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1. The Starting Point

The PCC has for many years tried to overcome the practical difficulties of having a church of a reasonably good size with very limited usable floorspace and very little flexibility in how it can be used for different sorts of services, events and activities.

The current configuration has total pew seating capacity of 200 (not counting the choirstalls which are able to seat a further 40). This layout works reasonably well for major services and large weddings with a large number of people all seated in pews. But it offers poor flexibility for the far more numerous smaller services and gatherings and is an obstacle to far greater use of the building for community groups or exhibitions.



Figure 1 Floorplan (as at June 2021)

1.1. Back of church

The 10 pews at the back of the church preclude flexible use of the space for church or community groups, who may wish to sit in a circle with access to the kitchen unit. This limits the uses to which the church can be put. The building is therefore much less available to the community than it could be if re-configured (see *Figure 2* below).

The modern bookshelf currently restricts access to (and the view of) the back of the church by those entering via the South door. This unduly prominent position is an unnecessary limitation on free flow in the church (see *Figure* 2 below).



Figure 2 Back of Church and Bookshelves seen from South Door entrance (actual)

The area in front of the kitchen unit (and to the S of the current location of the bookshelves) is therefore the only available space in which to serve refreshments between services or during events. This creates a mêlée around the South door because the only available standing space is an area of some 4m x 4.75m which must also accommodate a servery table and helpers. Those gathering are squeezed together and in part block the route to the door for those entering or leaving. It is not possible to provide chairs for all those less able to stand.

This was unsatisfactory in pre-COVID times; it is now a matter of urgency to create more space so that people can gather safely.

1.2. North Aisle

The situation in the North Aisle is different. The pews are little used because of their restricted sightline to the front of the nave. The North Aisle is itself narrow but culminates in a pinchpoint of under 28 inches between one of the pews on the S of the aisle and a column to its N around which the reduced-length front pew on the North side has been fitted.

Not all wheelchair users are therefore able to use this route which forms part of the one-way system put in place as a COVID measure so that people receiving communion at the front of the nave turn N and return to their pew via the North Aisle. The narrow aisle and pinchpoint also created limited space for visitors to the church to pass each other (see

Figure 3 below).



Figure 3 North Aisle Pews and Pinchpoint in aisle (looking East; actual)

2. Scope of Project

The project seeks to overcome the constraints described in Section 1 by:

- Removing two blocks each of five pews and associated pew fronts at the back of the church.
- Removing one block of six pews and one pew front on the North side of the North Aisle.
- Relocating the bookshelves.
- Creating a pleasing continuous area of natural stone flooring in both locations in place of the raised wooden flooring on which the pews and bookshelves currently sit.
- Associated changes to heating distribution and to the electrical supply to sockets
- Purchasing well-designed wooden stacking chairs to replace lost seating capacity



Figure 4 Floorplan (proposed)

2.1. Back of church

The two key elements of the proposals are the removal of the 10 pews and associated pew fronts and raised wooden flooring at the back of the church and the relocation of the bookshelves in order to allow the creation of a single area of some 40 square metres of natural stone flooring.

The bookshelves were built in two longitudinal halves and joined to create a single, freestanding double-aspect bookshelf. They can readily be split longitudinally into their two component halves, with each part fixed separately on the West wall to retain display capacity.

This re-ordering would create a continuous open space from the South Door, passing NW through an arch into the newly-opened back of the church after removal of the pews. (see *Figure 5*)



Figure 5 Simulation of Proposed Re-ordered Back of Church from South entrance

- The removal of the pews at the rear of the church is simulated.
- The bookshelves are not shown in proposed location on West wall.
- The appearance of the floor is simulated and the colour not accurate.

2.2. North Aisle

The removal of the pews to the N of the North aisle would enable the full width of that space to be used for access to the Lady Chapel and in the one-way circulation during Communion Services. This would provide generous access through an open arch to the N of the current pinchpoint in the N. aisle. Apart from the organ pipes in the NW corner of the church, the removal of the pews would complete a pleasing and safe ambulatory from the South Door to the Lady Chapel (see *Figure 4*). It would also open up valuable space for displays, exhibitions and events such as our annual Christmas Tree Festival. The same natural stone would be laid in place of the current raised flooring which covers some 14 square metres.



Figure 6:Pews on N side of N Aisle looking West from Lady Chapel

2.3. Heating and Electrical Changes

Associated modest changes to the heating system and to the electrical supply to sockets, together with new wooden chairs and display arrangements, will all contribute to making the newly cleared areas usable for a wide variety of purposes, including community groups, exhibitions and events.

