

# Davis

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### REPORT ON A STRUCTURAL INSPECTION

**Barn at Spring Head Farm  
Hellifield Road  
Bolton-by-Bowland  
Clitheroe  
BB7 4LU**

**Project No. 10392**



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#### **1.0 BRIEF**

We have been instructed by Mr. Richard Lund to carry out a structural survey on the above barn. The reason for this report is to determine the amount of re-building required to the external walls in order to convert this building in accordance with Ribble Valley Borough Council's policy on conversion of barns to dwellings. This report is limited to this aspect only.

We have confined our inspection to those elements of the building that are visible and have not investigated woodwork or other parts of the structure that are covered, unexposed or inaccessible. We are therefore unable to report that any such part is free from defect. The client's attention is drawn to the condition of inspection appended to the report.

#### **2.0 GENERAL**

The property is a detached barn. The barn is constructed from stone.

The ground is generally level across the front but slopes down from the front wall to the rear by 300mm.

The survey was carried out on 24<sup>th</sup> March 2025, and it was a sunny day.

There are photographs to accompany this report and a figure to illustrate the amount of re-building needed to the walls.

#### **3.0 OBSERVATIONS**

Notation: Left Hand (LH), Right Hand (RH), Front (F), and Rear (R) are relative to an observer standing and facing the building as shown in photograph 1.

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## **EXTERIOR**

### **3.1 Front elevation**

This barn is constructed from Limestone and built as a solid wall 400 wide. The stones are fairly large and rectangular in shape. (See photograph 1).

Reporting from the right gable of the barn there are quoins in the corners of the wall. There is a panel of stonework with ventilation opening at the top of the wall. There is some disturbance in the stone along the eaves line in this area. (See photograph 13).

To the left of this wall panel, there is a projecting wall which flanks barn door opening. This wall is constructed from stone and built as a solid wall 400 wide. Then there is a large barn door opening. There is a timber lintel above this opening. This has deflected considerably and needs to be replaced. This lintel is bearing on a similar flanking wall on the other side of the opening. (See photograph 12).

There is a panel of stone from the left side of this doorway to the corner, where there are stone quoins. There is a single stone missing at the eaves just to the left side of the flanking wall. There is a disturbance to the stones along the eaves line to corner.

Alongside the gable wall there is a doorway, there is a stone lintel above this opening and this has cracked. Because of this there is a vertical crack in the wall which runs up to 1.4m. The wall to the left side of the crack has moved laterally deforming the side wall and this area of wall needs to be re-built. (See photographs 2 & 11).

### **3.2 Left gable wall**

This gable wall is constructed from a Limestone and built as a solid wall 400 wide. The stones are fairly large and are more rectangular in shape.

Reporting from the front wall there are stone quoins to the corner of the wall. (see photographs 8 & 9). The front corner of this wall has bulged out and needs to be re-built. There are various cracks in the wall. (See photograph 16).

In the centre of the wall there a blocked up window to the lower part of the wall and there is a window opening to the top part of the wall. These windows have timber lintels and these should be replaced.

There is a crack in the wall running from the top right corner of the window this is 4mm wide and runs for 1m. There is a 3mm. wide crack running down the wall from the cill of the upper window for 1.5m. (See photograph 15).

There are stone quoins to the rear corner of this wall.

The wall is acceptably flat and vertical.

### **3.3 Rear elevation**

This wall is constructed from a stone and built as a solid wall 400 wide. The stones are fairly large more rectangular in shape. (See photograph 7). Areas of this wall need to be pointed.

Reporting from the right gable wall (as viewed) there are stone quoins to the corner of the wall. There are 4 ventilation openings to the eaves on this elevation, there is disturbance to the top of the wall.

There is a window opening with a stone lintel over. This appears to have been a doorway, but the lower part has been blocked up. (See photograph 14).

The face of the wall is acceptably flat and vertical.

### **3.4 Right gable wall**

This gable wall is constructed from a stone and built as a solid wall 400 wide. The stones are fairly large more rectangular in shape. (See photographs 5 & 6).

Reporting from the rear of the barn there are stone quoins in the corners of the wall. There is no designed opening in this elevation.

The wall is acceptably flat and vertical.

### **3.5 Right flanking wall of the central barn door**

This wall is constructed from a stone and built as a solid wall 400 wide. This wall is on the right hand side of the barn entrance and is perpendicular to the front wall (See photographs 3).

### **3.6 Left flanking wall of the central barn door**

This wall is constructed from a stone and built as a solid wall 400 wide. This wall is on the right hand side of the barn entrance and is perpendicular to the front wall (See photographs 10).

There have been some previous holes, and these have been infilled with brickwork.

There is a missing stone which needs to be replaced.

### **3.7 Roof**

The roof is a conventional double pitched roof with a ridge running from side to side. The roof consists of 2 timber trusses (See photographs 19 and 21). There are two timber purlins to each roof slope.

The roof is clad with slates. There are areas in the roof that slates are missing, and the supporting timbers have been accepted by damp and need to be replaced. (See photograph 22).

