

**COMMENTS ON ELECTRIC HEATING SOLUTIONS PROPOSALS FOR THE HEATING
INSTALLATION AT HOLY TRINITY CHURCH, SUNNINGDALE FOR MADLINS**

Introduction

The EHS proposals for the heating installation are for storage type electric fan heaters utilising off-peak electricity to heat the church to a base temperature of 11°C, with panel type heaters to raise the temperature to the required design condition when the building is occupied.

Comments

Confirmation from EHS is required to determine strategy of heater operation. We assume that only the storage heaters are to operate to maintain the set temperature for background heating, and the panel heaters are only to operate when required to raise the room temperature for occupational requirements, and that this will be a function of the proposed central controls.

The EHS proposal is based on the existing church layout, and will need to be adapted to suit the proposed new arrangements. The heating loads will need to be recalculated to the new layout, and this will affect the number of heaters that have been allowed for in the EHS proposal. The new seating arrangement for the proposed ground floor will limit the space available to locate the electric heaters on the external walls as currently indicated by EHS.

We note that the EHS proposal does not include for heating within the toilet areas. We would recommend that heating is allowed for in these areas for comfort.

We note from the Acanthus Clews Architects proposed ground floor drawing that new underfloor heating is shown installed beneath the re-laid and reinstated tiled and parquet floors within the main church area. This should be confirmed by the Client as acceptable, and included within the EHS proposal.

The EHS heat loss calculations are based on design temperatures for the main church at 20°C, and the Chancel (choir and altar) at 11°C. Due to the lack of available space to locate the heaters in the choir area, EHS propose to install additional heaters within the main church to offset this. As these areas are not completely segregated, we would suggest that it would be prudent to treat the main church and chancel as one area, having the same design indoor temperature so as to maintain a uniform room temperature throughout.

We assume that the heating requirements for the proposed church extension are being considered separately.

The Architect and Client will need to approve the proposed EHS electric heaters for aesthetics and locations.

We note EHS advice with regards to the proposed heating system using off-peak electricity only, and concur that the heating will need to be set to the occupational temperature well in advance of any intended building usage. This may prove difficult to achieve as periods of cold weather will need to be anticipated, and the thermostat manually adjusted 2-3 days prior to occupation. This may be better achieved using programme/time clock control for regular church usage, and EHS should confirm if this is possible.

Conclusions

We consider the EHS proposal for heating the church is reasonable, and is a suitable system to replace the existing electric heating installation. We assume that electric heating only has been considered as it is the only option, and that no natural mains gas supply is available.