It is desirable to carry out the work at the back of the church and in the North Aisle in a single coordinated exercise if permission for the project is given. This would additionally make it possible to use on the North wall two matching cast iron radiators currently located in separate parts of the church. Church of St Edward, King and Martyr, Stow-on-the-Wold

Re-ordering of Back of Church and North Aisle

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3. Who would carry out the project?

Our Arhitect, Toby Falconer of Falconer & Gilbert Scott Architects knows the church well and has been closely involved in developing the project.

The largest component of the project is replacing two large areas of flooring with natural stone. Our architect has therefore recommended that we use an expert stonemason as our leading contractor and project manager. He has suggested Mark Hancock of Painswick, who has considerable experience in working in churches and recently carried out work in Bourton- on- the-Hill church.

Mark Hancock has said that he would be happy to undertake the flooring work himself using stone procured from the leading specialist firm Artorius Faber (see paragraph 5.5). We have also worked closely with the commercial side of Modern Heating Itd which has expertise in dealing with threaded steel pipework.

4. Proposed Timing

The PCC have been advised that it would be better for the church to be closed to visitors and for services while the work is carried out as this will shorten the period of disruption.

The timing of the start of the project depends largely on when a decision is made on our faculty petition. If a decision on the faculty petition is received by the end of February, we would hope to be able to start the work after Easter and complete it by early July 2022. This should enable us to welcome a new incumbent to a re-ordered building.

If the decision takes longer, the work would have to be postponed until the Autumn of 2022 or possibly even to early 2023. Even those timings would create a much better start for our new incumbent as the project is fundamental to our plans for building up the church family and increasing community engagement and wider community use of the church.

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5. How will the Project be carried out?

Our Architect has prepared a detailed Schedule of Works which sets out the detail of how the work will be carried out. This illustrated guide summarises some of the key elements of that document, which includes all normal measures to protect the fabric of the building (e.g. stone floors and door jambs) from damage and to protect anyone entering it from injury. As the project will require less than 500 days, notification of the Health and Safety Executive is not required. The lead contractor will be required to show normal third party and public indemnity policies.

The Schedule includes specified working hours and measures for securing the building. The contractors will have a designated covered space in the churchyard and be responsible for clearing this as soon as possible after the completion of the work. Any on-site stone cutting will take place outside the building.

5.1. Preparatory Work

The project will require considerable preparatory work before actual work can begin. Some of this (such as a specialist scan of the layout of the cast iron pipes under the floor) is already in hand. But other aspects necessarily must await the outcome of the faculty petition.

If the church is closed to visitors and for services while the work is carried out, it would be possible for some of the audiovisual equipment to be removed to safe storage during this period. A specialist AV firm will be asked to provide protection such as boxing or wrapping any equipment which cannot be disconnected and taken to safe storage.

Wall memorials in the area of the project will be protected by plastic sheeting taped with masking tape to their contours. All furniture will be protected by dust sheeting.

The organ pipes and mechanism are located in the NW corner of the church between the two areas of flooring to be replaced. Considerable care will be needed to ensure that the whole instrument is protected by well-secured plastic sheeting.

5.2. Removal of Woodwork

Once all preparatory measures have been taken, the first element of the work will be to remove the pews and the associated raised wooden flooring .

Consultee organisations have flagged the need to ensure that the early Pearson pews are offered for re-use in another church if their condition allows this. The six pews and associated pew front to the North of the North Aisle are in good condition and can be offered for sale as they stand. It remains to be seen whether the 10 rear pews and associated pew fronts are in a sufficiently good condition to make them suitable for use in another church. If it turns out that they are not, we shall follow advice and ensure that the wood is offered as salvage for re-use along with the raised wooden floorboards.

5.3. Assessment of Area Revealed by Removal of wooden flooring

Once the removal of woodwork is complete, it will be possible to make a fuller assessment of the material and configuration of the subfloor areas which have hitherto been hidden by the raised wooden flooring. Subject to inspection, it is believed that much of this may be compacted rubble dating back to the installation of the pews in the late 1840s. However, there may be part or full ledgers concealed below the raised floor and these will be carefully preserved and re-used.

At this point, our architect will supervise the process of ascertaining whether there are any features such as sleeper walls which might complicate the process of creating a solid level base for the laying of the new stone flooring. He will call for an archaeological survey to ensure that no damaging excavation occurs and seek advice should such features be uncovered.

