

SUTTON BARN, BROOK LANE, ENDON

LEVEL 3 SURVEY

Prepared on behalf of MR and MRS D PENNINGTON

21ST SEPTEMBER 2016



mel morris
conservation

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LEVEL 3 SURVEY

I. Introduction

1.1 Mel Morris is an architectural historian, with a postgraduate qualification in conservation. She is a full member of the Institute of Historic Building Conservation and abides by the Institute's code of conduct and ethics. She has worked with historic buildings for 29 years, undertaking detailed analysis of building development, making assessments of significance, and advising on their conservation.

1.2 Mel Morris Conservation has been commissioned by Mr and Mrs D Pennington to prepare a Level 3 Survey, to current Historic England standards. Paragraph 141 of NPPF states:

"141. Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible.³⁰ However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted."

1.3 This report sets out the historic development of the building and assesses the special architectural and historic interest of the building. Documentary and cartographic research has also been used to inform the assessment.

2. Summary Description and Level 3 Survey HE Standards

2.1 The farmstead at Sutton House is situated alongside Brook Lane at grid reference 392904, 353833 and the main barn runs parallel with the road, creating an enclosed foldyard, a loose-courtyard arrangement which is framed by a separate barn / stable to the west and a detached coach-house to the south. The farmstead is now in separate ownership from Sutton House.

2.2 The main barn is particularly prominent from Brook Lane and located within the Endon Conservation Area. All three buildings ranged around the courtyard are listed grade II in their own right.

2.3 The main barn is a combination farm building. It was divided into a number of specialised functions, all under one roof and built in one phase. It could be described as a bank barn, as it was built parallel to the hillside and made efficient use of the sloping ground in this part of Endon, with access at multiple levels.

2.4 English Heritage have identified this as a particular agricultural building type:

"The seventeenth and eighteenth centuries witnessed increased efforts to unite these activities into one range, especially in pastoral areas with little corn and longer winters and where there was an obvious advantage in having cattle and their fodder in one enclosed building." (English Heritage Listing Selection Guidelines – Agricultural Buildings 2011)

2.5 The building appears to date from circa 1700, based on the dateable features and the other known bank barns, and is later than the stable building to the west of the foldyard. As there was a farm established by the Sutton family from the 16th century, it may, therefore, have replaced an earlier and simpler cruck-framed building.

2.6 The separate functions within the long barn comprised a threshing barn to the northern part of the building, with a cow-house and hayloft to the catslide to the east. The southern section of the building also had specialised functions but the specific purpose of these is not as easy to identify, as the internal timber partitions and floor structure have been removed.

2.7 Current Historic England guidance on Level 3 Surveys sets the following standards. The specific drawings included within this survey are underscored:

“5.3 Level 3

5.3.1 Level 3 is an analytical record, and will comprise an introductory description followed by a systematic account of the building’s origins, development and use. The record will include an account of the evidence on which the analysis has been based, allowing the validity of the record to be re-examined in detail. It will also include all drawn and photographic records that may be required to illustrate the building’s appearance and structure and to support an historical analysis.

5.3.2 The information contained in the record will for the most part have been obtained through an examination of the building itself. The documentary sources used are likely to be those which are most readily accessible, such as historic Ordnance Survey maps, trade directories and other published sources. The record may contain some discussion the building’s broader stylistic or historical context and importance. It may form part of a wider survey of a number of buildings which will aim at an overall synthesis, such as a thematic or regional publication, when the use of additional source material may be necessary as well as a broader historical and architectural discussion of the buildings as a group. A Level 3 record may also be appropriate when the fabric of a building is under threat, but time or resources are insufficient to allow for detailed documentary research, or where the scope for such research is limited.

5.3.3 A Level 3 record will typically consist of:

- drawing – normally item 2; sometimes one or more of items 3-12 (see numbered list in 4.3.3 - below)
- photography – items 1-9 (see numbered list in 4.4.8)
- written account – items 1-3, 6-9, 11-13, 23; sometimes items 5, 14-16, 18-20, 22 & 24 (see numbered list in 4.5.1)

4.3.3 (Drawings)

2 Measured plans (to scale or fully dimensioned) as existing. These may extend to all floors, or they may be restricted to one or a selection.Plans should show the form and location of any structural features of historic significance, such as blocked doorways, windows and fireplaces, masonry joints, ceiling beams and other changes in floor and ceiling levels, and any evidence for fixtures of significance.

3 Measured drawings recording the form or location of other significant structural detail (for example timber or metal framing).

4 Measured cross-sections or long-sections to illustrate the vertical relationships within a building (for example floor and ceiling heights, the form of roof trusses).

5 Measured drawings to show the form of any architectural decoration (for example the moulding profiles of door surrounds, beams, mullions and cornices) or small- scale functional detail not easily captured by photography. A measured detail drawing is particularly valuable when the feature in question is an aid to dating.

6 Measured elevations, where these are necessary to an understanding of the building’s design, development or function.

7 A site plan relating the building to other structures and to any related topographical and landscape features.

8 A plan or plans identifying the location and direction of accompanying photographs.

9 Copies of earlier drawings throwing light on the building’s history.

10 Three-dimensional projections when these are of value in understanding the building. If these are to be considered components of the record they must always be accompanied by measured plans, sections and elevational details.

11 Reconstruction drawings and phased drawings, when these are of value. In phased drawings successive phases of a building's development may be shown by graded tone (dark to light, with the darker being the earlier) or by colour, by sequential diagrams or by annotation. Whenever phased drawings are included in a record, they must be accompanied by the unmarked drawings on which they are based.

