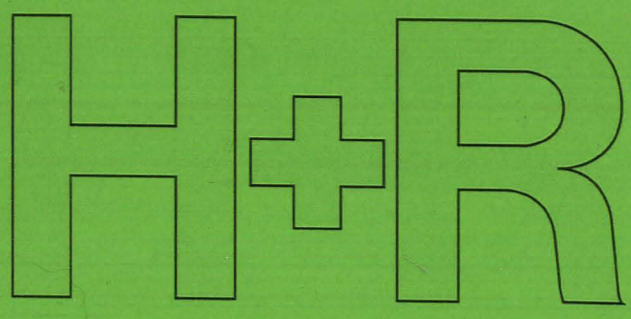


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Condition survey of St Matthew's Church, Holbeach St
Matthew, Lincolnshire

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18 January 2010

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Condition survey of St Matthew's Church, Holbeach St Matthew, Lincolnshire

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1 INTRODUCTION

1.1 AUTHORITY AND REFERENCE

Hutton+Rostron Environmental Investigations Limited carried out a condition survey of St Matthew's Church, Holbeach St Matthew, Lincolnshire on 18 January 2010 in accordance with instructions received from Remway Design Limited (Jason Wilson) by e-mail dated 16 December 2009 (18:50) on behalf of Home Tailoring Limited. Reference was made to approved scheme drawings supplied by Remway Design Limited for the identification of structures. For the purpose of orientation in this report, liturgical layout has been assumed and verified

1.2 AIM

The aim of the condition survey was to carry out a visual inspection of the building and report on materials and methods of construction, relevant site features, primary and secondary defects, and recommendations for repair with reference to the proposed conversion of the building to residential use

1.3 LIMITATIONS

This condition survey was confined to accessible structures. Structures were not examined in detail, except as described in this report, and no liability can be accepted for defects that may exist in other parts of the building. Building service installations were excluded from the survey. Dimensions given in this report should be considered as approximate and not relied upon for other purposes

1.4 ARCHITECTURAL OR HISTORIC SIGNIFICANCE

St Matthew's Church is not listed as being of special architectural or historic interest. It is not known whether other environmental and/or heritage designations affect the building or site

2 EXECUTIVE SUMMARY

2.1 OBSERVATIONS

2.1.1 Location and site

The site is in a rural location with surrounding agricultural land and is enclosed by hedges and railings. A minor road lies immediately to the south and west of the site. There is an open excavation for modern services. Modern handstanding with access from the highway has been formed to the site of the site for static caravans

2.1.2 Roof coverings

The roof coverings to nave/chancel and porch show limited broken and/or displaced slates and previous use of remedial clips (tingles), indicating possible defects to battens and/or nails. The decorative ridge tiles also show limited damage. Assumed ventilators to the main roof may allow rainwater penetration. Observation of a timber fleche with assumed lead sheet covering was limited, but there appears to be some distortion to the leadwork and a risk of damage or decay to the unobserved timber structure

2.1.3 Rainwater disposal system

Eaves gutters to nave/chancel and porch are serviceable, albeit with evident debris, distortion and leakage, and requiring attention. Where there is leakage, such as at shared hopper heads, there is evidence of saturation of adjacent brickwork, with risks of dampness to the interior and a need to dry down the structure prior to occupation. Drain runs and outfalls were not identified, and there is a risk that discharge may not be adequately removed from the site

2.1.4 Elevations

External structural walls of brickwork laid principally to English bond with limited brickwork decoration. Nave/chancel walls 540mm thick (measured at doorway D2) and porch walls 230mm thick (measured at archway D1). Evidence of previous localised brickwork repairs. The overall condition of visible brickwork is reasonable, but much of the lower walling is obscured by invasive vegetation growth. This growth is blocking ventilation grilles and holding moisture in contact with brickwork. It is likely that there will be damage to this brickwork and a need to dry down the structure prior to occupancy. There is localised damage to the north buttress, with saturation and risk of moisture transfer to the interior, and minor damage to individual bricks. Biological growth is present around defective rainwater goods and lower walling, indicating saturation with risk of dampness

2.1.5 Ground surfaces

The ground around the church is rough and vegetated, with invasive growth on to lower walling. The site opens out to the south, with mature trees and pathway from the site entrance to the porch. Evergreen trees are shading parts of the south elevation and the path has been damaged by assumed tree-root action

2.1.6 Roof structures

Nave/chancel roof structure with 6 no. arch-braced trusses, ridge, purlins, wall plates and common rafters. Lath and plaster infill panels, with visible damage and risk of unobserved defects. Assumed ventilators and rope pull for bell chiming. Condition of roof structure not assessed due to lack of safe working access. Porch roof structure with common rafters, collars and wall plates, showing staining and with risk of beetle and/or fungal decay

2.1.7 Walls

Internal walls to nave/chancel and porch of exposed brickwork. Nave/chancel walls shows staining, redundant fixings and limited damage to brickwork. Removed north floor shows line of slate damp-proof course below floor level, with staining and soluble salt crystallisation to sub-floor brickwork indicative of dampness due to raised ground level and/or vegetation growth. Evidence of structural movement, with cracking to chancel north wall and nave west wall, possibly relating to ground movement, transfer of roof loading and/or failed drains. Previous repair to assumed cracking to upper west wall. Ventilators to upper east and west walls. Porch walls show staining and biological growth, especially at low level, and evidence of structural movement, with cracking over the nave doorway and to both sides of the outer archway, possibly relating to tree-root action and/or failed drains

2.1.8 Doors

The porch archway is fitted with a mesh door to prevent birds entering the building. Whilst there is no evidence of there having been an original secure door, provision of a new door would allow the porch to form part of the habitable accommodation. The nave door shows minor damage, but remains serviceable

2.1.9 Windows

Windows to chancel and nave are in a poor condition, with corrosion of frames, saddle bars and ventilation hoppers/sliders. Leaded lights show damage, distortion and cracked glass quarries. There is also damage to brick reveals caused by the corrosion of frames and saddle bars. The majority of windows are boarded over, which prevented inspection of external surrounds, but damage to brickwork might be expected

2.1.10 Floors

Chancel floor at two levels with ceramic tiling. Altar rail to upper sanctuary step and pulpit to lower step. Observed brick vault beneath lower chancel floor. Nave floor with north pew platform and floor removed to expose sub-floor structure, with brick sleeper walls and provision for through ventilation. Sub-floor voids partly filled with debris. Assumed similar construction beneath central and south floor. Remaining south pew platform and ceramic tiling between platforms largely obscured by stored materials and debris. Section of lifted timber floor to south-west corner of nave shows timber plates on brick sleeper walls with sub-floor voids and accumulated debris

2.1.11 Fixtures and fittings

There are limited fixtures and fittings remaining within the church. Within the chancel there are altar steps with decorative ceramic tiling, a timber altar rail and a timber pulpit on an assumed stone base. Butterfly wings inside the pulpit may indicate the presence of bats within the building. Within the nave the north pew platform has been removed to allow for excavation of the floor, whilst the south platform remains. There are no surviving seats, but a timber shaft remains to the north platform kerb. Within the porch there is a notice board

2.1.12 Exclusions and limitations

The following exclusions or limitations apply to this survey:

- Limited observation of nave/chancel roof covering and flèche due to lack of safe working access
- Limited observation of north, east and part-south elevations due to adjacent boundary hedges
- Lack of external observation of windows (e.g. brickwork cills, jambs, heads) due to boarding
- Limited observation of nave/chancel roof structure due to lack of safe working access
- Limited observation of internal nave/chancel surfaces due to stored materials and debris
- No inspection, assessment or testing of building service installations
- No inspection, assessment or survey for asbestos, radon, floor risk or protected species

2.2 RECOMMENDATIONS

2.2.1 Location and site

Allow for works to boundaries and site

2.2.2 Roof coverings

Depending on intended user requirements and compliance with building regulations, allow for assumed formation of new roof including insulation

2.2.3 Rainwater disposal system

Replace existing rainwater goods and drainage system. Allow for formation of new outfalls(s)

2.2.4 Elevations

Removal invasive vegetation and biological growth. Investigate cracking and allow for structural repairs. Replace damaged bricks. Prepare and re-point open and/or defective joints

2.2.5 Ground surfaces

Remove vegetation. Repair path to porch

2.2.6 Roof structures

Allow for investigation of nave/chancel, porch and fleche roof structures. Repair or replace damaged or decayed timbers. Repair or replace lath and plaster panels

2.2.7 Walls

Investigate cracking and allow for structural repairs. Depending on intended appearance and presentation, allow for cleaning, decoration of brickwork, or plastering and decoration or brickwork. Remove redundant fixings, Replace damaged bricks. Prepare and re-point open and/or defective joints. Allow for conservation of assumed retained painted banner to east chancel wall

2.2.8 Doors

Depending on intended user requirements and compliance with building regulations, allow for supply and hanging of new porch door. Repair existing nave door

2.2.9 Windows

Repair existing windows, including leaded light, ventilation hoppers and sliders, and saddle bars. Supply and fit internal secondary glazing

2.2.10 Floors

Depending on intended user requirements and compliance with building regulations, allow for repair or replacement of existing floors and sub-floor structures

2.2.11 Fixtures and fittings

Depending on intended user requirements, allow for retention or removal of altar steps with decorative ceramic tiling, timber altar rail, timber pulpit on assumed stone base, pew platform and porch notice board

2.2.12 Urgent works

It is recommended that the following works be undertaken without delay to reduce rates of deterioration and decay:

- Trim boundary hedges to allow improved access, air movement and natural light
- Remove vegetation from elevations and ground surfaces (including ventilation grilles)
- Cover excavation to remove tripping/falling hazard
- Replace broken and/or displaced roof slates to nave/chancel and porch
- Repair rainwater disposal system to nave/chancel and porch

3 OBSERVATIONS

EXTERNAL

3.1 LOCATION AND SITE

- 1 Location: The church stands to the north side of Barge Road, adjacent to a bend and opposite the gateway entrance to Thimbleby House, at OS NGR TF 4115 3225 (Fig. 1). There is open agricultural land to the north, east and south, with a pond in the field to the north-east of the site. The site is entered through a metal gate from the highway with a concrete path leading to the porch
- 2 Boundaries: Hedging to north, east and part-south, and painted metal estate railing to part-south (with gateway to porch) and west. Metal railings show distortion and limited damage, some corrosion, paint failure and previous repairs
- 3 Site: Uneven ground within boundaries, with grass, ivy and other vegetation growth. Mature trees grouped along path leading to porch and to north side of highway up to north-west corner of site. Evergreen tree growth to south causing shading of elevation and buttress. Open excavation for service runs to west up to boundary posing a potential tripping/falling hazard (Fig. 13). Land to north, east and part-south has been recently cultivated and there are 2 no. static caravans on hardstanding with a site entrance off the highway. Caravans understood to be used as temporary accommodation by owner. Modern post and rail fencing between cultivated land and agricultural fields to north and east, and continuing around parcel of land to south-east

