



DESIGN AND ACCESS STATEMENT

Proposals for cupola repairs and modifying north side rainwater goods.

at

**THE OLD CHURCH OF ST STEPHEN
FYLINGDALES
NORTH YORKSHIRE**

Agent:

Simmonsherriff LLP
Unit 10, 30-38 Dock Street,
Leeds
West Yorkshire
LS10 1JF

NYMNPA

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Design and Access Statement**Contents**

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1.0 Introduction

- 1.1 The purpose of this document is to provide a written explanation to accompany an application submitted for Listed Building Consent for works to the cupola, and north side rainwater goods at the Old Church of St Stephen, Fylingdales, North York Moors.

This document sets out the brief requirements and description of the design and access proposals.

- 1.2 The work proposed includes:

Repair and strengthening of the cupola and modification of the nave north side rainwater gutter and downpipes.

2.0 Requirements of the brief**2.1 Cupola**

The existing cupola is supported on eight continuous timber posts rising from inside the roof space. Over the years flashing around these posts to prevent water ingress where they go through the slates has proved difficult.

In early 2017 a survey was carried out on the cupola following reports of water leaks in the church. It was clear from the moisture, staining and decay that water had been running down these posts, and intermittently for quite some time.

On the roof the extent of the problem was clearer with most of the posts quite decayed in places. With the smooth faces of the timber posts decaying, and becoming rough, forming a weather-tight flashing around each post has become more difficult, allowing water to run down the posts and into the roof. Where extra flashings have been added to these posts they have ultimately not stopped the water from getting in but have inhibited the posts from drying out, promoting decay. During the 2017 survey the external cladding was dismantled to improve the ability of the posts to dry out, slowing down decay.

2.2 Nave north side rainwater disposal

Moisture levels in the church are high and evidence of dampness is clear, particularly in the chancel. This damp environment is causing damage to the fabric of the building and deterioration of internal furniture and fittings.

Work to improve conditions is on going, including removal and replacement of failed and gypsum plaster (already granted Listed Building Consent, decision no. NYM/2018/0328/LB) but there is concern that the existing arrangement for the north side rainwater disposal may be adding to the moisture.

On the north side of the Nave the cast iron gutter falls to two downpipes; one at the east, and one at the west end.

In the existing arrangement the east downpipe discharges into a stone channel at the foot of the nave wall, directing the water to a gully at the west end. It is assumed this gully discharges into a soak away in the churchyard. Unfortunately, as with many of these apron channels once popular at the foot of church walls, the stones have moved leaving them mis-aligned, and open joints. As a result most of the discharge from this downpipe goes into the ground and under the church.

3.0 Planning policies

3.1 Listing Description

IoE Number: 327705

Location: CHURCH OF ST STEPHEN, CHURCH LAND (east side)

FYLINGDALES, SCARBOROUGH, NORTH YORKSHIRE

Date listed: 06 October 1969

Date of last amendment: 06 October 1969

Grade I

FYLINGDALES CHURCH LANE NZ 9405 16/52 (east side) 6.10.69 – Church of St Stephen I Former Parish Church. 1821 rebuilding on medieval site. Course herringbone-tooled sandstone with ashlar dressings. Purple slate roof. Single-cell preaching box with small sanctuary; South porch and north vestry are early additions. Gothick style. Open-pedimented porch has segment-arched entrance with rusticated voussoirs. Sundial above has dates 1736, 1864 and 1919 with various initials. Wood side benches; and wide 6-panel double door with interlaced fanlight; keystone largely concealed by barrel vault of porch. 5-bay nave has pointed-arched windows, with glazing bars and interlaced heads, in architraves with impost. All rest on cill band except for shorter window above door. Small square-headed door in south chancel wall; east window similar and flanked by big stepped diagonal buttresses. North nave wall has 3 short windows, similar to that above door, lighting the gallery. West windows similar to east. Vestry has 15-pane fixed light with 2 opening panes. OSBM on south-east corner of nave. West bell-cupola had only its damaged wood frame remaining at time of survey. Interior; Complete late Georgian fittings. Panelled gallery, around north and west sides, rests on Roman Doric columns. Lateral south pulpit has sounding board and stairs with turned balusters and ramped handrail. Complete box pews, including one named for the Farsyde family with coat of arms. Various memorial tablets to the Farsyde family. Small early C18 font with low, cornical open cover.