12 Diagrams interpreting the movement of materials (process flow) or people (circulation), or the segregation of people or activities (for example permeability diagrams), where these are warranted by the complexity of the subject. As with 10 and 11, the evidence supporting the interpretations must be provided.

4.4.8 (Photography)

Site photography may include one or more of the following. This list should be referred to when deciding on a record level as outlined in Section 5.

1. A general view or views of the building (in its wider setting or landscape if 2 (below) is also to be adopted).
2. The building's external appearance. Typically a series of oblique views will show all external elevations of the building, and give an overall impression of its size and shape. Where individual elevations include complex historical information it may also be appropriate to take views at right-angles to the plane of the elevation.
3. Further views may be desirable to reflect the original design intentions of the builder or architect, where these are known from documentary sources or can be inferred from the building or its setting.
4. The overall appearance of the principal rooms and circulation areas. The approach will be similar to that outlined in 2.
5. Any external or internal detail, structural or decorative, which is relevant to the building's design, development and use, with scale where appropriate.
6. Any machinery or other plant, or evidence for its former existence.
7. Any dates or other inscriptions; any signage, makers' plates or graffiti which contribute to an understanding of the building. A transcription should be made wherever characters are difficult to interpret.
8. Any building contents which have a significant bearing on the building's history (for example, a cheese press, a malt shovel).
9. Copies of maps, drawings, views and photographs, present in the building and illustrating its development or that of its site. The owner's written consent may be required where copies are to be deposited in an archive.

Full details of report-writing criteria are included in Appendix 3.

3. Documentary Research

3.1 All of the buildings on the site were established by the early 19th century and as there is no Tithe map for Endon, there is little in the way of map regression that can be carried out to inform any phasing. All of the phasing evidence relies upon understanding national typologies, local building characteristics and detailed examination of the fabric.

3.2 Agriculture in Leek area was dominated by pastoral farming but there were some relatively small areas of arable production in the broader and flatter valleys around Endon, Horton and Bradnop:

“Leek’s pastoral base is indisputable, the inevitable result of altitude, hilly terrain...Livestock took pride of place in all the farming inventories, cattle being supplemented in varying quantities by sheep.”¹

3.3 By the time of the Hearth Tax assessment of 1666, 40 people in Endon were assessed as liable to pay tax. The largest house had six hearths and belonged to Joseph Wilkinson. By the time of the 1821 census, the population was 445². Sutton House was occupied by the Sutton family for at least four centuries³.

3.4 Census Returns

Although not described in detail, the 19th century census returns contain different degrees of information about the size of farms and acreage is often described. By 1861, the main part of the township of Endon supported 11 named farms with many agricultural labourers listed, possibly owning smallholdings, and 3 retired farmers. The pattern of ownership at Sutton House suggests that it changed hands many times during the 19th century and that there was no single large landowner, which is generally indicative that by the early 19th century the land was not being farmed through several generations of the same family. In 1847 Sutton House had 72 acres⁴. During the second half of the 19th century Sutton House was not owned by a farmer. This may reflect the fact that land had been sold off and other farms had consolidated and amalgamated their agricultural holdings. Certainly the use of the main barn as an almost exclusive threshing / hay barn in the mid 19th century, with limited evidence of buildings for livestock at this date, is unusual. It may have simply provided space for storage of unthreshed crops and hay, which could be shared with or rented by other farmers.

3.5 The census return of 1861 is the most informative:

Census return of 1861 – Farmers in Endon Township / Village

Endon Village	(Bentley, Farmer of 97 acres)
Endon Bank	(Heath, Farmer of 81 acres) (Goodwin, Farmer of 116 acres)
Lane Head Farm	(Harrison, Farmer of 141 acres)
Knowles Farm	(Critchlow, Farmer of 128 acres)
Ashes Farm	(Mountford, Farmer of 143 acres)
Hollin House	(Critchlow, Farmer of 128 acres)
Gatehouse	(Bentley, Farmer of 52 acres)

1 “Landscape with Buildings: A North Staffordshire Study based on the Medieval Parish of Leek”, Faith Cleverdon, 2002, University of Sheffield PhD Thesis

2 Ibid.

3 Endon Conservation Area Appraisal

4 Endon Conservation Area Appraisal - source not quoted

Woodcock Hurst (Deane, Farmer of 73 acres)
Hole House Lane (Unwin, Farmer of 25 acres)
(Boulton, Farmer of 29 acres)

Sutton House is named in 1861, occupied by Thomas Pinder Earthenware Manufacturer (d. 1867), but not identified as a farm and no acreage is given.

3.6 The earlier census returns identify other occupiers:

1841 – Charles Heaton, Land Surveyor (probably Sutton House, not named)

1851 – John Minshull Attornies Clerk (probably Sutton House, not named)

1871 – Edmund Tennant, Attorney, is the occupier and amongst his staff is a Groom; by 1881 he was a Coachman

3.7 The character of the upland farms in this part of Staffordshire, and the type of farming undertaken, is described in detail by Faith Cleverdon in her PhD thesis:

“At Endon intermingled holdings indicate the position of the old town on a hilltop (at Endon Bank), where two tofts and three farms survived in 1816. ... At Endon the early settlement was on a hilltop adjacent to its open fields, but to the east are a series of properties whose architecture and lack of relationship to the open fields argues for sixteenth century expansion. The largest is Sutton House where a cruck framed crosswing probably dates to the early sixteenth century⁵.

