Report on the Condition of ST MARY'S, COMMONWEAL ROAD, SWINDON, WILTS (Bristol Diocese) prepared for Christ Church with St Mary's PCC ANDREW TOWNSEND ARCHITECTS

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ST	MARY'S,	COMMONV	VEAL	ROAD,	SWINDON,	WILTS
(B1	ristol Dioc	ese)				

prepared for Christ Church with St Mary's PCC

Job no 1307

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ANDREW TOWNSEND ARCHITECTS

### 1.00 INTRODUCTION

The quinquennial inspection of St Mary's Church, Commonweal Rd, Swindon was carried out on Tuesday, Friday 27<sup>th</sup> May 2022 by Oliver Wilson of Andrew Townsend Architects following the instructions of Daniel Pitt, acting on behalf of the PCC (email dated 17.5.22). The inspection was carried out during clear, sunny conditions following a period of intermittent rain showers.

All parts of the building were inspected where possible at close quarters including roofs and high level areas which were accessed by ladder. No access was available to the vestry or the storage area next to the kitchen as these were both locked at the time of inspection. No opening-up was carried out either prior to or during the inspection and it is therefore not possible to comment on areas which were covered, unexposed or otherwise inaccessible at the time of the inspection.

The previous quinquennial inspection was carried out by Roger Baker in May 2016. A copy of the 2016 report was made available to ATA prior to carrying out the current inspection and reference to relevant items in their report has been included below. Daniel Pitt met with Oliver Wilson at the church on the day of the inspection.

### 2.0 WORKS CARRIED OUT DURING THE LAST OUINOUENNIUM

- annual safety gas checks carried out by Dare Hobbs (2011 2014)
- work to improve safety of boiler cupboard carried out by Garry Hall Ltd (2015)
- replacement notice board (2015)
- paving slabs reset (2015)

### 3.00 BRIEF DESCRIPTION OF THE CHURCH

Built in 1926, St Mary's is a simple, modern church on the site of an earlier building of the same dedication (a signboard belonging to the earlier church is mounted near the entrance). According to the Christ Church parish website, the site was originally part of

the Okus field forming part of the Old Manor of Westlecott in High Swindon and was bequeathed to the Parish by Captain Goddard of the Lawns in 1924, along with £100 toward the building of a church.

Constructed with brick facing walls, the church comprises a flat-roofed nave and chancel which are flanked by two mono-pitch roofed aisles. The chancel faces north on to Commonweal Road. A flat roofed wing to the west houses an entrance hall and bathroom, with a communal space and kitchen area to the south of the nave, separated from it internally by a bi-fold partition. The church is attached to Goddard House (sheltered housing) to its south, with the social space and kitchen forming part of the ground floor of this building.

### 4.00 SUMMARY OF CONCLUSIONS

St Mary's Church is well maintained and generally in a good state of repair. As with its sister-church, Christ Church, the PCC have expressed concerns regarding the longer term sustainability of the building with regard to energy use; assessment of this within the next quinquennium with the aim of making meaningful improvements would be beneficial.

As noted in previous reports, there are elements of the building fabric (fibre cement slates; internal 'stippled' plasterwork) which may contain asbestos. If not already carried out, a survey of deleterious materials should be carried out and recommendations for management of such materials, especially if building works are carried out, should be followed.

It appears that filling out of the church log-book may have lapsed in recent years, the PCC is reminded to record works in this as they are carried out.

### 5.00 SCHEDULE OF DEFECTS – EXTERIOR

### 5.01 Walls, windows and doors

i) Walls; clad with machine-made brick with hung artificial fibrous slate to the upper walls of the aisles. The mortar joints in the brickwork are slightly pitted at high level to the east wall of the chancel but the masonry is otherwise in good

condition. External panel of exposed-aggregate blockwork with a painted cross on the north wall of the chancel. Upper sections of the aisle walls and gable ends are clad with hung fibre-cement slates which are slightly faded.