3.2 ROOF COVERINGS

3.2.1 General

- 1 General: Pitched roof to nave/chancel with slate roof covering including crested red ridge tiles. Ferrous metal crosses to east and west ends of ridge. Timber flèche with wind vane, lightning protection down conductor and assumed bell hanging. South porch similarly roofed with slate covering and ferrous metal cross to south ridge end. Short valley gutters to upper part of porch roof at junction with main roof

3.2.2 Nave/chancel

- 1 North (ridge): Red crested ridge tiles showing biological growth, open tile and bed joints, and failing bedding mortar. Timber roof structure exposed, with consequential risk of decay, beneath ridge where at least 3 no. upper course slates have become displaced. Small number of broken tiles. End ridge tiles to east and west of limited width and on thick mortar bed to allow for fixing of metal crosses. Risk of moisture penetration where crosses penetrate ridge. Both crosses show corrosion

- 2 North (slate roof covering): Main slate roof covering shows biological growth, particularly to upper third of covering and beneath fleche (Fig. 2). Verge slates to east and west of reduced width (i.e. not slate and a half width) and with risk of uplift. At least 4 no. slates, including a number held by remedial clips (tingles), have become displaced beneath ridge over an assumed vent (i.e. west side of flèche) (Fig. 6). Vent with assumed mesh cover and mortar to perimeter. Likely rainwater penetration with consequential risk of timber decay. Number of slates beneath ridge to west appeared to be lifted, caused either by uplift from verge and/or movement of cross. Similar to east, with evidence of previous repair beneath the cross. Number of tingles present, particularly around assumed vent and to upper west roof. Eaves line is reasonably straight, although with a small number of lower course slates having become displaced and dropped into eaves gutter
- 3 North (eaves): Eaves slate course supported on tapering timber board on top of moulded rafter feet projecting over wall with exposed ends of boards at verges
- 4 North (verges): East verge formed with 2 no. projecting brick courses and deep mortar bed, shows lifting of slates beneath ridge and exposed ends of timber boards supporting eaves slate course. West verge is similar and shows cracking and displacement of mortar bed, together with displacement beneath ridge and exposed ends of boards supporting lower slate course
- 5 South (ridge): Red crested ridge tiles showing biological growth, open tile and bed joints, and failing bedding mortar. East ridge tile adjacent to cross shows damage and previous assumed mortar repair
- 6 South (slate roof covering): At least 5 no. displaced slates adjacent to west verge, together with tingles indicating previous repair (Fig. 7). Some displaced slates to east verge. Such localised damage may be associated with wind uplift and/or physical contact with tree branches. Area of displaced slates and slates held with tingles around assumed vent to west side of flèche (similar to north slope) with risk of rainwater penetration and timber decay (Fig. 9). Assumed rope penetration to west of fleche for assumed bell chiming, also with potential risk of moisture penetration
- 7 South (eaves): Eaves slate course supported on tapering timber board on top of moulded rafter feet projecting over wall with exposed ends of boards at verges
- 8 South (verges): East verge shows mortar failure and voids with risk of water penetration and exposed ends of timber boards supporting lower slate course (Fig. 17). West verge is similar and shows missing mortar with potential rainwater penetration, particularly at upper level, and exposed ends of boards supporting lower slate course

3.2.3 Porch

- 1 East (ridge): Ridge tiles matching main roof, with a section of at least 3 no. ridge tiles missing to south. South ridge tile cut adjacent to ferrous metal cross. Open tile joints and cracking to mortar bedding. Ridge tiles run on to head of valley gutter, with potential water penetration at awkward junction
- 2 East (slate roof covering): Reasonable condition, although with limited movement to eaves and verge slates. Assumed lead-lined valley to upper part of roof holding debris (i.e. leadwork not visible for inspection), with lower slope abutting south nave elevation beneath projecting eaves and protected with mortar fillet (Fig. 8). Eaves gutter to main roof appears to discharge on to porch roof with open gutter end obstructed by debris from overhanging tree branches

- 3 East (eaves): Staining, biological growth and beetle emergence holes to visible timber board and rafter feet.
- 4 East (verge): Reduced width slates to south verge with at least 1 no. tingle. Cracking to mortar, with risk of water penetration, together with exposed end of timber board supporting lower slate course
- 5 West (ridge): Similar to east, with missing section of ridge tiles
- 6 West (slate roof covering): At least 5 no. broken and/or cracked slates and at least 2 no. tingles indicating likely nail and/or batten failure. Displacement of south verge slates. Assumed lead-lined valley gutter to upper part of roof holding debris (i.e. leadwork not visible for inspection), with lower slope abutting south nave elevation beneath projecting eaves and protected with mortar fillet (Fig. 7)
- 7 West (eaves): Staining, biological growth and beetle emergence holes to visible timber board and rafter feet, with fungal decay beneath 2 no. broken lower course slates (Figs. 19 and 20)
- 8 West (verge): Cracking to mortar, particularly to upper level, together with exposed end of timber board supporting lower slate course

3.2.4 Flèche

- 1 Timber structure: Vertical posts to north and south sides of ridge supporting 2 no. beams running on north/south axis at ridge level, with posts rising with brackets to support superstructure (Figs. 6 and 9). Posts and beams protected with sheet metal weatherings (e.g. lead, zinc). Timber construction shows assumed ferrous metal plates and fixings. Visible timbers have brown colouration, although with biological growth. Underside of flèche shows timber boards, but precluding observation of superstructure (assumed timber rafters, sarking boards and rolls)
- 2 Roof covering: Steep pitched roof above flared base with 4 no. bays of assumed lead sheet showing corroding ferrous metal fixings with washers and limited distortion (Figs. 10, 11 and 17). Wind vane showing damage. Lightning protection down conductor clipped to south roof slope and timber structure, descending to run loose over main roof and clipped to elevation to east side of buttress. Limited distortion of leadwork, particularly to upper roof beneath wind vane, suggests possible movement associated with timber decay

3.3 RAINWATER DISPOSAL SYSTEM

3.3.1 Nave/chancel

- 1 North: Assumed grey plastic eaves gutter with failing black paint supporting on assumed ferrous metal rafter brackets showing displacement and misalignment with open joints and debris. Assumed cast iron or cast aluminium swan neck discharging into larger diameter plastic downpipe with failing black paint over red paint finish. Downpipe showing failing brackets and displacement. Downpipe enters ground without gully (i.e. assumed connection to below-ground drainage system). Unknown outfall, but possible drain run to north into field (with or without soakaway)

- 2 South (main roof): Assumed grey plastic eaves gutter with failing black paint in two lengths on assumed ferrous metal rafter brackets. Main gutter length to east of porch show open over porch roof, displacement, misalignment, limited damage (e.g. above east downpipe) and debris. Black plastic downpipes (2 no.) with swan necks, with west downpipe discharging into shared hopper (Fig. 8). Downpipes enter ground without gulleys (i.e. assumed connections to below-ground drainage system) and run to unknown outfall(s)
- 3 South (west bay): Short gutter length to west side of porch with swan neck discharging into assumed black painted cast-iron downpipe (showing red paint beneath black) and shared plastic hopper (Fig. 7). Both gutter and hopper blocked with debris from overhanging tree branches. Gutter is not full length of eaves and discharges into valley. Plastic downpipe with failing black paint enters ground without gully (i.e. assumed connection to below-ground drainage system) and runs to unknown outfall

3.3.2 Porch

- 1 East: Grey plastic eaves guttering with failing black paint discharging via open north end into shared hopper. Assumed ferrous metal rafter brackets. Gutter filled with debris. Algal and slime growth on shared lower downpipe indicating failure with risk of saturation to adjacent brickwork (i.e. nave, porch) (Fig. 21)
- 2 West: Grey plastic gutter with failing black paint supported on single bracket with open south end supported on shared hopper (Fig. 19). Gutter shows debris

3.3.3 Flèche

- 1 General: No rainwater disposal system (i.e. direct discharge on to main roof)

3.4 ELEVATIONS

3.4.1 Nave/chancel

- 1 North (general): Red brickwork laid to English bond with two-stage buttress (B1), battered lower wall and ventilation grilles visible through vegetation (Figs. 2 and 12). Brickwork appears in reasonable condition relative to its age, construction and exposure. Assumed slate damp-proof course as observed to south elevation
- 2 North (chancel): Number of open and/or defective joints at high level beneath projecting eaves, together with remains of dead vegetation and live ivy growth at ground level. Significant biological growth (e.g. moss) indicating saturation of low-level brickwork with risk of damage to brickwork and dampness to interior (Fig. 14). Stone block to north-east corner above battering. Previous cementitious mortar repairs evident to upper north-east corner
- 3 North (buttress B1): Two-stage buttress shows damage to upper stage weathering with direct water penetration and invasive vegetation growth (Figs. 14 and 15). Staining indicates saturation of buttress with risk of dampness and soluble salt migration to interior. Lower stage weathering shows a damaged brick with later cementitious pointing over damaged faces, together with small number of open and/or defective joints

- 4 North (nave): Lower north-west corner of elevation exposed in open excavation and shows exposed brickwork at least 300mm below ground level (Fig. 13). Assumed continuation of wall down to footings/foundations or for direct bearing on ground strata. Ground conditions not investigated. Lower 1.0m of elevation largely obscured by vegetation, including invasive ivy growth and raised ground level (Fig. 16). Clipped cable running across elevation and turning through wall beneath window to west side of buttress. Small number of open and/or defective joints at high level beneath projecting eaves, particularly to west, and with redundant fixing adjacent to north-west corner. Pointing appears original and to be of a coarse lime-based mortar showing little erosion, although with likelihood of possible weathering and erosion at lower level where obscured by vegetation growth. Likely open and/or defective joints around ventilation grilles
- 5 North (windows): Lancet windows (1 no. paired chancel window and 3 no. single nave windows) boarded over, but showing projecting tile cills. Damage to cill beneath double window (W1). Gauged brick arches over windows
- 6 East (chancel): Gable elevation with 2 no. projecting brick courses beneath verge, with lower course set at angle and with returns at eaves (Fig. 3). Assumed ferrous metal ventilation grilles (2 no.) with mesh at high level beneath gable apex showing failing mortar and/or brick displacement possibly associated with corrosion (Fig. 17). Redundant ferrous metal fixing(s) to brickwork. At least 2 no. ventilation grilles in battered lower wall and return face of stone block to north-east corner. North and south eaves project with timber boards over rafters supporting lower slate courses. Significant ivy growth at low level
- 7 East (window): Window (W5) of three lancet lights beneath common decorative brick hood mould boarded over (aside from upper part of taller middle light), but showing projecting tile cills. Damage to cill beneath north light
- 8 South (general): Red brickwork laid to English bond with two-stage buttress (B2), battered lower wall and ventilation grilles visible through vegetation (Fig. 24). Brickwork appears in reasonable condition relative to its age, construction and exposure. Evidence of slate damp-proof course (assumed two courses with staggered joints) in joint beneath observed ventilation grille
- 9 South (chancel): Void with possible loss of half brick, together with open and/or defective joints, to upper south-east corner reducing support to eaves board (Fig. 26). Small number of open and/or defective joints, particularly associated with previous downpipes fixing to east side of buttress (B2), and small number of spalling bricks (at least 5 no. bricks) adjacent to downpipe (Fig. 25). Dead vegetation adjacent to buttress and biological growth at low level around downpipe indicating saturation
- 10 South (buttress B2): Limited number of open and/or defective joints to both stage weatherings with likely water penetration and risk of dampness to interior (Figs. 23 and 24)
- 11 South (nave): Biological growth to brickwork to east side of porch and to buttress (B2) with evergreen tree foliage causing shading of elevation (Fig. 4). Invasive ivy and vegetation growth at low level, together with moss indicating saturation around downpipe. Open and/or defective joints adjacent to the downpipe and small number of spalling bricks (at least 1 no. between windows W6 and W7). Likely open and/or defective joints around ventilation grilles. Lightning protection down conductor clipped to brickwork to west of buttress. Elevation to west side of porch shows previous crude cementitious repairs to upper south-west corner and small number of open and/or defective joints (Fig. 5). Biological growth behind downpipe, with likely damage to brickwork associated with ferrous metal fixings to remaining length of cast-iron downpipe and assumed removal of lower downpipe length