By the 1670s the proportion of farms with oxen had fallen still further; diminishing to a mere handful by the 1730s. Oats appear to have been the basic crop grown for both animals and men, but barley, the basis for ale making, was also present. That the major farmers were moving with the times is shown by the inclusion of ‘corn and vetches’ valued at £30 amongst the fodder available for John Radford’s herd at Bottom in 1736.

All the inventories for the period 1551-60 indicate ownership of cattle, ranging from James Bradshaw with a herd of 53, to Agnes Fowall with a half share in a single beast. Sheep were in evidence on most of the major farms. Both pigs and poultry are regularly documented from the sixteenth century and a pigsty with a hen-loft above was a commonplace in most farmyards. Josiah Ford’s inventory, dated to January 1732, sums up the mainstream fanning of the area. His 28 cattle and 48 sheep were housed in three centres, his bull and his milking herd at Heath House, Horton, heifers, calves and sheep at Mellor Barn, and twinters at Horton Barn, where he had 60,50 and 126 strikes of oats respectively, together with four strikes of wheat, and one of barley held at Heath House! This pattern of split-site farming is still readily recognizable in the Moorlands, where land to be ‘set’ is auctioned on an annual basis and stock may be run on land which is many miles from the main farm. ⁶”

5 Cleverdon, p53-54

6 Ibid.

4. Dating Evidence and Phasing

4.1 In the absence of accurate documentary information about the farmstead, much of the dating evidence is based upon typologies, local characteristics and comparison with other known dated examples.

4.2 17th Century

The earliest building on the site comprises the range containing the Stable. The following details are some of the elements which provide dating evidence for the mid-late 17th century building on the site:

- Evidence for timber-frame construction in internal dividing walls (by deduction)
- Large stone plinths
- Quoins with rounded dressed stone and long and short quoins of varying course heights
- Chamfered and double-chamfered mullioned windows
- Stone-coped gables with chamfered copings
- Four-centred arched doorway (2nd half of C17)⁷

4.3 1680-1720

4.3.1 The list description states that the main combination barn is 17th century. However, there are a few differences in construction technique between this and the smaller barn adjoining the Stable and the presence of two buildings with similar original functions suggests that the large bank barn post-dates the other, although it is not unknown for there to be multiple barns in one phase around a foldyard. The main differences in construction are the lack of a distinct stone plinth on the large bank barn and no difference in the massing of the lower courses. The earlier building has massive courses of stone forming the plinth. Whilst stylistically many of the details were long-lived in the Staffordshire Moorlands and the coursed masonry of the walls is similar (split-faced rather than dressed) and has not weathered in the same way as the quoins, which may have come from a different quarried source, the evidence suggests that the building is probably pre 1720 and not pre 1680. Unfortunately, the main dating evidence, the roof structure, has been removed.

4.3.2 There were a number of changes in the local and national economy, with more secure tenures and improved farming methods, which enabled farmers to build with greater confidence which meant that combination "bank barns" started to appear more regularly in the early 18th century. Although there is considerable variation around England and Wales, the earliest reliably dated bank barns in the Lake District are of mid-to-late seventeenth century date, within the farmsteads of the landed gentry. The earliest dated example is 1659 and there is another at Coniston dated 1688⁸. Brunskill and others have previously asserted that the earliest example was dated 1735⁹. In upland areas such as North Staffordshire and Cumbria hay and straw were traditionally stored indoors, not stacked outside and there was therefore motivation to build economically to protect the crop. However, elsewhere, in Monmouthshire there were combined barns and cowhouses below one bay, built on sloping ground, from about 1550 to 1675¹⁰. In Radnorshire, the earliest of this type was erected in 1713.

4.3.3 It is difficult to conceive that the Sutton family were so ahead of their time that they built one of the earliest bank barns in England, if the list description is to be relied upon. Instead, it is more likely that they had already seen at least one example of this building type when they decided to build on this scale.

7 Dated examples locally include Fairboroughs Farmhouse, Heaton (Tudor arch dated 1673), Heywood Grange, Dilhorne (Tudor arch dated 1672), and Low End Farmhouse, Sheen (Stable and Tudor arch dated 1666) – English Heritage database.

8 Whittaker, T. "The Bank Barns of Cumbria", p.14, Historic Farm Buildings Group Journal, vol. 15, 2001

9 Brunskill, R.W. "Vernacular Architecture of the Lake Counties" (1974), pp. 84-6

10 Fox and Raglan, "Monmouthshire Houses" (1951)

4.3.4 The following details jointly point to a single phase construction date around the turn of the 18th century, between 1680 and 1720:

- Internally splayed window and door surrounds with substantial quoined masonry
- Evidence for timber-frame construction in internal dividing walls (by deduction and surviving fragments ex-situ)
- Chamfered door and window surrounds, with run-out stops to the lintel chamfers
- Large quoins to outer and inner corners in conjunction with smaller regular courses of squared masonry
- Chamfered mullioned window (remnants) with deep chamfers, mullion missing set on outer face of masonry, mortices with diamond-section sockets for iron bars and narrow rebates for leaded lights. Locally dates for this type of window vary between 1628 and 1742 (Cleverdon)
- Presence of relatively small winnowing doors and stone threshing floor
- Substantial square-section oak joists and forked post (ex-situ)
- Remnants of stone-coped gables and kneelers

4.3.5 The original appearance of the roofs can be seen in the reconstruction drawing of the south elevation (Plate 4).

4.4 Mid – late 18th Century

The following details are some of the elements which provide dating evidence for mid-late 18th century buildings on the site:

- Square-faced block-mullioned windows
- Raised stone coped gables
- Regular coursing and masonry
- Regular quoins
- Squared door surrounds (without chamfers)
- Internal dividing walls of mid 18th century brickwork (post 1725) to both barns
- Sutton House – the front wing of the farmhouse was built in brick in the 18th century

4.5 19th Century

4.5.1 The current four roof trusses within the main barn were all added in the mid 19th century. They contain king post trusses, which are jointed with a coach bolt threaded through the centre of the tie beam and the main post, in a typical mid 19th century detail. These are coeval with the inserted brick piers, the upper section of the brick dividing wall and all of the purlins, which were imported Baltic timber (Scots pine), and still bear the batch / containment numbers.