- ii) Windows: glass block lights to the east and west walls of the chancel. A number of the blocks are broken internally see 6.01 (ii); single glazed, extruded aluminium casements to the west elevation, WC and the south elevation of the entrance hall are now of some age but appear to be functional.
- iii) Doors: Main entrance doors are formed of varnished hardwood with Georgianwired glazing; escape door from the kitchen/social area formed of painted timber with Georgian-wired glazing, door leaf appears to have been redecorated recently but not the timber threshold.
- iv) *Noticeboard:* low-relief-carved and painted timber signboard from the original church on the site (1926); generally in good condition however the paintwork is faded and is flaking around the border.

### 5.02 Roofs and rainwater disposal

- i) Flat roofs to the chancel, nave and entrance hall/WC area are covered with a single ply membrane with formed upstands at parapets and junction with skylights. The roof covering appears to be relatively new and functioning well, however the trench gutter above the junction of the nave/chancel was found to be blocked with debris/vegetation at the time of the inspection. The single outlet serving the flat roof above the entrance hall / WC was also found to be blocked, causing ponding of water across the surface of the roof, this section of roof has an overflow chute for such events but in any case checks should be made from time to time to ensure the roof gullies / outlets are kept clear.
- ii) Sloping roofs to the aisles with artificial fibre-cement slate covering which is slightly faded, there is some moss/lichen covering, but the roof covering appears to be generally in good condition. The aisle roofs fall to PVC gutters and downpipes, which drain to enclosed gullies at ground level.

### 6.00 SCHEDULE OF DEFECTS – INTERIOR

### 6.01 Chancel

- i) *Walls:* formed of stretcher bond brickwork with textured (Artex?) plaster and emulsion paint finish. No defects were noted.
- ii) Windows and doors: two openings in the east and west walls of the chancel formed with coloured glazed bricks. The western light has seven broken glass blocks, one of which has a piece of glass sitting loose and should be repaired/made safe immediately; two blocks at low level to the eastern light have steamed up internally, indicating they may have cracked and are allowing moisture in.
- iii) Ceiling: formed of stippled plaster (Artex?) with a painted finish.
- iv) Floor: formed of timber-laminate or composite flooring.

### 6.02 Nave and aisles

- i) Walls: formed of stretcher bond brickwork with a textured plaster and emulsion paint finish. The decoration to the walls is looking slightly tired, particularly above the radiators, stained by dust suspended in convection currents above them.
- ii) *Floor:* formed of timber-laminate or composite flooring appears worn, particularly in well-trafficked areas but is generally in serviceable condition.
- iii) Ceilings: the nave ceilings are formed of stippled plaster (Artex?) with a painted finish; eleven rectangular roof-lights; the decoration of the ceilings is slightly tired.
- Aisle ceilings formed of timber trusses with wood-wool boards to the underside of the exposed roof.

### 6.03 Kitchen/social area

- A small kitchen area is situated against the south wall of the building with relatively new fitted units.
- ii) Walls: formed of painted brickwork; blanked previous opening to the south end of the east wall; the walls of the kitchen area are formed in painted smooth plaster with a low tiled margin above the kitchen units.
- iii) Ceilings: in both areas formed in textured plasterwork with a painted finish, as in the nave.
- iv) Floors: timber-laminate / composite flooring as elsewhere, apart from in the small kitchen area in the south-west corner, where the floor finish is non-slip vinyl.
- v) Windows and doors: single-glazed aluminium windows in the west wall of the social area, with obscured Georgian-wire glazing to the lower panes and opening casements at upper level; the design of the opening casements is rather flimsy but they are functional and work well.

### 6.04 **WC**

- i) Walls: formed in painted plaster. Defects noted as follows: horizontal cracking at the junction of the east and west walls with the ceiling, running towards the head of the window in the south wall; slight breaking down of the decoration around the pipework in the north-west corner; damage to the plasterwork behind the radiator on the north wall; decoration is generally worn/tired.
- ii) Floor: finished with in non-slip vinyl/linoleum, generally in good condition.
- iii) Ceiling: textured plasterwork with painted finish, as elsewhere in the church.