The roof above the projecting walls at the main barn doors are similarly affected and the lintel needs to be replaced.

## **INTERNAL GROUND FLOOR**

### **3.8 Ground Floor Barn Area**

There is one large area within the barn.

The front of the barn is shown in photograph 17, there is a central large barn door and a doorway close to the side wall. The lintel above this doorway has failed and there is cracking the wall above (see photograph 18)

The right hand gable wall is show in photograph 19. There is a vertical joint between the gable and rear wall and there is a crack along this vertical joint 3mm wide, see photograph 20.

The rear wall is shown on photograph 21. This shown the blocked-up doorway. The timber lintel has been retained but this should be removed. The top left hand corner of this wall has been affected by damp because of missing slates to the roof above.

The left hand gable wall is show in photographs 23 & 24. There is a vertical joint between the gable and rear wall and there is a crack along this vertical joint 3mm wide, see photograph 20. There is a blocked up window to the lower part of the wall. Above this there is a window opening and there is a 5mm wide crack running down from the cill of this window (see photograph 25).

## **4.0 DISCUSSION**

The intention is to convert this building into a dwelling. The building is in a reasonable structural condition. The front left corner of the barn is suffering from cracking and movement mainly due to the stone lintel above the doorway being cracked. This area of wall will need to be rebuilt, and this is shown on figure 1.

The roof above the projecting barn door flanking walls, has an unacceptable deflection and this will need to have new structure fitted. Slates are missing to the rear roof slope and these need to be replaced along with any timbers damaged by damp.

There are some cracks to the external walls, and these need the bonding of the stone improving and then pointing.

Any timber members to the external walls to be replaced with suitable stone items.

## CONCLUSION

The building is in a reasonable structural condition. However, there are areas of the roof that need to be replaced and an area of external wall which needs to be re-built. There are other minor structural defects which are discussed above.

The amount of rebuilding is in accordance with Ribble Valley Borough Council's policy on conversion of outbuildings to dwellings.



**John Davis B.Sc.(Hons.), C.Eng., F.I.Struct.E., M.I.C.E.**

29<sup>th</sup> March 2025



**PHOTOGRAPH 1 –Front elevation**



**PHOTOGRAPH 2 – Front elevation**

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**PHOTOGRAPH 3 – Front elevation**



**PHOTOGRAPH 4 – Side elevation**

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**PHOTOGRAPH 5 –Side elevation**



**PHOTOGRAPH 6 – Side elevation**

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**PHOTOGRAPH 7 – Rear elevation**



**PHOTOGRAPH 8 – Side elevation**

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**PHOTOGRAPH 9 – Side elevation**



**PHOTOGRAPH 10 – Side elevation**

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**PHOTOGRAPH 11 – Front elevation**



**PHOTOGRAPH 12 – Front elevation**

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**PHOTOGRAPH 13 – Front elevation**



**PHOTOGRAPH 14 – Rear elevation**

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**PHOTOGRAPH 15 –Side elevation**



**PHOTOGRAPH 16 – Side elevation**

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**PHOTOGRAPH 17 –Front Wall**



**PHOTOGRAPH 18 – Front Wall**

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**PHOTOGRAPH 19 – Side Wall**



**PHOTOGRAPH 20 – Side Wall**

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**PHOTOGRAPH 21 –Rear Wall**



**PHOTOGRAPH 22 – Rear Wall**

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**PHOTOGRAPH 23 – Side Wall**

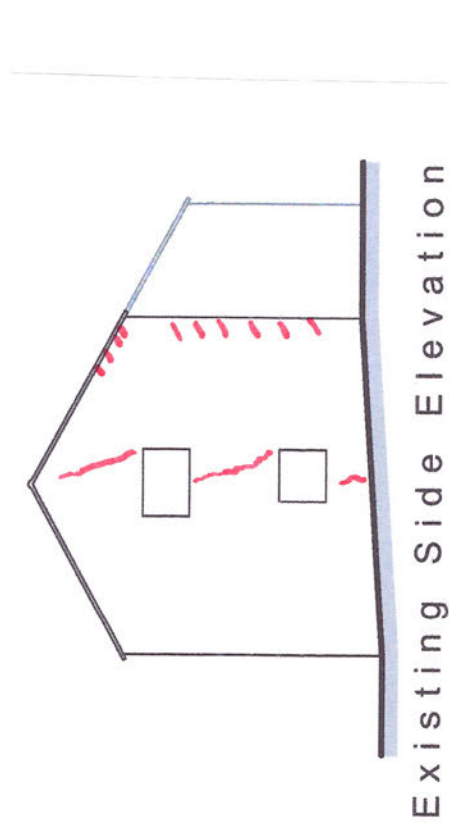
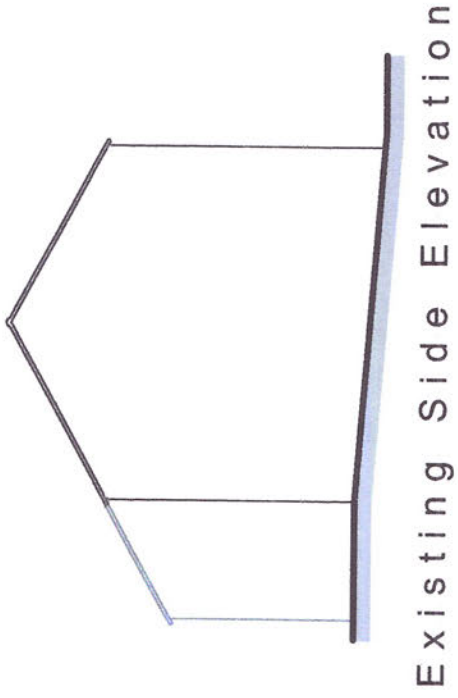