4.5.2 The same details were adopted for the second barn and two large, king post trusses were inserted into this range when it was re-roofed and the eaves raised in the 19th century.

4.6 20th Century

4.6.1 There have been several alterations undertaken during the 20th century. The most significant of these is the insertion of two tractor-sized openings in the Bank Barn, one to the north gable and one to the internal brick dividing wall. When this elevation was linked to the fields to the north, it made the building accessible for machinery and storage of hay bales. However, it is now divorced from the fields to the north, which are in separate ownership.

4.6.2 Other 20th century alterations are of similar construction detail and materials and include the insertion of concrete and steel lintels into the Stable Range and timber hopper windows.

5. Description of Each Range

The buildings are described in date order, commencing with the earliest building on the site.

5.1 Stable Building and Cartshed Range (Barn 2)



The list description identifies the Stable Building as 17th century. The main dating evidence within this building is the small mullioned window and the four-centred (Tudor) arched doorway. These details are found from 1600-1680, but the plainer four-centred arched lintel is more typical of the second half of the 17th century¹¹.

The list description states that the range to the right is not included in the listing. This is quite unhelpful as the Stable is part of a three-bay 17th century building, of which the north elevation and east elevation still survive, albeit lowered. The brick gable on the east side of the stable represents infill, rather than a remodelling of an earlier stone gable.

¹¹ See note 6



The former end wall of a late 17th century barn survives within the dividing wall of the 19th century cart bays



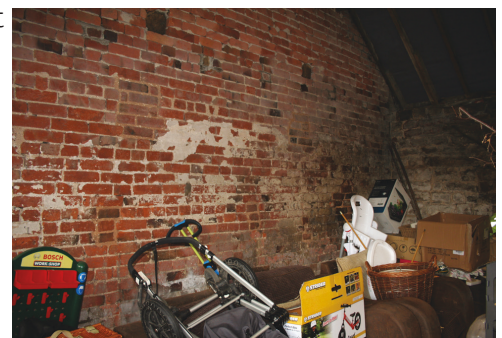
The Tudor-arched stable door and window are coeval with the end wall (left) with its ventilation slots

The Stable building is identifiable as a purpose-built stable but it was part of a combination building. At this time, with the exception of dairies and domestic uses, stables were generally the only agricultural buildings to be lit by proper windows at ground floor level. The combination of a small window alongside a large doorway is quite particular to stables and they held a slightly higher status than other buildings in the farmstead. In the Moorlands a stable usually catered for one or two horses separated by stalls, during the 17th century, and generally no more. The building continued in use as stables for all of its life and is still fitted out with mangers and brackets for saddles and tack.

Evidence for the three-bay 17th century building lies in the stone quoined door surround to the stable, which extends across the next bay, and the stonework on the back elevation, plinth, quoins and massing of the masonry. The presence of the ventilation slots along the back wall and thick returning wall (now internal) indicate that this was originally a full-height hay barn and it retains a stone plinth and massive quoins. A reconstruction drawing showing how this building would have looked is included at Plate 2.

The back wall of the barn was later supplemented with three large stone buttresses, a distinctive addition to many Moorland farm buildings. A brick wall was inserted in the mid 18th century to separate the upper two bays from the lower third bay, but this was not on the alignment of the original bay division / truss. The door to the central bay, which contains shaped stone reveals, is contemporary with this phase.

During the late 18th century a bay was added to the barn. As there is no evidence that it was tied into the original stonework to the foldyard elevation, it may have been simply built as an open cart bay. It was a single-storey structure, with a stone-coped gable, and was later remodelled and heightened in brick in the 19th century at which time the original roof was raised.



Brickwork dating from after 1725 divides the bottom bay from the upper two bays.

During the late 19th and 20th century the middle (second) bay of the barn was adapted to become a milking shed and around this time a brick wall was inserted to separate it from the stable. The central bay now has a central feeding passage, two rows of stalls with feeding troughs and a pair of inserted windows. The door was originally lower but was raised and the original stone lintel replaced in concrete.

The third bay of the barn was remodelled to become a cart bay, requiring most of the stonework to the foldyard elevation to be removed. However, a substantial section of stone plinth survives. The stonework was chopped out to the foldyard elevation and a new king post truss was inserted, fixed to an inserted stone pier on the back (north) wall.

The whole of this block was re-roofed during the 19th century, at which time the Stable building was heightened by three courses of stone, the barn roof was then separated from the stable and lowered by several courses and the three separate stone-coped gables were removed and replaced with a continuous, unbroken Staffordshire blue clay tiled roof.



19th century re-roofing comprised inserting king post roof trusses, raising the eastern gable in brick, and lowering the eaves of the barn, remodelling the stable and inserting a new brick dividing wall to form a separate brick gable

Although this building has been significantly altered, it retains the massing of its 17th century form, and some of the detail, albeit altered. The presence of cart bays reveals the development of the site in the 19th and 20th century.

