

320130051P

STRUCTURAL CONDITION SURVEY

FOR THE

**PROPOSED RENOVATION OF
THE REDUNDANT COTTAGES**

AT TOP ROW

SABDEN

CLITHEROE

LANCS

FOR MR AND MRS GILL

Date: 12th December 2012
Author: L.F Gill B.Sc. (Hons.)

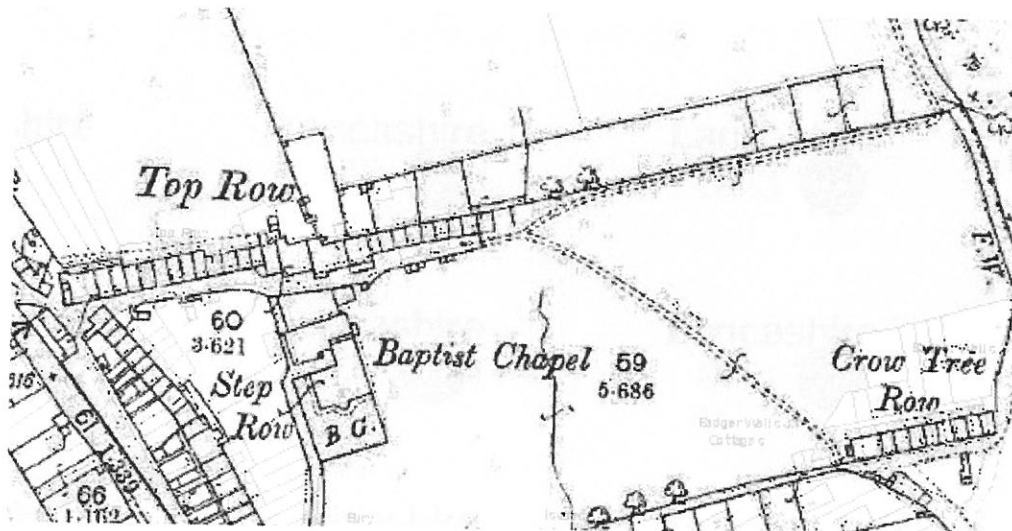
1. Introduction

This survey has been prepared to support the planning application by the applicant, Mr and Mrs Gill; to renovate the currently redundant cottages at Top Row into a single dwelling house.

The proposed dwelling will be formed by converting the eastern and western cottages and rebuilding on the footprint of the cottages that were originally to the west of the remaining building. These cottages that were originally to the west have nearly fallen down, some of the walls forming these cottages are still standing, they are however in poor condition and require rebuilding.

The cottages were inspected on the 2nd December 2012. At the time of the inspection the weather was sunny and dry, after a prolonged damp period. The assessment was limited to a visual inspection, no exposure work was undertaken. This condition survey does not include the single storey shippon to the East of the cottages because the proposals involve the demolition of this later addition.

The cottages were constructed in the late 18th century; the materials used were random rubble stone for the walls with a grey slate roof, typical of this age and style of property. It is unclear when the cottages were last used as houses; records indicate they were still habited less than 100 years ago. Since then the cottages have been used to house cattle and store hay and materials. Below is an extract from the OS First Edition 1:2,500 scale, showing the numerous cottages that were on Top Row at that time.



2. Structural Condition Survey

External Walls

The walls forming the redundant cottages vary in condition from good to poor, consequently the repair works vary from rebuilding small section of the walls to just re-pointing. The extent of the works required for the conversion is identified in Appendix A.

South Elevation

The wall to the south elevation is constructed in random rubble; this random rubble has a sand/cement render finish. The render finish is in poor condition with numerous hairline cracks.



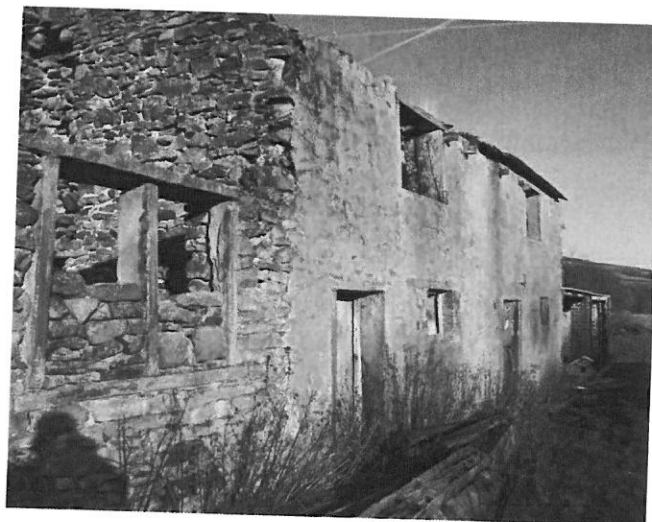
Photograph (1) – Hairline cracks in the render to the south elevation.

