acoustics & vibration

case study





building acoustics: education

Project:

Sir William Stanier

Main Contractor:

Willmott Dixon Construction

Architect:

Aeda

Client brief

As part of a highly successful partnering agreement with Willmott Dixon Construction, Pace Consult was commissioned to deliver a full acoustic design brief for the new flagship Sir William Stanier Community School in Crewe, including post-completion sound testing.

Project scope

A critical factor in the client brief was to design the £20m development to have as small an environmental impact as possible, which demanded a sustainable approach to the acoustic specification. Involved from outline design stage, Pace Consult collaborated with architects, Aedas, providing expert guidance on delivering the school to BB93 standards and specifying cost effective and sustainable acoustic materials where appropriate.

In addition, the mechanical services strategy took ventilation ductwork and electrical cabling through the classroom partitions which further complicated the acoustic design of the scheme.

After considering these challenges, Pace acoustically detailed penetrations treatments within the single boarded partitions. As these are sensitive to workmanship, Pace closely supervised the full construction phase to ensure correct installation. On-site testing upon completion confirmed that the detailing had been effective, with the project complying with BB93 standards and successfully achieving an additional BREEAM point.

Scott Corey, Account Manager, Willmott Dixon Construction Leeds, comments: "The acoustic advice and level of support that Pace Consult provided during the early stages was invaluable in informing the direction of the design – enabling us to achieve BB93 standards without using excessive building materials. The site supervision also proved critical in maintaining acoustic standards, which was confirmed when the sound tests demonstrated BB93 compliance throughout the school."