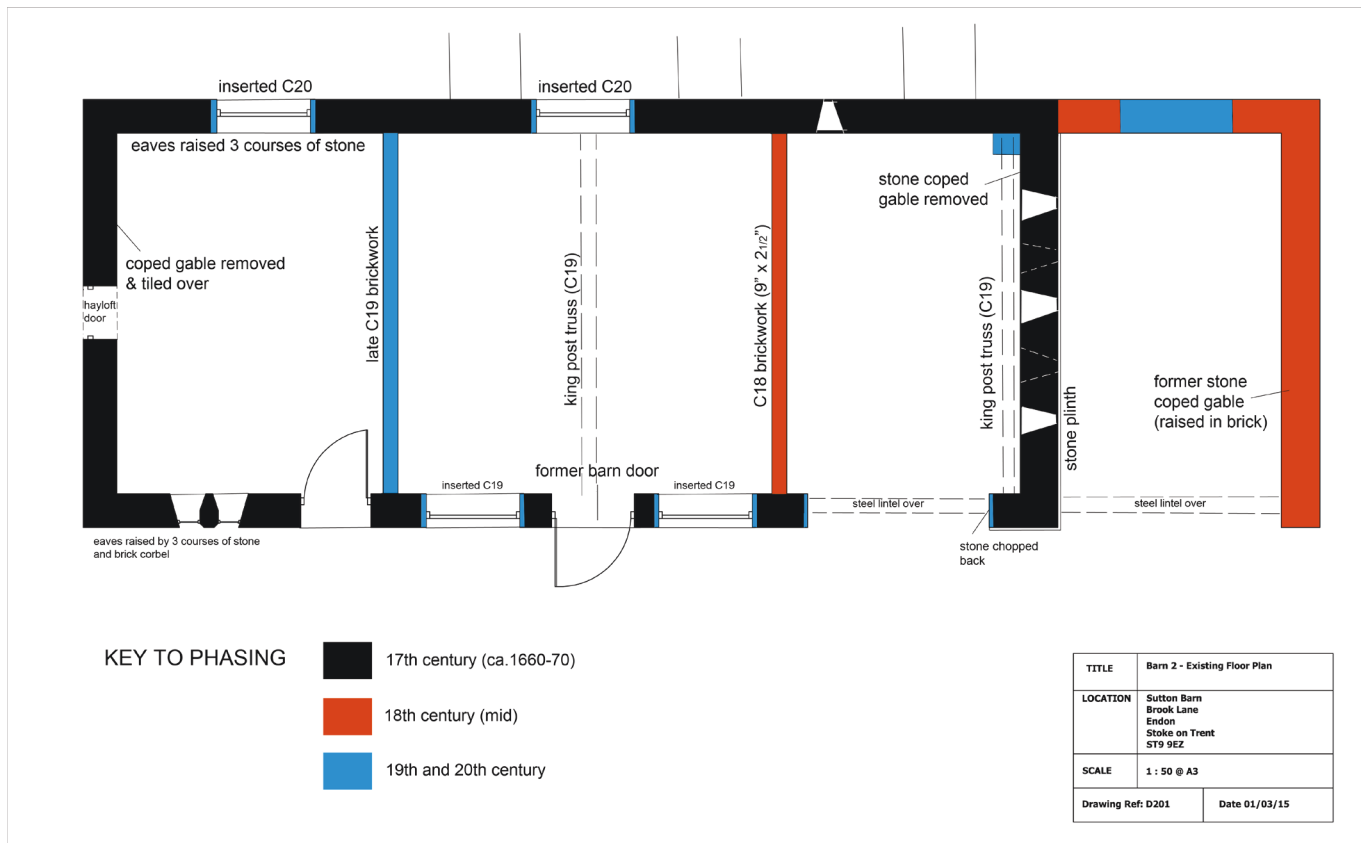


Plate 1 - Phase drawing showing the development of the building, as: Phase 1 - a stable and barn, Phase 2 - as a stable and cowhouse, Phase 3 - as a stable, cowhouse, store and cart bay, Phase 4 - stable, milking shed and two cart bays

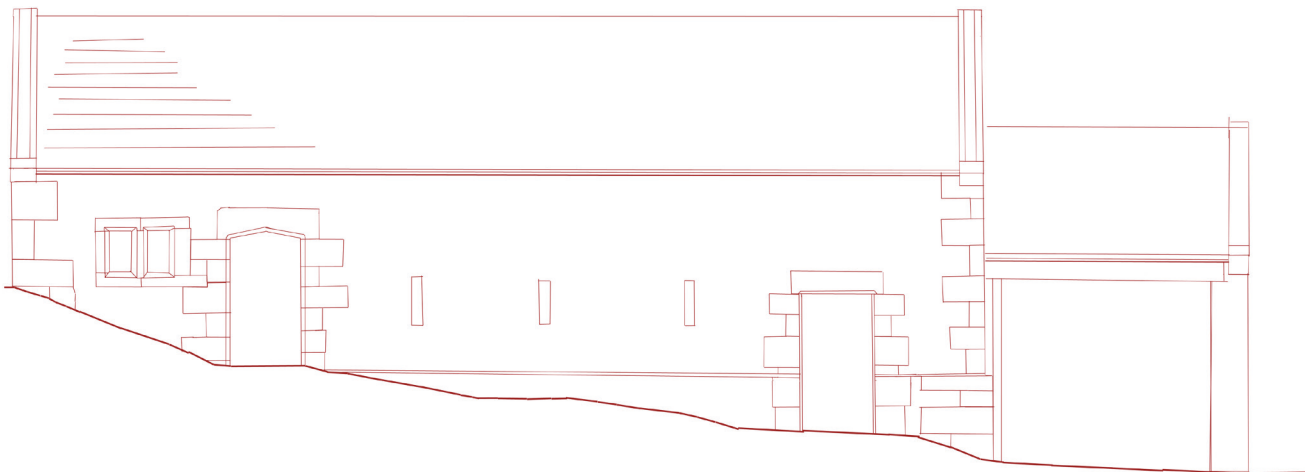


Plate 2 - Reconstruction drawing showing the probable appearance of the 17th century combination barn and stable, with the later 18th century cart bay, prior to 19th century remodelling

