Hudds Design
Structural & Architectural Engineering
DESIGN CONSULTANTS

PLANNING AND BUILDING CONTROL; CALCULATIONS & DRAWINGS

Office: 103-105 Bradford Road
Huddersfield, HD1 6DZ
Office: 01484 941051
Web: www.huddsdesign.com
Email: eng@huddsdesign.com

# STRUCTURAL SURVEY REPORT

**PRIVATE AND CONFIDENTIAL**

## FOR

## MR ADAM GALLAGHER
## @
## OFFICE BLOCK & SITE, FOUNDARY STREET, ELSECAR, S74 8EQ

**ISSUED FOR CLIENT:**
**HUDDS DESIGN**

**30th May 2022**
**Ref: HD-S22-0520**

## 1.0 GENERAL INFORMATION

### 1.1 Instructions
We are instructed by Mr Adam Gallagher to prepare a structural survey report in regard to the buildings at the property known as Office Block & Site, Foundary Street, Elsecar, S74 8EQ

### 1.2 Date of Inspection
The inspection was carried out on the morning of Monday 9th May 2022 at around 10am.

### 1.3 Weather
The weather conditions were dry and sunny with cloudy over spells.

### 1.4 Orientation
All directions are given as if facing the front entrance of the property and looking towards the rear from the main road.

### 1.5 Level of inspection
The inspection was carried out both externally and internally at all levels. The inspection was visual and non-destructive. No opening up works were carried out and we were unable to inspect woodwork or other parts of the structure which were covered, unexposed or inaccessible and are therefore unable to report such parts are free from defects.

### 1.6 Exclusions
This report does not tell you if concealed elements of the structure are free from defects. This report does not tell you if any other parts or elements of the property, other than the area inspected are free from defects.

This report is not an Expert Witness Report suitable for legal purposes or a full building survey report. The report only advises upon any structural defects or remedial repairs which may be required. It does not provide detailed method statements, or procedures to follow, to rectify any defective work.

The foundations were not exposed during this survey, and we cannot say they are free from defect or repair.

### 1.7 Purpose
This report is prepared solely for the benefit of the client stated in Section 1.1, their contractor, valuer and or lenders, and no liability is accepted to any third parties. This survey cannot be copied or disclosed to any third party without the expressed agreement with Hudds Design Ltd. This survey may not be divulged, copied, quoted or otherwise reproduced, and/or altered without Hudds Design Ltd's expressed consent, and any request for such consent must be in writing. For the avoidance of doubt and for your information such consent is unlikely to be given, due to the confidential nature of this survey.

This report does not guarantee that work carried out in the past have been carried out to statutory/mandatory regulations or to competent manufacturers' recommendations or to British Standards, Codes of Practice, Agreement Certificates, etc

You are reminded of the general limitations of the inspection described in the Limitations Section at back of this report.

## 2.0 GENERAL DESCRIPTION

### 2.1 Description of the property

The site comprises a former main building located on Foundary Street (most likely used as a dwelling house) constructed from traditional masonry construction with partial render elevations and a duo pitched roof. There is a small single storey extension to the part of the rear left-side with a lean to sheet clad roof.

Other structures include a single storey main unit/warehouse to the right of the site in traditional solid masonry construction with brick piers and a duo pitch roof and extended single lean-to roof clad in metal sheeting. The due pitch roof has no covering remaining. There is a single storey steel framed clad bays the entire width to the rear of the warehouse structure.

### 2.2 General Framing

The main dwelling is of traditional masonry 2 Storey construction with brick/rendered elevations surmounted with duo-pitched tiled roof.

The warehouse structure is of solid masonry construction with brick piers and traditional duo pitched timber roof with no covering and a later extended framed steel structure with single pitched lean to roof with metal purlins and metal sheet roofing. The warehouse structure has a timber framed structure to the rear used as bays covered with metal cladding and timber roof, with metal sheet cladding.

