TRINITY GRAMMAR SCHOOL RENEWAL PROJET – ACOUSTIC LETTER

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ATTN:	Hansen Yuncken
PROJECT NUMBER:	220011
PROJECT NAME:	Trinity Grammar School Renewal Project
DATE:	27/10/2022

This letter provides confirmation that JHA Consulting Engineers considers that architectural / design changes of the Trinity Grammar School Summer Hill Campus Performance Hall will improve any noise impacts to the nearest noise sensitive receivers.

We have reviewed the following documentation to support our statement:

- Acoustic Report for SSD 10371 by SLR Consulting Australia Pty Ltd;
- Architectural drawings and schedules by TKD Architects Pty Ltd;
- Acoustic 80% Design Report of Performance Hall by Marshall Day Acoustics Pty Ltd;
- Acoustic Services Documentation by JHA Consulting Engineers Pty Ltd; and
- Mechanical Services drawings and schedules by JHA Consulting Engineers Pty Ltd.

This statement of support is made on the basis of following architectural / design changes to the Performance Hall and their acoustic outcomes:

1. The Performance Hall will be refurbished as part of the Trinity Grammar School Renewal Project.
2. As part of the renewal, the Performance Hall roof will be replaced. The documented new roof composition is: metal deck sheet / 2x19mm particle board / 200mm airgap with 50mm thick sound insulation (@32kg/m^3) / 3x16mm fire rated plasterboard. Predicted sound insulation performance of the new roof as per MDA documentation is R_W+C_{tr} 55.
3. Laboratory sound insulation test of the nominated rooftop smoke exhaust vents notes a sound insulation performance of R_W+C_{tr} 42. Based on the area of the smoke exhaust vents, roof area and their sound insulation performance; the composite sound insulation rating of the new roof with the smoke exhaust vents is similar to the new roof, which is deemed sufficient to minimise noise break-out from the Performance Hall via the new roof.
4. External walls of the Performance Hall will be retained and are composed by double brick walls. These walls will be made good and gaps filled. Therefore, it is expected that their sound insulation performance will be improved and noise break-out will be minimised.
5. External mechanical plant servicing the Performance Hall is proposed to be installed on the rooftop. As per mechanical drawings, the main external mechanical plant (western side of the roof) will be enclosed with solid barriers and sound absorptive surfaces facing the plant. This noise control measure will minimise any external mechanical plant noise break-out to the nearest noise sensitive receivers. The external mechanical plant servicing the stage (eastern side) does not require additional noise controls – i.e. enclosure – as per MDA advice.
6. Nearest noise sensitive receivers are approximately 100m from the external mechanical plant on the roof top. Noise impact assessments show compliance with project NSW NPI criteria established in the Acoustic Report for SSDA.

Based on the above, the proposed refurbishment of the Performance Hall includes better sound insulation performance of the building envelope which will improve any current noise impact to the nearest noise sensitive receivers and SSD Conditions of Consent will be achieved.

I am an appropriately qualified and competent acoustic engineer and as such can confirm the above.

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Name of Employer:	JHA Consulting Engineers

We trust that this information meets your needs at this time. Please feel free to contact us if you need anything further.

Yours sincerely,

Jorge Reverter
Acoustic Group Manager, MAAS