### 6.06 Lobby (between WC and social area)

- i) Walls: formed of painted brickwork. Defects noted as follows: some scuff marks to the decoration on the north wall at low level, due to foot traffic and/or mop marks/floor cleaning; slight decay to the skirting board, around boxing of pipework, possibly due to a previous leak.
- ii) Ceiling: textured plasterwork as elsewhere; slight damage to the plasterwork of the ceiling in the north-east corner, possibly caused during installation of plumbing/electrics.
- iii) Floor: laminate flooring as elsewhere. No defects noted.
- iv) Door and windows: decoration has broken down slightly at the bases of the internal doors, probably due to moisture introduced by mopping/cleaning; single glazed aluminium window with opening casements at upper level; both opening casements catch slightly when opening and closing but are otherwise functional.

### 6.07 Entrance hall

- i) *Ceiling:* formed of textured plasterwork with a paint finish as elsewhere; the decoration of the ceiling is looking slightly worn / tired.
- ii) Floors: formed of laminate flooring as elsewhere, looking slightly more worn here than in other areas; mat well by the main entrance.
- iii) Windows and doors: formed in painted/varnished hardwood with Georgian-wired glazing. No defects noted.

### 6.08 Furnishings and fittings

i) Chancel: oak communion table; oak altar rail with detachable balustrade section which forms an opening in the middle; oak chair; small oak reading table, with gothic carved decoration, on which sits a small inscribed brass lectern; triangular oak display table on which sits a brass communion plate; candle snuffer; plain brass crucifix with memorial inscription to 'Ernest Banks Wood, 1917'; two

heavy brass candlesticks inscribed in memory of 'William Roland, 1865-1951'; two small brass flower vases.

- ii) Nave: modern, stackable plywood framed chairs; modern oak-veneered lectern 'in memory of Margaret-Anne Mary Day'; fitted oak memorial shelf in the southeast corner, on which sits a wooden crucifix, two wooden candlesticks, a memorial board, flower vase and a framed piece of embroidery; small free-standing bookshelf for hymnals in the south-west corner; small cork noticeboard fitted to the wall; pamphlet stand fitted to the wall; small wooden shelf holding two collection plates; glazed oak display box fitted to the south wall; modern laminate table for leaflets; small oak table in south-east corner.
- iii) East aisle: electric organ; oak staff with cross fixed to the north wall; freestanding air conditioning unit; various tapestries and contemporary artworks mounted on the walls; freestanding oak cabinet against the south wall for holding kneelers and books; CD player/speakers.
- iv) West aisle: freestanding oak veneered font; two small tables; oak screen with embroidered panel; oak chair with integral kneeler; steel donations box built into the west wall beside the entrance.
- v) Social space: a number of folding tables and chairs stacked against the wall in the north-east corner; five contemporary cushioned armchairs; five cushioned plain chairs; a number of stacking modern timber chairs (similar to those in the nave) stacked in the south-east corner; free-standing cabinet for catering equipment against the east wall; projector screen mounted on the east wall; hanging drapes to the window openings on the west wall; three coffee tables in the centre of the room.
- vi) Lobby (between WC and social area): scrolled ironwork wreath mounting.
- vii) Entrance hall: fitted cabinets in the south-west corner and the north-west corner; noticeboard mounted on the west wall; small oak table on the south wall.

### 7.00 GENERAL

### 7.01 **Fire precautions**

- i) From October 2006, the PCC has been required under *The Regulatory Reform* (*Fire Safety*) *Order 2005* to carry out a fire risk assessment to focus on the safety of all 'relevant persons' in case of fire, paying particular attention to those at special risk, such as the disabled or those with special needs. For further information go to www.communities.gov.uk under the heading *Fire Safety Law*.
- ii) *Nave:* water fire extinguisher fitted to the wall in the south-east corner of the nave, tested in December 2019.
- iii) Social area: carbon dioxide and water fire extinguishers mounted on the west wall by the doorway to the bathroom corridor; emergency exit door with push-bar and signage placed centrally on the west wall; emergency lighting mounted on the ceiling towards the south and north ends of the room.
- iv) *Kitchen:* fire blanket on the window sill of the kitchen.
- v) Entrance hall: foam fire extinguisher mounted on the south wall; break-glass fire alarm mounted to the left-hand-side of the entrance into the nave.