### 2.3 External Gardens

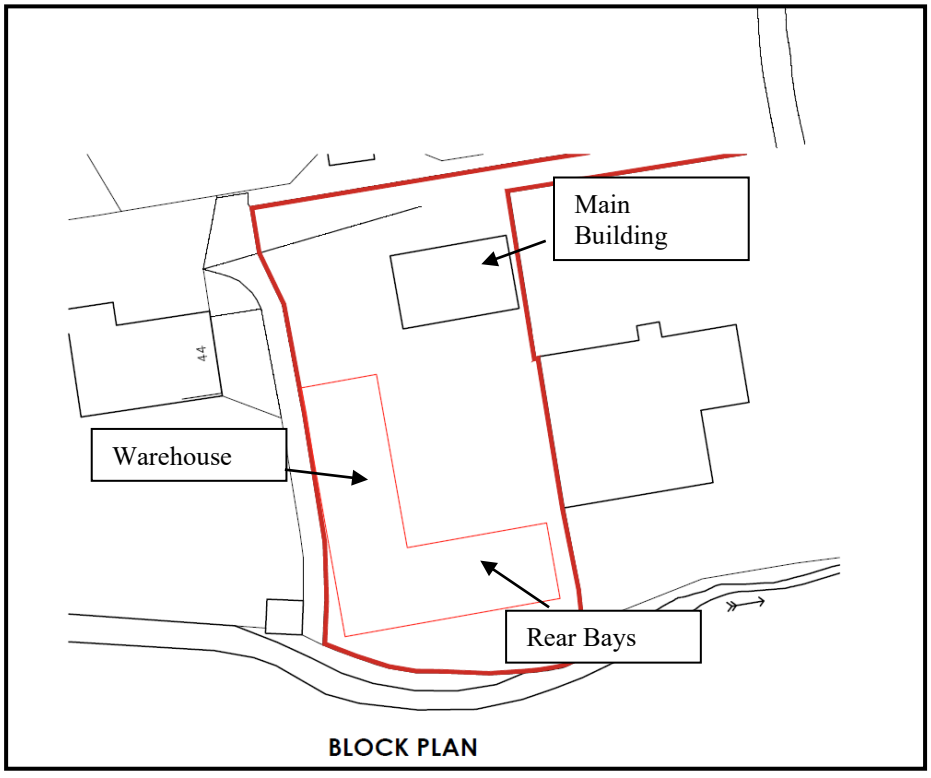
Not applicable to this specific structural survey report.

### 2.4 Services

Not applicable to this specific structural survey report.

### 2.5 Location

The property is located in S74 8EQ off the main road.




BLOCK PLAN

## 3.0 PURPOSE OF INSPECTION

The general overall purpose of the inspection is to provide a visual structural survey report of the main structural framing members internally and externally and report any visual damage, and check and advice for any signs of subsidence, movement, major alterations with advice on structural remedial works that may be required.

## 4.0 STRUCTURE OBSERVATIONS AND COMMENTS

### 4.1 Chimney Stacks, Flashings and Soakers

There are no chimney stacks present.

### 4.2 External Roofs and Valleys

The main roof to the main dwelling structure has undulation and slopes in several different locations, due to excessive deflection in the roof timbers, timber failure, operational cause, and historical fire within the overall structure.

The roof structure given the defects and undulation in several locations, requires a full new engineered roof structure to current building regulations to prevent future movement and cracking internally and most importantly to ensure the building is safely habitable.

This is applicable to the main warehouse structure where the roof covering has been removed or collapsed at some point leaving the main roof timbers exposed. There are several hairline cracks in the timber, and some timbers removed. The wall plate has rotten. The main metal purlins to the roof have corroded are in dis-repair due to water ingress in the metal single lean-to roof attached to the warehouse to the left side. The sheet cladding has collapsed in locations.

The rear bay structures roofing is a single lean to roof structure, constructed from main timber purlins and rafters which are all bowing and dis-repair and have exceeded their lifespan due to the method of covering.

The warehouse structure, the side lean to and rear bays will also require a new designed roof to ensure habitable occupation.

### 4.3 External Walls and Elevations

The main building structure is in dis-repair and has significant structural movement on all elevations, due to the method of construction and possible linked to the fire damage internally, whereby lateral support/framing is longer present. There is long vertical separation of the brickwork, full height of the building on the left and right elevation. Also, vertical settlement cracking at the rear due to pull from the rear single storey extension. The extent of damage cannot be fully determined to the front and rear elevation, but similar hairline cracks are visible in the render which most likely are full movement cracks.

The warehouse structure has long panels of walls with piers, however due to the lack of lateral support and framing with the missing roof sections, has suffered hairline cracking and movement. There are sections of walling missing causing further damage to the main structure. The main walls due to lack of lateral support in the lean-to structure attached to the warehouse has left separation cracking in the wall panels. The overall steel frame is corroded due to exposure to the elements.

The rear timber framed structure to the warehouse unit, has rotted columns and main beams and similar to the roof is past its designed life span.

**4.4 Floors**
The first floor is timber in the main building and is fire damaged to beyond repair. The ground floor is of concrete slab construction and is limited by its energy efficiency and could benefit from a insulated and damp proofing.