3.2 In preparing the proposals that are subject of this application we have taken into account the requirements of the:

Planning (Listed Buildings and Conservation Areas) Act 1990

Historic England Good Practice Advice Guides (1, 2 & 3)

3.3 We believe the proposals do not harm the architectural or historic importance of the listed building; they do not harm the features that are specifically part of the listing, indeed will have a positive impact on the existing fabric of the building.

4.0 Informal pre-application consultations

Pre-application advice was sought from Mr Edward Freedman, of the Building Conservation Team via email (26th April 2017) on temporary repairs to the timber posts using stainless steel straps. Mr Freedman indicated that a Listed Building Consent application would not be required for any temporary repairs. Since this, proposals have developed resulting in a longer term solution including the replacement of sections of each post with galvanised steel sections.

As the works are no longer a temporary repair it is anticipated that a Listed Building Consent application is now required.

5.0 Site5.1 Churchyard

The Old Church of St Stephen sits to the west of Robin Hoods Bay, on the north edge of Fylingthorpe. In a fantastic but exposed position the church overlooks the bay and North Sea beyond.

The church was built in 1821 on a site used for worship since 11th century. In 1870, after a relatively short period it was replaced by a new church built in the centre of Fylingthorpe, also named after St Stephen.

The exposed churchyard is steeply sloped running down from north to south. It is heavily populated with large head stones. The churchyard is bounded on the north, east and west sides by dry-stone walls. To the south there is a stone retaining wall and wire fence marking the boundary with the adjacent field.

5.2 Existing building

The church plan consists of nave, chancel, vestry and south porch. An upper gallery is located at the west end of the nave and extends along the north side. While the altar is in the east end chancel, the pulpit is positioned half way along the nave on the south side. Pews are orientated towards the pulpit.

The church is built of dressed sandstone blocks and slate roof. Tooling to the ashlar is herringbone, in some areas this tooling incorporates a margin.

The nave is a simple space with flat plastered ceiling and box pews. Pointed arch timber windows light the space. The chancel is lit by a single east window of the same type and style as those in the nave. A door on the north side of the chancel leads to the vestry while a door on the south side gives direct external access. On the east corners of the chancel there are two very large masonry buttresses.

The churchyard slopes steeply down from north to south. The church is stepped into this slope and as a result the ground level on the north side is higher than internal floor levels (by approximately 1m). On the north side of the church a retaining wall provides a gap between external ground levels and the north wall. At the east end of the church the external ground level appears to abut the chancel.

5.3 Natural Features

None are affected by the proposed work.

5.4 Topography/Gradients

Typical with the area, the church is on a steeply sloping site. As a result, access around the site uses a combination of sloping paths and steps. No changes to the existing access arrangements are proposed.

6.0 **Design proposals**

6.1 Cupola

Proposals for the repair and strengthening of the existing cupola structure have been developed by us in conjunction with Mr Gez Pegram, a structural engineer accredited in Building Conservation (CARE). Work involves removing the central decayed sections of each of the eight timber post supports and replacing with purpose made galvanised steel sections. These steel sections will connect to the remaining lower sections of timber remaining in the roof space, and the upper post sections above the roof slates. Flashing around these square steel posts will be easier and more effective than the existing decayed timber posts. Two of the existing timber posts which are embedded in the masonry of the west gable wall will be replaced with stainless steel, rather than galvanised posts. Around the base of the cupola, just above the roof slates, horizontal oak boarding will be reinstated (Mr Freedman is aware this has been temporarily removed to improve air circulation around the posts and slow decay). This boarding will cover any sections of steel posts rising above the slates.