### 7.02 **Heating/electrical**

- i) *Chancel:* one fluorescent light in the chancel; two spotlights aimed towards the communion table.
- ii) Nave: eight fluorescent strip lights orientated north-south.
- iii) Aisles: two fluorescent strip lights in the east aisle; three fluorescent strip lights in the west aisle.
- iv) *WC*: one ceiling-mounted dome light in bathroom; one ceiling-mounted dome light in the lobby between the bathroom and the social space.
- v) Entrance hall: one fluorescent tube light and emergency lighting mounted on the ceiling; meter and two distribution boards mounted at high level within a

cupboard in the south-west corner; gas meter at low level in the same location; gas combination boiler mounted in the cleaner's cupboard in the south-west corner of the entrance lobby, with a programmable thermostatic timer control mounted on the wall; the positioning of the thermostatic control coupled with cleaning equipment being stored in front of it makes access to it difficult.

### 7.03 Churchyard

- Fire exit to the social area opens on to a garden owned by Goddard House and does not form part of the curtilage of the church.
- ii) The pathway to the western side of the church appears to be used as a storage area for bins and, at the time of inspection, was partially blocked by a timber pallet staked against the west wall. Care should be taken that stored items do not block fire escape routes.
- iii) Small lawn to the front of the church with planted beds is well maintained.

### 7.04 **Disabled access**

The Equality Act 2010 determines that Churches have a legal duty to take steps to make reasonable adjustments to avoid direct/indirect discrimination including for disabled people, and wherever possible should provide extra help, make changes to the way they provide services and/or make reasonable adjustments to the physical features of their premises to overcome physical barriers to access. We recommend the PCC should commission or carry out an access audit (if this has not already been undertaken), as a first step to complying with legislation.

### 7.05 **Bats**

Any works to the building which may disturb a bat roost will require a Natural England licence, following a detailed survey of the bat population and the preparation of a mitigation strategy.

### 7.06 **Deleterious materials**

The Control of Asbestos Regulations 2012 require that owners, employers and managers of non-domestic properties have an explicit duty to manage asbestos in premises and are required to assess risks and, where relevant, put in place a managed asbestos survey whether work on the building is planned or not. The object of the regulations is to enable those carrying out future works or inspections to assess the nature of relevant materials before work is carried out so that damage to asbestos-containing material can be minimised. In order to comply with legislation, we recommend that a survey is commissioned from a specialist consultant, if this has not already been carried out.

### 7.07 Energy use

In 2020, General Synod recognised that we are in a climate emergency and committed to an ambitious carbon reduction to achieve Net Zero by 2030; the PCC is encouraged to study the CofE guidance and use the checklist documents *A practical path to net zero carbon for our churches* appended to this report.

The inspecting architect can advise on suitable initial steps towards reducing the carbon use of the church building, including the commissioning of an *energy/sustainability audit*.

### 8.00 RECOMMENDATIONS

### 8.01 Works required urgently

- i) Check rooftop gutters/outlets on a regular (at least annual) basis, clear if required.
- ii) Make safe/repair broken/cracked glass blocks to openings in the chancel.
- iii) Remove stored items from the pathway to the west of the church.

### 8.02 Works required within twelve months

- Fill cracks in the masonry above the bathroom window internally and monitor; consider redecoration of the bathroom.
- ii) Carry out a Fire Risk Assessment for the building (if this has not been carried out already); implement the recommendations of the report.
- iii) Commission inspection/test/report on presence of asbestos/other deleterious materials, if this has not already been carried out; enact the recommendations of the report.
- iv) Arrange for electrical installation to be checked/tested/inspected following
   NICIEC format; carry out urgent recommendations of the report on the electrical installation.
- v) Consider re-locating the central heating controls.
- vi) Arrange for boiler and flue to be checked/serviced on an annual basis.

### 8.03 Works which may be required within five years

- i) Consider redecoration of walls/ceilings where defects are noted above.
- ii) Commission energy/sustainability audit for the church. Implement recommendations of the report.
- iii) Carry out an accessibility audit of the church and its facilities; implement recommendations of the report.

## 8.04 Works which may be desirable within five years or may be required beyond five years

i) Carry out localised repairs to eroded areas of pointing to brickwork externally.

