

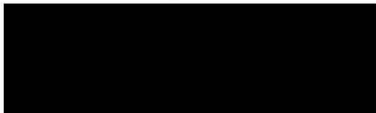
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**BUILDING AT NORTH HELE FARM,**  
**CLAYHANGER,**  
**TIVERTON,**  
**EX16 7NZ**

**REPORT ON THE STRUCTURAL CONDITION  
OF THE EXISTING BUILDING**

B. J. E LambBsc  
Chesterfield Enterprises Ltd,  
Canons,  
The Green,  
Ide,  
Exeter,  
EX2 9RT.

19<sup>th</sup> June 2019



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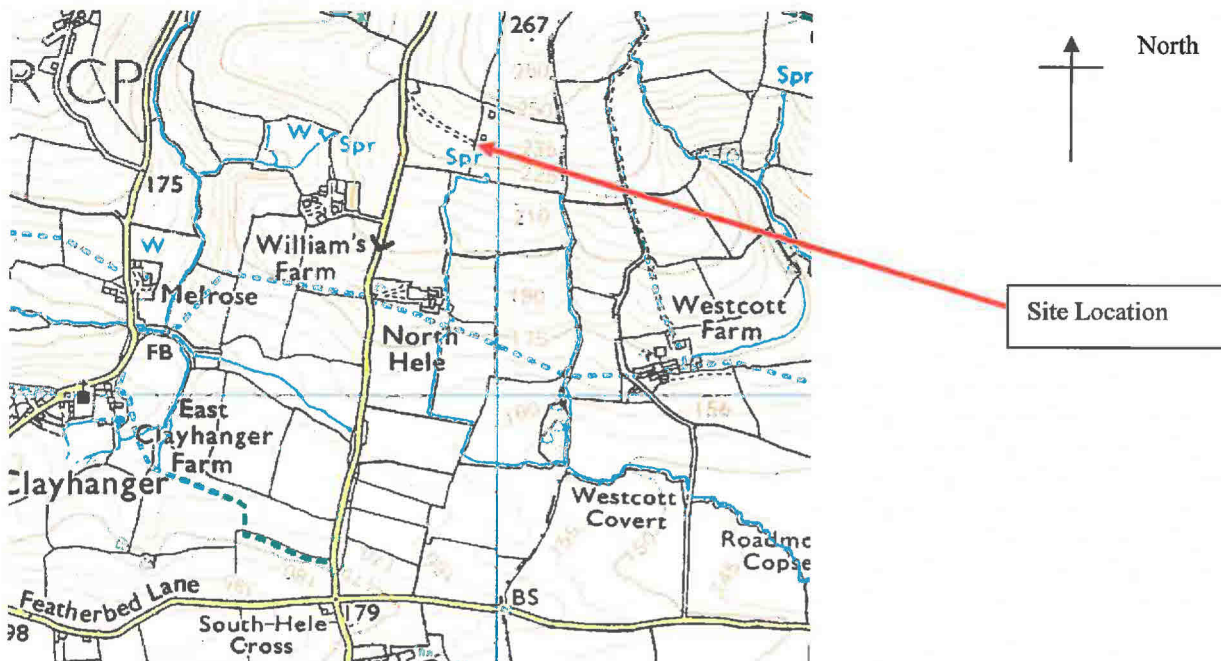
## 1.0 INTRODUCTION

This report has been requested by Mr and Mrs A. Brown who are the owners of the property. This report is confidential to this client and no liability of any kind whatsoever is given to any third party who may obtain copies of this report directly or indirectly.

The purpose of this report is to provide a document that can be presented by the owners in support of a Prior Approval (Permitted Development) application to the local authority. This report relates only to the structural condition of the existing building. No other aspects of the building or other buildings have been inspected or are commented upon.

This report is solely under the jurisdiction of English Law.

The location is as shown below:-



## 2.0 LIMITS OF INSPECTION

This report has been compiled using visual inspection only of the inside and outside of the building. No excavations of the foundations or intrusive surveys were undertaken. A close inspection of the upper surface of the roof was not undertaken. We have not undertaken a thorough inspection of all timbering and thus are unable to confirm whether these are free from defects, deterioration or infestation.

