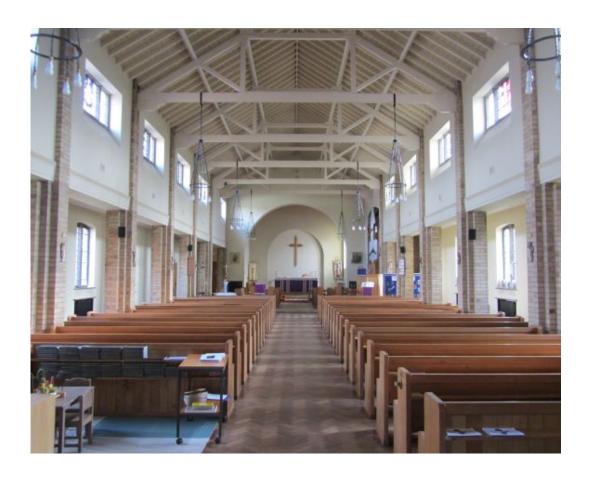
PARISH CHURCH OF ST MARK WITH ST PAUL DARLINGTON

DIOCESE OF DURHAM

ARCHDEACONRY OF AUCKLAND

QUINQUENNIAL INSPECTION REPORT 2023



Report prepared by:

Christopher J Blackburn BA BArch (Hons) RIBA SCA EASA Director/ Specialist conservation architect

Christopher J Blackburn RIBA Architect Ltd Burnside House Shaftoe Crescent Hexham Northumberland NE46 3DS

Tel. No: (01434) 600454

E-Mail: chris@christopherblackburn-architect.co.uk

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1.0. BRIEF HISTORY AND DESCRIPTION:

The Church was designed by architect G E Charlewood of Newcastle upon Tyne and constructed in 1958. It consists of a nave and side aisles with structural arcades; choir/sanctuary; gallery chapel; clergy/choir vestries; organ chamber; south west porch with tower over; underground boiler house. The construction is composed of brick walls and pitched slated roofs.

The church is situated on the junction of North Road and The Leas and surrounded on the west and south sides by shrub planting and grassed areas. A large specimen Monkey Puzzle (Araucaria Araucaria) tree stands on the south side and the boundary on the western and southern frontages are defined by a timber paling fence. A church hall is located on the North side of the church.

2.0. WORK CARRIED OUT SINCE THE LAST QUINQUENNIAL REPORT:

2017

PAT testing (Dec)

2018

Water heater boiler de-scaled Clearing gulley area by Vestry Perimeter fence decorated Pigeons removed and mesh repaired from Tower. Piano tuned Fence post repaired

2019

Boundary fence repaired
Front step repaired
Chapel windows cleaned
Repair to lights
Heating timer to FF replaced
Decoration of Chapel store room
Drains cleared by vicar's vestry
Radiators filled
Flooring replaced in Chapel cupboard

<u>2020</u>

Refurb of Chapel shelves /cupboard Alarm box replaced 5-year electrical inspection

2021

Lightning conductor serviced Tree cut down

2022

Porch light repaired Roofing repairs Repair to front and side doors

Annually

Fire extinguishers tested
Boiler serviced
Portable electrical appliances tested
Hedges trimmed/ garden maintenance

3.0. GENERAL CONDITION / EXECUTIVE SUMMARY:

The Church is generally in fair condition, both externally and internally and there are no major concerns. While regular maintenance work has been carried out to the church grounds since the previous report, many of the repair and maintenance items recommended in the previous report have not been carried out. They are repeated again together with some new items.

Roofs and upstand walls — there are slipped slates by the valley between the Organ Chamber and the Nave/Chancel roof. These need re-fixing. There is a missing slate on the east slope of the Tower, replacement is needed. There are damp patches at high level on the east wall of the Sanctuary and on the west wall of the Chapel. This is thought to be caused by open joints and poor bedding of the gable copings. Re-bedding and repointing of the gable copings is needed. The mortar to a number of the verges is poor — localised raking out and repointing is needed.