The cottages do not have any stone quoins at any of the corners, this is due to the fact that the cottages remaining today were in the middle of the row originally, so would have been adjoining neighbouring cottages and so consequently were not built with stone quoins. This has resulted in some of the corners having cantilevering stones that are visible; this is where the now demolished adjoining cottages were originally constructed.

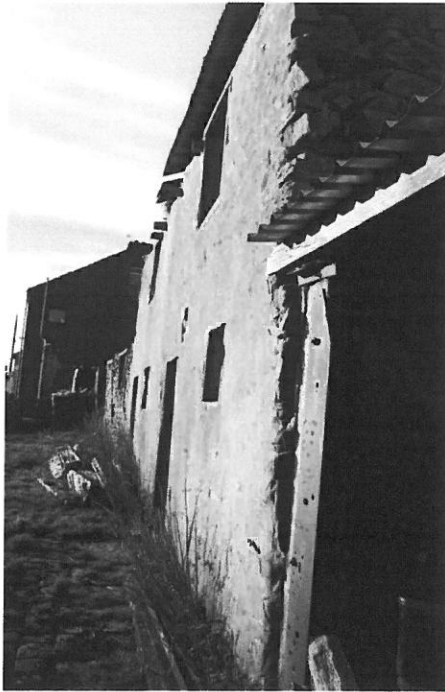


Photograph (2) – The cantilevering stones at the South West corner where previously this cottage would have been joined onto adjacent cottages.

The wall to the south elevation is straight and plumb apart from a section around the most western door opening (indicated in Appendix A). This door opening is located in one of the remaining sections of wall of the fallen down cottages to the west.

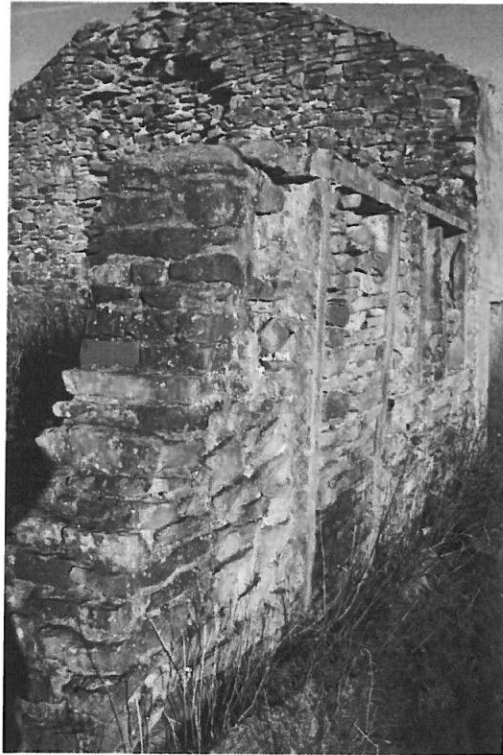


Photograph (3) - Showing the South elevation wall.



Photograph (4) - Showing the South elevation wall.

Photograph (5) below shows the western door opening to the south elevation that is no longer plumb. The stoned up door opening is gradually falling over, this is due to the fact there is no wall above the door surround to hold the surround in place. The pointing is also missing around the door surround, as a result the surround is no longer tied into the structure and as a result it is slowly falling over. It is recommended that this section of wall is taken down and rebuilt.



Photograph (5)

East Elevation

The gable wall to the east elevation is built from random rubble stone; the wall has a single storey outbuilding abutting it but the proposal involves the demolition of this building. The stonework is in good condition but does need re-pointing. The wall is straight and plumb. Metal ties are visible on the East elevation; these have been used to hold in place the corrugated roof sheeting that has been used to re-roof the eastern cottage in the past.



Photograph (6) – East Elevation showing the good condition of the stonework and the metal ties holding the corrugated roof sheeting in place.



Photograph (7) – East Elevation showing the cantilevering stones at the south east corner as identified previously and the adjoining single storey outbuilding that is to be demolished.

North Elevation

The wall to the north elevation is constructed out of random rubble stone. The middle section of stonework to the cottages appears in reasonable condition and is plumb.



Photograph (8) – North Elevation showing main section of stonework in reasonable condition.