5.2 Combination Bank Barn (Barn I)

The purpose-built barn was arranged longitudinally along the contours of the site and divided internally into at least three separate functions, and probably four or five. Although the original trusses have been replaced, the proportions of the barn lend themselves to a bay division of six bays, three to each half. The list description calls this a “long ...hayloft over cowshed”. This is incorrect.

The southern half of the building contained an upper and lower (catslide) section, the lower section is approached from either the road or the northern end, but originally appears to have been approached just from the northern return.



5.2.1 The Underhoused Cow-house (catslide roof)

This lower section of the combination barn contained a cow-house, which was reached from the lower ground level, originally by a single doorway on the sheltered northern return (pictured right). There was a hayloft over the calf house, which was once lit by a glazed chamfered mullioned window in the north elevation and ventilated through the surviving breathers on the roadside elevation. The slope of the site enabled hay and straw to be moved into the loft within the uphill barn, stored and removed for consumption at low level, reducing the need to lift and handle fodder.



Oak posts (former joists) set aside. The sockets for the joists can still be seen in the masonry

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In this case, some of the hay and straw was stored on a raised timber platform above the cows and was simply dropped down through the floor to the cattle below. There is plenty of evidence for this arrangement. The sockets for the large oak timber joists survive in the lower, eastern wall and a number of the oak joists have been simply set aside when the building fell out of use and the internal framework collapsed, or was removed.



Oak joist re-positioned in wall socket and supported to demonstrate the level of the former hayloft floor. This demonstrates that it would have been efficient and simple to pitch hay and straw into the loft from the barn floor.

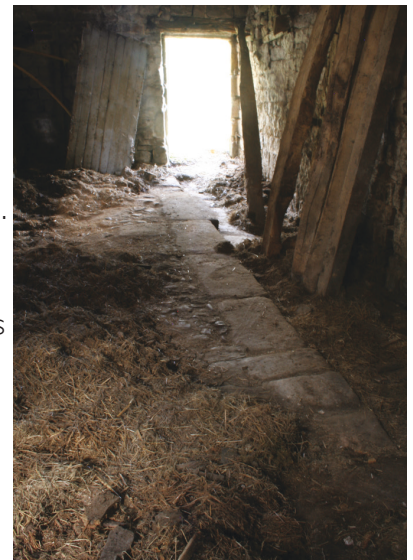
The position of the sockets in the eastern wall indicates that the space at ground level had a low headroom, which is typical of calf-houses. Although the joists have collapsed and are now set aside, the levels show that these joists did not reach the internal brick piers and could only have reached the lower stone ledge, which is an evenly-coursed and mortared stone wall / plinth, of uniform height. There is a second section of rubble stonework, which is un-mortared, and this seems to have been simply added after the brick piers were inserted to fill the gaps and support the upper floor. The levels may have been altered and will need careful investigation if the floor is to be replaced. The evidence suggests that the lower masonry ledge supported a timber framework, with short posts, which in turn supported horizontal beams for securing the floor joists. There is a large forked post which is set aside in the barn; this important feature would have supported the end of an internal structural beam, perhaps an intermediate support for the hayloft and the socket for the post may survive in the floor and should be recorded once the floor has been completely swept out. The eastern wall of this cow-house has evidence of some slight remodelling, with re-used oak set in the wall as “bond timbers” for reinforcement and to spread the load from the joists (possibly a later adaptation, although these were commonly inserted into masonry from the late 17th century) and a section which has some rebuilt stonework, most clearly expressed on the outside wall as a larger course. The reason for this external remodelling is unclear.



Left - coursed and mortared stone plinth (looking south), which would have supported a short timber-framed structure of posts and horizontal rails; sockets survive in the south wall. Right - the cowhouse looking north, with 19th century brick piers.

The “underhouse” was either designed as a calf-house (early examples are narrow – no more than 2 metres wide), in which case it would have had a level floor with a loose-box, which would explain the low headroom, or it was designed as a cow-house for milking cows. The evidence in the floor, with multiple levels, suggests that it was either purpose-built or adapted as a cow-house for milking cows. During the 17th and 18th century cattle were generally much harder breeds than those found in England today and would often be kept outside over-winter.

Early cow-houses were low and dark and this is no exception. The headroom is much lower than can accommodate a man standing upright, so a person tending livestock would have had to stoop. Light and ventilation were considered detrimental to livestock and a feeding passage door provided the only ventilation. This door survives at the northern end of the cow-house, in line with the feeding/manuring passage (pictured right). This passage still has a dropped section of stone flagged floor (the gutter) and a raised "kerb", as well as stone pitching (cobble) in the areas where cows would stand in line. There may have been stalls separating the animals and detailed examination of the floor may provide evidence for this. The cows would have been tethered at the head and fed from racks placed at head height and filled with hay or straw. Fragments of one of the racks, of indeterminate date with diamond-section slots for the staves, can still be seen bedded in the lower section of the wall.