<u>External walls</u> – the brickwork and pointing are generally in sound condition but there are some spalling bricks on the west gable of the Chapel and at low level in places. This should be monitored for further deterioration. There are open joints in the cast stone window surrounds and mullions. These should be raked out and pointed up to prevent water ingress.

<u>Windows</u> – the metal frames windows of the Vestries, Toilets and Tower have flaking paint and need re-decoration along with the mesh window grilles to the Baptistry window. Replacement of discoloured polycarbonate covers to the Chapel and Sanctuary windows should be considered.

<u>External doors</u> – redecoration of all external doors is recommended in the quinquennium. The varnish to the Boiler House door is flaking badly and needs revarnishing urgently.

<u>Internal doors & screens</u> – the glazed screens in the Chapel have only 3-4mm thick glass which does not appear to be of a safety grade. Fitting a film to allow safe breakage should any one fall against the glass should be considered for safety reasons.

<u>Floor finishes</u> – The wood block floors are becoming de-bonded in a number of places. A programme of lifting and relaying the blocks is recommended. The bare screeds in the North Lobby and the steps and landing by the Choir Vestry would benefit from a floor finish to prevent further deterioration of the concrete surface.

<u>Sanitaryware</u> – the toilet off the Clergy Vestry still has the original wc pan and high-level cistern. The pan is badly crazed and replacement with a modern close coupled dual flush toilet is recommended for hygiene and water economy reasons.

<u>Externals</u> – there are uneven paving flags by the main entrance and on the west side of the church. These need re-levelling for safety reasons. Redecoration of external fencing on the west and south sides of the church is recommended during the quinquennium.

<u>Disabled access</u> - the two steps by the main entrance are a barrier to wheelchair users and while portable ramps have been used, a more permanent arrangement by creating a gentle ramp in the paving should be considered. This will benefit all users of the building.

<u>Sustainability and path to Net Carbon Zero</u> - 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. It will be for the PCC to set its priorities for sustainability improvements, and I would encourage you to use the Practical Path to Net Zero Carbon (PPNZC) in the Appendix A of this Report to help set these.

These and other more minor matters are detailed in the full report.

4.0. EXTERNAL:

4.1. Roof coverings: (see 4.3 for Bell Tower)		Priority Ref.	
Ridges	There are some open perpend joints between the ridge tiles on the Nave/Chancel roof – these need repointing to prevent water ingress. The bedding to the ridge tiles appears in fair condition but this should be monitored. Should the bedding break away during the quinquennial period, re-bedding will be needed to prevent water ingress.	See 11.0 B	
Slates	 The slating is generally in fair condition. However, attention is required in number of locations. Organ Chamber / Nave valley – 3No slipped/ rotated slates – need refixing. Nave/Chancel south slope – 1No slipped slate/ 1No missing slate – these need refixing/ replacement respectively. South Aisle – 1No broken slate – needs replacing. Some slates have been replaced with a smaller sized slate. This could lead to water ingress. These slates should be replaced to the correct size. A number of slates have broken corners caused by wind chatter. These should be monitored. The worst affected should ideally be replaced. 	B B B	
Leadwork	The lead valley gutters, lead apron and abutment flashings etc. appear in good condition.		
Verges	The verge pointing to the gables of the Choir Vestry, Kitchen, north entrance lobby, disabled toilet lobby, and organ chamber are cracked and breaking up in places. This could lead to water ingress. These verges should be raked out and repointed.	В	
Eaves	The exposed rafter feet, timber soffit and fascia appear in fair condition. It is recommended that they are redecorated every five years to protect against damp penetration.	М	
Boiler House	As previously reported, the soffit of the concrete roof is in poor condition through past damp penetration. It is strongly recommended that the roof is protected with a waterproof finish to prevent further water ingress. Bituminous felt, asphalt or PVC membrane would be suitable.	В	
4.2. Rainwater goods, above and below ground drainage:			
Generally	The original cast iron gutters were replaced in PVC in 2016. The original cast iron circular down pipes remain.		
Gutters	In good condition. These should be cleared of leaves etc. bi-annually.		
Downpipes	Some of the downpipes are rusting at the collars, swan necks and brackets. The rust should be removed by wire brushing followed by priming of bare areas and then redecoration. There is dampness on the brickwork behind the downpipe adjacent to the boiler house steps. This is likely to be caused by the hopper being blocked with leaves etc. This should be cleared.	M A	
Gullies	A number of gullies are blocked on the north side. It is recommended that the gullies are cleared twice a year.	М	

Above ground drainage

SVP by the Utility in fair condition. Redecoration recommended in quinquennial period.

