

Sound guidance for schools

Andrew Parkin, Technical Director of Acoustics for RPS Gregory and the Institute of Acoustics' Building Acoustics Group, gives readers an update on progress regarding the review of the technical guidance for acoustics being used in BSF – BB93



In times like these, the construction industry is heavily reliant on government-funded projects. By far the most significant beneficiary of public funding is education, with a number of procurement vehicles now well established, most noticeably with relation to Building Regulations the Primary Capital Programme (PCP) and Building Schools for the Future (BSF).

It is imperative therefore that the acoustic design document that guides the design of one of the UK's largest

construction programmes is up to date and able to cope with the ever-changing educational needs.

Due to significant changes in educational strategies over the last six years, CLG is funding a review of BB93, with the aim of issuing a revised document later in 2009.

The Review Panel is largely the same group that was charged with pulling the original BB93 together, plus a number of additions from both acoustics and other industry stakeholders. After an initial meeting in late 2008 where it

DUE TO SIGNIFICANT CHANGES IN EDUCATIONAL STRATEGIES OVER THE LAST SIX YEARS, CLG IS FUNDING A REVIEW OF BB93, WITH THE AIM OF ISSUING A REVISED DOCUMENT LATER IN 2009"

was agreed that a review of BB93 was definitely required, a call for feedback was made to users of the document just before Christmas.

The next step was a BB93 Review Day, jointly organised by the Institute of Acoustics and Association of Noise Consultants, held in Birmingham in February this year. More than 100 acousticians and other industry professionals attended and joined in discussion groups on such subjects as sound insulation, reverberation control, design



for special educational needs, sustainability, open plan teaching, scope of application, internal noise levels, BREEAM and derogations.

The discussions and combined outcome of this event have been fed back into the review process, also forming the official review response of the Institute of Acoustics.

The Review Panel met formally on March 9 at CLG's offices in London to discuss the main points raised by the industry feedback and review day.

After many hours of discussion, a comprehensive set of recommendations was agreed on and put forward. The first draft of the revised document has now been issued to the Panel for comment. Key features of the revised document include the following:

- Stronger dovetailing with other design guidance and Building Bulletins such as BB101/102, BREEAM and DDA.
- Clear guidance on ventilation, with particular emphasis on low energy solutions.
- Strong guidance on when and how to engage the services of acousticians in the school design

process.

- Clarification of rain noise criteria, including exemption of assessment for heavyweight roofs (eg. concrete, sedum etc.).
- Replacement of the airborne sound insulation measure $DnT(T_{mf}, max)$, with the more straightforward D_w and impact with L_w .
- Alternative methods of assessing the sound insulation of partitions to corridors, to facilitate composite constructions.
- Tougher control on the design of open plan teaching and learning spaces, giving criteria for speech intelligibility within and between teaching clusters, together with suggestions of how to implement this in practice.
- Strong recommendations for pre-completion testing to measure compliance. However, until Approved Document E is revised, testing can not be made mandatory through the Building Regulations process.
- Clearer definition of design criteria for Special Educational Needs.
- More comprehensive list of room types.

“AFTER MANY HOURS OF DISCUSSION, A COMPREHENSIVE SET OF RECOMMENDATIONS WAS AGREED ON AND PUT FORWARD”

Whilst the review will be comprehensive, it should be appreciated that it is only a review, not a total re-write. There are some, more fundamental, changes that will have to wait another five years or so until the document is completely revised.

It has become clear that more research is required into open plan teaching environments, and that pre-completion testing is essential in order to prove compliance with BB93.

However, the review is a very positive step that will help to keep BB93 in line with the way schools are being designed, both now and for the future.