- 12 South (windows): Lancet windows (1 no. paired chancel window and 2 no. single nave windows) boarded over, but showing projecting tile cills. Damage to cill beneath double window (W8). Gauged brick arches over windows, with fine cracking to at least 1 no. joint to chancel window (W8) arch
- 13 West (nave): Gable elevation with 2 no. projecting brick courses beneath verge, with lower course set at angle and with returns at eaves (Figs. 2 and 27). Assumed ferrous metal ventilation grilles (2 no.) with poorly-fixed mesh at high level beneath gable apex showing damage to bricks and joints (Fig. 28). Assumed cementitious repair between grilles. Overhead cables from pole to west side of highway over site boundary and supported on wall terminals with cabling run down and penetrating elevation adjacent to north-west corner. At least 1 no. redundant fixing and 2 no. modern cable penetrations through brickwork. Cracking to brickwork beneath window (W9). Remains of dead vegetation and invasive ivy growth to battered brickwork at low level. Biological growth to brickwork
- 14 West (window): Single lancet window (W9) without boarding and showing projecting tile cill. Damage and cracking to cill and to brickwork beneath. Corroding ferrous metal frame with distorted leaded lights and broken quarries. Failing mortar fillets to reveals, broken glass to assumed ventilation hopper, and cracked glass with assumed board over broken pane to upper light

3.4.2 Porch

- 1 East: Red brickwork of predominantly stretcher bond (showing occasional headers) with small lancet window beneath enlarged head and projecting stone cill (Fig. 22). Lower wall without battering. Remains of dead vegetation and live invasive growth at lower level. Damage to exposed lower courses and mortar to lower south-east corner. Staining and biological growth at low level suggests moisture penetration with risk of internal dampness
- 2 South: Red brickwork with 2 no. projecting courses beneath verge, with lower course set at angle and with returns at eaves (Figs. 4 and 18). Slate roof coverings supported on timber boards at verge. Decorative brick hood mould over open archway into porch. Lower wall without battering. Open joint to apex brickwork with gap through one-brick thick wall. Biological growth associated with overhanging branches. Staining and biological growth at lower level, with concrete path abutting stone step showing biological growth and spalling to raised floor within porch. Open and/or defective joints to lower brick reveals to archway
- 3 West: Similar to east elevation, showing dead vegetation and live growth. Individual brick spalling affecting at least 5 no. bricks. Staining and biological growth at low level, particularly within internal angle due to failed rainwater goods, with risk of internal dampness

3.5 GROUND SURFACES

- 1 North: Broken and undulating ground with invasive vegetation growth between building and uncut hedge. Open excavation between north-west corner of building and west boundary for modern service connections to building. Cables and pipes run on ground surface along length of elevation. Ground level lower in field to north side of boundary hedge

- 2 East: Broken and undulating ground with invasive vegetation growth between building and uncut hedge. Continuation of cables and pipes run on ground surface, passing through hedge to south-east corner of site for connection to caravan(s)
- 3 South (east side): Broken and undulating ground with invasive vegetation growth between building and uncut hedge. Ground level drops beyond hedge to cultivated ground to west side of caravan. Mature trees causing shading of building. Close proximity of trees has caused damage to path and is liable to cause potential damage to building due to tree root action. Tree and/or shrub growth (assumed elder) has been cut to sides of path. Concrete path from site entrance to porch shows at least 2 no. fractures and displacement due to tree root action. Damage poses potential tripping hazards. Pair of boot scrapers at porch entrance
- 4 South (west side): Ground to west side of path is comparatively open and enclosed by estate railings (Fig. 4)
- 5 West: Broken and undulating ground, with mature trees and shrubs enclosed by estate railings. Off-cuts of pipe and ducting on ground surface

INTERNAL

3.6 ROOF STRUCTURES

3.6.1 Flèche

- 1 General: Unobserved

3.6.2 Nave/chancel

- 1 Roof structure: Observed roof structure of 6 no. arch-braced trusses, ridge, upper and lower purlins, outer wall plate supporting rafters and inner plate projecting forward of line of brickwork (Figs. 29 and 30). Reported lath and plaster panels. Trusses comprise principal rafters, collars, bracing, corbels and wall posts bearing on to single or double wall plates. East and west trusses without bracing and abutting gable walls. Truss on chancel/nave division doubled-up with short moulded wall posts beneath corbels dropping beneath wall plate level and with pierced infill panels between trusses (Fig. 31). Assumed ventilator to west side of double truss and protected hole for rope for assumed chiming of bell in fleche (Fig. 32). 2 no. light fittings mounted on double truss facing east and 4 no. suspended light fittings from upper purlins in nave. Ceiling panels over wall heads appear with curvature
- 2 Plaster panels: Limited observation of plaster panels from east (bay 1) to west (bay 5) as follows:
 - Bay 1: Area of detached plaster to upper south slope showing vertical lathing
 - Bay 2: Areas of detached plaster exposing laths to both upper north and upper south slopes and with assumed cracking or displacement to ceiling panels to south
 - Bay 3: Assumed cracking. Ventilator and rope pull
 - Bay 4: Area of detached plaster exposing laths and with laths coming away to upper south slope
 - Bay 5: Staining to upper north slope adjacent to west wall and staining with possible cracking to upper south slope adjacent to wall. Staining at lower level adjacent to porch roof

- 3 Condition of plaster panels: Whilst it is possible to identify obvious visible damage from floor level, inspection was limited by low-light conditions and surface debris (e.g. cobwebs). Given the observed condition of the panels, there is a risk of plaster separation from laths, beetle infestation of timber rafters and laths, and/or corrosion of fixing nails. Detailing inspection is required to assess the condition of these panels to inform decision making (i.e. retention, repair, replacement)

3.6.3 Porch

- 1 Roof structure: Observed roof structure of 5 no. pairs of common rafters jointed at ridge (with or without ridge board), collars and bearing on to wall plates. Sarking boards over. North and south pairs of rafters and collars abut brickwork with staining and risk of fungal decay. All timbers appear stained and with clipped electrical cabling to pendent light. Board to lower north-west corner above official notice board to wall showing lettering, but with significant beetle emergence holes to lower board. Exposed copper cabling runs along frame into board and penetrates brickwork beneath wall plate. Risk of fungal decay due to defective roof covering and/or rainwater disposal system

3.7 WALLS

3.7.1 Nave/chancel

- 1 North: Brickwork laid to English bond with 3 no. single lancet windows to nave and 1 no. paired lancet window to chancel. Windows beneath brick arch over splayed reveals and with painted cills. Cracking through head of chancel window (W1) with limited brickwork displacement (Fig. 33). Horizontal cracking on line of lower chancel floor. Brickwork above part-removed floor shows limited damage associated with previous fixings and/or surface penetrations, including hole to east side of window (W4). Areas of staining, particularly at removed floor level and also nave windows (W2 and W3). Modern telephone socket and cable passes across floor to assumed connection with caravan. Electricity supply meter and board to north-west corner, with assumed redundant fitting beneath. Various surface fixings, together with small number of open and/or defective joints associated with fixings. Altar rail penetrates wall with risk of decay
- 2 North (sub-floor): Slate damp-proof course (DPC) observed to brick joint beneath ventilation grille (Fig. 34). Line of DPC is 450mm below lower chancel floor level (chancel lower floor is 150mm above nave floor and 150mm below upper chancel floor). Wall beneath DPC shows staining and spalling associated with soluble salt crystallisation to west and beneath window (W3), associated with raised ground level and/or vegetation growth to external elevation
- 3 East: Brickwork laid to English bond with 3 no. grouped lancet lights beneath brick arches over splayed reveals. Painted banner stating 'Glory to God in the Highest' over window (Fig. 35). Ventilators (2 no.) above collar level with cords hanging down, including ferrous metal fixings on window piers for tying off. Various corroding and redundant fixings into brickwork. Limited damage to individual bricks and joints
- 4 South: Brickwork laid to English bond with 2 no. single lancet windows to nave and 1 no. paired lancet window to chancel. Windows beneath brick arch over splayed reveals and with painted cills. Wall partly obscured by stored materials and debris, but showing a number of redundant fixings, cable runs and sockets. Redundant fixings within south-west corner abutting pulpit construction and doorway (D2) to porch. Limited number of open and/or defective joints, particularly associated with fixings. Altar rail penetrates wall and pulpit abuts wall, both with risk of decay

- 5 West: Brickwork laid to English bond with lancet window beneath brick arch over splayed reveals. Ventilators (2 no.) above collar level with cord hanging down. Cracking through window apex and cill, passing vertically in at least 2 no. cracks beneath window to floor. Assumed pointing of cracking to gable brickwork above collar. Redundant fixings to wall, including cabling associated with incoming electricity supply and RCD unit with meter and board to north-west corner. Area of previous repair and staining to north side of window, together with position of brackets indicates former wall fitting and projecting fixings to south side of window (e.g. possible wall monument fixings)

3.7.2 Porch

- 1 North: Exposed English bond brickwork (one-brick thick) with arch-headed doorway (D2) without hood mould into nave. Stone step up at threshold. Cracking through apex of arch head (Fig. 36). Biological growth to wall surface and multiple ferrous metal fixings into joints. Failing white paint and biological growth to east door reveal
- 2 East: Exposed brickwork with small light showing damage to reveals and part-displaced mesh to opening. Biological growth to brickwork, particularly at lower level
- 3 South: Exposed brickwork with open archway (D1) and modern mesh doors. Cracking at archway springing up to east wall plate and open joints with possible cracking at wall plate level to west. Biological growth, particularly to south-east corner and low level
- 4 West: Similar to east, with damage to brick reveals and cill and part-displaced mesh to opening. Official notice board to north side of window with opening joints and cable penetration to brickwork above. Staining and biological growth, particularly at lower level

