## **QUINQUENNIAL INSPECTION REPORT**

## **CHURCH OF CUTHBERT, HEBBURN**

**DIOCESE - DURHAM** 

**ARCHDEACONRY – SUNDERLAND** 

**DEANERY - JARROW** 



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#### 1.0 BRIEF HISTORY AND DESCRIPTION

The Church was designed by Architect F R Wilson of Alnwick and was built in 1875. The Church has a lofty Nave without Side Aisles, tall lancet windows to the Nave and large buttresses at the west end. The present Chancel, Organ Chamber, Vestries and Boiler Room were added in 1907. The Choir Vestry was originally located behind the Organ, but the larger Vestry to the east now serves as a combined Clergy/Choir Vestry. The Church has no Tower Steeple Bellcote or Fleche. A single bell (currently missing) previously hung above the Porch doorway.

The steeply pitched roofs to the Nave, Chancel and Organ Chamber are covered with Welsh slates, as is the slightly lower pitched Choir Vestry. The small, attached Boiler House did have a sloping felted roof was re-roofed with Welsh slates along with the Toilet and Kitchen in 2013. The walls are constructed of local squared random coursed sandstone. These are plastered internally. The ground floors are solid in the Nave, Chancel and Organ Chamber areas, except where boarded under the pews. The floors to the Vestry and Organ Chamber Kitchen and Toilet are of suspended timber.

The Churchyard comprises a squared grassed area of approximately  $50m \times 50m$ . There is no graveyard. Tarmac footpaths surround the Church. The grassed areas are maintained by the PCC.

#### 2.0 WORK CARRIED OUT SINCE LAST QUINQUENNIAL REPORT

Repair of leak to water system - June 2018

Lamps replaced with LED type - December 2019

External doors redecorated

#### 3.0 LISTING GRADE

The church is unlisted.

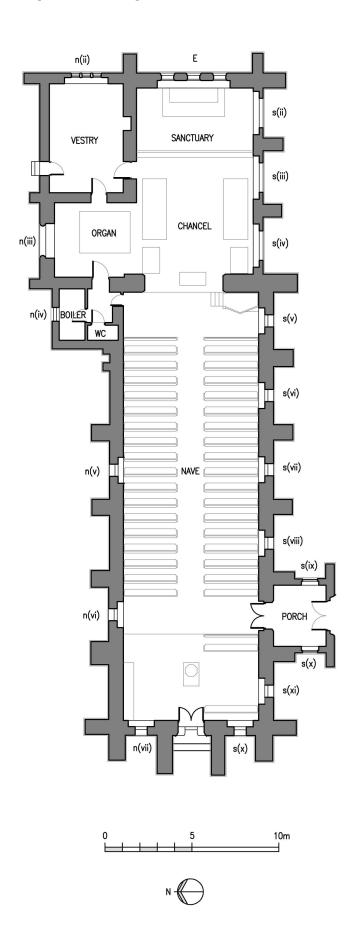
#### 4.0 LIMITATIONS OF THE REPORT

The inspection was carried out from ground level only. The inspection was purely visual. Concealed and inaccessible spaces (e.g. sub floors and ceiling voids) were not inspected. The below ground drainage were not inspected. The inspecting architect cannot state that these areas are free from defect.

The mechanical and electrical systems were not tested, and the inspector cannot state that they are free from defect. The PCC are advised to have the heating system checked by a heating engineer annually and the electrical systems tested every five years.

This is a summary report, it is not a specification for the execution of the work and must not be used as such. The professional adviser is willing to advise the PCC on implementing the recommendations and will, if so requested, prepare a specification, seek tenders, and oversee the repairs. The PCC is advised to seek on-going advice from the professional adviser on problems with the building.