М

Below ground drainage

The manhole covers were not lifted and the drains were not inspected. The inspector cannot state that these areas are free from defect. One of the manhole covers on the west side of the building is cracked and should ideally be replaced.

Ε

4.3. Bell Tower:

Roof There is a missing slate on the east roof slope – this should be replaced.

There is algae on the west roof slope – ideally this should be removed.

The concrete porch canopy is in fair condition apart from some water staining

to the soffit.

Rainwater goods

Comments as 4.2 above.

М

В

Louvres The timber louvres appear to be fair condition. Redecoration every five years

is recommended to protect the timber.

Brickwork/ render panel The brickwork in generally in fair condition but some faces of the low-level bricks are spalling due to frost action. This should be monitored. The

rendered panel on the south elevation is in fair condition.

Interior Access was not gained to the bell chamber or roof void. The inspector cannot

state that these areas are free from defect.

4.4. Upstand walling and copings:

Copings

The gable copings to the Sanctuary east gable, Chancel east gable and Nave west gable have open joints which require repointing. This is thought to be the cause of water ingress and flaking paint at high level in the Sanctuary and Chapel gable walls.

В

The bedding to the water-tabling (gable copings) to the Chancel east gable is breaking away on the west side above the lead flashings. Lifting and rebedding of this water tabling is needed.

В

4.5. External walling:

Generally

The brickwork is generally in fair condition and pointing is solid. Some of the brickwork at low level below the DPC has spalling faces. There is also some spalling brickwork on the west wall of the Chapel. These bricks should be monitored for further deterioration.

Tower

There is a hairline crack in the lintel of the lower window on the east elevation. It is recommended that this is monitored for further movement.

4.6. Windows:

Stone dressings

As reported in the last inspection, the cast stone surrounds have open joints in places. The vertical pointing between the stone jambs and the adjacent brickwork is loose in places. In other locations the pointing has dropped out completely. Raking out and re-pointing is recommended in these locations to prevent water ingress.

В

Framing

The metal frames to the windows are generally in fair condition given their age. However, the decoration is poor and rust marks are appearing externally especially those to the Vestries, Kitchen and Toilets. The paint to the metal frames of the Tower upper east window is flaking off internally. All the metal windows need redecoration.

В

The paintwork to the hopper vents to the Nave north windows are flaking. These should also be redecorated.

Leadwork

The leadwork generally appears to be in sound condition throughout.

В

Glass

The clear and stained glass appears to be in good condition throughout.

Polycarbonate and mesh protection

The polycarbonate covers to the South Aisle windows and stained-glass window to the North Aisle are in good condition. However, the older polycarbonate covers to the rose window to the Chapel and rectangular Sanctuary window are discoloured. Replacement should be considered.

Ε

The mesh grilles to the Nave clerestory windows appear in fair condition but the mesh grille to the baptistry windows is starting to flake and needs redecoration.

В

4.7. External Doors:

The external doors are in fair structural and decorative condition. Redecoration is recommended within the quinquennium to preserve their appearance and weather proofing.

D

As reported previously the boiler house door is badly in need of sanding down and re-varnishing.

В

5.0. INTERNAL:

5.1. Roof voids and ceilings:

Roof voids The roof voids over the Vestries were not inspected. The inspector cannot state that these areas are free from defect.

Plastered ceilings

The plasterboard and skim ceilings to the Chapel, Baptistry, Side Aisles, Passage, Vestries and Toilets etc are generally in good structural and decorative condition throughout. However, the Porch and Vicar's Vestry ceilings would benefit from redecoration.

D

Boarded ceilings

The open trusses, exposed purlins, rafters and boarded ceilings over the Chancel and Nave appear to be in good structural and decorative condition.