3.8 DOORS

- 1 Porch: Pair of modern timber outer doors (D1) with mesh and padlock fixing over open archway with simple frame fixed to brickwork within porch. Framing is loose to west and debris is trapped between boards and lower mesh. All timber shows evidence of beetle infestation
- 2 Nave: Fine timber boarded door (D2) with ornate ferrous metal hinges and fittings, with internal chamfered framing, ledges and bracing (Figs. 41 and 42). Timber lock box with metal fittings and latch. Door leaf hung on 2 no. strap hinges. Outer face of door leaf shows discolouration and assumed failure of previous paint finish and at least 2 no. missing fixings from upper strap hinge. Limited damage to timber boards

3.9 WINDOWS

- 1 Chancel: Paired windows to north (W1) and south (W8) walls, and three-light window (W5) to east wall. Ventilation hopper and slider to paired north window and slider to paired south window. All windows show damage and distortion of leaded lights, with damaged/missing lead cames and cracked/broken glass quarries (Figs. 43 and 44). Corroding frames, saddle bars and/or ventilation hoppers/sliders with likely damage to brick reveals. White-painted cills with paint failure

- 2 Nave: Single light windows to north (W2, W3 and W4) and south (W6 and W7) walls, and single lancet window (W9) to west wall. Ventilation hoppers to north (W4), south (W7) and west (W9) windows and sliders to north (W3) and south (W6) windows. All windows show damage and distortion of leaded lights, with damaged/missing lead comes and cracked/broken glass quarries (Fig. 45). Painted comes to west window lower light and broken glazing above. Corroding frames, saddle bars and/or ventilation hoppers/sliders with likely damage to brick reveals. White-painted cills with paint failure

3.10 FLOORS

- 1 Chancel (floor and steps): Chancel floor at two levels, with steps having decorative ceramic tiling to risers (Fig. 46). Altar rail to upper step and pulpit to lower steps. Step up from nave removed to north side of church and with assumed white-painted stone step in two sections remaining on adjacent chancel floor. Red and assumed encaustic decorative tiles partly exposed by remaining south pew platform. Black and red ceramic tiles laid diagonally and with raised assumed painted stone base to pulpit. Step up to sanctuary of similar construction (e.g. assumed painted stone step with red and assumed encaustic tiles) with altar rail. Black and red tiles laid diagonally within sanctuary. Failing paint to both steps and general accumulation of debris to surfaces
- 2 Chancel (sub-structure): Construction beneath chancel floor visible within excavated north nave and appearing as brick vaulting (Fig. 37). Separate vaults assumed beneath upper and lower chancel floors. Observed vault with debris and crude ventilation opening into assumed east vault
- 3 Nave (floor): North section of floor has been excavated to expose sub-structure, with remaining timber pew platform kerb (Figs. 38 and 39). South pew platform remains, although much obscured by materials and debris. Risk of dampness and timber decay where platform abuts external south wall. Tiles present between platforms also largely obscured, but showing open joints along pew platform kerbs and surface erosion in front of doorway. Section of lifted timber floor to south-west corner shows timber plates on brick sleeper walls with sub-floor voids and accumulated debris (Fig. 40). Blue edging tiles around lifted floor may indicate specific feature
- 4 Nave (sub-structure): Excavated north section of floor shows brick sleeper walls and sub-floor voids ventilated by ventilation grilles to external walls. Sleeper walls run on east/west axis beneath north pew platform kerb (assumed one-brick thick), alongside external north wall (half-brick thick, leaving 100mm gap between walls) and on central line beneath former north pews (half-brick thick). Central wall has been largely taken down. Ventilation holes are present within inner (4 no.) and outer (at least 1 no.) sleeper walls, assumed to provide through ventilation to all sub-floor voids. Gap between outer sleeper wall and external north wall partly filled with debris, with risk of lateral moisture penetration and reduced ventilation. Dividing wall on north/south axis to east, partly removed and providing observation of vault beneath chancel floor. Voids at least 900mm deep (i.e. beneath tiled floor level). Observed sub-structure of sleeper walls is assumed to continue beneath remaining central and south sections of floor
- 5 Porch: Stone step (75m up from concrete path into porch) showing biological growth and surface spalling. Black and red tiles laid diagonally within porch showing staining and biological growth beneath archway and adjacent to external elevations. Open and/or defective tile joints adjacent to outer step with limited damage to abutting tiles. Stone step (140mm up into nave with 10mm step down on to nave floor), with biological growth to base of inner step and spalling to a number of tiles

3.11 FIXTURES AND FITTINGS

3.11.1 Chancel

- 1 Altar steps: Chancel at 2 no. levels with steps having decorative ceramic tiles to risers. Altar rail to east step leading into sanctuary and pulpit located on west step
- 2 Altar rail: Timber altar rail with missing hinged central section on 4 no. timber supports with pierced brackets (Fig. 46). Ends of rail penetrate brickwork to north and south with potential risk of decay. Damage to remaining stub of hinge serving missing central rail section
- 3 Pulpit: Timber pulpit with plain and pierced panels showing localised damage and previous cable clips (Figs. 47 and 48). Pulpit supported on a timber boarded floor over a white painted stone or concrete stepped plinth. Butterfly wings on pulpit floor may indicate bats

3.11.2 Nave

- 1 Floor tiles: Tiling to central part of nave floor between north (removed) and south pew platforms. Surface much obscured by materials and debris, but showing open joints and erosion adjacent to doorway. Coloured edging tiles around lifted section of floor to south-west corner of nave
- 2 Pew platforms: North platform has been removed and the floor excavated to reveal sub-floor voids. A damaged timber shaft remains to the platform kerb opposite the doorway. The remaining south platform is largely obscured by stored materials (assumed parts of north platform), and shows open mortices indicating possible position of former bench seat or pew ends. All timbers embedded in or adjacent to external walls is at risk of decay

3.11.3 Porch

- 1 Notice board: Timber notice board fixed to west wall stating 'Official Notice Board' (Fig. 49)

4 RECOMMENDATIONS

EXTERNAL

4.1 LOCATION AND SITE

- 1 Location: Investigate risk of flooding from highway and/or surrounding land, and allow mitigation in proposed landscaping of site
- 2 Boundaries: Trim boundary hedge (with reference to planning permission conditions 4 and 6). Repair, prepare and decorate metal railings and gate
- 3 Site: Cover open excavation. Collect and dispose of rubbish. Protect trees during construction phase (with reference to planning permission condition 2). Prune trees as necessary to remove dead and diseased branches and reduce shading and leaf-fall on to building (with reference to planning permission condition 3). Remove vegetation from elevations and adjacent ground surfaces. Allow for lowering raised ground levels (with reference to original levels and foundations). Allow for landscaping and planning of site (with reference to planning permission conditions 5 and 6)

4.2 ROOF COVERINGS

4.2.1 General

- 1 General: Allow for consideration of repair versus re-laying roof coverings, including formation of ventilated cold or warm roof construction with reference to user requirements and compliance with building regulations
- 2 Assumption: It is assumed that, for the purposes of this report, the existing nave/chancel and porch roof coverings will be lifted and re-laid to allow for compliance with building regulations

4.2.2 Nave/chancel

- 1 Option for re-laying roof covering: Lift and set aside ridge tiles, slates, ventilators and leadwork. Allow for repair or replacement of roof structure as necessary. Form insulated roof to comply with building regulations (assumed warm roof) (e.g. thermal insulation, vapour barrier, membrane, eaves support), allowing for all necessary modifications to verges, valleys and flèche. Allow for repair or replacement of sarking boards to projecting eaves. Re-cover roof using salvaged slates, without reinstatement of ventilators, and matching second-hand slates to make up deficiencies. Allow for use of slate-and-a-half at verges. Re-bed ridge tiles, including repair or replacement of damaged tiles. Form flashings, valleys and weatherings with new leadwork to LSA guidance. Inspect and re-fix crosses, including allowance for repair and decoration. Allow for modification of cross penetration through roof covering and for flashings as necessary to protect roof penetrations. Retain or remove bell rope guide through covering

4.2.3 Porch

- 1 Option for re-laying roof covering: Lift and set aside ridge tiles, slates and leadwork. Allow for repair or replacement of roof structure as necessary. Form insulated roof to comply with building regulations (assumed warm roof) (e.g. thermal insulation, vapour barrier, membrane, eaves support), allowing for all necessary modifications to verge and valleys. Allow for repair or replacement of sarking boards to projecting eaves. Re-cover roof using salvaged slates and matching second-hand slates to make up deficiencies. Allow for use of slate-and-a-half at verge. Re-bed ridge tiles, including repair or replacement of damaged tiles. Allow for supply of matching ridge tiles to make up deficiency. Form flashings, valleys and weatherings with new leadwork to LSA guidance. Allow for modification of ridge/valley detailing. Inspect and re-fix cross, including allowance for repair and decoration. Allow for modification of cross penetration through roof covering and for flashing as necessary to protect roof penetration

4.2.4 Flèche

- 1 Timber structure: Allow for exposure and detailed inspection of timber structure to determine construction and condition. Allow for repair or replacement of damaged or decayed members and boarding, including revised fixings. Retain or replace sheet metal weatherings, including revised detailing for any change in roof covering (e.g. raised for warm roof construction). Prepare and decorate timbers
- 2 Bell and bell hanging: Inspect assumed bell and bell hanging. Retain or remove. Allow for repair or replacement of hanging assembly if retained. Allow for securing bell (assumed not required for chiming), removal of chiming rope, and removal or closure of rope guide through roof covering
- 3 Roof covering: Assume replacement of assumed lead sheet covering, including all necessary rolls and clips, to comply with current LSA guidance
- 4 Wind vane: Allow for repair and decoration of damaged wind vane, including sealed bearing or greasing point
- 5 Lightning protection system: Retain or remove existing system, based on risk assessment. Allow for inspection, testing and certification of system, including replacement of down conductor with sheathed colour-matched conductor and provision of accessible earthing point, to comply with current standards

4.3 RAINWATER DISPOSAL SYSTEM

4.3.1 Nave/chancel

- 1 General: Allow for inspection, testing and recording of existing below-ground drainage system. Locate and assess outfall(s). Allow for repair or replacement of drainage system, including outfalls, to comply with building regulations. Allow for formation of raised gulleys with gratings set within brick surrounds taking discharge from downpipes to existing or new outfall(s)
- 2 North: Replace existing eaves guttering, swan neck and downpipe with painted cast-iron or cast-aluminium rainwater goods, including all necessary brackets and fixings, to discharge via shoe into gully

- 3 South (main roof): Replace existing eaves guttering, swan necks and downpipes with painted cast-iron or cast-aluminium rainwater goods, including all necessary brackets and fixings, to discharge via shoes into gulleys. Revise detailing to avoid open discharge into porch valley gutter and potential trap for debris
- 4 South (west bay): Replace existing eaves guttering, swan neck and downpipe with painted cast-iron or cast-aluminium rainwater goods, including all necessary brackets and fixings, to discharge via shoe into gulley. Revise detailing to avoid open discharge into porch valley gutter and potential trap for debris