## 5.0 FLOOR PLAN (not to scale)



### 6.0 GENERAL CONDITION/ EXECUTIVE SUMMARY

The church is generally in fair condition externally and internally and there are no major concerns. However, there are a number of maintenance matters that require attention. These are as follows:-

#### Roof coverings & rainwater goods:

There are missing slates near the valley gutter between the Vestry and the Organ Chamber. These need to be refixed as soon as possible to prevent water ingress. The Vestry gutter is blocked with vegetation and is leaking badly at the eastern end. Clearing the blockage and sealing the leaking joint is needed. There is also some vegetation blocking the Nave north side gutter which needs clearing to prevent water overflowing to the wall heads.

#### Gable copings:

There are open joints to the gable copings (or water tabling) to the Porch and Chancel. These should be repointed to prevent water penetration of the wall heads.

#### External walling:

The external walling and pointing are generally in fair condition. However, there is hard cement pointing to the Porch gable (above the door arch), and some parts of the Nave west gable buttresses. The hard pointing is resulting in some spalling of stone faces (as explained in the previous report). Removal of the old cement pointing and re-pointing in lime mortar set slightly back from the wall face is recommended to prevent further deterioration.

The Vestry east wall has ribbon pointing (the joints are set forward of the wall face), the mortar is also cementitious. Ideally it should be removed and replaced with lime mortar. Having said this the pointing and masonry are generally sound and if the hard ribbon pointing were removed it might cause more damage than good. I think it would be best to leave this for now.

There are a number of open joints which need pointing up to prevent water ingress. These include cills, string courses, buttresses and plinths.

#### Windows and external doors:

The stained glass and clear glass together with the leading are in fair condition but the polycarbonate outer covers to the south facing windows continue to discolour due to ultraviolet light. Replacing in these in UV-resistant polycarbonate is desirable should funding be available.

#### Internal walls:

There are a number of historic cracks and localised areas of blistering plaster and paint (recorded in previous inspection reports). Most prominent is the cracked plaster near the pulpit which is unsightly and needs attention. The walls would benefit from redecoration should funding be available.

#### Electric and heating installations:

The last electrical test was in 2014. The PCC are advised to have an electrical test as soon as possible and thereafter every 5 years. It is recommended that older light fittings continue to be replaced with LEDs. The boiler is rather old, and the PCC are advised to budget for its replacement.

#### Churchyard:

The churchyard is in a tidy condition. Pointing of open joints in the boundary stones is recommended along with pruning of the hedge on the vicarage boundary.

Other more minor maintenance matters are detailed in the full report.

#### A Practical Path to Net Zero Carbon:

On 12 February 2020 General Synod recognised that we are in a climate emergency and committed to an ambitious carbon reduction target of Net Zero by 2030. The culture is changing fast, both outside and within the Church; questions of sustainability should inform all our buildings-related decisions from now on, and this report highlights opportunities for action. See the Practical Path to Net Zero Carbon for our churches (PPNZC) document in Appendix A.

## 7.0 EXTERNALLY:

7.1	noor coronings.		Priority Ref. See 15.0
Ridges	3	The ridges to the Nave, Chancel and Organ Chamber roofs are solidly bedded and pointed following the work done in 2013.	300 13.0
Slates		The slates are generally in fair condition. However, there are some missing slates near the valley gutter between the Vestry and Organ Chamber roofs. These need re-fixing as soon as possible to prevent water ingress.	Α
Leadw	ork	The lead valley gutters and wall abutment flashings are in good condition apart from the lower flashing between the Vestry and Organ Chamber roofs which needs securing.	В
Eaves		It is recommended that the fascia and rafter feet are decorated every five years to prevent rot.	М
7.2	Rainwat	ter goods, above and below ground drainage:	
Genera	ally	Comprise cast iron half round gutters and circular downpipes discharging over open gullies taken to soakaways.	
		The rainwater goods appear in fair condition. However, the gutters to the Vestry, Organ Chamber (west slope). Nave (north slope) are blocked with vegetation which should be removed to prevent water overflowing onto the walls beneath. The Vestry gutter is leaking badly at the eastern end and soaking the buttress below. The leaking joints needs re-alignment and sealing.	В
		It is recommended that the rainwater goods are re-decorated every five years.	М
Gullies	i	The gullies are protected with fine mesh gratings. However, some need clearing of vegetation.	М
Below draina	ground	The gullies are taken to soakaways.	
	yc	The toilet and kitchen sink discharge to a foul sewer. The manholes were not lifted and the inspector cannot state that the drainage is free from defect.	