In the roof space, the structural engineer has proposed additional strengthening. This is to support existing cupola/roof timbers that have been affected by water ingress over the years and to add rigidity to the cupola supports.

6.2 Nave north side rainwater disposal

Modifications will involve removing the east cast iron downpipe and reconfiguring the existing gutter to fall westward. The existing downpipe at the west end of the nave will be replaced with a 100mm diameter cast iron downpipe. Where possible existing gutter brackets will be retained and adjusted. New brackets, if required, will be rise and fall type into masonry joints (pointed with 3.5NHL lime mortar). The east end gutter outlet will be replaced with a new stop end.

Redecoration of the gutters and downpipes will be with a long life metal paint, eggshell/satin finish, colour to best match existing (lead) colour.

7.0 **Accessibility**

7.1 The church of Old St Stephen is in an area where the natural topography is steep. As described above the church and churchyard is on a sloping site rising steeply from south to north. Access across the churchyard is by a stone path incorporating steps. From this path access into the church is through the south porch which also includes steps.

Given the nature and history of the existing site, and number and proximity of burials, it is difficult to see how access may be improved.

The present proposals do not alter the present access arrangements in and around the church.

7.2 Flood risk

Old St Stephens Church is in flood zone 1, having a *low probability of flooding*.

The proposed work will not affect existing circumstances.

8.0 Appendices

Appendix A - Cupola

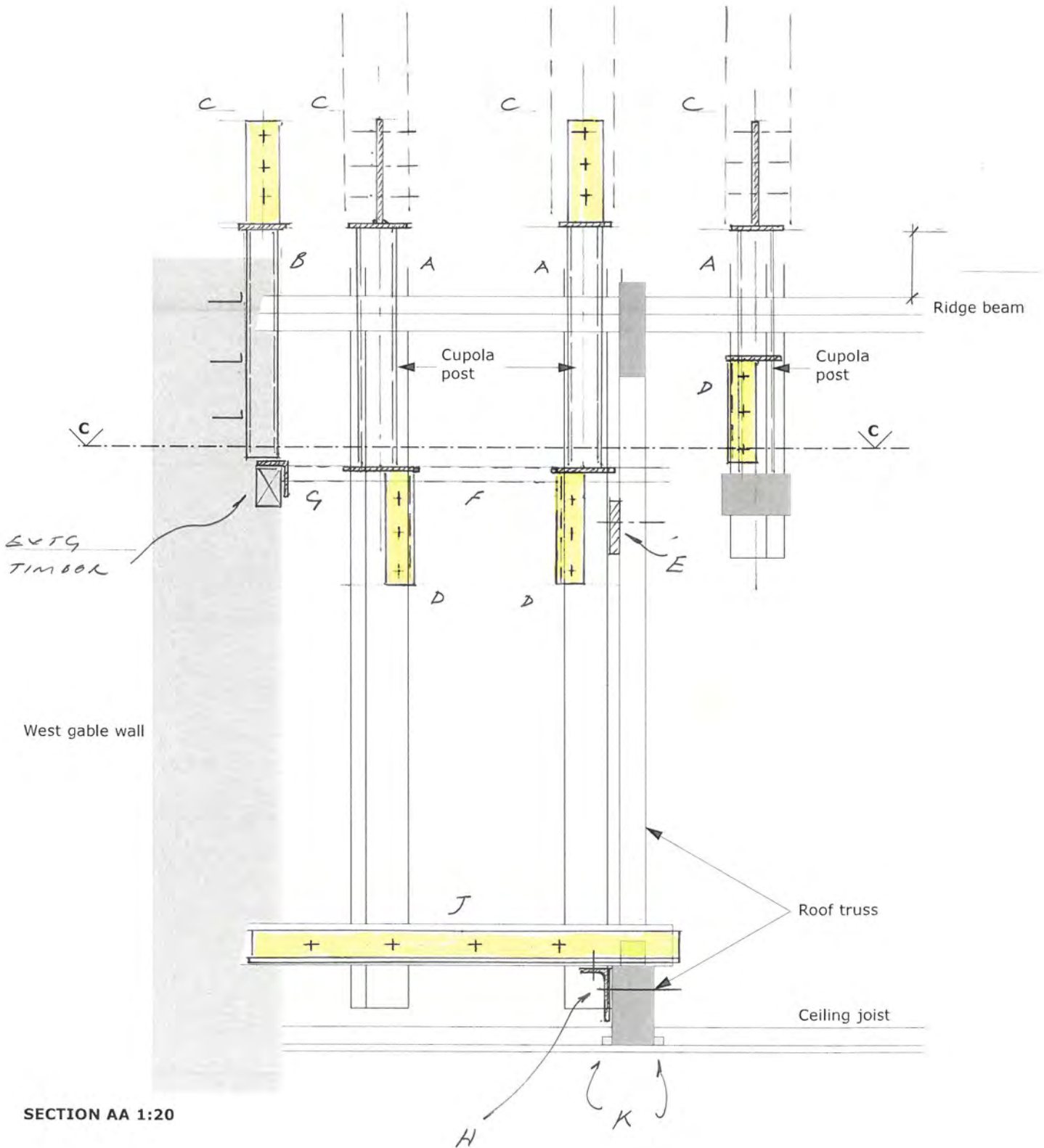
Structural Engineer's proposals
Photographs