4.3.2 Porch

- 1 General: Allow for inspection, testing and recording of existing below-ground drainage system. Locate and assess outfall(s). Allow for repair or replacement of drainage system, including outfalls, to comply with building regulations. Allow for formation of raised gulleys with gratings set within brick surrounds taking discharge from downpipes to existing or new outfall(s)
- 2 East: Replace existing eaves guttering, hopper and downpipe with painted cast-iron or cast-aluminium rainwater goods, including all necessary brackets and fixings, to discharge via shoe into gulley
- 3 West: Replace existing eaves guttering, hopper and downpipe with painted cast-iron or cast-aluminium rainwater goods, including all necessary brackets and fixings, to discharge via shoe into gulley

4.3.3 Flèche

- 1 General: No specific recommendations

4.4 ELEVATIONS

4.4.1 General

- 1 Replacement bricks: Allow for selection of suitable matching second-hand bricks for repairs with reference to planning permission condition 9
- 2 Unobserved brickwork: Allow for replacing damaged bricks and re-pointing open and/or defective joints to unobserved brickwork (e.g. low-level elevations obscured by vegetation)

4.4.2 Nave/chancel

- 1 North (chancel): Remove vegetation and biological growth. Prepare and re-point open and/or defective joints at high level beneath projecting eaves. Retain or replace previous cementitious mortar repairs to upper north-east corner. Clear ventilation grilles
- 2 North (buttress B1): Remove vegetation and biological growth. Repair upper and lower stage weathering, allowing for partial dismantling and re-building of upper offset to assist in drying down structure. Replace damaged bricks. Prepare and re-point open and/or defective joints

- 3 North (nave): Remove vegetation and biological growth. Remove redundant fixings, cables and clips. Prepare and re-point open and/or defective joints at high level at high level beneath projecting eaves and around ventilation grilles. Clear ventilation grilles
- 4 North (windows): Repair damaged cill beneath double window (W1)
- 5 East (chancel): Repair or replace 2 no. ventilation grilles (2 no.), including building up openings if not required. Remove redundant fixings. Clear ventilation grilles
- 6 East (window): Repair damaged cill beneath north light (W5)
- 7 South (chancel): Remove vegetation and biological growth. Build up void to upper south-east corner. Replace damaged bricks. Prepare and re-point open and/or defective joints. Clear ventilation grilles
- 8 South (buttress B2): Remove vegetation and biological growth. Prepare and re-point open and/or defective joints to stage weatherings
- 9 South (nave): Remove vegetation and biological growth. Replace damaged bricks. Prepare and re-point open and/or defective joints adjacent to downpipe and around ventilation grilles. Replace previous cementitious repairs to upper south-west corner. Clear ventilation grilles
- 10 South (windows): Repair damaged cill beneath double window (W8). Prepare and point fine cracking to chancel window arch (W8)
- 11 West (nave): Remove vegetation and biological growth. Repair or replace 2 no. ventilation grilles (2 no.), including building up openings if not required. Investigate cracking beneath window (W9). Allow for structural repair. Replace damaged bricks. Replace previous cementitious repairs between grilles. Remove redundant fixings. Retain or remove cables and cable fixings, including making good damage to brickwork. Clear ventilation grilles
- 12 West (window): Repair damaged cill beneath window (W9)

4.4.3 Porch

- 1 East: Remove vegetation and biological growth. Replaced damaged bricks. Prepare and re-point open and/or defective joints
- 2 South: Remove vegetation and biological growth. Prepare and re-point open and/or defective joints
- 3 West: Remove vegetation and biological growth. Replace damaged bricks.

4.5 GROUND SURFACES

- 1 General: Remove vegetation from ground surfaces adjacent to elevations. Allow for lowering raised ground levels (with reference to original levels and foundations)
- 2 Path: Repair concrete path from site entrance to porch

INTERNAL

4.6 ROOF STRUCTURES

4.6.1 Flèche

- 1 Timber structure: See 4.2.4(1)

4.6.2 Nave/chancel

- 1 Roof structure: Investigate timber structure, with particular emphasis on high risk members (e.g. purlin bearing ends, wall plates, corbels, rafter feet, timbers against brickwork). Allow for repair or replacement of damaged or decayed timbers, including exposed eaves boards. Repair or replace lath and plaster panels. Retain or remove ventilator and rope guide, including blocking off if not required. Remove light fittings, cabling and fixings. Prepare and decorate timbers and panels as necessary. See 4.2.2(1)

4.6.3 Porch

- 1 Roof structure: Investigate timber structure, with particular emphasis on high risk members (e.g. wall plates, rafter feet, timbers against brickwork). Allow for repair or replacement of damaged or decayed timbers, including exposed eaves boards.. Repair or replace sarking boards. Remove light fitting, cabling and fixings. Prepare and decorate timbers as necessary. See 4.2.2(2)

4.7 WALLS

4.7.1 Nave/chancel

- 1 General: Allow for consideration of intended appearance and presentation of interior with regard to proposed layout and usage (e.g. exposed brickwork, decorated brickwork, plastered and decorated brickwork). Allow for required works (e.g. cleaning, plastering, decorations)
- 2 Sub-floor walling: Where exposed, allow for collection and removal of all debris and clearance of ventilation grilles to ensure through ventilation of voids
- 3 North: Investigate cracking through head of chancel window (W1) and horizontal cracking above floor. Allow for structural repairs. Remove redundant fixings. Replace damaged bricks. Prepare and re-point open and/or defective joints. Allow for moving of electricity supply meter and board
- 4 East: Allow for retention of painted banner, including conservation as necessary. Retain or replace ventilators. Remove redundant fixings. Replace damaged bricks. Prepare and re-point open and/or defective joints
- 5 South: Remove redundant fixings. Replace damaged bricks. Prepare and re-point open and/or defective joints
- 6 West: Investigate cracking to window cill and lower brickwork and assumed previous cracking to upper gable. Allow for structural repairs. Retain or replace ventilators. Remove redundant fixings. Replace damaged bricks. Prepare and re-point open and/or defective joints

4.7.2 Porch

- 1 North: Remove biological growth from brickwork. Investigate cracking over doorway (D2). Allow for structural repairs. Remove redundant fixings. Replace damaged bricks. Prepare and re-point open and/or defective joints
- 2 East: Remove biological growth from brickwork. Remove redundant fixings. Replace damaged bricks, including lancet light. Prepare and re-point open and/or defective joints
- 3 South: Remove biological growth from brickwork. Investigate cracking at archway springing and possible cracking to west. Allow for structural repairs. Remove redundant fixings. Replace damaged bricks. Prepare and re-point open and/or defective joints
- 4 West: Remove biological growth from brickwork. Remove redundant fixings. Replace damaged bricks, including lancet light. Prepare and re-point open and/or defective joints

4.8 DOORS

- 1 Porch: Allow for assumed removal of modern mesh outer doors and frame (D1) and replacement with designed and detailed new secure external door frame, leaf(s) and ironmongery to allow for habitable use of porch
- 2 Nave: Reinstate at least 2 no. missing fixings from upper strap hinge. Allow for limited repair and re-decoration of door leaf. Allow for provision of secure ironmongery

4.9 WINDOWS

- 1 General: Commission inspection and report by competent glazier covering repair and refurbishment of windows, plus options for ventilation and secondary glazing. Allow for preparation, submission and formal approval of design and detailing of any proposed secondary glazing (with reference to planning permission condition 10)
- 2 Chancel: Repair paired windows to north (W1) and south (W8) walls, and three-light window (W5) to east wall, including ventilation hoppers and sliders. Allow for repair or replacement of leaded lights, frames, saddle bars and/or ventilation hoppers/sliders. Allow for repairs to unobserved external brickwork, heads and sills. Allow for repairs to internal brick reveals. Allow for removal of white paint to cills or re-decoration
- 3 Nave: Repair paired windows to north (W2, W3 and W4) and south (W6 and W7) walls, and single lancet window (W9) to west wall, including ventilation hoppers and sliders. Allow for repair or replacement of leaded lights, frames, saddle bars and/or ventilation hoppers/sliders. Allow for repairs to unobserved external brickwork, heads and sills. Allow for repairs to internal brick reveals. Allow for removal of white paint to cills or re-decoration

4.10 FLOORS

- 1 Chancel (floor and steps): Depending on intended use of chancel, allow for lifting steps and tiles and forming new solid floor(s), with or without steps, to comply with current building regulations. Allow for underfloor heating as necessary. Allow for re-laying tiles if required. If retaining existing floor, allow for reinstatement of steps, with repair as necessary, removing paint from steps or re-decoration, and replacing damaged tiles

- 2 Chancel (sub-structure): Investigate floor construction and condition. Collect and remove all debris from sub-floor voids. Clear ventilation holes and where necessary form additional through ventilation paths. Replace damaged bricks. Allow for integration of building services as necessary, including permanent access for repair and maintenance
- 3 Nave (floor): Depending on intended use of nave, allow for lifting south pew platform and tiles and forming new solid floor(s) to comply with current building regulations. Allow for underfloor heating as necessary. Allow for re-laying tiles if required. If retaining existing floor, allow for reinstatement of tiles, with repair as necessary, and forming new floors beneath platforms
- 4 Nave (sub-structure): Investigate floor construction and condition. Collect and remove all debris from sub-floor voids, especially from gaps adjacent to external walls. Clear ventilation holes and where necessary form additional through ventilation paths. Re-build damaged or removed sleeper walls. Replace damaged bricks. Allow for integration of building services as necessary, including permanent access for repair and maintenance
- 5 Porch: Depending on intended use of porch, allow for lifting tiles and forming new solid floor and steps to comply with current building regulations. Allow for re-laying tiles if required. If retaining existing floor, allow for removal of vegetation and biological growth, preparing and pointing/grouting open and/or defective joints, and replacing damaged tiles

4.11 FIXTURES AND FITTINGS

4.11.1 Chancel

- 1 Altar steps: Reinstate and repair lower step (dependent on intended internal layout)
- 2 Altar rail: Retain or remove timber altar rail and supports (dependent on intended internal layout). Allow for repair of rail if retained. Allow for infill of rail penetrations to north and south walls and repair of step/floor if removed
- 3 Pulpit: Retain or remove pulpit and base (dependent on intended internal layout). Remove clips and allow for repair of timber structure and removal of paint or re-decoration of base if retained. Allow for making good damage to walls and step/floor if removed

4.11.2 Nave

- 1 Floor tiles: Retain or remove tiling (dependent on intended internal layout). Allow for making good damage if retained. Allow for lifting and setting aside for salvage if removed
- 2 Pew platforms: Allow for assumed removal of pew platforms and setting aside for salvage (dependent on intended internal layout).