## 7.3 Finials, crosses and chimneys:

Chancel	The apex cross to the east gable appears to be in good condition.	
Nave	The apex crosses to the west and east gables appear to be in good condition. The masonry and pointing to the chimneys on the north side is fair. However, the concrete capping on the easternmost buttress is crumbling. This should be monitored.	М
Porch	The base to the apex feature to the gable coping is decayed. A stone indent is recommended.	D

#### 7.4 Upstand walling and copings:

#### Copings

The stone gable copings (or water tabling) are generally in fair condition but there are open perpend joints to the gable copings of the Porch, Chancel and Organ Chamber. These joints should be raked out and re-pointed in lime mortar to prevent water penetration to the wall heads below.

В

#### **Upstand walls**

The mortar fillets at the junction of the slating with the upstand gable walls are generally soundly bedded.

#### 7.5 External walling:

#### **Description**

The external walls generally comprise un-coursed rectangular stones with course tooling. The gable quoins, window dressings, string courses, buttress cappings etc. are finely tooled.

#### Condition

The stonework and pointing is generally in good condition throughout. However, defects were noted and require attentions as follows: -

Porch – the gable wall from above the door arch to the copings has been pointed in hard cementitious mortar and is in poor condition. Raking out of joints and repointing in lime mortar is recommended.

C

Vestry east wall — this has been re-pointed in ribbon pointing with cementitious mortar. Ideally the entire wall should be raked out and repointed in lime mortar with flush or slightly recessed pointing to match the rest of the church. However, the pointing is quite stable and may cause damage to the stonework if removed. The recommendation is to leave the pointing and monitor it and the stonework.

Μ

Buttresses – there is some crumbling on the gables below the cappings on the Nave and Chancel walls. This should be monitored.

М

The inner faces of the deep buttresses to the west gable of the Nave are showing signs of crumbling in places due to the hard cement pointing. The affected areas should be raked out and repointed in lime mortar to prevent further decay of the masonry.

С

There are open bed joints to the short buttresses of the Organ Chamber and Vestry. They need raking out and repointing in lime mortar.

C

String courses and cills – there is a deep open joint to the window cill of Nave south window s(viii) – see floor plan for location. Also, there are a number of open perpend joints to string courses (including buttresses). These open joints all require raking out and repointing in lime mortar.

С

Plinth – there are a number of open bed and perpend joints to the Vestry, Organ Chamber and Nave. Raking out and repointing in lime mortar is needed.

С

A broken clay air brick on the north side of the Nave (near west gable) should be replaced to prevent mice or rats entering the underfloor space.

C

#### 7.6 Windows:

Stone dressings

The dressings are generally in fair condition. However, there are some open apex joints and cill joints which require raking out and repointing to prevent

water ingress.

Leadwork

The leadwork is generally in good condition throughout.

**Glass** 

The stained glass and clear glass panels appear to be in fair condition from a

purely visual inspection.

Protective glazing

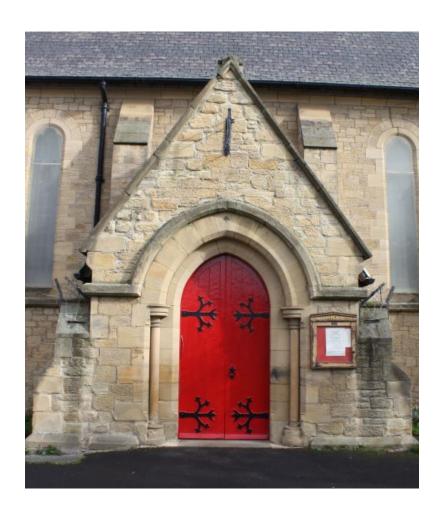
The polycarbonate outer glazing to the Nave and Chancel is discolouring due to ultra-violet light. This is worse on the South side of the church.

