of the results of the noise surveys is shown in the table below.

<i>Location</i>	<i>Date and Time</i>	<i>Parameter</i>	<i>Overall dB(A)</i>	<i>Comments</i>
S1 14 Gladstone Av	06/09/2023 12.42pm – 12.57pm	L <sub>10,15min</sub>	64	Mechanical plant running Mechanical plant was inaudible.
		L <sub>eq,15min</sub>	61	
		L <sub>90,15min</sub>	49	
S2 1 Belmont Rd	06/09/2023 12.59pm – 13.14pm	L <sub>10,15min</sub>	64	
		L <sub>eq,15min</sub>	61	
		L <sub>90,15min</sub>	50	
S3 743 Military Rd	06/09/2023 13.15pm – 13.30pm	L <sub>10,15min</sub>	68	
		L <sub>eq,15min</sub>	66	
		L <sub>90,15min</sub>	58	

**Table 2:** Results of the attended noise measurements with mechanical plant running.

The results in Table 2 show that the recorded noise levels were above the recommended noise level criteria at each location. However, the JHA operator notes that the noise level at all locations was dominated by traffic noise along Belmont Road and Military Road. Furthermore, the noise levels from mechanical plant and operation of the school were not audible during the attended measurements. Finally, the measured noise levels are in accordance with the attended noise level measurements reported in the Noise and Vibration Impact Assessment for SSDA, measured at a similar location.

Therefore, it is our opinion that compliance with the criteria established in the Noise and Vibration Impact Assessment and the SSD 10465 – as per requirements of the Consent Condition E10 for Stage 1.



## 5 SUMMARY AND CONCLUSIONS

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This statement of compliance is made in relation to the SEARs requirements of Condition of Consent E10 on the basis of the following general works undertaken by JHA Consulting Engineers:

- Design review and advice for mechanical services during all project stages.
- Acoustic Specification Report by JHA Consulting Engineers.
- On-site inspections of mechanical services during construction stage.
- Acoustic testing around the site on 6<sup>th</sup> of September 2023.

Based on the above, we certify the following:

- The development Condition of Consent E10 requirements are satisfied for Stage 1.

Full record of the acoustic testing is retained in our project files.

As a currently Member of Australian Acoustical Society (AAS), I am an appropriately qualified and competent acoustic engineer.

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**Name of Employer:** JHA Consulting Engineers

Yours sincerely,



Jorge Reverter

**Acoustic Group Manager, MAAS**