Sanctuary The pentagonal plastered and painted ceiling is in good condition.

7

5.2. Internal doors, door furniture and screens

The internal doors comprise oak framed, ledged and boarded construction and are generally in good structural and decorative condition. Ironmongery is appropriate for use.

The glazed screen to the Chapel has very thin glass (3mm) and no safety glass markings as reported at the last inspection. Consideration to fitting a safety film (to allow for safe breakage) is recommended.

D

D

Ε

5.3. Floors and floor finishes:

Porch: The concrete flags and matwell are in fair condition.

Baptistry The maple block flooring is in fair condition.

Nave/ The maple block flooring is generally in good condition but many of the blocks are loose. Rebedding in bitumen is recommended.

Chancel & The maple block flooring is loose in places. Re-bedding is recommended. D **Sanctuary**

VestriesThe maple block flooring is in fair condition throughout. However, the blocks are loose in places. Re-bedding is recommended.

Toilets The vinyl flooring is generally satisfactory.

PassagesThe lobby by the north door comprises a bare screed. Consideration could be given to providing a vinyl floor finish.

The surface of the concrete is breaking by the top landing by the Choir

Vestry as previously reported. It is recommended that a non-slip vinyl surface is applied to the steps and upper landing to protect the concrete.

Chapel & stairs The wood block flooring to the bottom of the stairs and the carpets to the

stairs and Chapel are in fair condition. The substrate was not examined.

Tower store The vinyl sheet flooring is in good condition.

Chapel store The timber floor boards are in fair condition.

5.4. Internal walls and wall finishes:

External walls The plastered and painted external walls are generally in good decorative condition with the exception of the following:-

a) Chancel – some flaking paint below ceiling on east gable wall

b) Chapel – some flaking paint on west gable wall

The dampness is thought to be due to poor bedding and open joints in the gable copings – see 4.4. Once the leaks is fixed and the damp has dried out the flaking paint should be removed and the wall redecorated.

c) Porch, Clergy Vestry & Kitchen – would benefit from redecoration.

Brick piers The fair faced brickwork piers in the Nave are in good condition.

Internal walls The plaster and decoration are generally in good condition apart from the

Clergy Vestry and Kitchen which would benefit from redecoration.

D

D

5.5. Fittings, fixtures & furniture & movable articles:

Altar Oak framed table with fabric frontal in good condition.

Choir stalls & Nave pews

Oak Chancel choir stalls and reading desks. Oak pews in Nave. In good

condition.

Stone base and steps. Octagonal oak panelled pulpit. **Pulpit**

There is a crack in the base which should be monitored.

Μ

Font Cast stone octagonal font with hardwood cover. Some chips to font.

Chapel altar Oak reredos and altar, communion rail and wainscoting to west wall. All in

good condition.

5.6 Organ and other musical instruments:

The organ was built by Brycesan in the 1880's for St James Church, Hartlepool and rebuilt in 1946. It was transferred to St Marks in 1958 and rebuilt again in 1970 by H E Prested (Durham). The organ has been serviced and tuned but is understood to need some repairs which would be prohibitively expensive unless a grant was available.

Ε

6.0 SERVICES INSTALLATIONS:

6.1. Electrical installation:

Alarm

Generally This report is based upon a visual inspection without the use of

instruments. It is understood that the church was re-wired in 2009. A full

electrical test took place in 2020. PAT testing is undertaken annually.

Mains The fuse board and consumer unit are located in the accessible toilet. The

consumer unit is of a modern type with miniature circuit breakers and

RCCD trip switches.

Power Power sockets are distributed throughout the building.

Lighting The lighting comprises ceiling mounted fluorescent batten fittings in the

> Vestries; fluorescent bulbs in metal chandeliers in the Nave and Chancel; ceiling mounted fittings in the Baptistry; wall mounted floodlights in the Sanctuary; ceiling mounted fittings with circular glass diffusers in the Side Aisles and Vestry corridor; recessed down-lighters and spot lights in the Chapel. Lighting fittings are considered appropriate for use and appear to

give adequate levels of illumination.

The diffuser is missing to one of the Vestry strip lights, the other is rotated

and needs fixing flush with the ceiling.