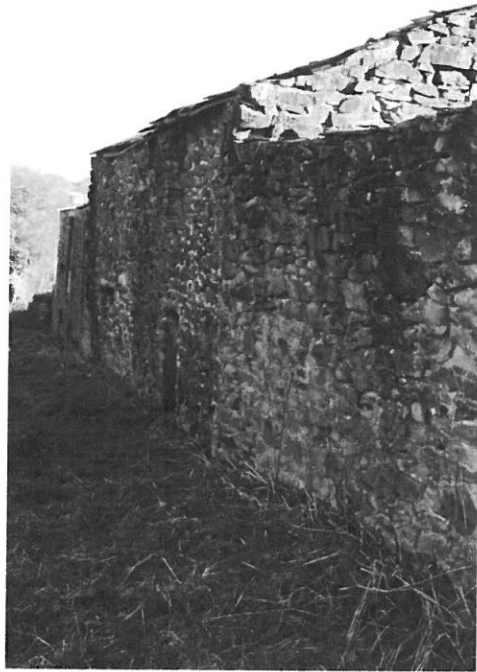
There are however 2 sections of stonework located at the corners of the two storey building where the wall is bowing outwards slightly (please see Appendix A for location).



Photograph (9) – North east corner showing slight bow in wall.

The wall is likely to be bowing in these sections due to the fact that when the adjoining cottages were demolished, the corners have not been properly tied together. This historical movement can be rectified by rebuilding the north/east corner and using stone quoins to tie the walls together.

The proposal involves the existing north west corner being joined by a new section of wall, this will provide stability to the north west corner and prevent further movement. The section of wall identified in Appendix A will still need rebuilding where it is bowing out however.



Photograph (10) – North west corner showing slight bow in wall.

The slight bow at the north/east corner has been further exasperated by the presence of plants growing within the mortar joints in this section of wall, this has been caused due to that fact at some stage the wall has become damp, enabling the plants to take root. The rebuilding of this section of wall as mentioned earlier will rectify this problem.



Photograph (11) – North east corner with plants growing in wall.

The top half of the wall to the north elevation, which forms one of the remaining walls to the fallen down cottages to the west is in poor condition; it is bowing out at the top. This is due to the fact that the roof would have originally provided lateral restraint to the walls of the cottages, when this collapsed/was removed the walls would no longer have had the restraint required to hold them in place, resulting in the bowing at the top of the wall.



Photograph (12) – Wall forming part of the remains of the fallen down cottage showing the bowing at the top.

It can also be seen in photograph (13) below that a crack has formed at the north/west corner, this indicates that the wall which will form the proposed Utility and Garage is moving away from the gable wall of the western cottage. This movement would have begun when the roof was removed from the adjacent cottage and maybe on going.



Photograph (13) – Showing the crack at the north west corner.

The proposals involve building part of this section of wall higher than it is currently (as it would have been originally). Although the bottom section of the wall is in reasonable condition, it is recommended that this section of wall which will form the proposed Utility and Garage be rebuilt. This is because even though the movement of the wall away from the gable wall of the western cottage can be stopped, the wall would also need to be reduced in height until the stonework is in reasonable condition to build up off, which may in turn lead to stability issues.

West Elevation

The wall to the west elevation is constructed out of random rubble stone. The wall is joined at the north west and south west corners by the semi-ruined walls of the now fallen down cottages, that originally stood to the west of the remaining cottages. The adjoining walls are in poor condition and require rebuilding as mentioned previously.

Random rubble stone such as this was built traditionally in two skins of stone with the gap inbetween filled in with all the angular/small sections of stone. In photograph (14) below part of the external "skin" of the random rubble wall has fallen away, a hole has not formed because the internal "skin" of the random rubble wall is still intact. This section of wall may have collapsed along with the roof to the adjacent cottage that is no longer standing.

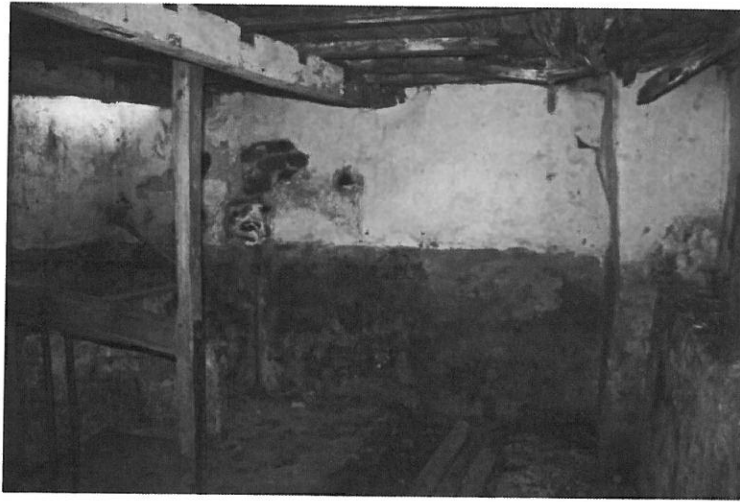


Photograph (14) – Showing the remaining internal skin of the random stone wall.