**4.5 Damp Proof Course**
Not applicable to this specific structural survey report.

**4.6 Internal**
The main property has suffered major internal hairline cracks at each floor level in relation to the movement noted externally and fire damage. The floors have bowed due to fire damage and structural failure. The structure due to fire damage and lack of overall structural framing over long periods of time is not fit for habitation and requires a full re-build program prior to anyone entering the structure again.

The warehouse structures are open to the elements and have hairline cracks in the masonry.

See comments in 4.3.

**4.7 Fireplaces, Flues and Chimney Breasts**
Not applicable to this specific structural survey report.

**4.8 Roof Void/Loft**
The roof structures have major undulation, and many cracked timbers were noted along with partial separation in places to connecting members. The timbers have been further weakened due to long term water ingress and fire damage.

**4.9 Thermal Insulation**
Not applicable to this specific structural survey report.

**4.10 Timber Decay and Infestation**
Not applicable to this specific structural survey report.

**4.11 General Matters**
Any further upgrade plans should go through the standard planning and building regulations approval process.

## 5.0 FOUNDATION
The foundations cannot be inspected without undertaking considerable excavations and causing damages to the adjacent hard landscape surface; however, evidence of significant structural movement in the form of subsidence and structural failure was noted to the overall main building, and there is enough evidence to suggest the foundations are defective or inadequate for long term use without strengthening works to meet current building regulations once the structures are re-built to ensure adequacy of the new buildings.

## 6.0 GARDENS, WALLS, OUTBUILDING AND TREES
Not applicable to this specific structural survey report.

## 7.0 SERVICES (UTILITIES)
Not applicable to this specific structural survey report.

## 8.0 ASBESTOS ADVICE
Not applicable to this specific structural survey report.

## 9.0 BRIEF SUMMARY

The structures on the site are in a dilapidated state and beyond there lifespan, it is constructed of strong masonry construction, but has major signs of damage/movement as noted due to operational cause, neglect and majorly due to the fire damage to the main structure and method of construction for the warehouse units.

The external and internal damage noted to the main structure and warehouse indicates the cost to repair or preserve these structures would be significant and far exceeding a re-build, to the point the structure may still require a re-build in which case it will lose any historical value. The structural framing and foundations to the structure are not fit for purpose to suit current building regulation standards without major re-work.

**The below points are summarised:**

1. The roof structures are in a state of disrepair and require a complete new designed roof structure before any of the buildings are habitable again.
2. The main structures have suffered from fire damage and structural movement due to lack of structural framing and stability and this is evident through separation cracks and hairline cracks internally and externally.
3. The building is most likely constructed directly on to made ground; hence the foundations are not adequate as a long term for any re-build/partial refurbishment program. In any case the structure would require demolition and re-build on new engineered foundations.
4. There is water ingress into the structures which has further comprised the main structural elements, in particular the timbers, which are now rotted and beyond repair or preservation.
5. The property suffers from damp and requires a separate assessment of this, if the above structural issues were overcome to ensure the space is habitable, along with the overall energy efficiency of the current form of construction.
6. In general, given the fire damage, roof undulation and sloping floors, the buildings should be cordoned off until it is safe for habitation again or demolished to repair/re-erect the structure safely.
7. Any further visits by any profession should be after a full HSE report and temporary works to ensure safety of personal.

We estimate the costs to repair in accordance with the above may not be possible at all or would be far in excess of a complete re-construction/demolition scheme, which may be the likely even in the case of a repair option.

It is also recommended that any works only be undertaken by competent contractors experienced in buildings of this nature. Any refurbishment of a building will inevitably expose parts of the structure currently hidden from view and so unseen defects requiring repair may come to light.

You are also recommended to seek professional advice in respect of all planning and building regulations and the supervising of any intended structural alterations, including any local authority approvals.

Prepared By,

**Jwad Ashraf**
B.Eng (Hons), C.Eng MIStructE MIMarEST
**Hudds Design**

## 10.0 LIMITATIONS

You are reminded that access was limited during the inspection, and it is not possible to confirm that unseen areas are free from defect.

No ladders were raised for close inspection of the upper parts of the building. Our inspection was made entirely from ground level or from upper windows where available.

Our inspection of this property covered all those parts of the building that could be seen either from ground level externally or from the interior including accessible roof spaces.

Many parts of the building such as foundations and sub floor areas are concealed during construction, and we do not disturb these. It follows, for practical reasons, that we have not inspected woodwork or other parts of the structure that are covered, unexposed or inaccessible and we are, therefore, unable to report that any such part of the property is free from defect.

