

Building Acoustics Award

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Hoare Lea & RBA Acoustics
Lafayette, 4 Pancras Square, London

Integrating a live music venue within an office building was the challenge posed by this project. The building, part of the Kings Cross regeneration, follows a relatively conventional commercial office template. Universal Music occupy multiple office floors, located above retail units at ground and basement. The vision of the client (Argent) was to turn the basement unit into an exciting, new music venue. However, concerned that daytime sound-checks and evening gigs could impact Universal's operations above, they needed reassurance that the dream could be realised.

The starting point was to make some noise. A concert-grade sound-system was used to generate very high noise levels in the future venue space. The bass could be heard as high as the 9th floor; which didn't help Argent's concerns! With the challenge laid out, noise control measures were developed. Consultation with Argent on noise intrusion limits, which needed to be agreed with Universal and future restaurant tenants, was key. With criteria agreed, multiple design proposals were developed, using Statistical Energy Analysis amongst other techniques, and presented to Argent to demonstrate that this ambitious plan could

succeed. Proposals included floor and wall infills between the retail units, a full box-in-box construction within the main venue, and an additional floating floor within the restaurant.

Collaboration and cooperation between two acousticians, working for both Landlord and Tenant, was pivotal in successfully incorporating the noise control measures within the design. Extensive modelling optimised the design to minimise constructions whilst maintaining acoustic quality for both Clients, allowing the venue to operate effectively unrestricted by noise whilst simultaneously allaying Argent's concerns about possibly upsetting other tenants, 'Lafayette' opened in March 2020.

This was a bold project which involved potentially difficult stakeholders with some risks involved

in the process. The judges liked the demonstration of playing the sound system at 105 dB(A) to the client and the tenant to illustrate the problem. There was a high level of technical input, with some unusual challenges but there are significant benefits for other projects. The judges always like to see completed buildings and in normal circumstances there would be evidence of it in use to illustrate the successful outcome.