Consideration should be given to replacement with new UV resistant

polycarbonate covers.

#### 7.7 External Doors:

The external framed ledged braced and battened timber doors are solidly constructed. The doors have been redecorated since the previous inspection and are in good condition. External door security appears robust and appropriate for use.



C

Ε

#### 8.0 INTERNALLY:

#### **Roof voids and ceilings:** 8.1

Chamber

Nave & Organ The roof construction comprises timber beams, purlins, rafters and sarking boards. These all appear to be in sound condition from a purely

Ε

D

visual inspection.

Chancel The five-sided barrel vault ceiling to the Chancel remains in good

decorative order.

NB The roof void above this ceiling was not inspected.

Vestry The plastered Vestry ceiling has some cracks and minor blistering. It

would benefit from redecoration.

NB The roof void above this ceiling was not inspected.

**Toilet &** The fibreboard ceiling is badly stained from past roof leaks. Redecoration

**Kitchen** is recommended.

NB The roof void above this ceiling was not inspected.

**Porch** The rafter trusses, and boarded sarking and in fair condition.

#### 8.2 Internal doors, door furniture and screens

Apart from the Toilet and Boiler House, the internal doors comprise framed ledged braced and battened doors with stain or paint finish. The Toilet has a flush door, the Boiler House timber framed and battened door with a mesh grille.

The doors are all in fair condition structurally and decoratively. Door furniture is robust and fit for purpose.

#### 8.3 Internal walls and wall finishes:

#### Chance

The panelling and gilded altar reredos are in good condition. The painted and plastered walls are generally in fair condition but would benefit from redecoration.

There are a number of minor defects (many of which were reported in previous inspections) as follows:-

#### East gable wall

- small areas of blistering paint above window arch
- open joint to apex of RH window
- crack below cill (RHS window)

#### South wall

- diagonal cracks above and below arch to window s(ii)
- blistering plaster/paint below arched opening to window s(iii)

#### Nave

The grained painted wall panelling and painted and plastered walls are generally in fair condition. However, the walls would benefit from redecoration and there are a number of minor historic defects as follows:-

#### South wall

- short diagonal cracks in low level plaster between dado panelling and cills in bays 3, 4, 5 and 6. (bays numbered from rear of Nave).
- flaking paint between panelling and window cill in bay 6 (near pulpit)

#### North wall

- some blistering plaster at low level (between dado panelling and window cills) in bays 1, 2 and 4.
- vertical crack from top of wall to dado panelling in bay 6.

#### West gable wall

- diagonal crack above west door
- diagonal crack below LH window cill

The cracks are historic and don't appear to have opened up since the last inspection. The flaking and blistering paint patches would benefit from repair.

**Porch** 

The pointing to the stone walls are receding and there are some open joints. Re-pointing is desirable.

Vestry

The painted plastered walls have some localised cracks and blistering paint in places. Redecoration is desirable.

**Toilet** 

There is minor blistering to the paint to the west wall near the basin. Rubbing down and redecoration is recommended.

Kitchen

The wall to the boiler house is stained from past roof leaks. Redecoration is recommended.

#### Actions recommended:

The open joints in the window masonry should be raked out re-pointed.

The blistering plaster & paint patches would best be repaired.

The Nave, Chancel, Vestry, Kitchen and Toilet would all benefit from redecoration.

The Porch stonework should ideally be repointed.