Where a property has extensive floor coverings, this again limits the inspection possible, particularly of floor surfaces.

The calculations of the load bearing capacity of floors have not been carried out and we can give no opinion to their strength or suitability for your purposes.

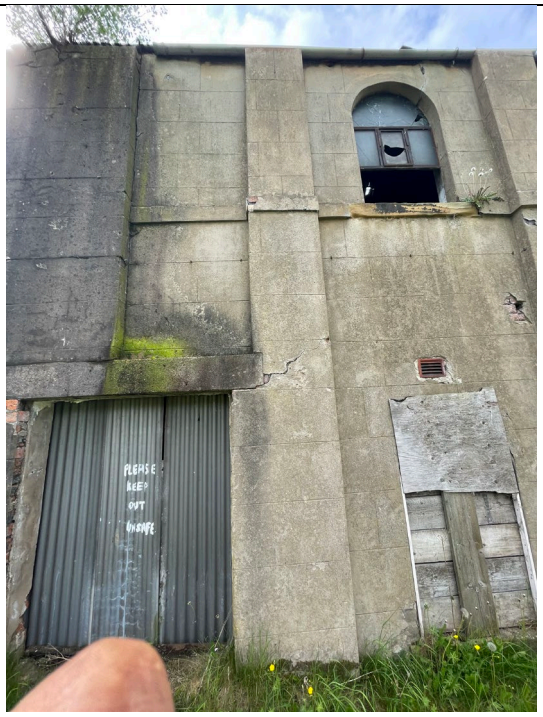
In drafting this report, we have limited comment to more structural material matters and, in particular, we have not listed individually such minor items as slightly loose door or window fittings or minor decorative blemishes which have no structural significance.

We are not aware of the content of any environmental audit or other environmental investigation or soil survey which may have been carried out on the property and which may draw attention to any contamination or the possibility of any such contamination. In undertaking our work, we have been instructed to assume that no contaminative or potentially contaminative uses have ever been carried out in the property. We have not carried out any investigations into past or present uses, either of the property or any neighbouring land, to establish whether there is any contamination or potential for contamination to the subject property from these uses or sites and have therefore assumed that none exist.

This report is provided for the stated purpose and for your own sole use. It is confidential to you and your professional advisers should not be reproduced in whole or in part or relied upon by any third party for any purpose without the expressed written authority of Hudds Design Ltd. We accept responsibility to you alone and that the report has been prepared with skill, care and diligence reasonable to be expected of a competent chartered Structural Engineer, but we accept no responsibility whatsoever to any parties other than you. Any such parties rely upon the report at their own risk. Neither the whole nor any part of the report nor any reference to it may be included in any published document, circular or written statement nor published in any way without my written approval of the form or context in which it may appear.