4.11.3 Porch

- 1 Notice board: Retain board or record and remove

4.12 PROPOSED CONVERSION TO RESIDENTIAL USE

4.12.1 Principles of alteration and repair

- 1 Basis for principles of alteration and repair: The following principles are given as a guide to the conversion of the church to residential use, and are intended to promote discussion rather than make a specific statement of intention
- 2 Scope of conversion: The success of converting this simple building lies in the simplicity and flexibility of its conversion, working with the building rather than imposing modern requirements and standards on it
- 3 Nature of conversion: The building, wherever possible, should remain looking as a church from the outside with sympathetic like-for-like repairs and limited modern interventions. Internal arrangements should preclude horizontal division of windows by upper floor(s)
- 4 Internal layout: The building provides limited space, with fixed points being the chancel steps, pulpit and pew platforms. The design of the internal layout, including horizontal and vertical sub-division, must be handled with care and be based on a detailed user requirement study to optimise space for actual, rather than perceived, needs. Where double-height accommodation is required, this should be limited to either one or both ends of the building, allowing for retention of double-height space where possible
- 5 Repairs: Although unlisted, the building has merit and the existing planning permission includes specific conditions regarding repair methods, material selection and standards of workmanship
- 6 Building regulations: Much potential damage may be caused by compliance with current building regulations and it is recommended that early discussion be held with conservation, planning and building control officers to agree the scope of required works. Use of an approved private building inspector, rather than local authority building control officer, may provide flexibility in the nature and extent of required works. This may include consideration of trade-offs, even with this unlisted building, such that external walls might remain uninsulated, but increased insulation be provided within roofs and floors
- 7 Roof insulation: Compliance with building regulations will require insulation of the roof. Assuming the underside of the roof is to be retained rather than hidden by ceilings, options are for a ventilated cold roof or a warm roof construction. If the existing roof covering is to be lifted and replaced, and there is a need/wish to retain lath and plaster ceiling panels, it is feasible to form a warm roof using modern multi-layer insulation products. This may require the roof covering to be raised, but with careful detailing this will have minimal visual effect and minor modification at verges, valleys and flèche
- 8 Heating: Depending on the required appearance and presentation of internal spaces, and the need for compliance with building regulations, there are options for heating. This may include use of a ground source heat pump system, with bore hole or ground loop within adjacent land (assumed in the same ownership) serving an underfloor heating system. This would provide background heating and make best use of the building thermal mass, but would be dependent on the intended pattern of occupation and use. Local heat emitters may also be required, such as bathroom tower rail. It is not considered necessary to provide a new chimneystack, with a boiler flue passing through the roof covering or wall

- 9 Service installations: Use should be used wherever possible of the wide wall heads above plate level and/or sub-floor voids for running cables and pipes. Lighting for instance, should be kept simple and away from the roof with cables run along the wall head and dropping down to up/down wall lighters
- 10 Use of porch: The porch provides useful accommodation and, with a suitable designed and detailed external door, could be used as habitable accommodation (e.g. entrance lobby)
- 11 Windows: Existing windows require extensive repair and conservation if they are to remain. Consideration should be given to improvements in energy conservation and security. Ventilation hoppers and sliders may be brought back into use, but fixed secondary glazing would preclude their use. Consideration should therefore be given to mechanical ventilation of the building (including mechanical extract ventilation of kitchen and sanitary accommodation). Window dressing will be complicated by the arched heads and deeply splayed reveals, but may be achieved with blinds or curtains within the window recesses
- 12 Wall surfaces: Existing exposed brick wall surfaces could be retained (with limited repair and cleaning), decorated with a suitable moisture vapour permeable finish (such as limewash or modified limewash plus specific finishes within kitchen and sanitary accommodation) or plastered and decorated
- 13 Procurement: Depending on standard and specific project requirements (i.e. time, quality, cost, user requirements), the sympathetic repair of this building will require a competent and experienced principal contractor (or sub-contractors). H+R can provide details of local and regional conservation contractors

4.12.2 Conditions attached to existing planning permission

- 1 Historic building recording: Allow for historic building recording, including preparation, submission and formal approval of written statement of investigation, with reference to planning permission condition 7
- 2 External lighting: preparation, submission and formal approval of external lighting scheme with reference to planning permission condition 8
- 3 Proposed internal layout and features: Allow for preparation, submission and formal approval of designs and detailing of proposed internal layout and features (e.g. staircases, dividing screens, decking and supports, gallery and balustrade) with reference to planning permission condition 11
- 4 Proposed external repairs and alterations: Allow for preparation, submission and formal approval of schedule of proposed external repairs and alterations (e.g. brickwork, re-pointing, new chimneystack, external door, flèche, rainwater disposal system, boundary railings) with reference to planning permission condition 12
- 5 Proposed internal repairs and alterations: Allow for preparation, submission and formal approval of schedule of proposed internal repairs and alterations (e.g. roof structure, brickwork, wall and floor finishes, pulpit) with reference to planning permission condition 13
- 6 Revocation of permitted development rights: Take account of revocation of permitted development rights with reference to planning permission condition 15

5 GENERAL RECOMMENDATIONS

All new and refurbishment detailing should be assessed for its effect on environmental and structural health. General principles are set out below. Special care is required when introducing new materials, moisture sources or heating and ventilation systems, for example air conditioning

5.1 ROOF AND SURFACE DRAINAGE

5.1.1 Maintenance

All guttering, hopperheads and outlets should be regularly checked and cleared to keep them free of debris, especially during the autumn months

5.1.2 Protection

Hopperheads, gutter outlets and ground gullies should be protected with metal mesh cages so as to prevent blockage and overflow. These should extend higher than the expected water level to reduce the tendency to block and should be easily removable to allow cleaning and maintenance

5.1.3 Overflows

Hopperheads, parapet gutter outlets and valley gutter outlets should be fitted with overflow pipes to drain water clear of the structure in case of blockage. These should be at a level below that at which water would overflow the roof flashings

5.1.4 Roof drainage calculations

Roof drainage calculations should be made to check the adequacy of gutters, drains and downpipes so that their capacities may be increased if necessary during refurbishment. H+R can carry out these calculations if required

5.1.5 Monitoring

The installation of an automatic monitoring and alarm system should be considered to give warning of blockage or overflow in the roof drainage system

5.1.6 Access

Safe and convenient access ladders, safety points and walkboards should be installed to all roof areas to allow proper inspection and maintenance

5.1.7 Pigeons

Feral pigeons should be controlled. H+R can give advice on this if necessary

5.2 VENTILATION

5.2.1 Structural voids

All structural voids within the building should be provided with adequate through ventilation so as to prevent moisture build-up. This must be done with regard to the applicable fire regulations

5.2.2 Chimneys

All chimneys not in use should be capped so as to minimise water ingress but so as to allow maximum ventilation of the flues. Flues should be cleared and cleaned to remove blockages. Fireplaces and chimney breasts should be opened or vented to allow through-ventilation of the flues. This prevents moisture build-up in the flues and helps interior ventilation by the stack effect

5.2.3 Bathrooms and kitchens

All bathrooms and kitchens should be fitted with adequate extractor fan systems. These should run for at least fifteen minutes after occupancy to prevent condensation. The installation of floor drains should be considered in these rooms in case of overflow

5.2.4 Roof spaces

All roof spaces, including flat roof areas and gutter soles, should be provided with adequate through-ventilation. This may occur via the gaps between slates in unsarked pitched roofs. However, flat roofs and pitched roofs with sarking or insulation will require the installation of vents through the roof surfaces or at the eaves and ridges. Insulation material in roof spaces should be kept clear of external walls, gutter soles or timbers in contact with damp or potentially damp masonry

5.2.5 Windows

Windows should be refurbished so as to allow easy and convenient opening and closing by occupants in order to encourage proper ventilation of the building. This is important both for environmental and structural health. Windows should be fitted with security locks so as to allow secure locking in a partially opened position

5.3 STRUCTURAL DETAILING

5.3.1 New timbers

New timbers should be isolated from any damp or potentially damp masonry with a damp proof material or ventilated air gap

5.3.2 Timber repairs

Structurally decayed timbers should be removed or cut back to sound timber unless required for aesthetic reasons. Timbers should then be partnered or spliced as in section 5.3.1 above. If steel plates or hangers are used, they should be detailed so as to allow sufficient ventilated air gaps and drainage to prevent moisture build-up due to condensation. No timber preservation or remedial treatments should be required

5.3.3 Paint finishes

Moisture vapour permeable or 'microporous' paint finishes should be preferred for internal and external surfaces and woodwork. This is especially important on window timbers. To take advantage of the properties of such paints, the complete removal of old alkyd paint systems is recommended. Health and Safety: Special precautions should be taken during surface preparation of pre-1960s' paint surfaces as they may contain harmful lead. (Permoglaze MVP System, produced by Akze Nobel Decorative Coatings Ltd, is one example of a suitable opaque high build water-borne moisture vapour permeable paint system, consisting of an MVP primer undercoat and MVP acrylic gloss. There may be other similar products available)

Appendix A



Figure 1
General view of church from south, showing highway, hedge and railing boundary, cleared ground and static caravan.



Figure 2
General view of north and west elevations, with hedge and railing boundaries and mature trees. Note absence of boarding to window (W9).

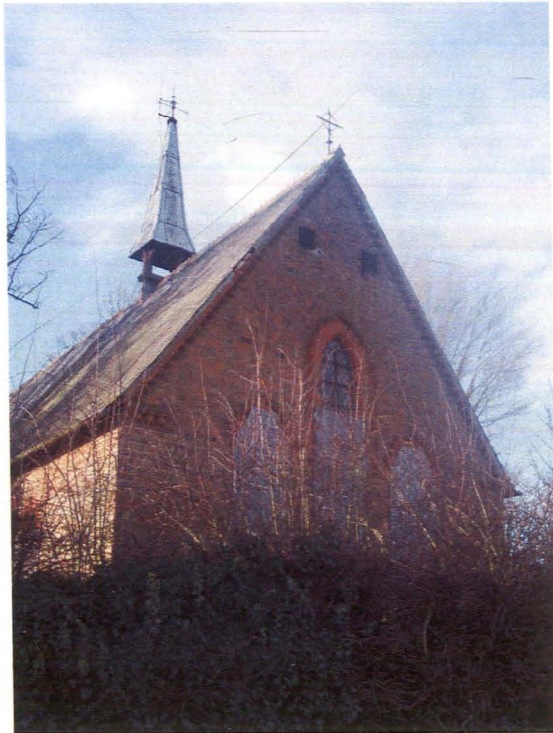


Figure 3
General view of upper east elevation, with hedge and boundary. Note boarding to window lights, excepting upper part of middle lancet (W5).



Figure 4
General view of south elevation, with path to porch and mature trees.



Figure 5
General view of south and west elevations, with hedge and railing boundaries and mature trees.



Figure 6
North nave/chancel roof covering, showing displaced slates and remedial tingles over assumed ventilator (arrow).



Figure 7
South nave/chancel roof covering, showing remedial tingles to slates and debris to porch valley gutter.



