

Hulley Acoustics



hulley & kirkwood



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Acoustics and vibration levels can have a fundamental impact on any building and unwanted noise can cause detrimental effects to a building's occupants. Involvement of an Acoustic Consultant at initial design stages can help eliminate the issue of unwanted noise and can assist with ensuring optimum performance, cost savings and compliance with Regulations.

Hulley Acoustics specialise in providing a tailored consultancy service covering all aspects of a buildings acoustics, noise control and vibration. By analysing the building's design, we can propose acoustic strategies and noise control solutions for all types of buildings.



## Case Study, Hoddinott Hall, Cardiff Bay

*Winner of the ACE Engineering Excellence Award for Best Building Services Project (Medium Firm)*

Hulley & Kirkwood provided an acoustic consultancy service for the M&E solutions for Hoddinott Hall - an award winning concert hall for the National Orchestra of Wales. The concert hall's unique design cannot be compared to other concert halls due to a number of unique features. The venue's key acoustic spaces are isolated from vibration and noise using 'box in box' construction techniques, combined with a high specification acoustic design which necessitated innovative M&E solutions to match.

M&E design solutions included;

- Bespoke, variable height integrated chilled acoustic element, plus ventilation system running at noise levels equivalent to a recording studio was devised;
- Glazing strategy to allow an amount of natural daylight without external noise being heard;
- Silent digital dimming gear so foreign sounds would not be detected;
- Acoustic ceiling integrated with active beams;
- Building Services' noise levels equivalent to a Recording Studio;
- Service penetrations through floating floors;
- Silent digital dimming gear (lighting).

The hall's acoustics have been deemed excellent by the musicians that have tested it thus far. It has been labelled as the most acoustically challenging project in the UK, if not Europe, to date.

## Capabilities

Hulley Acoustic Consultants are specialists in the provision of;

- Architectural and Building Acoustics;
- Prediction and measurements of construction noise;
- Industrial and commercial noise control;
- Auditorium Acoustics;
- Ventilation acoustic assessments;
- Advice on planning conditions including compliance and negotiation;
- Calculation of road and rail traffic noise;
- Façade design to control external noise intrusion;
- Environmental Impact Assessments;
- Noise assessments of Wind Turbine Generators;
- Environmental Noise Assessments;
- Advice on PPG 24 and Building Regulations;

Hulley Acoustics Consultants can provide a strategic approach to noise and vibration management through the use of traditional solutions combined with the latest technological advances and knowledge.

For more information on Hulley Acoustics, please contact our Acoustics Team on 0117 311 7700 or email us at [acoustics@hulley.co.uk](mailto:acoustics@hulley.co.uk).

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**Hulley Acoustics**

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