5.4. Assessment of Heating and Electrical Changes

- This will also be a key point in the project for final assessment of changes to heating and electrical circuits (see The current position of the bookshelves is shown at left in orange.
- The proposed position of the bookshelves is shown in blue, superimposed on the current layout
- The pews shown would be removed as part of this project and so should be disregarded.
- The central radiator highlighted in silver would be replaced with a larger cast iron radiator.
- A double wall socket would be fitted at each end of both bookshelves

5.5. Clearing and getting the church back into action

Only when the Architect has confirmed that all works have been satisfactorily completed will the preparatory measures designed to protect the stonework, flooring, organ, memorials and furniture be reversed and the church deep cleaned. Similarly, any temporary structures in the churchyard will be removed as soon as possible after completion of the project.

The final element of the project is the purchase of 120 stacking chairs specifically designed for use in churches. On the basis of advice, we have chosen the all-wood "Theo" chair in a natural oak finish. We have submitted full details of the reasons for this choice as a supporting document.

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Heating and Electrical below). The lead contractor will consult closely with the specialist heating engineers and electrician to ensure that existing heating and wiring runs are not damaged, those which need to be rerouted or capped off are dealt with and new runs created before the new stone flooring is laid. Similar care will be needed to ensure that the connections between the organ and the remote console are not affected by the work.

5.6. Choice of flooring material

Mark Hancock has strongly recommended that we should use 40mm thick brush-aged new stone sourced from Artorius Faber. Our architect also favours this. They recommend a natural limestone

Church of St Edward, King and Martyr, Stow-on-the-Wold

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which Atorius Faber call Dunstan Ancaster. We have a sample of this in church and can confirm that it would blend well with the various shades of existing flooring (see Figure 7). The consultee organisations which attended a site visit in October all thought it a good match with welcome variations in colour.

It would be possible to remove some of the newness of new stone by brush-ageing it so that it blends tolerably well even from the beginning. The passage of time and many feet would of course further age the stone in years to come.

The surrounding flooring is of widely differing sizes and our stonemason proposes to mirror this by ordering new stone cut to a similar range of differing length and widths. This should avoid any sense of excessive regularity as might be the case if stones of all one width and length were used.

We are encouraged in this approach by the success of similar projects using stone from Artorius Faber in other Grade 1 listed churches in our area, such as St Lawrence's Church, Bourton on the Water.

We have also considered other options including the possibility of reclaimed flagstones. However, we have been advised that it would be extremely difficult to source such a large quantity of reclaimed flags (possibly of the order of 65 square metres including wastage). It would almost certainly be necessary to assemble the required amount from a variety of different sources.

In addition to possible provenance issues, this raises practical issues in view of the widely differing thicknesses of flags and differing wear patterns which might create an uneven surface when laid and cause difficulties for people using chairs on the new flooring.

A fuller description of the factors involved in our decision to seek permission for brush-aged new stone is set out in the Statement of Needs on the faculty petition website.



Figure 7: Sample of Dunstan Ancaster Stone against existing floor (actual).

- The original flooring of the aisle at back of the church is shown to the right
- The sample of Dunstan Ancaster is shown on the left
- The sizes and thickness shown in the sample are for illustrative purposes only.

5.7. Preparation of bed for new stone flooring

Careful co-ordination of this part of the project will be required to ensure than any new cable or pipe runs needed below floor level in the parts affected are laid before the area is prepared for its new stone floor. This applies particularly to the supply to the floor-mounted double sockets. At this

The proposed new natural stone flooring will be of a consistent thickness of 40mm. The depth of any necessary excavation will be kept to the minimum necessary in order to allow the creation of a level base onto which insulating and bedding materials for this new stone can be laid in order to achieve an even floor surface onto which chairs can be stable.

The DAC have confirmed during their site visit that they do not believe that it is necessary to delineate the shape of the areas in which the pews have been located. Undamaged existing stones forming the aisle at the back of the church will therefore be reserved to replace damaged

stones in other locations, thereby creating a single area of floor at the back of the church in which the new stone will be laid with one continuous underfloor heating system beneath it.

5.8. Laying of Stone Floor

The stonemason and heating engineers will complete the preparation of the floor area, lay 150mm RFG insulation, geotextile membrane and 100mm limecrete slab plus the underfloor heating system recommended by the Diocesan Heating Adviser for the back of the church. This will leave a 50mm zone for the stone and its bedding material. The new floor will have joint widths and grouting to blend well with the surrounding original floor.

5.9. Making good

Where pipe runs have been altered exposing previously unseen parts of walls, any imperfect areas will be repaired using materials specified by the Architect in the Schedule of Works. Similarly any damaged existing stone flooring in other parts of the church will be replaced using the original stone flooring recoved from the central aisle at the back of the church.

5.10. Heating and Electrical Work

See Sections 6 Heating and 7 Electrical for details of works to be completed at this stage.

5.11. Relocation of Bookshelves

On satisfactory completion of the flooring, the woodworker will return to fit the two halves of the bookshelves to the West wall, one each side of the large new cast iron central radiator. If possible, the manifolds and valves for the underfloor heating system will be concealed behind one bookshelf.



