

The Black Barn  
Eckford

**Structural Inspection Report**

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Goodson  
Associates

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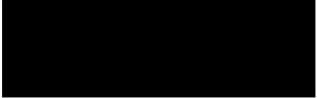
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## 1.0 Introduction

Goodson Associates were appointed by Buccleuch Estates to undertake a structural inspection of the Black Barn in Eckford, Scottish Borders. This report summarises the findings of our survey.

This report has been prepared based on a visual non-disruptive walk round inspection of the existing property to assess its ongoing structural condition and does not extend to any other aspects of the building or the surrounding environment which were not visible at the time of inspection.

This report was commissioned specifically to comment on the current condition of the property and includes all readily accessible floor areas.

The report also includes following our initial assessment, where appropriate, recommendations for opening up works to ascertain the structural integrity/stability of the building and its components.

As masonry was viewed from ground level only, we recommend, as a matter of course, that high level areas, including roofs, parapets etc are checked and inspected close up using a "cherry picker" viewing platform to enable a full assessment.

Access was not gained to the external roof area, or solum void. As such, we cannot be held liable for any hidden defects, which could not have been reasonably foreseen at the time of inspection.

Similarly, the report does not include an inspection of the building fabric, finishes, substructure or fixtures and fittings unless exposed for inspection.

No detailed inspection of any woodwork or other parts of the structure which are unexposed or inaccessible has been carried out and we are therefore unable to report that any such part of the property is free from defect.

We are not qualified to pass comment on rot infestation, and the specialist advice of a competent infestation contractor should be sought.

No investigations or calculative checks were carried out as to the strength of individual structural members nor was any site investigation works in respect of foundations or drainage undertaken.

Nothing contained in the report shall be construed as providing or implying any guarantee or warranty of design, workmanship or materials.

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## 2.0 Location

The Black Barn is located in the small village of Eckford (Grid Ref. NT 70947 26018). Eckford is located midway between Jedburgh and Kelso in the Scottish Borders. The village is in close proximity to the River Teviot and its tributary, the Kale Water. The village of Eckford consists of around twenty houses. The Black Barn is located to the south of the villages and is accessed via a small track off the main road (unclassified) through Eckford.



Figure 1.0 - Location of the Black Barn, Eckford

## 3.0 Inspection Conditions

The structural inspection was carried out on the afternoon of the 13<sup>th</sup> of April 2021. The weather at the time was overcast but dry.

The barn was accessed via the gate to the south east corner of the building and was inspected in a clockwise direction. Our detailed findings are summarised in the sections below.

It should be noted that we are not able to comment fully on the condition of damp proof courses, roof coverings or timber. Specialist reports should be sought for these items. It should also be noted that full access to the inside of the barn was not available at time of inspection.

## 4.0 General Overview

The barn is roughly square in shape (20m x 20m approx.) and has a duopitch roof. On the east elevation there is a small canopy over the main barn doors. The barn is immediately surrounded on all four sides by grass or gravel. The ground is fairly level around the perimeter of the building. There is a small cottage located immediately to the south, the access track to the barn is shared with this property. To the north and east of the barn lies the village of Eckford and some residential properties. Farmland lies to the east and south.

## 5.0 West Elevation

The west elevation of the building was found to be in reasonable condition for the age of the building and given that it appears to have been vacant for some time. The main elevation of the barn appears to be constructed in blockwork up to dado height (see Figure 3.0) and be rendered externally with a smooth concrete finish (See Figure 2.0). Some localised cracking of the render was evident in places but cracks were small in nature and pose no cause for concern structurally.



Figure 2.0 - West elevation of the Black Barn



Figure 3.0 - Internal view of west elevation

There were a number of penetrations on the west elevation that have been made for services or similar; one to the top of the rendered section of wall allowing telephone cable entry and a further two cores towards the south (see Figure 4.0).



Figure 4.0 - View indicating small cores on southern elevation

Corrugated metal sheets form the external envelope above dado level to eaves level. Given the age of the building asbestos cement sheets may be present but on closer inspection on other elevations the wall panels appeared to be galvanised steel that has previously been painted.

Three timber doors and two timber windows are located on this elevation. All are in poor condition and require attention. The timber at eaves level was also in poor condition. From ground level it was observed that a section of roof sheeting was missing near to the apex of the roof.

It should be noted that a telegraph pole to the south west corner of the building (see Figure 5.0) was located just outside the fence line. This pole appears to service both the barn and several adjacent properties.

## 5.0 West Elevation (Cont'd)



Figure 5.0 - Telegraph pole at SW corner of the barn

## 6.0 North Elevation

The north elevation was partially open (see Figure 6.0) and permitted visual access to the roof structure internally. Further internal access was not available as all external doors were locked.