- ii) In conjunction with item 8.03 (iii) above, consider provision of a hearing loop and / or improvements to the WC to comply with Building Regulations.
- iii) Consider conservation/redecoration of the 1926 signboard.

### **NOTES**

- i) The above is not a detailed specification and should not be used for obtaining prices from contractors or for guiding them in carrying out repair works.
- ii) All repair works should be specified and overseen by an architect/surveyor with experience of repairing ancient buildings.
- iii) All works of repair and alteration to the church (except de minimis works) should be the subject of an application for a faculty or archdeacon's authorisation following approval of the works by the DAC.

St Mary's, Commonweal Rd, Swindon - Condition Survey

APPENDIX A

**Photographs** 



Figure 1 General view of the church from Commonweal Road, to the north, the direction to which the chancel is orientated.



Figure 2 General view of the church from the car park of Goddard House, east of the building.



Figure 3 Signboard from St Mary's Church, 1926, which originally stood on the site. The signboard is mounted on the north wall of the church.



Figure 4 View from the rear garden (in the ownership of Goddard House) showing the west wall of the church social space to the right-hand side and the corridor/toilet-block straight ahead.



Figure 5 General view of the rear garden (in the ownership of Goddard House) facing south.



Figure 6 General view of the nave roof facing north towards the chancel. This roof is covered with a proprietary single-ply membrane and appears to have been renewed relatively recently.

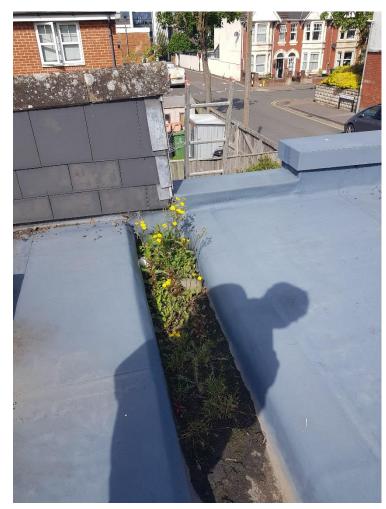


Figure 7 General view showing sump/gutter forming junction between the roofs of the nave and the chancel. A build-up of vegetation/detritus was blocking the rainwater outlet here, which was cleared during the inspection. This area should be frequently checked for blockages.



Figure 8 General view of the east aisle roof covered with artificial fibre (possibly asbestoscontaining) reinforced cement slate. If not already carried out, an asbestos survey should be completed before carrying out works likely to disturb this roof.



Figure 9 General view across the flat roof. The rainwater outlet was blocked causing ponding of water on the roof, which was cleared during the inspection



Figure 10 Blocked outlet to the flat roof above the entrance hall/toilet, this outlet should be checked/cleared regularly.



Figure 11 General view of the church nave facing northwards towards the chancel interior.



Figure 12 General view of the social space interior facing north towards the nave.



Figure 13 General view of the social space interior facing south towards the kitchen area.

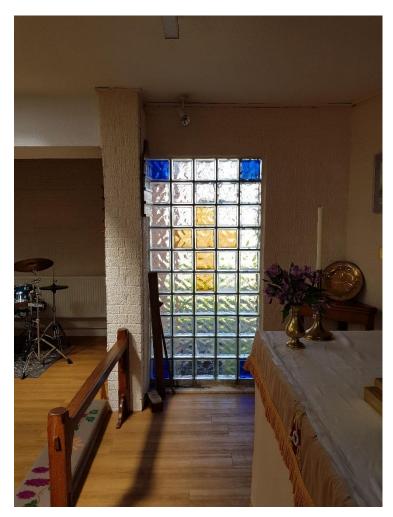


Figure 14 View of the west-facing glazed light in the chancel wall, which has a number of cracked and broken glass blocks. These are dangerous and measures to make the glazing safe should be put in place immediately



Figure 15 General view of the bathroom showing horizontal cracking at the junction of the ceiling and walls, presumably due to slight differential movement between the masonry and the timber wallplate behind the plaster finish.



Figure 16 View into the janitor's cupboard within which the central heating boiler and heating controls are located. Access to the heating controls is difficult when the cupboard is full.