#### **8.4** Floors and floor finishes:

**Porch** Ribbed carpet sheet on ramped plywood. In fair condition.

**Nave** Fitted carpet to aisles, rear and front – generally in fair good condition

apart from some minor wear mid-way down the central aisle where the

carpet is rucked.

**Chancel** The fitted carpet is in good condition.

**Sanctuary** The floor boarding to the altar platform, carpet and encaustic tiling are in

fair condition. The joints to the stone steps are opening up and repointing

is recommended.

**Vestry** The carpet tiles have lost their original red colour but are still quite

serviceable.

D

**Organ Chamber** The carpet tiles are in fair condition.

**Toilet** The vinyl sheet flooring is in satisfactory condition. See comments in

section 11.0 regarding the raised floor.

**Passage** The vinyl sheet is in satisfactory condition.

### 8.5 Fittings, fixtures & furniture & movable articles:

**Sanctuary** The gilded and painted panel to the high altar is in good condition. The

oak communion rail, armchairs and small tables are also in good

condition.

**Chancel** The carved oak choir stalls, prayer desks and pine platforms are in fair

condition. Though there is some water staining to the front stall on the

north side. The carved oak Nave altar is in good condition.

The gilded crucifix hanging in the Chancel arch is in good condition.

Nave The varnished pine pews and unvarnished pine floorboards to the pew

platforms are in fair condition.

The stone font and base at the rear of the Nave are in good condition.

#### 8.6 Organ:

The organ (Harrison and Harrison, Durham) was rebuilt in 1986. The organ is re-tuned periodically and is understood to be in good working order.



#### 9.0 SERVICES INSTALLATIONS:

#### 9.1 Electrical installation:

The Nave is lit by floodlights mounted high on the walls. The Vestry, toilet and passage are lit by fluorescent tubes. Since the last inspection the 2No LED uplighters and two LED spot lights have been fitted in the Chancel.

Power sockets are located in strategic locations.

A security alarm system is installed. This was not tested but is understood to be working satisfactorily.

A sound reinforcement system is installed. This was not tested but is understood to be working satisfactorily.

The last electrical test was carried out in 2014. It is recommended that the electrical installation is tested this year and thereafter every 5 years. Any portable electrical appliances (e.g. kettles and vacuum cleaners etc) should be tested every year.

9.2 Heating installation:

The heating installation comprises a gas fired boiler serving large bore heating pipes in the Nave and Chancel and Organ Chamber together with radiators in the Vestry and Toilet. Radiant strip heaters are located in the Chancel to supplement the main heating system.

The heating system is understood to take a considerable amount of time to heat the church. The PCC may wish to consider a more efficient heating system (ideally from a green energy source) when the current boiler comes to the end of its service life. The boiler is quite old, and the PCC are advised to budget for its inevitable replacement.

9.3 Water supply:

The cold-water main enters the church in the boiler house. It serves a header tank linked to the heating system together with the toilet and flower arrangers sink. The service pipe is in alkathene and the header tank is wrapped in quilt insulation providing protection from freezing.

9.4 Lightning conduction system:

The church does not have a lightning conduction system. The church is not very large, has no bell tower or steeple and is not in an exposed location. The risk of lightning strike is therefore considered low.

В

Ε

#### 9.5 Fire-fighting equipment:

Fire extinguishers are located at the rear of the Nave, in the Vestry and in the Organ Chamber. The fire extinguishers are serviced on an annual basis.

#### 10.0 DISABLED ACCESS AND PROVISION:

The building is generally accessible to wheelchair users and to the ambulant disabled.

The drive was raised to thresh level at the porch a number of years ago. The Porch floor sloped gently upwards to the threshold of the Nave door thereby giving level access to all users.

The main entrance door and double lobby door give sufficient width for wheelchair users to pass through. There is sufficient space in the Nave for wheelchair manoeuvring.

See comments in 11.0 below regarding accessible toilet provision.