Fragment of oak rack with sockets for staves is part bedded in the lower wall



Window - to south wall recently blocked



Roadside elevation, with inserted doorway (C18?)

There was a later window inserted in the southern elevation, which has been rather clumsily blocked up in stone, and this would have provided some limited light and ventilation at ground floor level, and is part of the interesting development of the building and changing agricultural practices. The addition of a second, later, doorway to the roadside elevation (probably 18th century) also suggests that it may have been adapted as a milking shed, with a second doorway to enable a continuous in and out process and a much easier way to remove manure. Practices varied around the country and in some places cows were tethered, nose towards the cross wall, and tail onto a single manure passage, the fodder being brought to individual feeding boxes from within the building from the upper level and dropped down. This appears to have been the last designed use of the building.

During the early 18th century it was usual for hay and straw to be stored in a loft above the cow-house, with a trap-door providing access between the two levels. In this case, access may have been from the larger building via a short flight of steps into the hayloft. An original mullioned window in the northern end wall provided limited light for working. The hayloft was divided in the 19th century by brick cross walls supporting the purlins of the new roof structure. These cross walls sit on re-used, horizontal oak beams (pictured right). This combination has replaced an earlier timber trussed construction, which would have provided inter-linked spaces between the bays of the hayloft. There is now limited headroom to move between the bays. During the 19th century cow-houses were often open to the roof and this may have been the way that this building was adapted, although the few surviving oak joists (e.s.) indicate some degree of retention of the earlier structure.



5.2.2 Threshing Barn

The northern section of the bank barn was accessible from a large door, located roughly central to the block and immediately adjoining the southern section. This 'wing' of the building was cross-ventilated at two levels, and was completely open; the only difference in the irregular ventilation slots was that those at the lower level had stone internal lintels, whereas those at the higher level were oak. Oak was more likely to rot and be trapped by unthreshed material. There were two pitching eyes, squared and slightly chamfered openings, to the north (gable) and the west elevation.



Left - three-bay threshing barn with multiple levels of ventilation for an open internal structure. Right - the door on the left is the main door, the two pitching eyes enable a continual process of adding unthreshed crops into the barn during harvest, until it slowly filled up. The large double-doors opening in the northern gable is a 20th century insertion.

The building appears to have been predominantly a threshing barn, as the narrow entrance bay contains a wide, second door directly opposite the main door and a winnowing / threshing floor lying between these doors. Compared with the large threshing barns of arable farming areas, the doors are remarkably small and there were no opportunities to provide cover to unload oats or barley. However, the small area of threshing floor and relatively small doors probably reflects the quantities of grain that were threshed on the Moorlands mixed farm and may just reflect a local building tradition.



Main door (left) with keeping hole to the right. Above - stone threshing floor and 20th century butted boards, which may have replaced an earlier timber floor. Right - front elevation of wide doorway to threshing barn.

The position of the opposing winnowing doors, with their similar construction details, with rebated doors and chamfered door surrounds and splayed reveals, confirms the location of the threshing floor. This alignment of doors provided a natural draught for hand-threshing barley or oats and winnowing (removing the chaff by tossing the 'threshed' material in the draught). The doors are at different heights, to allow for

the sloping ground and both may have once had steps, although only the steps to the western side survive; the original opening to the eastern side has been altered with brick infill, of no interest (pictured right). There are niches ("keeping holes") to either side of the winnowing doors where lamps could be placed to light the area during winter months or dark days.



The oats and barley were slowly threshed by hand over the winter and during this process the straw would be stored elsewhere, in the lofts in the southern section of the building, or consumed as it was produced. Different bays of the building could hold hay and threshed or unthreshed grain (wheat, barley or oats). Threshed oats for animal consumption were probably stored in the barn, at a raised level.

The threshing floor space was generally not used for storage; oats or barley were threshed on the floor by a hand flail to provide fresh straw. The current arrangement of butted timber boards (probably pine scaffolding planks) along the bay of the winnowing floor appears to have replaced or partially covered a broken, stone threshing floor, which may have deteriorated over heavy use. Threshing floors were occasionally timber, and set over a void to promote elasticity, an advantage in flail threshing. Indeed, this may have been a later adaptation. A large section of the stone floor is still in-situ and more may survive underneath the planks, although there is a possibility that the scaffolding planks may have replaced an earlier oak threshing floor; the boards have no pattern of wear and are of no intrinsic interest. However, the whole of this section of floor of the barn should be recorded archaeologically prior to any alterations.

In upland districts greater protection was generally given to hay, and it is likely that a large part of the barn was used for the winter storage of hay, in addition to unthreshed sheaves of oats or barley. Precisely how this was set out is unknown but it would have been pitched into the building through the first floor pitching eyes, probably in the southern half, which was operationally closest to the cows.

The threshing floor occupied a narrow bay to the south of the threshing barn. The northern two bays of the threshing barn seems to have been largely dedicated to the storage of unthreshed sheaves of oats or barley, all of which would have been filled through the pitching holes in the upper walls to the north (gable) and west. The processed oats (fodder) may have then been lifted into the upper floor of the southern part of the range.

Dr Robert Plot noted that 'ricking' was done in Staffordshire if the barn was full.¹²

5.2.3 Barn - Southern Section

The southern part of the building was multi-functional. The early 18th century brickwork (post 1725) forming the dividing wall between this and the Threshing Barn indicates that it was not used in the same way as a normal threshing barn, and did not have equal open bays to each side of the threshing floor. The bays were uneven and the southern section was separated functionally, at least by the mid 18th century (probably with a large doorway, although evidence for this has been removed as the brickwork was chopped out). The different types of opening horizontally indicate different internal functions at two levels. In addition to providing



¹² J.E.C. Peters, page 65

access to feeding cattle in the low house and providing access to the hayloft above the cattle, it would have been divided internally into two levels.