Figure 6.0 - North elevation of the Black Barn with partial access to the inside of the barn

Two rainwater pipes were evident on this elevation, one to the north east corner and one to the north west. The gutter however was not present and it is likely that the timber at eaves level may have suffered some water damage and/or rot due to the lack of rainwater goods.

Four timber D-shaped columns approximately 200mm in diameter and located at 3.5m centres were evident on this elevation. The columns were founded on 500mm square concrete plinths which extend to a maximum of 200mm above ground level. Shakes were evident in the columns but these appeared historical and pose no cause for concern. There was evidence of rotting timber at the base of the columns as indicated in Figure 7.0. Further rotting of the timbers below ground level is anticipated given the likelihood of standing water gathering within the concrete plinths.



## 6.0 North Elevation (Cont'd)



**Figure 7.0** - Base of timber column with evidence of rot

There was no evidence of a ground floor slab or hardstanding within this area therefore it is likely that this area has always been open or at least partially open. The shape of the columns leads us to believe that there may have been some cladding to this elevation which has been fixed to the flat outer face of the columns.

The timber columns extend to approximately 3.7m in height and support roof trusses over. The trusses are constructed using doubled up 150mm x 50 mm timbers. The trusses in turn support timber purlins at approximately 1.2m centres (See Figure 8.0). Triangular blocking pieces sit atop of the trusses preventing rotation of the purlins. From the visual inspection the timbers appeared to be in reasonable condition for their age and exposure and there was no immediate signs of rot or deterioration. There was however extensive evidence of roosting birds.

The roof cladding comprises solid corrugated sheeting with localised transparent (assumed plastic) corrugated panels to form rooflights. From the visual inspection it was not possible to determine the type of roof sheeting that has been used but given the age of the building, asbestos sheets may be likely.



**Figure 8.0** - View of timber roof trusses and roof sheeting

Internally the walls were formed in a mixture of materials; concrete block laid flat, concrete blocks laid conventionally, random rubble and timber. It is clear that a number of alteration works have been carried out on the barn over a number of years, using materials available at the time (see Figure 9.0).

6.0 North Elevation (Cont'd)



Figure 9.0 - Internal walls of various construction

Toward the eastern end of this elevation there were two small spaces with lowered timber ceilings. It is assumed that these areas have previously been used as garages for storage of small farm machinery (See Figures 10.0 and 11.0). The walls and ceilings within these areas are constructed in timber whilst the floor slab is constructed in concrete. The timber doors and windows to these areas are in a poor state of repair and require attention. Externally, the walls are clad in painted metal corrugated sheeting.



Figures 10.0 and 11.0 - Small "garages" located to the north east corner of the barn

7.0 East Elevation

Two timber large sliding doors with timber ventilation grilles over covered most of the east elevation (see Figures 12.0 and 13.0). The remainder, unlike the west elevation comprised a rendered block wall extending only to dwarf height with corrugated metal cladding above.



Figures 12.0 and 13.0 - Sliding doors with ventilation grille over

## 7.0 East Elevation (Cont'd)

A canopy, which appears to be a later addition, is positioned over the sliding doors. The canopy is of steel construction and comprises 3 no. steel columns tied back the main barn frame. The columns support a half truss which in turn supports timber purlins and corrugated roof cladding (see Figure 14.0).



Figure 14.0 - Canopy Structure to East Elevation

## 8.0 South Elevation

The southern elevation of the barn was similar to the east elevation in that a dwarf wall was evident with corrugated metal cladding above. The metal has previously been painted black but is flaking extensively. The metal however appears to be galvanized and there was no evidence of corrosion.



Figures 15.0 and 16.0 - South Elevation

Two rainwater pipes were evident on this elevation, one to the south east corner and one to the south west. As the north elevation, the gutter was not present therefore it is likely that the timber at eaves level may have suffered some water damage and/or rot due to the lack of rainwater goods.

One large timber sliding door and two small access doors were located on this elevation. All were in a poor state of repair and will require attention.

## 9.0 Drainage

Upon inspection of the rainwater pipes it was evident that they did not discharge to ground, rather they appear to connect into a below ground system. There was no evidence of any manholes around the perimeter of the building. however, they could be located beneath the dense grass surrounding the building. Scottish Water records have been consulted (please see Appendix 2) and although there is adopted drainage serving the main centre of Eckford there is no recorded drainage to the barn or adjacent cottage.

## **10.0 Timber**

The internal timber appeared to be in a reasonable condition given the age of the building and exposure to the elements. However, we would recommend that a timber rot specialist be appointed to carry out a full survey of all timber. Particular attention should be taken to the timbers located on the building perimeter where the lack of rainwater goods may have resulted in rotted or damaged timbers.