## 11.0 APPENDIX: PHOTOS

1. Main Building Site



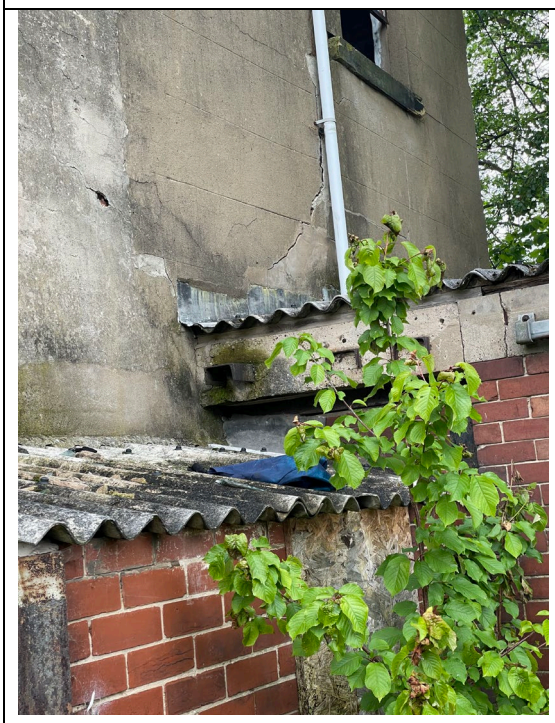
2. Main Building Front

3. Main Building Left Side

4. Main Building Front

5. Main Building Right Elevation

6. Main Building Rear Elevation



7. Main Building Rear Elevation

8. Main Building Rear Elevation

9. Main Building Rear Elevation

10. Main Building Rear Elevation

11. Rear Bays

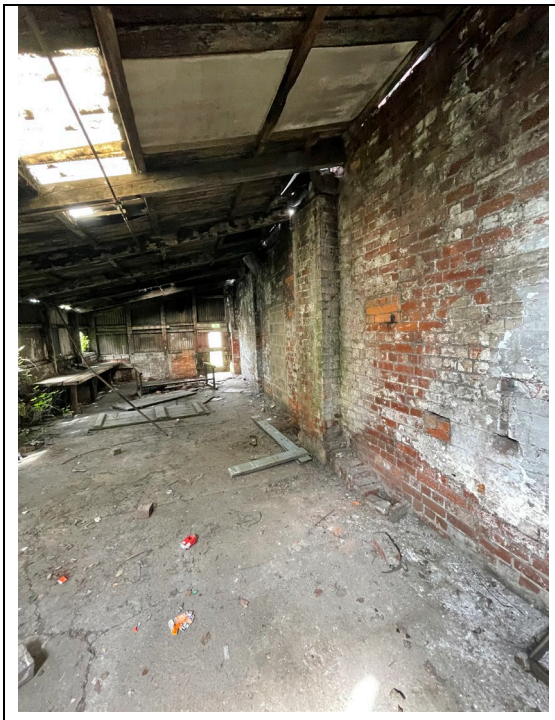
12. Inside Rear Bays

13. Inside Rear Bays

14. Inside Rear Bays

15. Inside Rear Bays

16. Inside Rear Bays



17. Inside Rear Bays

18. Inside Rear Bays

19. Main Building House Fire

20. Mian Building Internal

21. Warehouse

22. Warehouse

23. Warehouse Right-Side

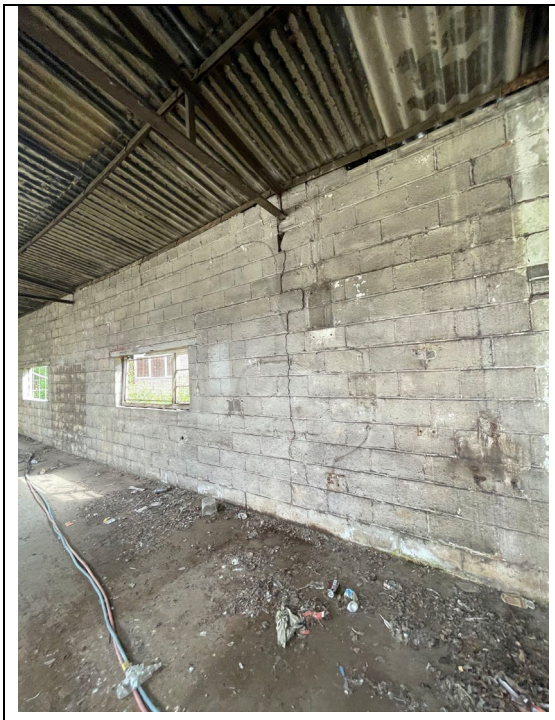
24. Warehouse Right-Side

25. Warehouse Right Side

26. Warehouse internal

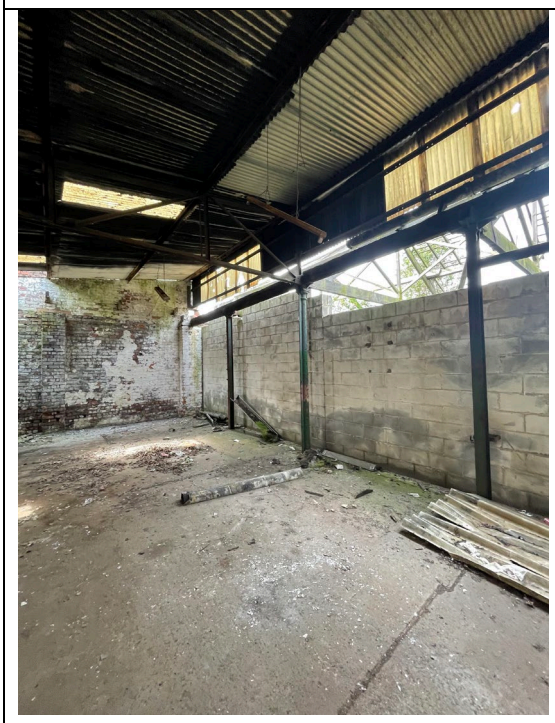
27. Warehouse Internal

28. Warehouse Internal



29. Warehouse Internal

30. Warehouse Internal



31. Warehouse Internal

32. Warehouse Internal

33. Warehouse Internal

34. Warehouse Internal

35. Warehouse Internal