	St Mary's Church, Common	nweal Rd, Swindon –	Condition Survey
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APPENDIX B			
Church of England net-zero checkl	ict		
Charti of England het-zero checki	ist		

# A practical path to net zero carbon A checklist for your church

## Welcome to the Net Zero Checklist.

The Church of England's General Synod has recognised the climate emergency and called on all parts of the Church to become net zero carbon by 2030.

This commitment requires us all to take action to reduce our carbon footprint. This will involve making material changes to our buildings and adopting new behaviours that both reduce our energy use and switch usage to renewable sources.

This checklist is a tool for reviewing the carbon emissions of your church building(s) and identifying actions that can be taken to help your church reduce its energy use and associated carbon emissions. It should be used alongside the "Practical path to net zero carbon for churches" guide which provides additional advice and information to help you in this journey.

The actions recommended have been developed based on the findings of a national church energy audit programme and with input from of a range of professionals in the field. Depending on the size and complexity of your church, you may also wish to commission a specialist energy audit. Contact your Diocesan Environment Officer to find out more.

**To use this checklist tool**, complete the tick boxes in each section, before identifying which actions you will take as a church. The tool can be printed off or completed by clicking and typing into the pdf form.

We suggest you review progress towards implementing these actions at a PCC meeting.

If you require any support, please contact your Diocesan Environment Officer.

Please note: Many of the actions suggested in this checklist require a faculty. Please seek advice from your DAC before taking action, especially if the church interior is of historic, architectural or artistic interest; stabilising the environment for these interiors is important to minimise cycles of treatment, with their inherent carbon cost.



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# Our collective approach to net zero is underpinned by six principles:



### Well maintained

Reduce heat loss by keeping on top of basic maintenance and ensuring the building is wind and watertight. Maintain the roof and gutters, to prevent water from entering the building and warm air escaping. Fix any broken window panes and make sure opening windows shut tightly.



### Buy renewable

Switch to 100% renewable electricity, for example through Parish Buying's energy basket, and 'green' gas. Whilst this does not reduce the energy you use, it means it comes from a cleaner source. It is the simplest thing you can do to cut your net carbon footprint.



### Waste less

Waste less electricity, waste less gas/oil, tackle any food waste, reduce leaks and wasting water, and avoid unnecessary purchases. Read the "Practical Path to Net Zero" and "Energy Efficiency Guidance" for a wide range of ideas.



### Electric not gas/oil

Burning oil and gas to heat our churches is contributing greenhouse gasses to the atmosphere. We need to 'decarbonise' our heating. Where possible, move to electric heating, using electricity that comes from 100% renewable sources. There are many options such as heat pumps, pew heaters, and infra-red panel heaters and chandeliers.



### Generate more

For some churches, there are opportunities to generate electricity onsite from solar PV panels, or very occasionally wind turbines or small-scale hydro.



### Offset the rest

Once you have made real reductions in your energy use, you can offset the small remaining amount through Climate Stewards or other reputable schemes to become 'net zero'. Churches with grounds can also consider if there is an area where they could let vegetation or a tree grow, as a natural way to capture carbon from the air.

# CHECKLIST

Part A - Where do we start?								
even	e are actions that nearly all churches can benefit from, those primarily used only on a Sunday.	Iready done / up-to-date	Not applicable	Not a priority right now	Explore further / get advice	Priority		
_	are relatively easy and are a good place for churches rt, when trying to move towards 'net zero'.	Already up-to-	Not a	Not rig	Explo / ge	_ <u>_</u>		
The b	puilding itself:							
A1.	Maintain the roof and gutters, to prevent damp entering the building and warm air escaping.							
A2	Fix any broken window panes* and make sure opening windows shut tightly, to reduce heat loss.							
A3	Insulate around heating pipes to direct heat where you want it; this may allow other sources of heat to be reduced in this area.							
A4	If draughts from doors are problematic, draught-proof the gaps or put up a door-curtain*.							
A5	Consider using rugs/floor-coverings (with breathable backings) and cushions on/around the pews/chairs.							
Heati	ng and lighting:							
A6	Switch to 100% renewable electricity (for example through Parish Buying's energy basket) and 'green' gas.							
A7	Match heating settings better to usage, so you only run the heating when necessary*.							
A8.	If you have water-filled radiators, try turning off the heating 15 minutes before the service ends; for most churches this allows the heating system to continue to radiate residual warmth*.							
A9.	If you have radiators, add a glycol based 'anti-freeze' to your radiator system and review your frost setting.							
A10.	Replace lightbulbs with LEDs, where simple replacement is possible.							
A11.	Replace floodlights with new LED units.							
A12.	If you have internet connection, install a HIVE- or NEST-type heating controller, to better control heating.							
A13.	If your current appliances fail, then replace with A+++ appliances.							
Peop	le and policies:							
A14.	Complete the Energy Footprint Tool each year, as part of your Parish Return, and communicate the results.							
A15.	Create an Energy Champion who monitors bills and encourages people to turn things off when not needed.							
A16.	Write an energy efficiency procurement policy; commit to renewable electricity and A+++ rated appliances.							
A17.	Consider moving PCC meetings elsewhere during cold months, rather than running the church heating.							

