

**Project:** Petra's Place Centre, Kensington & Chelsea

**Architect:** David J Higgins

**Contractor:** Etec Group

**Ventive units installed:** 8 PVHR units used in the main hall, sensory rooms, therapy rooms

The National Autistic Society recommends schools use appropriate materials, lighting and building services for students. Ventilation strategy is critical for creating a comfortable learning environment by reducing noise.

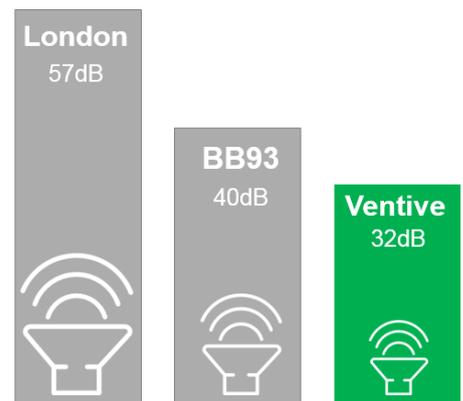
Unwanted noise in schools leads to lower attention spans and decreased academic performance, with only a 5dB increase delaying the average [reading age](#) by up to two months.

For its new pre-school learning centre in Fulham, Petra's Place wanted to minimise the disruption to children. Lots of air movement, noise or flashing lights would be distracting, and discouraged.

Noise reduction ruled out loud fan-operated ventilation or an open-window strategy. Working as a refurbishment from an old scout hall meant that the design strategy needed to work with the existing structure and power supply. This required a close collaboration between architect, contractor and Ventive as the building services provider.

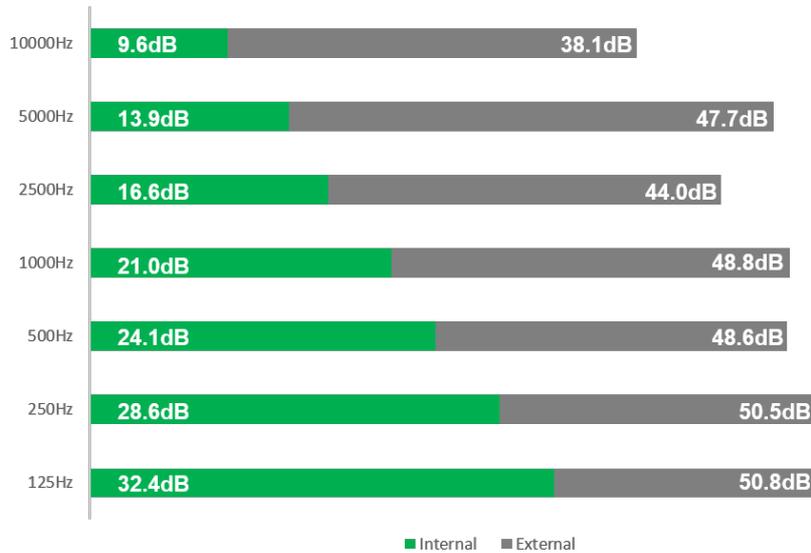
Working with David Higgins (architect), we specified and installed 8 Ventive PVHR (Passive Ventilation with Heat Recovery) units to be used in the main hall, sensory rooms, therapy rooms and classrooms. Our naturally intelligent ventilation systems dramatically reduced external noise, keeping maintenance and operating costs to a minimum while complementing the building design. Built-in sensors help Ventive products adapt the air supply to the internal environment.

## School Noise Levels



The average school in London has an external noise level of 57dB, while the BB93 guidelines for school buildings suggest an internal acoustic limit of 40dB in an empty classroom with natural ventilation. For Petra's Place centre in Fulham, keeping noise levels to a minimum was a key requirement when considering their ventilation strategy. Embarking on a refurbishment plan, they were also keen to keep operating costs and maintenance to a minimum.

### Noise Reduction of Ventive Units



Extensive testing on Ventive products at BSRIA reveals a system that significantly reduces the level of environmental noise for teachers and students alike.

This level of acoustic cover alongside a constant supply of fresh air, passive heat recovery and cloud intelligence is what makes [Ventive](http://www.ventive.co.uk) the most innovative ventilation supplier in the UK.

Additionally, we added actuated louvres to pre-existing roof windows in order to increase air supply without sacrificing the key acoustic requirement. The combination of roof-mounted systems and window-integrated louvres means the centre can now engage purge ventilation overnight to dramatically reduce temperatures and keep classrooms cool during warmer conditions, at zero energy cost. We agreed on galvanised ducting for the systems for better visual aesthetics than flexi ducting, which would sag. Additionally, the frictionless nature of galvanised ducting increases the incoming air flow to the building.

The centre is due to open in early 2019, and already has a waiting list of students to welcome. Learn more about how Ventive systems provide the ideal learning environment at [www.ventive.co.uk](http://www.ventive.co.uk)

#### Learn More:

Email us at [contact@ventive.co.uk](mailto:contact@ventive.co.uk) to get a free consultation on your next project. We offer a full design package that includes IES report, thermal performance and BIM objects that provide precise modelling data.