Other than this section of missing stonework that will be rebuilt during the conversion works, the wall is plumb.

Internal Walls and Floor

The floor structure to the western cottage is in poor/unsafe condition due to years of water ingress. This water ingress has rotted the timber floor boards and joists and led to partial collapse in some areas, which would have been the result of both water ingress and the collapse of the roof structure.



Photograph (15) – Showing the partially collapsing floor to the western cottage.



Photograph (16) – Showing some of the collapsed floor to the western cottage and missing plaster.

This water ingress has also led to large sections of the original plaster coming off the walls as can be seen below, cracks within the plaster are visible where the remaining plaster is becoming loose. The internal walls are plumb and straight.

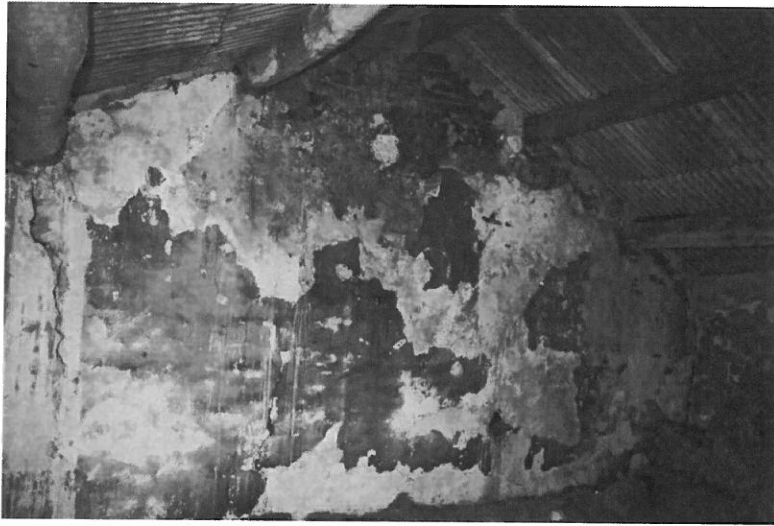


Photograph (17) – Showing plaster missing in the western cottage.

The floor structure to the eastern cottage is in good condition and has been used as a hayloft recently. The internal walls in the eastern cottage are in good condition, although small areas of plaster are missing in places.



Photograph (18) – Showing the good condition of the walls and floor to the eastern cottage.



Photograph (19) – Showing the condition of the walls at first floor in the eastern cottage.

Roof and Roof Structure

Originally, both of the remaining cottages, along with the ruined cottages to the west would have had a grey slate roof, as is traditional of buildings of this age in the area. The cottage to the west still has the remains of a grey slate roof, the majority of this can be seen from the north elevation, see photograph (20). However, the eastern cottage has been re-roofed at some stage and the roof is now covered in corrugated sheeting.



Photograph (20) – Showing the grey slate roof to the western cottage and the corrugated sheeted roof to the eastern cottage.

A large part of the western cottages roof to the north elevation is in tact; however, the majority of the roof to the southern elevation has collapsed. The most likely cause of this is water ingress that will have been allowed to continue unchecked. Over a number of years this will have lead to the timber members in the roof rotting and eventually failing. Consequently, the majority of the roof timbers to the western cottage will need to be replaced; it maybe possible to retain some of the purlins and rafters to the north elevation but these members may need to be repaired if they are to be retained.



Photograph (21) – Showing part of the roof to the western cottage.

The corrugated roof to the eastern cottage is in reasonable condition, there is however one roof sheet missing to the north elevation. Due to the fact the roof to the eastern cottage has been relatively watertight; the purlins are in reasonable condition, there are no rafters in the roof structure, these would have been removed when the roof was re-covered because they were no longer needed when the grey slate was replaced with corrugated sheeting.



Photograph (22) – Showing the condition of the roof structure to the eastern cottage.

The conversion of the redundant cottages, would have ultimately led to the need to re-roof the building due to the fact the cottages need to be brought up to modern housing standards, which would involve felting and insulating the roof. The poor condition of the roof to the western cottage and the agricultural roof covering to the eastern cottage, provide the ideal opportunity to re-roof the redundant cottages and restore the traditional grey slate roof.