### 11.0 WELFARE, HEALTH AND SAFETY:

The toilet on the north side of the Nave has a wc pan and washbasin. These are in reasonable condition but are too small for wheelchair users. The raised step from the passage is a barrier for the ambulant disabled.

Consideration should be given to lowering the wc floor at allow access for the ambulant disabled. The installation of a fully accessible toilet would be the ideal scenario.

The enamel to the flower arrangers sink is chipped in places but given its use this is not thought to pose any health and safety problems currently.

#### 12.0 BATS:

It is not known whether bats roost in the roof. However, it should be noted that bats are a protected species and should not be disturbed. (See section 15 - Maintenance recommendations and general advice).

Ε

#### 13.0 CURTILAGE:

#### 13.1 Paved areas:

The tarmac pavings and drives are all in fair condition. There is some cracking in the tarmac paths east of the Chancel. The cracks should be monitored for further opening up.

Μ

There are lots of twigs on the paths on the south side of the churchyard. Removal of these is needed.

Μ

#### 13.2 Grassed areas:

The grassed areas are cut regularly during the growing season.

#### 13.3 Boundary walls and fences etc:

**Walls** The dwarf concrete walls to the boundaries are in fair condition. However

as reported in previous inspections there are open joints between the stones in a number of locations. Raking out and repointing is recommended. Some of the stones near the SW corner have been pushed

out of alignment. Ideally these should be re-aligned.

D D

**Fences** The timber fence to the vicarage boundary is fair condition.

### 13.4 Trees and hedges:

**Trees** The trees to the south of the Nave appear in healthy condition. The trees

adjacent to the public footpath on the south-west boundary have been

felled since the previous inspection.

**Hedges** The hedge to the boundary with the vicarage would benefit from pruning. M

#### 14.0 RECOMMENDATIONS:

#### Category scale

- A Urgent, requiring immediate attention
- B Requires attention within 12 months
- C Requires attention within the next 18-24 months
- D Requires attention within the quinquennial period
- E A desirable improvement with no timescale
- M Routine maintenance (i.e. clearing leaves from a gutter). This can be done without professional advice or a faculty

Category	Action item	Estimated cost (£)
۸	Clating vancius to Vasta /Overn Chamber (7.1)	(excl. VAT) *
A B	Slating repairs to Vestry/Organ Chamber (7.1) Secure lead flashing by Organ Chamber east wall (7.1)	*
В	Remove vegetation from gutters (7.2)	*
В	Realign and seal leaking gutter to Vestry (7.2)	*
В	Rake out and repoint gable copings (water-tabling) (7.4)	**
В	Full electrical test (9.1)	£400
Č	Rake out and repoint Porch gable wall above door arch in lime mortar (7.5)	**
Ċ	Rake out and repoint Nave west gable buttress side faces in lime mortar (7.5)	**
Ċ	Rake out & repoint open joints to buttresses of Organ Chamber & Vestry (7.5)	**
C	Rake out and repoint open joints to string courses and window cills (7.5)	**
00000	Rake out and repoint open joints to stone plinth (7.5)	**
С	Replace broken clay air brick to Nave (north side) (7.5)	**
	Repoint open joints and cills to window masonry (7.6)	**
D	Fit stone indent below Porch apex capping (7.3)	**
D	Redecorate stained fibreboard ceiling to Kitchen and Toilet (8.1)	***
D	Repoint open joints to internal window masonry (8.3)	**
D	Repair blistering paint patches (8.3)	***
D	Repoint stone internal faces of Porch walls (8.3)	**
D	Repoint open joints to Chancel steps (8.4)	**
D	Monitor cracks in tarmac footpath by Chancel east gable (13.1)	-
D	Point up open joints in boundary stones/ realign stones on SW corner (13.3)	**
E	Consider replacing cloudy polycarbonate window covers in UV type (7.6)	***
E E	Redecoration of Vestry ceiling (8.1)	***
Ė	Redecoration of walls to Nave, Chancel and Vestry (8.3)	
E	Budget to replace aged central heating boiler (9.2)	£10k
E	Consider providing an accessible toilet (11.0)	£10k *
M M	Redecoration of eaves fascia and rafter feet (7.1)	*
M	Redecorate rainwater goods (7.2) Clear rainwater gullies (7.2)	DIY
M	Monitor crumbling capping to chimney (7.3)	-
M	Monitor hard ribbon pointing and masonry to Vestry east wall (7.5)	_
M	Monitor crumbling stone to buttress gables (7.5)	_
M	Monitor cracks in tarmac footpaths; remove twigs (13.1)	DIY
M	Prune hedge on boundary with Vicarage (13.4)	DIY
	KEY	
*	Estimates can be obtained from local roofing contractors	
**	Estimates can be obtained from heritage stonemasonry contractors	
*** ***	Estimates can be obtained from decorating contractors Estimates can be obtained from a heritage glazing contractor	

