Dear Steve,

I am writing to confirm my observations yesterday when we met to discuss quotations obtained for remedial work to the hall roof, heating and church heating. I will refer to matters in that order.

Already approved List B

Hall Roof;

We discussed cutting off the concrete gutter projections and fitting a fascia with a traditional eaves gutter. I don't feel this would be appropriate; it is a significant departure from the design of the building – which is good and apart from some largely superficial issues with fabric decay, well built. I don't think the gutters per-se are leaking.

It was useful to see Richard Westmacott's design drawings which you have obtained from a parishioner. The drawings were a mix of design and some strategic detail working drawings, the latter at small scale (1:50 I think from memory). The scale isn't sufficient to really understand the construction but does show enough – it appears – to confirm the external walls are a cavity construction with inner leaf of 100mm lightweight block (unplastered and visible internally), a 100mm cavity with 50mm of thermal insulation against the inner leaf and approximately 200mm of stone in the outer leaf. Bedded on top of the outer leaf and spanning the cavity is a pre-cast concrete gutter, cantilevered outward approximately 225mm. The rear of the concrete section appears to have an upstand approximately 75mm thick and 150mm high, and further back another similar upstand. Overall there appears to be a substantial weight of concrete counter-balancing the cantilevered gutter. It appears there is a separate timber wall plate behind the concrete (not actually drawn), which supports the roof rafters. I attach the picture I took of the cross-section. I would expect there to be some form of damp separation between the wall plate and the concrete. Notably the wall plate seen inside the store room was dry and decay free, except some superficial fungal growth following the weeping that we saw above the electrical switchgear. I attach another photograph showing cracking of the gutter lining along the top of the front upstand. It appears clear the weeping into the store room, and the damp evident externally in the store room masonry emanates from water seeping under the gutter lining and not from any defect in the gutter itself. I think therefore the remedy must be re-lining the gutter and ensuring the new lining fully covers the top of the front upstand – almost certainly turning down over the front edge. This could be a new mastic asphalt lining or possibly some form of capping (metal or plastic) and not necessarily bonded to the existing lining. I am not certain what the existing lining is – the present finish is undoubtedly a bitumen based coating but I fancy there is some form of liner tray beneath. I understand the south gutter, which has only one central outlet, overflows in heavy rain and the outlet is nominally 50mm owing to the thickness of the lining. The lining in this area should be cut out and remade providing a 100mm diameter outlet, which is the design diameter for the roof slope (approximately 100sqm).

We have previously established the roof covering of Forticrete tiles has suffered extensive decay and now requires replacement. Forticrete would not be a suitable replacement in my opinion due to its brittleness, and one might also question the longevity. The covering is barely 30 years old and one would want many more years service from a covering. The interlocking clay tile previously seen (Spanish made La Escandella 'Planum') appears to be the most appropriate, I understand designed for pitches down to 12.5 degrees. I note one of the roofing contractors quoting measured the pitch recording 8 or 9 degrees in the lower slope. Having studied the drawings (which show a pitch of 15 degrees and the main roof at 30 degrees) and some photographs I think the 8-9 degree pitch is the tile itself, which will be kicked up slightly by the lap of one tile over another. The design pitch will be the rafter angle, which is closer to 15 degrees and therefore the Planum tile is acceptable.

Already approved LISF B

We also discussed a canopy roof (temporary roof). This would of course enable the recovering to progress irrespective of the weather but I think it is an unnecessary additional expense. As long as the recovering is carried out in the Spring – Summer, temporary tarpaulin coverings and careful management of the work day by day will be adequate. It should be noted tarpaulins are difficult to make 100% water-tight and there is likely to be a small amount of water ingress, but this should be manageable, and while there will be a cost for the time involved in applying tarpaulins there will still be a significant saving.

We noted one contractor had allowed for additional thermal insulation. I don't think this is necessary. We saw 100mm of PUR in the lean-to roof and 150mm of mineral wool over the main ceiling. Of course more insulation would be beneficial but it will come at a cost.

The next step is the submission of a faculty application to the DAC.

IHD APPLICATION

Hall Heating;

I understand the Diocesan Zero-Carbon adviser visited last year, suggesting infra-red wall panels however the parish do not think these are appropriate. We discussed air source heating and two quotations received. These appear to be reasonably well designed, providing about 100 watts/sqm. The next step will be to submit an application to the DAC for faculty approval.

This will be submitted as a separate application

Church Heating;

I understand the gas boiler failed in January and following repair has been noted to be "unlikely" to survive for another Winter – the boiler was installed in 2005, so it now quite aged. It will be costly to replace, and there are questions about the suitability of the boiler room which is increasingly liable to flooding – being subterranean. We discussed the options, and I understand there are no plans and no likelihood of any significant re-ordering – the present hall providing all the flexibility needed and the church well loved. It has recently received significant repair to the east end, which is delightful. Therefore there are no opportunities for underfloor heating or other facilitation, and the pattern of use is also unlikely to change (Sunday services, Thursday choir practice and possibly the return of the Wednesday prayer meeting (moved to the hall for economy, to avoid heating the church). The heating is currently run at a minimum level to combat slight damp – there is a recent tendency for damp to rise in the west end – evidently related to increasing rainfall and spring activity under ground, which occasionally and slightly rises in the tower/nave floor. Air source heat pumping has been suggested, and running at approximately one third of the costs of the present gas fired central heating does seem appropriate. It would be capable of quickly heating the air and may be run at a background level. Some caution will be needed if there is to be no background heating – the solid stone walls will tend to remain cold and in wet Winter services a lot of moisture will be absorbed by the air inside the church when it is heated only to condense out when the heating is turned off and the air cools. This may cause issues with damp staining and corrosion of ironwork (saddle bars to the windows for example), even condensing on the floor making it slippery.

We noted that the quotation received appeared adequate, providing approximately 200 watts/sqm, and I agreed that locating the 2no. outdoor units against the west wall of the aisles (flanking the tower) puts them out of sight and in direct line with the existing pipe ducting running the length of the aisles which is to be utlised for the new insulated pipework serving the indoor fan units.

The next step is to submit an application for informal advice to the DAC.

My best wishes

Mark

Mark Taylor