One of the spot lights in the Chapel is not working and needs replacement.

Sound system The sound system was not tested but is understood to be provide good

sound reinforcement. An induction loop system is also installed.

Security A security alarm is installed and it is serviced annually.

Μ

М

6.2. Heating installation:

The current gas fired boiler (Ideal Evomax) was installed in 2017 replacing an older boiler. The boiler is serviced annually and is understood to be in good working condition. The Boiler House sump pump was fitted in 2015 replacing an earlier one.

It is understood that the heating system gives background heating but the building is rarely warm due to the high heat losses through the poorly insulated fabric. Consideration may be given to injecting the external wall cavities with insulation and possibly fitting plasterboard faced insulation boards between the rafters in the Nave, Chancel and Chapel and providing some loft insulation above the ceilings in the Vestries etc. NB Grants may be available for this work – contact Diocesan Office for advice.

Ε

6.3. Water supply:

A mains cold water service is provided to sinks, basins and toilets, while instantaneous hot water units are provided to basins and sinks. The hot water unit to the kitchen is out of action and needs repair or replacement.

Μ

6.4. Lightning conduction system:

It is recommended that the lightning conduction system is tested at least every 5 years by a specialist. The system was last tested in 2021.

6.5. Fire-fighting equipment:

The fire extinguishers are located in the boiler house, at the rear of the Nave near the entrance, in the passage by the Choir Vestry, on the staircase to the Chapel.

The fire extinguishers are serviced on an annual basis.

7.0 DISABLED ACCESS AND PROVISION:

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

There are two steps into the building at the main entrance and a single step from the Nave to the Chancel. Consideration should be given to providing level access into by the formation of a shallow ramp from the Porch to the public footpath.

Ε

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 and for sitting.

See comments in 8.0 below regarding accessible toilet provision.

8.0 WELFARE, HEALTH AND SAFETY:

There is an accessible toilet to the north west corner of the building which is in good condition and is well equipped to current standards.

There are self-contained toilets to the Clergy Vestry and Choir Vestry. The original wc pan and high-level cistern to the Choir Vestry was replaced in 2016 with a modern close coupled toilet but the original wc pan and HL cistern to the Clergy Vestry remains. This pan is badly crazed and therefore unhygienic. It is recommended that the wc is replaced with a modern close coupled toilet with a dual flush cistern.

See comments in 7.0 above regarding level access.

9.0 BATS:

It is not known whether bats roost in the roof or tower. However, it should be noted that bats are a protected species and should not be disturbed. (See section 12 – advice to PCC)

10.0 CURTILAGE:

10.1. Paved areas and drives etc

The precast concrete pavings on the west side of the church are uneven and pose a tripping hazard. Levelling is recommended.

The tarmac drive and play areas are in fair condition.

See 7.0 for comments on adjusting the pavings by the main entrance to create level access for wheelchair users.

10.2. Grassed areas:

The grassed areas on the west and south side of the church are well maintained.

10.3. Boundary fences and gates etc:

Fences

West and south west boundaries: the timber post and paling fence on the SW corner is leaning inwards. The posts may need replacing. A paling is missing on the west boundary and neds replacing. The fence needs restaining.

North boundary with vicarage: the larch lap fence is in good condition.

North boundary behind hall: the open boarded fences are generally in satisfactory condition apart from one section where the top and bottom rails are broken and the posts and rails are suffering from beetle attack. Maintenance responsibility is not clear but the PCC are advised to discuss the repairs/ replacement of this fence with the adjoining neighbour.

East boundary: the open boarded fence is generally in good condition.

D

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Fencing near Boiler house security gate: the close boarded fence needs restaining.

M

The wrought iron gate on the west boundary does not close properly. The timber posts need re-aligning to correct this.

The metal security gates to the Hall grounds are in reasonable structural condition but has the paint has flaked off the top rail and the side panel.

Redecoration is needed to prevent rust.

10.4. Trees and shrubs:

Trees The large fir tree on the west side of the church was removed in 2021.