#### 15.0 ADVICE TO THE PCC

#### **Accessibility and disabled people**

The Equality Act 2010 bans unfair treatment and helps achieve equal opportunities in the workplace and wider society. Duties under the Act are placed on 'service providers', which include churches and the service they provide for worship and wider activities either in the church or a church hall. The PCC should ensure that they have understood their responsibilities under the Equality Act 2010. Further details and guidance are available at http://www.churchcare.co.uk/images/Accessibility\_Sept2017

#### **Asbestos**

A suitable and sufficient assessment should be made as to whether asbestos is or is liable to be present in the premises. The assessment has not been covered by this report and it is the duty of the PCC to ensure that this has been or is carried out.

#### **Bats and other protected species**

The PCC should be aware of its responsibilities where protected species are present in a church. Guidance can be found on http://www.churchcare.co.uk/churches/guidance-advice/looking-after-your-church/bats

#### **Electrical Installation**

Any electrical installation should be tested at least every five years in accordance with the recommendations of the Church Buildings Council. The inspection and testing should be carried out in accordance with IEE Regulations, latest edition, and an inspection certificate obtained in every case. The certificate should be kept with the Church Logbook.

#### Fire extinguishers

Obtain advice from Local Fire Prevention Officer on the correct type and location. Enter into a contract for annual maintenance with the supplier.

#### **Heating Installation**

A proper examination and test should be made of the heating system by a qualified engineer each summer before the heating season begins, and the report kept with the Church Logbook.

#### **Health and Safety**

Overall responsibility for the health and safety of the church and churchyard lies with the Incumbent and PCC. This report may identify areas of risk as part of the inspection, but this does not equate to a thorough and complete risk assessment by the PCC of the building and churchyard.

#### **Insurances**

Ensure adequate cover is maintained for the full cost of re-building and replacement of contents and ensure this is index linked to cover inflation.

#### **Lightning Protection**

Any lightning conductor should be tested at least every five years in accordance with the current British Standard by a competent engineer. The record of the test results and conditions should be kept with the Church Logbook.

#### Maintenance and restoration of church bells

This guidance is given by the Church Buildings Council to all parochial church councils. From 1st January 2016, it will be possible to carry out a range of works to bells without a faculty: see List A and List B in Schedule 1 to the Faculty Jurisdiction Rules 2015. Carrying out works in List A or List B is subject to conditions set out in the list. It is a condition of carrying out any works to bells under List A or List B that regard is had to this guidance. Additionally, in the case of List B works, the approval of the archdeacon must be obtained before they are carried out and the archdeacon may apply additional conditions. Further information can be found on http://www.churchcare.co.uk/images/Guidance\_Notes/Bells.pdf

#### Organ

Enter into an annual contract for maintenance and tuning.

#### Painting rainwater goods

Paint cast iron rainwater goods every five years min. Scrape and wire brush to remove rust. Apply primer/undercoat. Topcoat with 2 coats gloss paint. Use bituminous paint on inside of gutters.