Old St Stephens, Fylingdales

Structural proposals for Cupola Strengthening and flashing

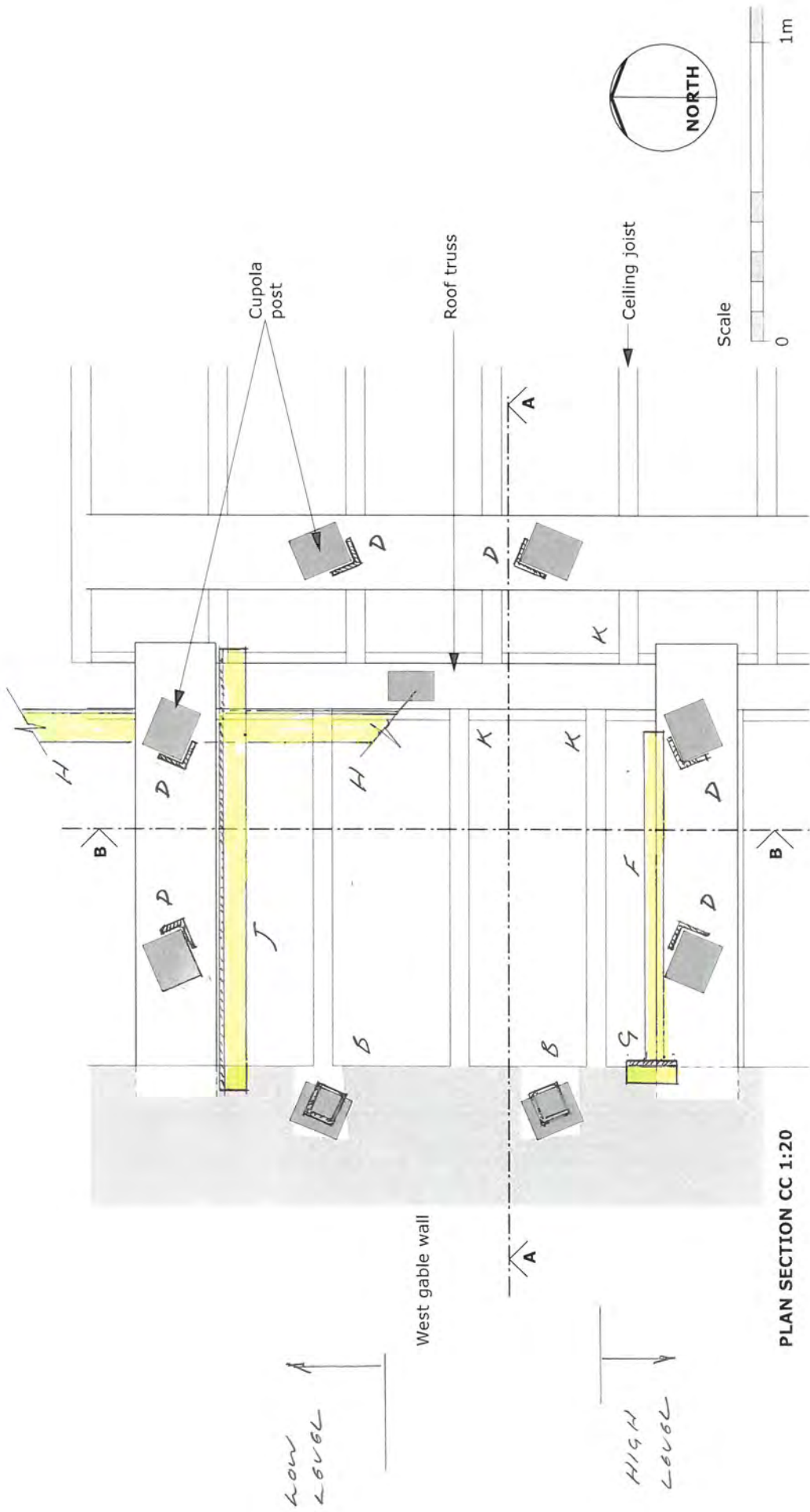
- All stud and fixings to be stainless steel (galvanized steel where noted).
- Welds minimum 6mm fillet weld.
- Check and confirm all dimensions on site prior to order and fabrication!

