

Contemporary 220sqm single-storey

'Depot Rd' is a recently refurbished 1970s chapel converted by owner, designer and outdoor enthusiast, Ewan Shearer for use as a self-catering group accommodation centre in the Afan Valley, South Wales.

The contemporary five-star conversion covers over 220sqm of single-storey habitable space with underfloor heating under slate tiles throughout. The internal living space comprises three en-suite bedrooms sleeping up to twelve, an open plan kitchen/diner and living area, large foyer, drying room with laundry facilities, courtyard and secure bike and equipment storage with outdoor wash area.

"There was a requirement for the chapel to be brought up to current building regulations, so from the outset we knew we had the opportunity for our conversion to benefit from warm water underfloor heating," says Ewan.

With the floor height build-up of standard underfloor heating systems posing a potential issue, the possibility of being forced into using radiators was very real, however, a low height build-up solution proved to be exactly what Ewan was looking for.

Standard insulation upgrades to the walls, floor and roof meant that the heat loss values of the chapel would be sufficiently low to allow Nu-Heat's retrofit solution to work efficiently.

"We had a requirement for unbroken floor levels throughout the chapel; including walk-in showers and wet rooms. The system laid over insulated chipboard on concrete allowed us to meet this requirement and benefit from the ambient temperature and design freedom that underfloor heating provides – it also made the chapel easier for us to clean!"

The solution is a gypsum-based floating floor with just 15mm height build up, making it ideal for renovations. The excellent thermal properties provide acoustic reduction on timber upper floors and the floor construction can be fitted on top of the existing floor deck. It provides a practical, economical alternative to traditional radiator-based systems and is designed for use with existing or new gas/oil/lpg condensing boilers, with Ewan opting for a gas condensing boiler for his project.