#### **Pointing of masonry**

Must be done under the direction of the Church Architect who will advise on the correct mortar mix and method of application. (NB the wrong mortar mix can do more harm than good).

#### **Plasterwork**

Loose plaster is a problem in many churches and can be dangerous if large sections fall off the walls or plaster and lath ceilings. Loose sections are not always visible and sometimes can only be identified by tapping. It is advisable to check suspect areas from ladders where possible.

#### Rainwater disposal systems

Rainwater goods include the gutters and downpipes which are key to the survival of a church building. Together with a watertight roof, they ensure that rainwater is directed safely away from the building. As water is the greatest cause of damage to buildings, it is vital to keep these elements well maintained. Clean out gutters and gullies twice per year – late spring, late – autumn after leaves have fallen. See Church Care website under http://www.churchcare.co.uk/images/Guidance\_Notes/Rainwater.pdf

#### **Roof coverings**

A roof keeps out water and prevents the deterioration of the building and its contents. It needs to be carefully maintained in order to retain its weatherproof properties. Check frequently and repair as necessary. See Church Care website under http://www.churchcare.co.uk/images/Roofs\_August\_2016.pdf

#### **Sustainable buildings**

A quinquennial inspection is a good opportunity for a PCC to reflect on the sustainability of the building and its use. This may include adapting the building to allow greater community use, considering how to increase resilience in the face of predicted changes to the climate, as well as increasing energy efficiency and considering other environmental issues. See Appendix A for 'a Practical Path to "Net Zero Carbon" for our churches'.



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#### APPENDIX A

## A practical path to "net zero carbon" for our churches

These recommendations aim to help churches reduce their energy use and associated carbon emissions. They are based on the findings of our church energy audit programme and input from of a range of professionals in the field.

NOTE: Many of the suggestions below require faculty; please seek input early on. If the church interior is of historic, artistic, architectural or artistic interest, seek professional & DAC advice first, before making changes; stabilising the environment for these interiors is important to minimise cycles of treatment, with their inherent carbon cost.

# A. Where do we start?

These are actions that nearly all churches can benefit from, even low occupancy churches used only on a Sunday. They are relatively easy, with relatively fast pay back. They are a good place for churches to start, when trying to move towards 'net zero'.

#### The building 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.

#### Heating 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.
- AII. 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.

#### People and policies:

- A14. Complete the Energy Footprint Tool each year, as part of your Parish Return, & 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 & A+++ rated appliances.
- A17. Consider moving PCC meetings elsewhere during cold months, rather than running the church heating.

#### Offset 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 <u>Climate Stewards</u> or other reputable schemes.
- A19. Also, think about your church grounds. Is there an area where you could let vegetation or a tree grow?

B. Where do we go next?

These are actions with a reasonably fast pay back for a church with medium energy usage, used a few times a week. Perhaps half of churches should consider them.

Most actions cost more than the ones above, and/or require more time and thought. Some require some specialist advice and/or installers. They are often good next steps for those churches with the time and resources to move on further towards 'net zero'.

#### The building itself:

- B1. If you have an uninsulated, easy-to-access roof void, consult with your 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.

#### Heating 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 & offices, to allow you to control them individually.

### **APPENDIX B - Selected photographs taken during the inspection**



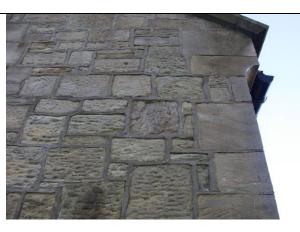
Missing slates by Organ Chamber valley gutter



Blocked and leaking Vestry gutter



Porch gable - hard cement pointing, open joints to gable copings etc.



Vestry east gable - hard cement ribbon pointing



Nave walls - unsightly blistering paint



Hedge to Vicarage in need of pruning