1. Conclusion

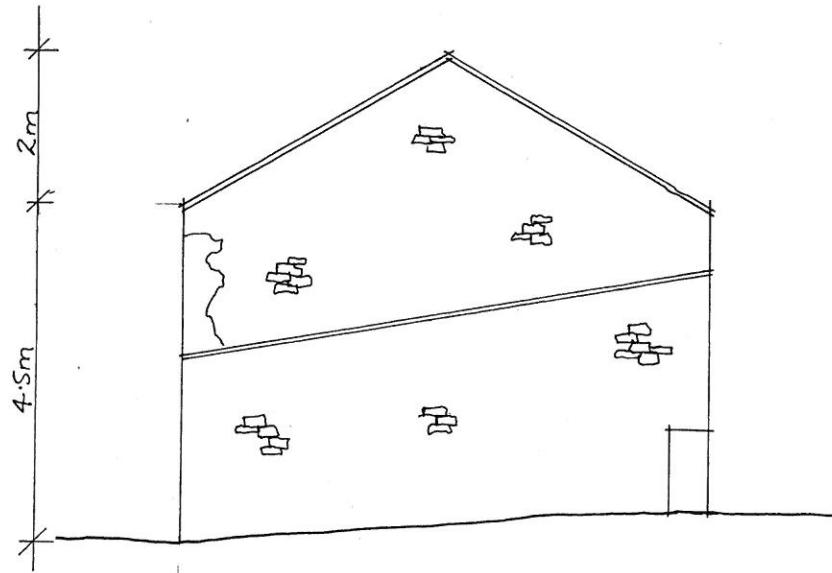
In conclusion, the western cottage, although in poor aesthetic condition and with a large amount of rotting timbers due to water ingress is structurally sound. There is one section of wall that needs rebuilding, as indicated in Appendix A. The gable wall that will be hidden from view when the new build element of the conversion is erected also needs rebuilding, where the external skin has fallen away.

The eastern cottage is in much better condition, this cottage also has a section of wall that requires rebuilding and the north east and south east corners require tying together where the cantilevering stones are projecting out. The cottages are both structurally sound. Aesthetically the cottages require re-pointing after years of lack of maintenance but this is to be expected when converting redundant cottages of this age.

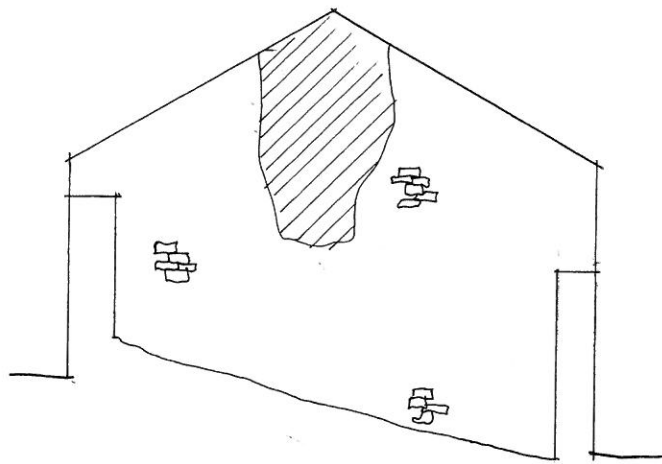
Internally a large number of the timbers to the western cottage will need to be replaced due to the majority of them showing signs of rotting due to water ingress. In the eastern cottage the majority of the timber purlins will be retained, new rafters will need to be installed because currently there are none. The floors to both of the cottages will need to be replaced, even though the floor to the eastern cottage is in good condition, if it were to be retained trimming out the floor for the stair well could lead to the existing joists being weakened. As mentioned earlier the roof will need to be re-roofed.

This condition assessment of the redundant cottages shows that the cottages are in reasonable condition, and can be converted without major intervention. As noted repairs and renewals are required to all areas of the structure, these repairs and renewals are to be expected when converting buildings of such age. If the cottages had been subject to an adequate repair programme these renewals required would have been carried out periodically throughout the buildings life.

