

Memo

To: Joel Wilkinson

Cc: Swan Street Design Team

From: Luis Ruivo, Senior Acoustics Engineer

Date: 30 October 2020

Project: 40 Swan Street, Manchester

File ref: MEM-1012486-5A-LR-20201030-Entertainment noise control strategy-F + PM

Entertainment noise control strategy.

1. Introduction.

Further to a request for further information on the control of entertainment noise from the proposed development received from Manchester City Council, this document presents a summary of the measures implemented within the proposed design.

2. System details.

In a written statement provided by the sound system equipment designers, dated 30 October 2020, confirmation has been provided that noise limiters shall be installed as part of the proposed works and all amplified music will be routed through these. The supplier statement is provided overleaf for ease of reference.

It is understood the limiters will be set-up such that compliance with the limits specified in the planning noise assessment report (HL reference: *REP-1012486-5A-LR-20200925-Planning noise assessment-Rev01-F*) is ensured through the system.

3. Control of non-amplified entertainment noise.

With regards to acoustic instruments (e.g. Saxophone), it is our understanding that the events team will have their own noise meters and will carry out sample noise level measurements at the nearby hotel, including during rehearsals/soundchecks prior to events taking place.

If there are exceedances recorded the performers will be informed and a strategy will be put in place to ensure that the noise criteria are maintained. The inclusion of this exercise during soundchecks ensures that event-specific noise mitigation strategies can be implemented without causing issues to performance and minimising adverse impact on the hotel.



Statement from sound system suppliers.

The following was received from Chris Donovan at dbnAudile on 30 October 2020:

'The sound system is composed of 10" and 8" mid/hi speakers and 2x 15" subs at the Tipi structure for a focal point of a DJ and/or band. The use of Sub-woofers in this instance is to reinforce the low frequencies of the system, not to create a pounding club night style system.

The rest of the venue is distributed with 8" and 6" mid/hi speakers in order to achieve evenly distributed but high quality audio throughout the venue, enabling the user to keep the volume of the system to a manageable limit without jeopardising audio quality.

The amplifiers used in the system have limiters built in to them to protect the speakers from misuse. We also propose the use of a Formula Sound AVC2D limiter inline with a Cloud Z8 zone mixer to enable further control of noise limits. The Cloud Z8 zone mixer enables the user to adjust the volume of the zones in the venue. This can be utilised to turn down volume in areas where there are less members of the public.

The Formula Sound AVC2D automatically adjusts volume at a preset threshold to keep the audio level within that which is required. When installing the system, the engineers can work with a representative from the venue to set the level to the desired maximum volume, and the AVC2D will ensure the level will not breach this. '