No drawings were available but the building was measured at the site visit.

No calculations have been undertaken to prove the adequacy or otherwise of the existing structure.

The inspection took place on 18th June 2019. At the time of inspection the weather was wet and about 15<sup>0</sup> C.

### 3.0 GENERAL DESCRIPTION OF THE BUILDING

The building which is the subject of this report is outlined in red below.



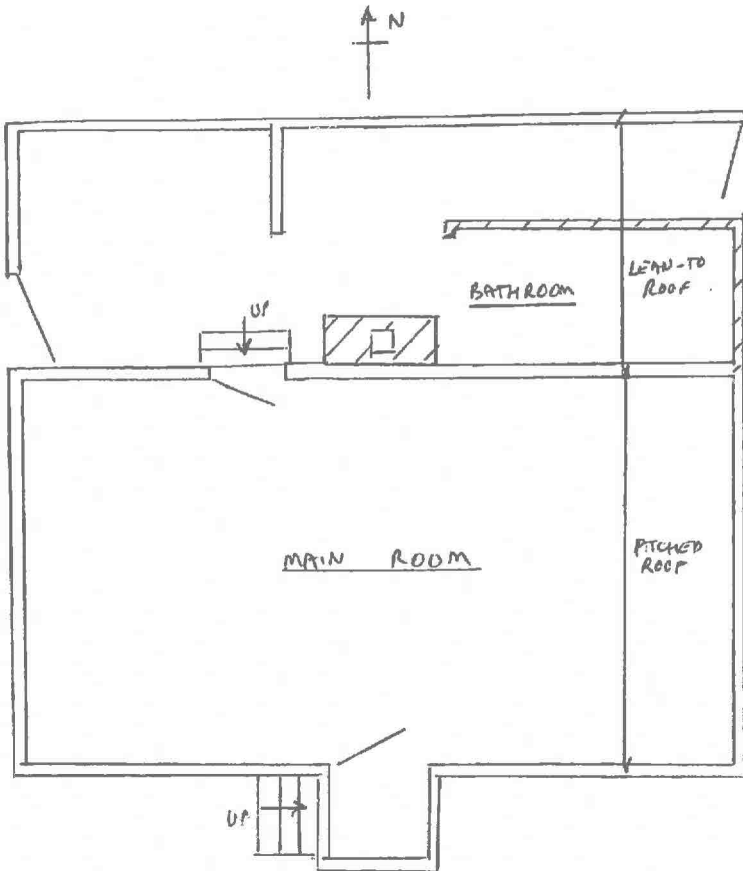
This building is a timber framed structure which has been clad externally in steel sheeting. It is understood that until 1966 the building was used as a residential bungalow but has been used as a sheep shed/agricultural store in more recent years.

Overall it measures 9.1m long by 8.1m wide on plan.  
The ground is higher at the northern side than the southern side.

The height to eaves on the northern lean-to section is 1.8m  
The height to eaves on the southern side is 3.2m and the ridge height is at 4.3m.

The main area of the building comprises one room with a pitched roof, timber frame walls and a timber floor. On the northern side of this room are two small rooms under a lean-to roof and a hall area. One of the rooms was previously the bathroom.

The following sketch shows a plan of the building.



### 3.1 North Wall

The north wall to the lean-to section is comprised of timber frame studding with vertical galvanised corrugated iron sheeting externally and 3/4mm thick calcium silicate boarding internally to approximately half of the length. There is no gutter to this wall on the outside.

### 3.2 West Wall

The northern section is a timber stud wall with galvanised corrugated iron sheeting. The southern section is the gable wall to the main room and comprises rebated timber boarding onto 75mm by 50mm timber studs at 600mm centres. The timber boarding has then been over-clad in galvanised steel sheeting. The steel sheeting is starting to rust, but where visible the original timber boarding appears to be in satisfactory condition. Internally small additional studs have been added to the main structure studs and thin hardboard used as an inner lining. The hardboard has been damaged in many areas with holes formed to show the external timber boarding. There is no insulation between the boarding and the hardboard inner liner. There are two timber windows to this elevation but these are in poor condition. The eaves are sealed against the roof sheeting by timber boards but these are in poor condition.