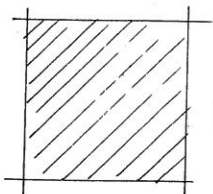
Appendix A



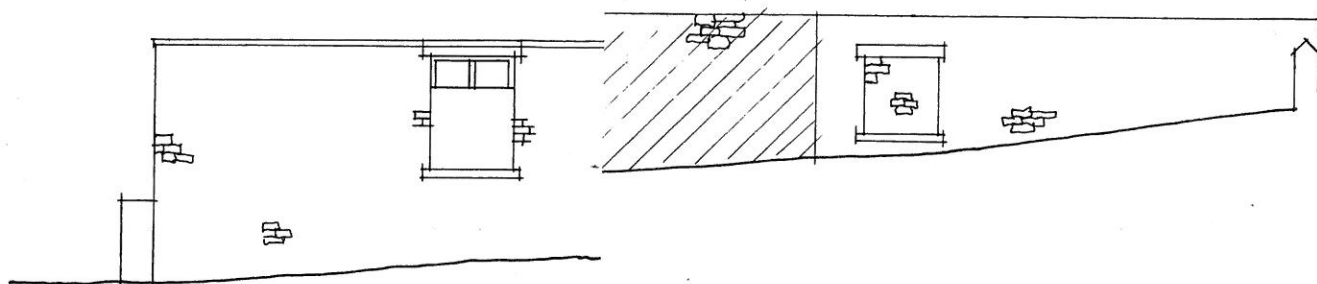
East Elevation



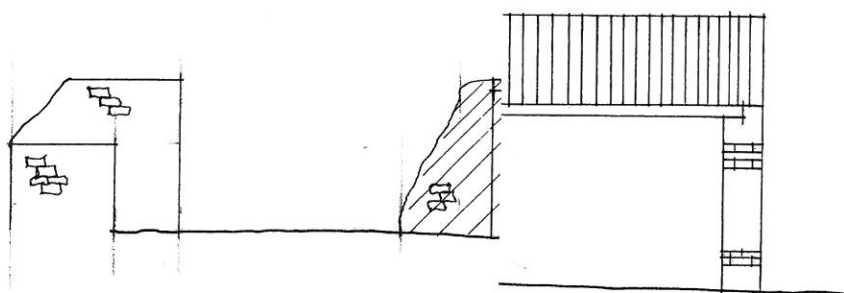
West Elevation



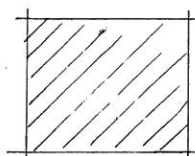
External skin of random rubble to be rebuilt.



North Elevation



South Elevation



Walls to be rebu

320130051P

BAT SURVEY

AT

COTTAGES AT
TOP ROW
SABDEN

DATE AND TIME OF VISIT
3rd Dec 2012 3.30pm

WEATHER CONDITIONS

2°C OVERCAST LIGHT RAIN, STRONG BREEZE.

REFERENCE NO. GILL



Survey carried out by:

Lynne Rushworth
Sunderland Peacock & Associates Ltd.
Hazelmere
Pimlico road
Clitheroe
BB7 2AG

**THIS SURVEY HAS BEEN CARRIED OUT BY: LYNNE RUSHWORTH WHO HAS
COMPLETED THE BAT CONSERVATION TRUST'S 'BATS AND BAT SURVEYS' FOUNDATION
COURSE FOR CONSULTANTS, AND 'PLANNING AND PREPARATION OF BAT SURVEYS'
COURSE**

All British bats and their roosts are legally protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation (Natural Habitats) Regulations 2007.

THE BRIEF

In conjunction with the submission of an application for planning approval, to identify if bats are present in the building and the past or possible future use of the building by bats.

BAT LEGISLATION - Summary of offences under the law:

- Intentionally kill, injure or capture a bat.
- Possess or control a live or dead bat, or any part or derivative of a bat.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a bat uses for shelter or protection whether currently used or not.
- Intentionally or recklessly disturb a bat while occupying a structure or place of shelter or protection. ('Recklessly' is defined as deliberately take unacceptable risk or fail to notice or consider an obvious risk).

LIMITATIONS OF REPORT

***NOTE:** The absence of bats is near impossible to prove. The bats' high mobility means it is virtually impossible to rule out bats using any type of structure for roosting or habitat for foraging or on a flight path.*

- External walls and internal rooms inspected from ground level.
- Roof spaces, attics and lofts will only be inspected if safe access is possible.
- Winter surveys will provide limited results. However internal inspection should determine if bats have used the building in the previous year.
- Any building whose structure is considered dangerous can only be inspected from a safe distance.

EQUIPMENT USED ON SURVEY

- 'MAGENTA 5' BAT DETECTOR
- BINOCULARS
- HIGH POWERED TORCH
- LADDERS FOR HIGH LEVEL INSPECTION
- CAMERA

PROPOSED DEVELOPMENT

Renovation of vacant cottages into a single dwelling. Demolition of the single storey shippon.

TYPE OF BUILDING

☒	HOUSE
☐	BARN
☐	GARAGE
☐	OTHER

COMMENTS: The building consists of cottages dating from the 18th C with a single storey recent addition Shippon to the east.



LOCATION

☐	URBAN
☐	SMALL TOWN/URBAN VILLAGE
☒	RURAL/VILLAGE

COMMENTS: The building is located on the boundary of the settlement area of Sabden.

BUILDING ADJACENT TO OR WITHIN 10M OF

☒	TREES
☐	HEDGEROW
☐	OPEN WATER

COMMENTS: The cottages are surrounded by agricultural land to three sides with a terraced row of properties to the west. Lines of hedgerow/ minor trees follow two field boundaries to the east.



WALL CONSTRUCTION

X

STONE
BRICK
STEEL
BRICK/BLOCK AND RENDER
OTHER

COMMENTS: The cottages have partially fallen down and the section remaining standing is in very poor condition. The walls are random stone the front south elevation has a render finish.