Offse	et the rest:			
A18.	For most low usage 'Sunday' churches, once they have taken steps like these, their remaining non-renewable energy use will be very small. For the majority, all they need to do now to be 'net zero' is offset the small remaining amount of energy through Climate Stewards or other reputable schemes.			
A19.	Also, think about your church grounds. Is there an area where you could let vegetation or a tree grow?			

<sup>\*</sup> If interiors are of historic, architectural or artistic interest, seek professional and DAC advice first.

Pai	rt B - Where do we go next?					
These and so They a	actions may cost more than the ones in Part A ome will require specialist advice and/or installers. are often good next steps for churches ready to take ext step towards 'net zero'.	Already done / up-to-date	Not applicable	Not a priority right now	Explore further / get advice	Priority
The b	ouilding itself:					
B1.	If you have an uninsulated, easy-to-access roof void, consult with your Quinquennial Inspector (QI) about insulating the loft*.					
B2.	If you have problematic draughts from your door, and a door- curtain wouldn't work, consult with your QI about installing a glazed door within your porch, or even a draught-lobby*.					
B3.	Consider creating one or more smaller (separately heatable) spaces for smaller events.					
B4.	Consider fabric wall-hangings or panels, with an air gap behind, as a barrier between people and cold walls.					
Heati	ng and lighting:					
B5.	Learn how your building heats/cools and the link to comfort, by using data loggers (with good guidance).					
B6.	Improve your heating zones and controls, so you only warm the areas you are using.					
B7.	Install TRVs on radiators in meeting rooms and offices, to allow you to control them individually.					
B8.	Consider under-pew electric heaters and/or infra-red radiant panel heaters*, which keep people warm without trying to heat the whole church space. Radiant panels are especially good for specific spaces like chapels and transepts, which you might want warm when you don't need the whole church to be warm.					
B9.	If you have radiators, install a magnetic sediment 'sludge' filter to extend the life of the system.					
B10.	Consider thermal and/or motion sensors to automatically light the church when visitors come in, for security lights, and for kitchens and WCs.					
B11.	Install an energy-saving device such as Savawatt on your fridge or other commercial appliances.					
B12.	Get your energy supplier to install a smart meter, to better measure the energy you use.					

Peop	le and policies:			
	Vary service times with the seasons, so in winter you meet early afternoon when the building is warmer.			

## Part C - Getting to zero

These are bigger, more complex actions, which only churches with high energy use are likely to consider.

subst	could reduce energy use significantly, but require antial work (which itself has a carbon cost) and have ger payback.	ready done / up-to-date	Not applicable	Not a priority right now	e further advice	Priority
They your	all require professional advice, including input from DAC.	Already up-to-	Not ap	Not a righ	Explore f	Pr
The I	building itself:					
C1.	Draught-proof windows*.					
C2.	If you have an open tower void, insulate or draught-proof the tower ceiling *.					
C3.	Double-glaze or secondary-glaze suitable windows in well-used areas such offices, vestries and halls*.					
C4.	Internally insulate walls in well-used areas such as offices, vestries and halls*.					
C5.	If you have pew platforms, consider insulating under the wooden platform with breathable materials*.					
C6.	Reinstate ceilings, and insulate above*.					
Heat	ing and lighting:					
C7.	Install a new LED lighting system, including all harder-to- reach lights, new fittings and controls.					
C8.	Install solar PV, if you have an appropriate roof and use sufficient daytime electricity in the summer.					