Figure 8
South nave/chancel roof covering, showing debris to porch valley gutter.



Figure 9
South nave/chancel roof covering, showing displaced slates and remedial tingles over assumed ventilator to west of flèche (lower arrow). Note lightning protection down conductor from flèche and assumed rope penetration for bell chiming (upper arrow).



Figure 10
General view of fleche, showing north and west faces. Note staining to assumed lead sheet roof covering.



Figure 11
General view of flèche,
showing south and east
faces, with lightning
protection down conductor
to south.



Figure 12
General view of north
elevation, looking east
and showing adjacent hedge
boundary, service pipe on
ground surface (see Fig.
13) and boarding over
windows.



Figure 13
Nave north elevation,
showing open excavation to
north-west corner of
building with service
connections.



Figure 14
Chancel north elevation,
looking west and showing
buttress (B1). Note staining
and biological growth to
buttress, being indicative of
saturation and with risk of
lateral moisture penetration
to interior.

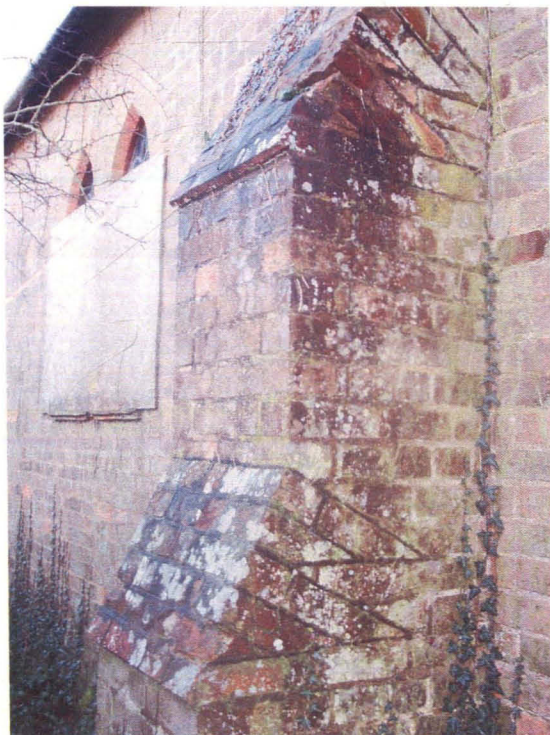


Figure 15
Chancel north elevation, looking east and showing boarding over window (W1), buttress (B1) with damage to upper offset. Note staining to buttress, being indicative of saturation and with risk of lateral moisture penetration to interior.



Figure 16
Nave north elevation, showing battered lower brickwork and invasive vegetation growth. Note partial blockage of ventilation grille serving internal sub-floor voids.



Figure 17
Upper chancel east elevation, showing damage to verge mortar (arrow) and failing mortar and/or brick displacement possibly associated with corrosion around ventilators.

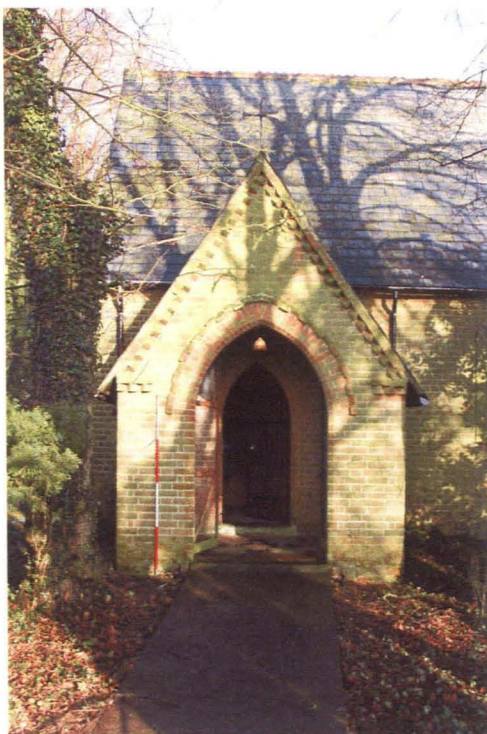


Figure 18
Porch south elevation, showing damaged path leading from gate to archway (D1).



Figure 19
Nave south elevation,
showing shared rainwater
hopper head and damaged
eaves slate course to porch
west slope (see Fig. 20).



Figure 20
Underside of projecting
eaves to porch west slope,
showing staining and fungal
decay to rafter feet and
sarking board beneath
damaged eaves slate
course (see Fig. 19).



Figure 21
Nave south elevation,
showing biological growth
around downpipe to east
side of porch.



Figure 22
Porch east elevation,
showing missing south
ridge tiles.



Figure 23
Nave south elevation,
showing buttress (B2) with
open and/or defective joints
to upper offset.

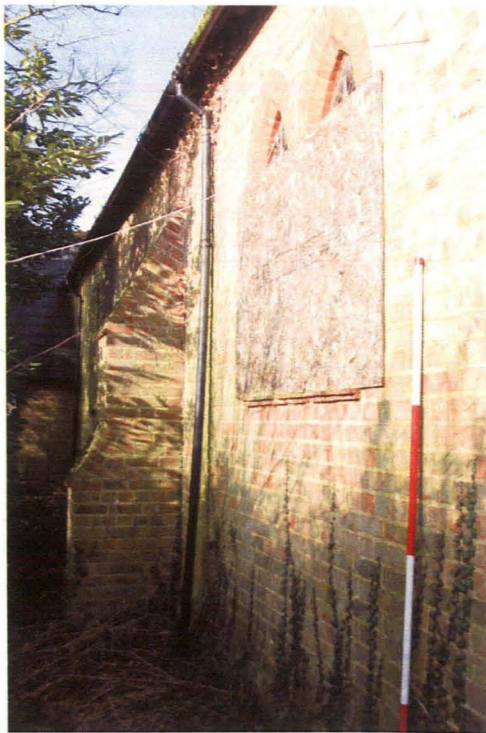


Figure 24
Chancel south elevation,
looking west and showing
buttress (B2) and rainwater
downpipe.

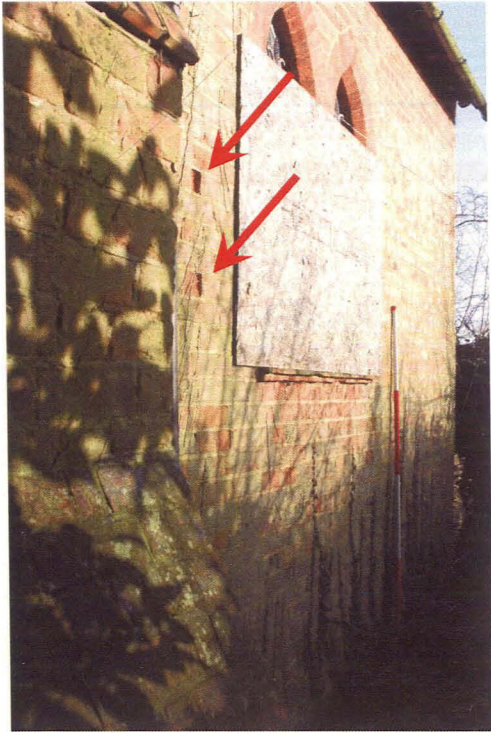


Figure 25
Chancel south elevation,
looking east and showing
boarding over window (W8).
Note individual spalling
bricks (arrows).



Figure 26
Upper chancel south
elevation, showing gap
beneath projecting eaves.

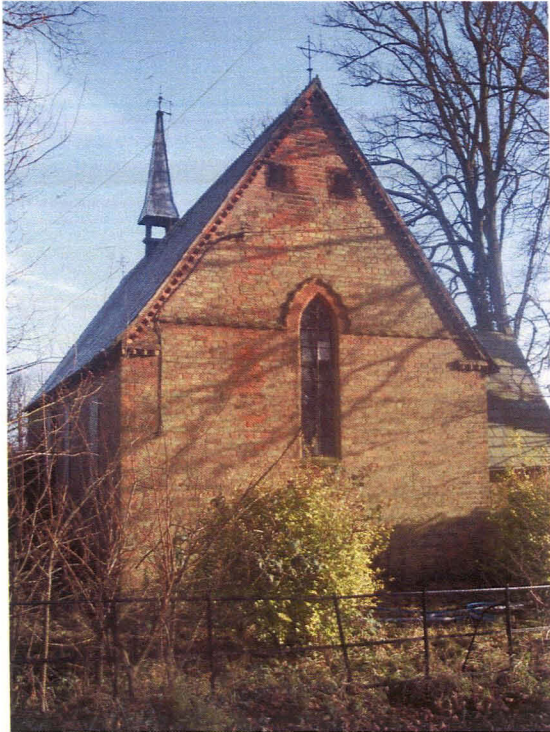


Figure 27
Nave west elevation,
showing ventilators, window
(W9) and overhead
electricity supply
penetrating elevation.



Figure 28
Upper nave west elevation,
showing failing mortar
and/or brick displacement
possibly associated with
corrosion around
ventilators.



Figure 29
General view of interior,
looking east into chancel
and showing roof structure,
excavated north nave floor,
altar rail, pulpit and east
window (W5).



Figure 30
General view of interior,
looking west into nave and
showing roof structure,
pulpit and west window
(W9).



Figure 31
Roof structure, showing
double truss on
chancel/nave division.



Figure 32
Nave roof structure,
showing trusses and
ventilator.



Figure 33
Chancel north wall, showing cracking over window (W1) (arrow).



Figure 34
Nave north wall, showing slate damp-proof course and ventilation grille below floor level, with staining and soluble salt crystallisation to lower wall within sub-floor void. Note sleeper wall and 100mm gap with debris.



Figure 35
Chancel east wall with painted banner stating 'Glory to God in the Highest' over window (W5).



Figure 36
Porch north wall, showing cracking over doorway (D2) (arrow). Note staining to porch ceiling panels, being indicative of dampness.



Figure 37
Chancel floor, with
observed vault (see Fig.
38). Note ventilation hole to
assumed eastern vault.

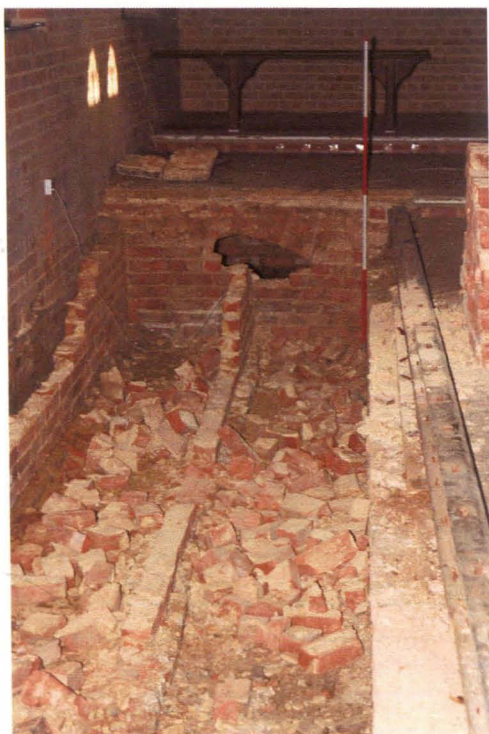


Figure 38
Nave floor, looking east and
showing removal of north
pew platform and
excavation of floor to
expose sleeper walls. Note
opening into chancel vault
(see Fig. 37).