## **11.0 Ground Conditions**

BGS maps have also been consulted and the superficial deposits in the Eckford area Glaciofluvial Deposits, namely gravel, sand and silt. Given the ground conditions and lack of formal drainage surface water discharge to a soakaway or land drain is likely

## **12.0 Conclusions and Recommendations**

Structurally the barn appears to be in a sound condition with no evidence of major cracks or movement in the external envelope. There appear to be a number of broken or missing roof sheets, these should be replaced if possible. Prior to any work being carried out on the roof however specialist advise should be sought to determine whether the roof sheets contain any asbestos.

At the point of writing the proposals for the barn are unknown. However, assuming that the barn is to be retained it would be prudent to allow for an element of repair and maintenance. In particular, the gutters to the north and south elevations should be reinstated and connected into the existing rainwater pipes. As mentioned within the report a specialist timber survey should also be instructed and any recommended remedial works be undertaken.

If the barn is to converted for any other use it is likely the structurally elements will need to be replaced or strengthened to accommodate any increase in load.

## **Appendix I Additional Photos**



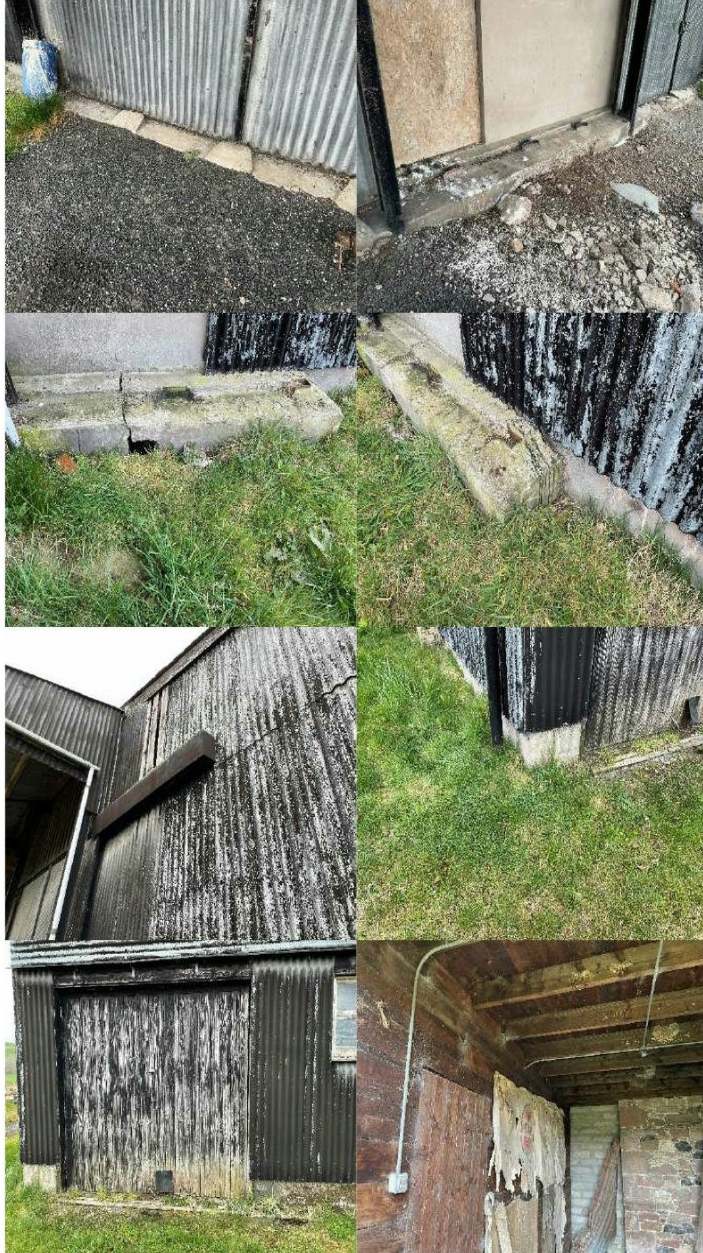






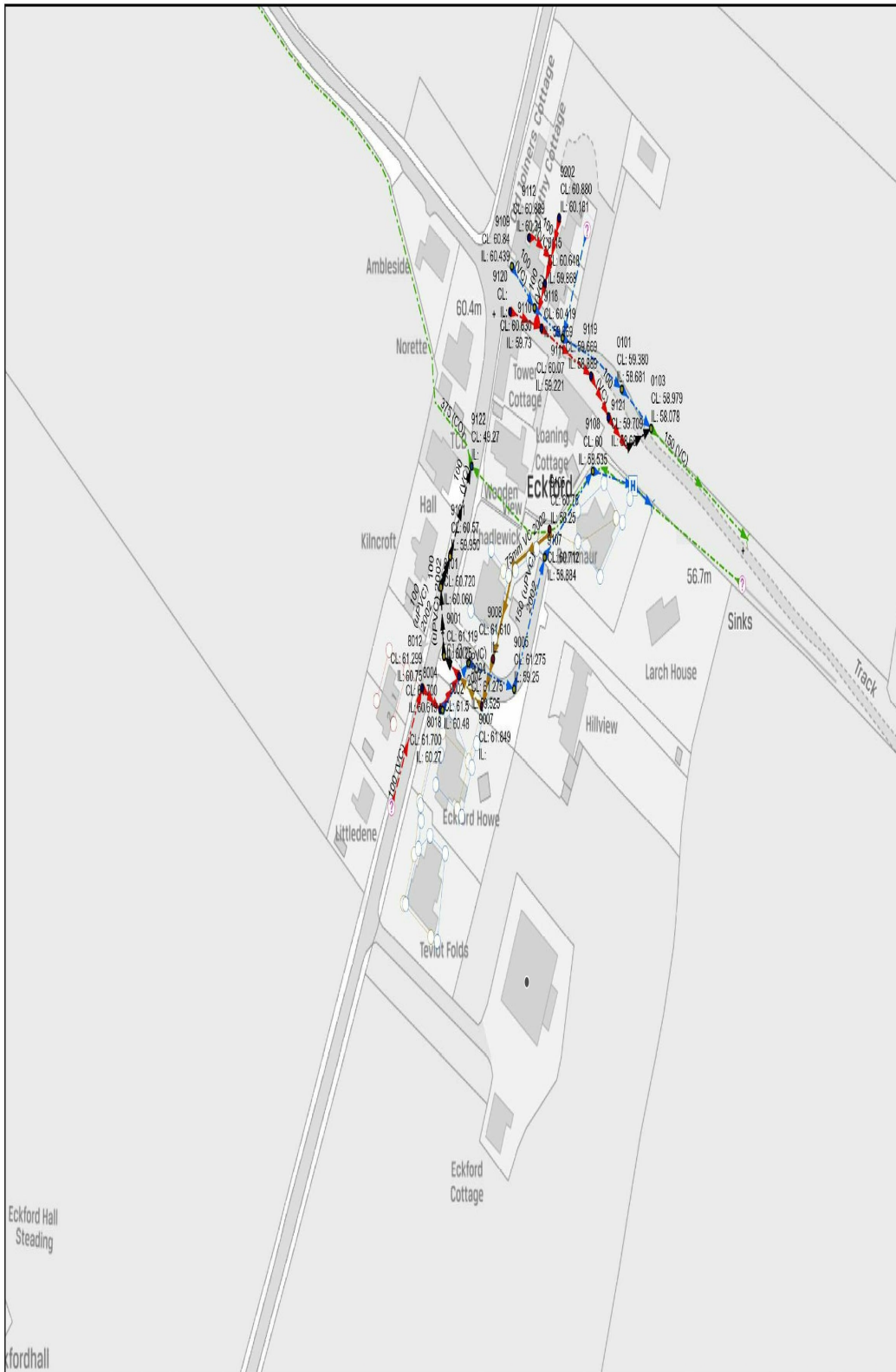










## **Appendix 2 Scottish Water Records**



Warning! Damaging a large diameter trunk main (12"/300mm and above) can result in loss of life and major water supply and water quality problems. If you're planning any extension work in the vicinity of any large diameter mains shown on our maps, you must contact Scottish Water to arrange a site visit 08000 778 778 WELL IN ADVANCE OF THE WORKS.

<p>Produced By: <a href="mailto:jack@proton.com">jack@proton.com</a></p> 	<p>The representation of physical assets and the boundaries of assets in which Scottish Water and others have an interest does not necessarily imply that those positions. For further details contact the appropriate District office.</p>	<h2>Sheet 1 - Eckford (Drainage Only)</h2> <p>Date: 15/04/2021</p> <p>0 5 10 20 Meters</p> <p>SCALE: 1:1,323</p>	<p>© Crown copyright and database right 2021 Ordnance Survey 100023460. You are permitted to use this data solely to enable you to respond to or interact with the organisation that provided you with the data. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.</p>	 <p>Castle House, 6 Castle Drive, Dumfries, KY16 8GG</p> <p>Trusted to serve Scotland</p> <p>Ref No: 08000 778 778</p>
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