<i>Ref</i>	<i>Description</i>
A	120 x 120 x 8 SHS stub post sections penetrating through roof. Minimum 250mm projection beyond slates to allow flashing detail by Architect. Allow for 150 x 150 x 10mm cap and base plates.
B	120 x 120 x 8 SHS stub posts replacing timber posts embedded within gable. Allow for stainless masonry cramps to fix within wall. Minimum 250mm projection beyond slates to allow flashing detail by Architect. Allow for 150 x 150 x 10mm cap plate. Assume 300 x 150 x 10mm base plates with 2no. M16 resin fixings.
C	Assume 120 x 400 x 12mm fin plates, angled on plan to suit cupola post. Fix with 3no. M16 threaded stud. Final length and fixing detail to suit extent of decay in cupola timber.
D	100 x 100 x 8 RSA x 400mm lg. Fix to post 3no. M16 threaded stud.
E	Hardwood packs between two posts closest to truss. Bolt together with M16 threaded stud.
F	50 x 50 x 6 RSA. Welded lugs to fix to baseplates to posts (A). Provides lateral stability.
G	100 x 100 x 8 RSA x 150mm lg, welded to end of RSA (F). Bears onto timber embedded in wall. Fix 2no. M8 coach screws.
H	200 x 100 x 12 RSA to stiffen decayed bottom boom of truss. Estimated 3m long. Fixed with M12 threaded stud at 450mm ccs.
J	125 x 75 x 12 RSA to strengthen decayed timber post lintels. Fixed with M12 threaded stud at 300mm ccs. Bear on RSA (H) and fix with M16 bolt. Bear into gable wall minimum 100mm onto sound masonry.
K	Failing ceiling joist bearing on batten. Strengthen with stainless 65 x 65 Expamet BAT angle, robustly screwed.



SECTION AA 1:20

16851-4-SK-001-P1



16851-Y-SK-002-P1



Existing cupola, before investigation of water leaks and removal of horizontal boarding.



Behind the boarding there is quite a bit of decay in the timber support posts.