<sup>\*</sup> If interiors are of historic, architectural or artistic interest, seek professional and DAC advice first.

<sup>\*</sup> If interiors are of historic, architectural or artistic interest, seek professional and DAC advice first.

Pai	<b>rt D</b> - ''Only if''						
These specif or in v	are actions which a church might undertake at it it it it is times (such as when reordering is happening) very specific circumstances. They nearly all require ssional advice, including input from your DAC.	Already done / up-to-date	Not applicable	Not a priority right now	Explore further / get advice	Priority	
The b	ouilding itself:						
D1.	If you are reroofing anyway, then insulate the roof, if appropriate for your roof*.						
D2.	If you have an uninsulated wall with a cavity (typically built 1940 onwards), then insulate the cavity.						
D3.	If the building is regularly used and suitable, such as a church hall, consider appropriate external insulation or render, appropriate for the age and nature of the building*.						
Heati	ng and lighting:						
D4.	If there's no alternative that does not run on fossil-fuels, then replace an old gas boiler or an oil boiler with a new efficient gas boiler.						
D5.	If yours is a well-used church which you want to keep warm throughout the week, then consider an air or ground source heat pump. Ground source heat pumps are more expensive and invasive to install than air source heat pumps, but run more efficiently once installed, depending on ground conditions.						
D6.	If you are doing a major reordering or lifting the floor anyway, and yours is a very regularly used church, then consider under-floor heating. This can work well in combination with a heat pump (above).						
Chur	ch grounds:						
D7.	If you have car parking that is sufficiently used, EV charging points for electric cars can work out cost neutral or earn a small amount of income for the church. Note, they will increase the church's own energy use, but will support the uptake of electric cars. They could be good in combination with solar PV panels.						
* If interiors are of historic, architectural or artistic interest, seek professional and DAC advice first.							

## IDENTIFYING NEXT STEPS

Da	te completed:	repo	orted to?						
-	) Actions we have marked as 'Already done' which have positively impacted our carbon footprint are:								
1									
2									
3									
		: step for those actions which you onsible for taking these forward.	By when?						
Act	ion	Who's responsible?	Target date for completion	Date of review by PCC					
1									
2									
3									
4									

Date of the PCC meeting checklist results will be

### C) Further Actions

**Checklist completed by:** 

Identify any actions which you have marked as 'explore further'. Who will be responsible for exploring these. By when?

Action		Who's responsible?	Target date for completion	Date of review by PCC
1				
2				
3				
4				

If more space is required for creating your 'Next steps action plan', please use additional sheets or your own document template.

# Church of England guidance and support, to help you take action:

### Net zero carbon church suite of guidance

https://www.churchofengland.org/resources/churchcare/net-zero-carbon-church

### Case studies

https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate-change/towards-net-zero-carbon-case

### **Net Zero Webinars**

https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate-change/webinars-getting-net-zero-carbon

### To calculate your carbon footprint

- Energy Footprint Tool: https://www.churchofengland.org/more/policy-and-thinking/our-views/ environment-and-climate-change/energyfootprinting
- 360 Carbon: https://360carbon.org/

### Sources of funding

https://www.parishresources.org.uk/resources-for-treasurers/funding/ (Section 4 "National List of Charitable Grants")

Parish Buying (for switching to green electricity, energy audits, and LED lighting) https://www.parishbuying.org.uk/

### Find your Diocesan Environment Officer

https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate-change/deo-map

### Your DAC Secretary

Details available via your diocesan website. Many DACs have heating and sustainability advisors, who give free advice.

# External partners offering useful resources

### Historic England

https://historicengland.org.uk/advice/technical-advice/energy-efficiency-and-historic-buildings/

### A Rocha (Eco Church)

https://ecochurch.arocha.org.uk/

### SPAB

https://www.spab.org.uk/advice/knowledge-base

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