ROOF CONSTRUCTION

X

SLATE
TILE
GREY SLATE
STEEL
FLAT ROOF FELT

COMMENTS: One cottage has grey slate roof covering the cottage to the east has corrugated cement sheets.



BAT ACCESS POINTS IN WALLS

Yes No

X	
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COMMENTS: The cottages are partially fallen down and the rubble walls have numerous cracks and crevices. The interior of the building is not enclosed.

BAT SIGNS, EXTERNAL SEEN
DROPPINGS
MAGENTA BAT5 DETECTOR RESULT

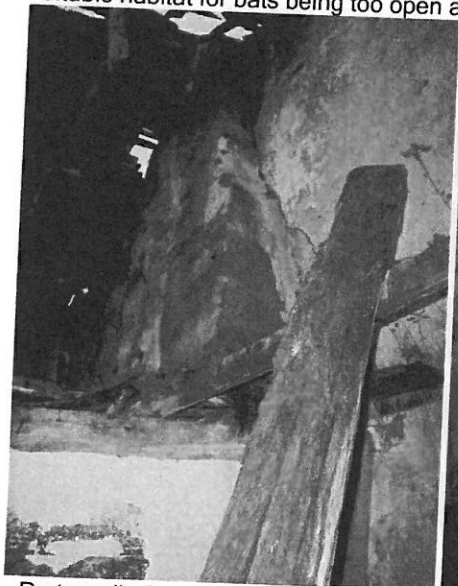
Yes	No
	X
	X
	X

COMMENTS: The exterior of the property was examined for signs of droppings, urine stains and grease or scratch marks. Due to the necessity of the survey being carried out in late autumn the use of the detector was not necessary as bats are inactive during the winter months. No external evidence was found.

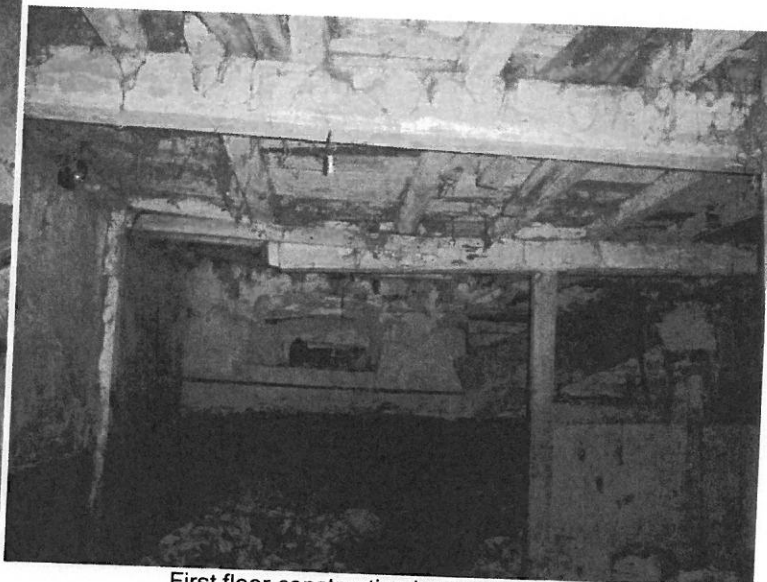
ROOF SPACE TRUSSED
PURLINS
FELT

Yes	No
	X
X	
	X

COMMENTS: The roof structures are in poor condition with no enclosed roof space. They do not provide a suitable habitat for bats being too open and draughty.



Party wall of cottages.



First floor construction in one cottage.

BAT ACCESS POINTS IN ROOF

Yes	No
X	

COMMENTS: Bats have free access due to the poor condition of the roof slates and sheeting into the buildings.

BAT SIGNS, INTERNAL

SIGHTED
DROPPINGS
DETECTOR RESULTS
STAINING/GREASE MARKS
SUSPECT SUMMER ROOST
SUSPECT WINTER HIBERNACULA
INSECT OR MOTH FEEDING EVIDENCE

Yes	No
	X
	X
	X
	X
	X
	X
	X

COMMENTS: This snapshot of information has been undertaken at an inactive time of year making the use of the detector unnecessary. After careful inspection of the buildings, no evidence could be found that bats are currently hibernating and no signs were evident that bats have used the building in the past for roosting or breeding, certainly not in any significant number.

CONCLUSION

This survey was carried out during the minimal bat activity period due to the necessity of the owner to progress with the application. The main conclusion from this survey was that it does not appear that bats use the building for hibernation. It could not be concluded however that bats do not roost or breed in the buildings during the summer months, although no significant evidence could be found to indicate that much activity occurs. If work to the roof was carried out during the winter months or the building is netted to prevent access in spring no bats should be harmed during this renovation and the roosting potential of the building by incorporating the suggested mitigation.