Decay in the timber was not helped by a lack of air movement preventing the posts to dry out.



Appendix B – Nave north side rainwater drainage

Photographs



North elevation - the nave gutter drains to a downpipe at each end before being channelled to a gully at the west end of the church. Proposals involve removal of the east (left downpipe). On the south side of the church there is a single downpipe at the east end.



North elevation of vestry and nave. A retaining wall and channel arrangement should direct water to a gully at the west end to discharge to the west of the church.



Unfortunately debris, open joints and mis-aligned channel stones allow much of the rainwater to drain into the ground, under the church.



Downpipes from the vestry and nave discharging on to the channel at the foot of the north wall.
While little can easily be done to redirect water from the vestry roof the nave gutter can be adjusted to discharge to the west downpipe only.

HERITAGE STATEMENT

THE OLD CHURCH OF ST STEPHEN FYLINGDALES NORTH YORKSHIRE

Agent:

Simmonsherriff LLP
Unit 10, 30-38 Dock Street,
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West Yorkshire
LS10 1JF

NYMNPA

05/12/2018

November 2018

This Heritage Statement accompanies the Listed Building Consent application for repairs to the cupola to west end of the Old Church of St Stephen, Fylingdales, North Yorkshire.

Sections of this statement are also included in the Design and Access Statement accompanying the application.

1.0 LISTING DESCRIPTION

Old St Stephen's church is listed grade I.

Listing Description

IoE Number: 327705

Location: CHURCH OF ST STEPHEN, CHURCH LAND (east side)

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2.0 THE CHURCH IN ITS ENVIRONMENT

The old Church of St Stephen stands to the northwest of Robin Hoods Bay, on the north edge of Fylingthorpe. In a fantastic and exposed position, the church overlooks the bay and North Sea beyond.

The church was built in 1821 on a site used for worship since 11th century. No illustrations of the earlier church are known but a description reported in a Council for the Care of Church report (18th July 1987) *'The chancel had heavy buttresses and a parapet with a lead roof and the nave had low walls with five small found-headed windows on the south side, square-headed windows on the north and a roof of stone slabs and pantiles; at the west was a stunted square tower. A gallery was reached by steps outside the west end.'*

Although completed in 1821 the church was replaced after a relatively short period with the construction of a new church in 1870, built closer to the centre of Fylingthorpe. This church is also named St Stephen.

Old St Stephen's served as a mortuary chapel for many years until, in 1917 a phase of repairs were carried out and it once again used for regular services. Further repairs were carried out in 1943. In 1984 both new and Old St Stephen's churches were damaged by storms resulting in the decision to vest Old St Stephen's in the Redundant Churches Fund (later to become The Churches Conservation Trust). Vesting completed in 1986.

2.1 Churchyard

Sited high above Robin hood's Bay the church is surrounded by a steeply sloping churchyard, down from north to south. The churchyard is filled with many headstones, many of which are older than the present church, some recording the burials of seafaring people in many parts of the world. An extension to the southern part of the churchyard was opened in 1870.

The churchyard is bounded on the north, east and west sides by dry-stone walls. To the south a stone retaining wall and wire fence marks the boundary with the adjacent field.

On the south side of the church a stone path crosses the churchyard, connecting east and west boundaries. Just south of the east gateway there is a small stone stable with pantile roof built for the rector's horse.

2.2 Church

The church plan consists of nave, chancel, vestry and south porch. From the listing it is understood the original plan consisted of nave and chancel, with vestry and south porch being early additions. An upper gallery is located at the west end of the nave and extends along the north side. While the altar is in the east end chancel, the three decker pulpit is positioned half way along the nave on the south side. The box pews face both east and west, towards the pulpit.

The church is built of dressed square sandstone blocks and slate roof. Tooling to the ashlar is herringbone, sometimes incorporating a margin, characteristic of late Georgian buildings in the areas.