The monkey puzzle, yew, and beech tree appear to be healthy and not causing any problems with over-hanging branches though tree roots may be the cause of the unevenness in the paving flags.

Shrubs & hedges

The shrubs beds and hedges are maintained annually and are in a tidy condition.

10.5. Steps and handrails:

Steps The steps to the boiler house are covered in wet leaves. This poses a M hazard. The leaves should be cleared periodically.

Handrails The tubular handrails and mesh balustrade by the retaining walls on the north side of the Vestries are in fair condition.

11.0. 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
- $\mbox{M}-\mbox{Routine}$ maintenance (i.e. clearing leaves from a gutter). This can be done without professional advice or a faculty

Category	Action item	Estimated cost (£) (excl. VAT)
Α	Unblock overflowing hopper to E wall of Sanctuary (4.2)	DIY
B B B B B B	Repointing open perps to Nave/Chancel ridge (4.1) Roof slate repairs (4.1) Raking out and repointing to damaged verges (4.1) Fit waterproof finish to Boiler House roof (4.1) Replace missing slate on Tower east roof slope (4.3) Re-pointing/re-bedding of Sanctuary, Chancel and Nave gable copings (4.4) Re-pointing of stone dressings to windows (4.6) Re-decoration of metal windows, hopper vents, Baptistry mesh grille (4.6) Sand and re-varnish Boiler House external door (4.7)	500 500 500 350 600 750 350 500
C C	Replace incorrectly sized slates (4.1) Levelling of pavings on west and south access paths (10.1)	500 500
D D D D D	Redecoration of external doors (4.7) Redecoration of Porch and Vicar's vestry ceilings (5.1) Fitting safety film to thin glass to Chapel glazed screens (5.2) Programme of re-bedding of loose parquet floor blocks (5.2) Redecoration of flaking wall patches in Sanctuary & Chapel (when walls dry) Redecoration of Porch and Vicar's vestry ceilings (5.1) Replace crazed wc pan and cistern to Vicar's toilet with modern version (8.0)	500 DIY 500 5,000 300 DIY 750
E E E E E	Replace slates with broken corners (4.1) Replace cracked manhole cover (4.2) Consideration to fitting new over-glazing to Chapel & Sanctuary windows (4.6) Consider vinyl floor finish to Choir Vestry landing/steps and wc lobby (5.3) Consider overhaul/repairs to organ (5.6) Consider improving the thermal performance of the building envelope (6.2) Consider providing a level access to the main entrance (7.0)	750 350 3,000 500 80,000 + 20,000 + 5,500
M M M M M M M M	Downpipes - removal of rust to sockets, followed by redecoration (4.2) Unblocking of rainwater gullies (4.2) SVP redecoration (4.2) Replace missing diffuser to Vestry strip light (6.1) Refix Vestry strip light flat against ceiling (6.1) Repair faulty hot water boiler to kitchen (6.3) Decorate timber fencing (10.3) Discuss with neighbour the repair of rotten section of north boundary fence Adjust gate posts to allow west gate to close freely (10.3) Redecorate metal gates (10.3) Remove leaves from Boiler House steps (10.5)	DIY DIY 75 50 ? DIY - DIY DIY

12.0. 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

Ashestos

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'.



Christopher J Blackburn RIBA Architect Ltd

Burnside House, Shaftoe Crescent, Hexham, Northumberland, NE463DS T (01434) 600454 | M 07543 272451

www.christopherblackburn-architect.co.uk

APPENDIX A – a practical guide to net zero carbon for our churches

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 Climate Stewards or other reputable schemes.
- Al9. 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



Slipped slates by valley of Organ Chamber roof



Chancel East wall – flaking paint through leak



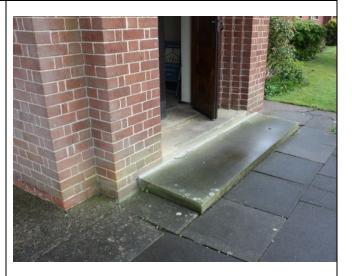
Rusting cast iron downpipe collars



Rusting metal framed windows



Misaligned west gate



2No steps into Porch – consider re-laying paving flags to a gentle slope to give wheelchair access