MITIGATION RECOMMENDATIONS

It is recommended that any re-roofing should be carried out during the autumn and winter months when bats are inactive and it is highly unlikely that any bats are present in the building.

To accommodate any Summer visiting bats, roosting habitat should be provided by incorporating:-

- Bat tubes into the walls of the south east elevation.
- Bat slates to be installed to allow Pipistrelle to roost between the felt and slate.
- Gaps formed at the eaves to allow access to the roof void. See attached illustration.
- Areas of pointing to be omitted forming suitable roosting crevices. See attached illustrations.

The integration of bat roosting habitat will not cause disturbance to the inhabitants nor visually affect the property. It can be incorporated easily and comply with Planning and building regulation requirements.

Bats do not nibble or gnaw at wires, insulation or timbers. The droppings are dry and crumbly without a strong aroma and have no known health risks with them.

NOTES:

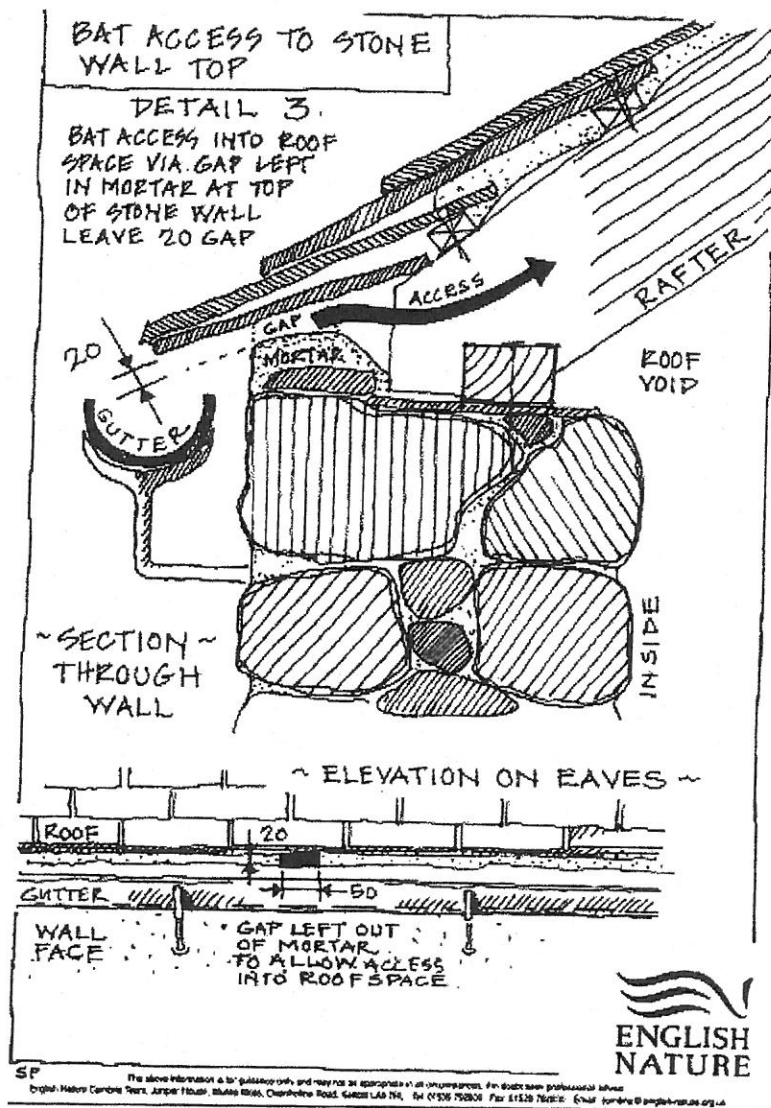
The precautions below should be incorporated in the unlikely event that any bats are found to be present in the intervening time between surveys and work commencing on site. When bats are found to be present in a building:

- A NATURAL ENGLAND licence will be required before any building work is undertaken.
- Pointing work should not be undertaken during winter months as hibernating bats might be entombed.
- Work to roof structure should not be undertaken between late May, June, July and August.
- Small areas of wall could be left un-pointed to encourage potential roosting sites.
- Care must be taken when removing existing roof timbers, and any new timbers or treatment of existing timbers must be carried out using chemicals listed as safe for bat roosts.
- NOTE: The onus lies with the applicant to satisfy themselves that no offence will be committed if the development goes ahead.

If bats are ever found during building work, stop work immediately and contact the Bat Conservation Trust or Natural England.

The Bat Conservation Trust
15 Cloisters House
8 Battersea Park Road
London SW8 4BG

Natural England Cheshire-Lancashire Team
Cheshire-Lancashire Team
Pier House
Wallgate





Retaining a cavity