Figure 8: Proposed position of bookshelves

- The current position of the bookshelves is shown at left in orange.
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The final element of the project is the purchase of 120 stacking chairs specifically designed for use in churches. On the basis of advice, we have chosen the all-wood "Theo" chair in a natural oak finish. We have submitted full details of the reasons for this choice as a supporting document.

6. Heating

6.1. Proposed Changes

The proposed changes to the existing heating system are relatively minor and have been agreed in detail with the Diocesan Heating Adviser in the light of a thermal imaging scan of the whole system.

The main elements at the back of the church are to replace the two cast iron radiators on the West wall with one larger, new cast-iron radiator mounted centrally between the two halves of the bookshelves. This radiator and a further existing radiator on the South Wall will be supplied by smaller bore threaded steel pipework in place of the existing large-bore cast iron pipework, which is currently hidden by the pews but will be exposed when the pews are removed.

One of the radiators from the West wall and a matching one from behind the back pew to the North of the North Aisle will then be repainted to a neutal colour to blend with the wall and relocated to the North Wall. They will be supplied by smaller bore threaded steel pipework in place of the existing large-bore cast iron pipework.

The Diocesan Heating Adviser was confident that the above arrangements would provide adequate heating for the North Aisle area. But he expressed concern that the arrangements for the back of the church might not be sufficient to provide fully adequate heating for the larger cleared area which the project would create in that part of the building.

He therefore recommended that we install an underfloor heating system beneath the new flooring at the back of the church, which extends to some 40 square metres. He suggested that this should be fed from the existing supply to the radiators on the West wall and the South wall, even though it would work at a lower temperature than the radiators. This would avoid the need to take a feed from a new heat exchanger in the boiler room and potentially change one of our boilers. It would also leave a system which could at a future point be supplied from a renewable source.

We have accepted this helpful advice and incorporated all aspects of it into our project. A fuller note recording the Diocesan Heating Adviser's recommendations and our response has been uploaded as a supporting document to the faculty petition.

6.2. Proposed Heating Works

All work will be carried out by fully-qualified heating engineers with experience of dealing with large-bore cast iron systems and threaded steel pipework. All new steel pipework will be painted to match the adjacent walls and the precise design of the new cast iron radiator will be agreed with Diocesan Buildings Officers (eg a traditional design sourced from Cast Iron Radiators Ltd).

After draining and flushing out the whole heating system, the objective will be to reconfigure the pipe runs for the new radiator positions and for the new underfloor heating system.

Upon completion of the works the system will be thoroughly flushed through and refilled using Fernox HVAC cleaner F3 or similar and tested.

7. Electrical

7.1. General

The main elements of the works on the electrical system are known, but may be subject to changes in detail once the two areas of existing raised wooden flooring have been removed and cable runs have been exposed. In some cases, there are sockets attached to pews which are to be removed. These will be replaced by new sockets in other locations and the redundant supply to them cut off.

7.2. Details of Proposed Electrical Works

Existing sockets at the back of the church are currently served by a spur from a circuit board in the Choir Vestry. This circuit does not have the capacity to supply the new 8 new double sockets proposed at the back of the church.

A new ring main will therefore be installed from a larger circuit board in the Choir Vestry using all three phases of the supply. The cabling will be inside the wooden trunking in the area of the font and on the West side of the South door before continuing behind the kitchen units. The stonemason will lift the stone floor across the entrance to the South Porch in order to enable the new cabling to be run underneath it taking care to ensure that existing cable runs under the stone are not damaged.

While this work is being carried out, provision will be made for cabling of the correct capacity to laid from the new circuit board to both sides of the South Door in anticipation of the possible need for a supply for automatic glass doors as part of a draughtproofing project. This project, if pursued, will be the subject of a separate faculty petition in 2022.

In order to allow fully flexible use of the space created by the proposed re-ordering, it is proposed that a total of 11 new double sockets be installed. Three of these will be on the North Wall, supplied from the existing circuit board adjacent to the Lady Chapel. Four will be on the West wall (see notes below Figure 8) and four fitted in a single line in the floor in the new area of flooring. Two would be at the foot of existing columns and two others in the space between them. The details of the design and fitting of the floor sockets have been sumitted to Diocesan Building Officers.

8. Concluding Remarks

We believe that this project will transform the usability of our beautiful church without detracting from its character. We are extremely grateful for the encouragement, advice and support we have been given by the DAC and Diocesan Buildings Officers in preparing the project.

Robert Barnett Churchwarden 15 November 2021

/ 9. List of Illustrations

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