Figure 39

Nave floor, looking west and showing removal of north pew platform and excavation of floor to expose sleeper walls.



Figure 40

Nave floor, showing lifted flooring to south-west corner to expose timber plates on sleeper walls with voids and debris. Note coloured edging tiles around floor.



Figure 41
Doorway D2, showing door
leaf with scroll hinges.

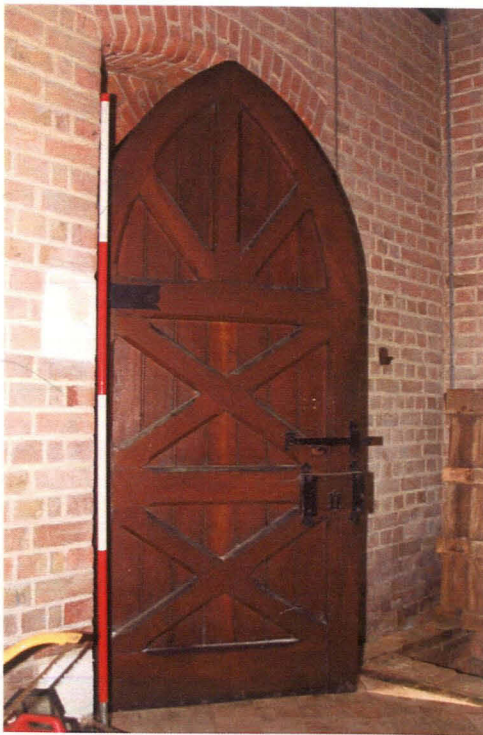


Figure 42
Doorway D2, showing door
construction and box lock.



Figure 43
Chancel paired window,
showing damage to leaded
lights and corrosion to
frames and ventilation
hopper/slider.



Figure 44
Chancel paired window,
showing damage to leaded
lights and corrosion to
frames and ventilation
slider.

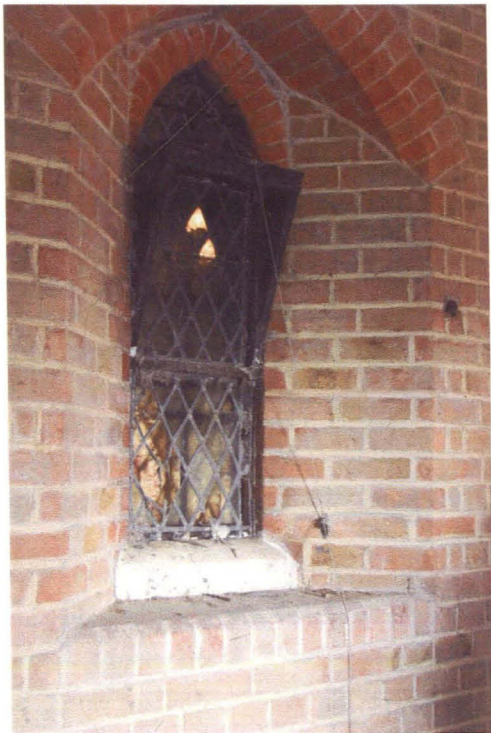


Figure 45
Nave window, showing
damage to leaded light and
corrosion to frame and
ventilation hopper.



Figure 46
Altar rail with missing
hinged central section, with
decorative ceramic tiles to
step riser and tiles to
chance/sanctuary floors.

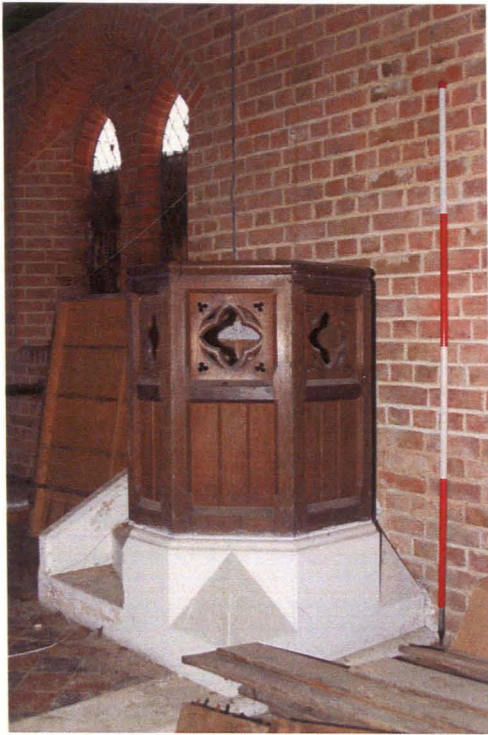


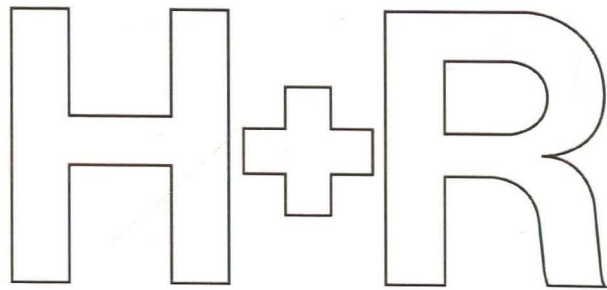
Figure 47
Pulpit, looking east and
showing timber structure on
assumed painted stone
base.



Figure 48
Pulpit, looking west and
showing open timber
structure on assumed
painted stone base abutting
south wall.



Figure 49
Notice board to porch west
wall. Note unidentified panel
to roof slope over board.

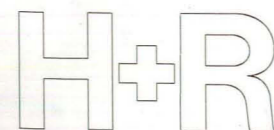
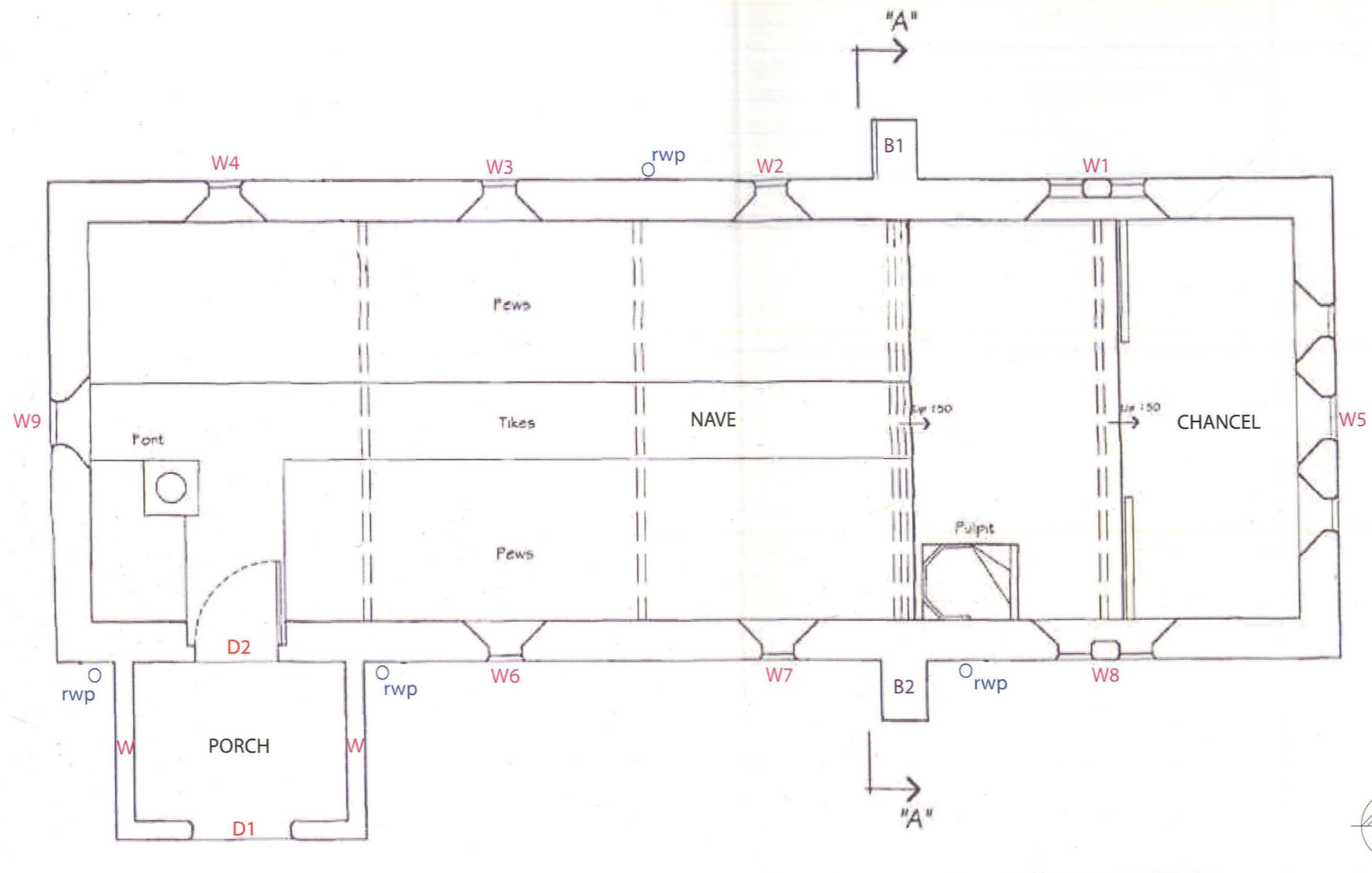


HOME TAILORING LIMITED

Condition survey of St Matthew's Church, Holbeach St
Matthew, Lincolnshire

431.20
18 January 2010

Appendix B



St Matthew's Church, Holbeach St Matthew, Lincolnshire
Plan

January 2010

Not to scale

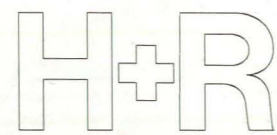
Hutton + Rostron Environmental Investigations Ltd, Netley House, Gomshall, Surrey, GU5 9QA
 Tel: 01483 203221 Fax: 01483 202911 email: ei@handr.co.uk
 431.20 Holbeach St Matthew_Plan.ai © Copyright Hutton+Rostron, 2010

- Key:
- D1 Door reference
 - W1 Window reference
 - B1 Buttress reference

Disclaimer:
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SEC
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18 JAN 2008
Ref: 0692108



St Matthew's Church, Holbeach St Matthew, Lincolnshire

Elevations and Section

January 2010

Not to scale

Hutton + Rostron Environmental Investigations Ltd, Netley House, Gomshall, Surrey, GU5 9QA

Tel: 01483 203221 Fax: 01483 202911 email: ei@handr.co.uk

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Key:

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