The nave is a rectangular space lit by five pointed arch timber windows on the south side and tree point arched windows above the gallery on the north side. There is a similar window in the west wall although the top of this is blind, obscured by the gallery. The space is very simple. The plastered walls and ceiling have no mouldings, plinths or cornices. At the east end a simple round-headed arch leads through to the chancel. In the southwest corner of the nave an enclosed area houses a collection of 19th century Maiden's garlands.

The chancel is lit by a single east window of the same type and style as those in the nave. As the nave, the walls and ceiling are flat plastered with no cornice or mouldings. A door on the north side of the chancel leads to the vestry while a door on the south side gives direct external access.

The interior of the church remains largely untouched with many of its fittings surviving from 1821, including the gallery and box pews.

The church is stepped into the slope of the churchyard and as a result, the ground level on the north side is higher than internal floor levels (by approximately 1m). On the north side of the church a retaining wall provides a gap between external ground levels and the north wall. At the east end of the church the external ground level appears to abut the chancel.

3.0 PROPOSALS

3.1 Existing conditions

Proposals consist of two separate items on the church; repairs to the cupola at the west end of the roof, and modification of the existing gutter on the north side of the nave.

Cupola

The existing cupola is supported on eight continuous timber posts rising from inside the roof space. In the listing of 6th October 1969 the description notes '*West bell-cupola had only its damaged wood frame remaining at time of survey.*'

Over the years flashing around these posts to prevent water ingress where they go through the slates has proved difficult. In early 2017 a survey was carried out on the cupola following reports of water leaks in the church. It was clear from the moisture, staining and decay that water had been running down these posts, and intermittently for quite some time.

On the roof the extent of the problem was clearer with most of the posts quite decayed in places. With the smooth faces of the timber posts decaying and becoming rough, forming a weather-tight flashing around each post has become more difficult, allowing water to run down the posts and into the roof. Unfortunately where extra flashings have been added to these posts they have not stopped the water from getting in, but have inhibited the posts from drying out, promoting decay. During the 2017 survey the external cladding was dismantled to improve the ability of the posts to dry out, slowing down decay.

Nave north side gutter

At the east end of the church in the Chancel the interior of the church suffers from high levels of moisture. Work to improve conditions is on going, including removal and replacement of failed and gypsum plaster (already granted Listed Building Consent, decision no. NYM/2018/0328/LB) but there is concern that the existing arrangement for the north side rainwater disposal may be adding to the moisture.

On the north side of the Nave the cast iron gutter falls to two downpipes; one at the east, and one at the west end.

In the existing arrangement the east downpipe discharges into a stone channel at the foot of the nave wall, directing the water to a gully at the west end. It is assumed this gully discharges into a soak away in the churchyard. Unfortunately, as with many of these apron channels once placed at the foot of church walls, the stones have moved leaving them mis-aligned, and open joints. As a result most of the discharge from this downpipe goes into the ground and under the church.

3.2 Outline of proposals

Cupola

Working with a structural engineer accredited in Building Conservation (CARE) the following proposals have been developed to strengthen support for the cupola and provide a more reliable and effective method of flashing around the post supports.

Existing decayed sections of the timber posts are to be cut out and replaced with a section of galvanised steel post. These steel sections will penetrate the slates providing a good surface to flash successfully. Above the slates the horizontal timber boarding will be re-instated, covering the steel post sections. Inside the roof space some additional galvanised steel angles have been proposed by the structural engineer to provide extra bracing to the cupola post supports and provide strengthening to some of the other decayed timbers.

Gutter and downpipe

On the north side of the nave the existing east downpipe will be removed and the gutter modified to fall westwards.

4.0 SUMMARY

The application for Listed Building Consent is for work to repair and strengthen support to the cupola and improves the weathering detail to help prevent water ingress into the roof. It is also for modifying rainwater goods on the north side of the nave, to better direct water to the west end of the church where it can be discharged into the churchyard rather than directly under the church.

For photographs please refer to the Design and Access Statement, appendices.