

ENVIRONMENTAL: NON-INFRASTRUCTURE

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MLM

Pentagon Motors, Chatham

WINNER

The site was formerly a car repairs facility (Pentagon Motors) and is bounded by a viaduct and a night club. The application involved the change of use of the site for construction of a 7-storey building comprising a total of 35 apartments. The EHO was very concerned with potential health detriments from noise to future occupants. The night club owners were firmly opposed to the scheme as it could compromise their future operations.

The scheme was re-designed several times to ensure that good acoustic conditions would be achieved while providing an optimum balance with other design constraints and ensuring an architectural design appealing for the regeneration of the area. Key acoustic aspects of the re-design included: re-orientation of the internal layout, with no bedrooms facing the night-club; central corridor relocated to form an external corridor facing the night-club; high acoustic performance winter gardens to habitable rooms facing the night-club and the viaduct. In the

words of the Environmental Protection Officer: *"This is a very good example of the local authority officers, developers and their acoustic consultants working towards solutions that will provide satisfactory levels of amenity in a very challenging environment."*

This was a complex project with high quality visual, amenity and acoustic features. The judges were impressed by how the acousticians kept pushing to redesign the site despite initial rebuffs. Although the acoustic elements are familiar, this project is an excellent example of the acoustician influencing design of the site. The holistic and collaborative approach during the design stage to overcome the extreme acoustic challenges of the site means this project also receives recognition as 'good acoustic design'.

HIGHLY COMMENDED

Bureau Veritas

Proposed Care Home,
St. Asaph Business Park, St. Asaph

This project is a noise assessment for a new care residential development next to the A55 dual carriageway in Wales. Given the inefficiencies of traditional road noise barriers at this location, the innovative idea was to improve the acoustic environment of the less noisy internal courtyard to offset the noise impact of the traffic and create a restorative environment for the residents.

The consultant advised why and how to use the natural sounds within the internal courtyard and provided natural sound assessment with sound propagation modelling. Sound was designed and assessed as a positive element at the early design stage, rather than noise only. The project is a pilot under Planning Policy Wales 10, showing an example of low-cost soundscape assessment in a planning application for a common residential development.

The judges saw this as an effective solution which focussed not on noise control and

abatement but on soundscapes and the consultancy's own research. There was a risk in adopting this approach given there is currently no guidance for soundscape assessment in planning applications and this project provides a simple solution to the requirement for restorative environments. It also receives recognition as 'good acoustic design'.

COMMENDED

SRL Technical Services

St Andrews Church, Much Hadham

A Grade I Listed Church dating back to Saxon times, has recently had its historic bells refurbished. However, a significant reduction of the noise break-out from the bell tower at the boundary of the church yard was required and improvement to the dilapidated sound insulation to the louvres in the church tower. Uniquely, the tower has glass louvres which allow more

daylight into the belfry and also enable internal lighting to emanate and enhance the church's flood lighting scheme at night. The Church Council's hope was to use "secondary windows" rather than the more traditional acoustic mitigation which could be kept shut during bell ringing practice and opened when the congregation was called.

The acousticians used data collected on site to predict the effect of both one layer and two layers of glazing

and determined that only one set of windows was necessary to effectively render the bells as quiet at the boundary with the windows closed as it was half a mile away with them open. The judges consider this demonstrated a good solution to the "problem" of church bells in some communities and that it offers an approach that could be adopted elsewhere.