**PHOTOGRAPH 24 – Side Wall**

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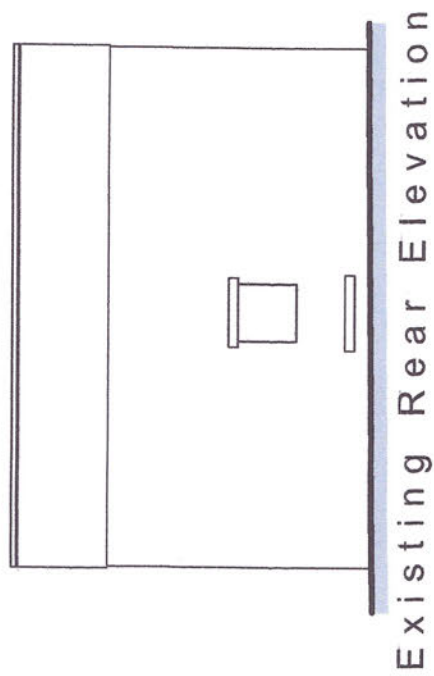
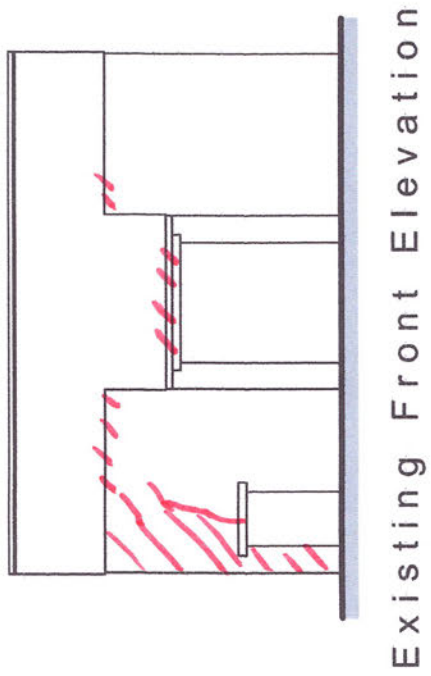


**PHOTOGRAPH 25 – Side Wall**



Indicates areas of wall to be re-built

Indicates a crack in the wall



**FIGURE 1**

### CONDITIONS OF STRUCTURAL INSPECTION

Instructions to carry out a structural survey are accepted on the basis of the following conditions.

1. The report is confined to the structural elements of the property. This will include foundations (if visible) walls, columns, floors and roof members.  
  
The report will not refer to non-structural items such as doors, window frames, plasterwork, fitted furniture, decoration or services.
2. Any structural elements which are covered, unexposed, or inaccessible will not be inspected and therefore we are unable to report on these elements.
3. The inspection carried out may not reveal all defects in the property. Defects in concealed areas such as foundations and underfloors, and walls covered by wallcoverings and plaster will not be revealed. Where there is evidence to suggest a more detailed investigation then such a recommendation will be made. Further investigation will incur further costs and may involve lifting of floorboards, digging of trial pits and breaking out of brickwork.
4. The building will be inspected externally from ground level.
5. Internally all exposed surfaces of rooms will be inspected. The Engineer will not move or disturb finishings, fittings, fitted carpets, furniture or any other items which cannot easily be moved. No responsibility will be accepted for defects which are concealed.
6. The roof space will be inspected but high or low confined areas will not be inspected.
7. Outbuildings (including detached garages) will only be briefly inspected. Sheds and greenhouses will not be inspected.
8. The grounds and boundaries will not be inspected. External ground levels will be reported on if they have potential for causing distress to the house structure.
9. Easement, planning and other topics in connection with statutory authorities are not within the scope of this report.
10. Potential flooding and other natural problems are outside the scope of this report.
11. Advice can be provided on extensions or modifications to the property but this is outside the scope of this report.
12. This report is provided for the sole use of the named client and is confidential to the client and their professional advisors. Responsibility for the report is to the client alone and we accept no responsibility to any other person.
13. The report remains the property of Davis Consultants and permission to use it for litigation or any other purpose is withheld until full payment is received.
14. Payment is due by the person named in this report irrespective of any claims against third parties.