### 3.3 South Wall

The south wall is similar to the west wall but the external steel sheeting is showing more signs of rust. There is a small raised entrance porch but the floor has disintegrated. The timber windows to the porch and the three other windows along this elevation are all in poor condition. The lower walls to the porch are in stone and it is assumed that the other external walls to the main building area also have a stone base up to floor level. There is no guttering to this elevation.

### 3.4 East Wall

The northern section of the east wall is built in 100mm thick dense concrete block work and rendered externally. There is a small steel window to the bathroom area which is in poor condition. The remainder of the wall is timber frame construction similar to the southern wall. There is a small timber window to the main room and this window is also in poor condition. The eaves are sealed by timber boarding which is in slightly better condition than the western elevation.

### 3.5 Ground Floor

The northern lean-to areas have a concrete floor at the adjacent ground level, although this concrete appears to be in satisfactory condition. The floor of the main room area is a suspended timber floor and appears to be relatively new. The 47mm by 125mm timber floor joists can be seen at the porch area and they still display their stamp markings. The floor boards themselves may have been reclaimed but are in good condition. From photographs it appears that there is a concrete over-site below the suspended timber floor.

### 3.6 Roof

The roof to the lean-to section is a mixture of corrugated iron sheeting and profiled steel sheeting. It is supported on a central made-up timber purlin. The roof to the main room area is corrugated iron sheeting and this is now rusty. The ridge is sealed by a shaped steel section. The main roof appears to be water tight. The sheeting is supported by timber sarking and then 75mm by 47mm timber purlins which span between the gable walls and the two timber trusses. The timber trusses have 150mm by 50mm principal rafters and 175mm by 50mm lower ties. Some notches have been cut in the lower ties but these are unlikely to affect their performance.

### 3.7 Internal Walls

The internal wall between the bathroom and the corridor is 100mm thick dense concrete block work plastered on the bathroom side. The wall between the bathroom and the main room is one of the original building walls and has a similar construction with timber boarding and hardboard over a timber stud frame. In the middle of this wall is a brick built chimney stack. On the main room side this encompasses a cast iron stove. The chimney stack is corbelled at ceiling level so that the projecting stack is 450mm square brick work.

There is a stand alone partition wall in the lean-to area which is timber frame with a single layer of 3/4mm calcium silicate board

#### 4.0 CONVERSION PROPOSALS

This section gives an indication of possible measures that could be undertaken to convert the building structure into renewed habitable accommodation. There are a number of methods that could be undertaken and these are given only as an initial guide.

##### 4.1 Floors

The existing concrete floor would need insulating and a damp proof course formed. This could be done by insulation above the existing concrete and then a screed or floating floor.

The main room area would also need insulating and this could be done between the existing floor joists or by insulating above the existing floor and then providing a new floor surface.

##### 4.2 Walls

The external walls will all require insulating and a new inner surface formed to replace the flammable hardboard. Externally the walls could be re-clad in new boarding over the original boarding or this could be re-treated.

The walls to the lean-to section would benefit from rebuilding to current standards.

##### 4.3 Doors and Windows

New doors and windows could be cut into the external walls where required to suit room layouts.

##### 4.4 Roof

The roof will require insulating and an inner surface formed. The existing steel sheeting would ideally be replaced.

#### 5.0 SUMMARY

The main room area of the building could easily be converted back into habitable accommodation, but additional work would be needed on the lean-to section and re-construction of this area may prove an easier option.

6.0 PHOTOGRAPHS

Photo 1 – North View



Photo 2- East View



Photo 3 – West View



Photo 4 – South View





Photo 5 – Roof Truss



Photo 6 – Roof Truss



Photo 7 – Entrance Corridor



Photo 8 – North West Room Area



Photo 9 – Bathroom



Photo 10 – Chimney Stack



Photo 11 – Main Room



Photo 12- Main Room Floor



Photo 13- Main Room Floor



Photo 13- Main Room Walls



B.J. E. Lamb  
19.6.2019