There is no evidence for any original masonry dividing walls and all of the evidence points to a largely independent timber framework, with some sockets surviving in the south wall. The combination of external stone masonry walls with internal timber-framed and stud partitions is still found in 17th century upland domestic buildings in this region. Although there are no mortices / sockets in the western wall, the evidence still suggests that there was an inserted floor, which can only have been built in an oak frame as this is consistent with the evidence elsewhere. The probability is that the timber frame was, therefore, largely a free-standing internal structure of posts, floor joists and boarded floor, but precisely how this was subdivided is unknown. The horizontal separation of functions was removed during the 19th century remodelling.

There is evidence in the surviving external walls that shows how the space may have been divided up:

- The upper section of the southern half of the building contains pitching eyes at different levels, which were shuttered on the outside suggesting that the contents may have at one time required greater protection than the northern barn. It was probably used as a store for oats (fodder crop) and a large hayloft for feeding cattle. Grain could be stored either loose in large grain bins or in sacks (these areas did not require external ventilation) but wheat, barley and oats intended for human consumption was generally stored near or in the house.
- The lower section of the building contains ventilation slots at ground level only, on the western side, indicating that this was not a purpose-built cowhouse, as these were not ventilated at this date, being considered detrimental to animal welfare. It is too deep on plan for this function in any case at this date. The need for ventilation indicates this area may have been used to store processed straw, which had already been threshed and could include an area for chaff, located immediately adjacent to the threshing floor; as the cattle located in the cow-house required straw for both fodder and animal bedding and chaff for mixing with other feed.

Local pastoral farming did not support large arable farms, even though split-site farming is evident in the Moorlands and the Sutton family also owned Hallwater Farm, which may indicate shared resources. Compared with other local farmsteads this one has a disproportionately large area for storage of hay and unthreshed grain, for which there must be a logical and economic reason.

As with bank barns in other upland areas, it held several functions under one roof: storing hay over-winter, threshing grain during the winter, storing unthreshed grain, storing threshed straw and fodder (oats, hay, straw and chaff) for livestock.

The building was re-roofed during the 19th century with a king post truss construction (pictured right) and double purlins but we can establish from the physical evidence that it once had a very different roof structure; during re-roofing in the 19th century the principal oak posts, with the tied trusses and struts were replaced with the present pair of brick piers. The roof was still supported in part by the existing stone eaves to the western side (facing the slope of the hill), but the roof pitch was lowered, which necessitated the removal of the stone coped gables and some of the larger verge stones. The reconstruction drawing (Plate 4) shows how this was carried out, leaving a section of the original large verge stones in-situ in the lower catslide wall.



The two halves of the building were separated in the 18th century by a brick dividing wall. The lower section of brickwork is built in English garden wall bond and the bricks measure 9½" x 2½" (pictured right). Although there were government statutes controlling brick sizes, local guilds still tended to control brick sizes, and it is not always reliable to use this for dating evidence. Nevertheless, we can definitely see that the brickwork predates the mid 19th century brickwork and the bricks are a similar size to the brickwork in the Stable block. They were probably made after 1725, when place bricks were to measure 9" x 2½" by statute.



This brick dividing wall was heightened during the 19th century, when the original roof was replaced with the present king post construction. The later 19th century bricks measure 9" x 2¾". Much of this dividing wall has been removed and the brickwork chopped out and supported with a steel lintel, although the surviving piers of 18th century brickwork are still of some historic interest. The 19th century brickwork above has very little interest and has been remodelled. The wall is free-standing and not tied into the stone structure; the depth of the wall at 9½" is particularly thin over this distance to support the weight of the four purlins and associated roof structure. It is stable and there are no signs of movement but any works to disturb the footings through inserting a new floor may require the wall to be stabilised and strengthened. There is no evidence that there was an earlier internal, stone, dividing wall and indeed we might expect there to be a timber-frame wall in this location subdividing the bays, if the brickwork was only added after 1725.



The large lump of coursed and dressed masonry which survives near the large brick dividing wall (pictured left) seems to represent the point at which the barn was originally divided. This masonry has no reasonable explanation other than that it was required to support both the base of a truss to the long western wall and the end of the wall-plate for the southern section of the building. The construction techniques are consistent with other parts of the early masonry, with long dressed stones. They appear to be left unfinished deliberately, rather than represent a section of masonry that has been removed, and the long eastern masonry wall of the threshing barn is recessed behind this inner corner; this could simply be explained as a reinforced section of masonry, required at a point in the building which was supporting two roofs.

The barn as we see it in its external form is largely complete as built at the turn of the 18th century. There have been a few external alterations and inserted openings, but the most extensive alterations were in two major phases of remodelling:

- 1) in the mid 19th century the original roof structure and the stone coped gables were removed. Accompanying this alteration were: the alteration to the roof pitch, replacing the steep roof with one that is much shallower, probably replacing stone slate with blue clay tiles, the replacement of

the internal principal timber posts supporting a pair roof trusses, the replacement roof structure throughout the ranges, the removal of the internal timber-frame structure and partitions and the replacement with brick internal piers. These alterations appear to have been carried out to make the whole barn a dedicated threshing / hay barn in the mid 19th century.

2) in the second half of the 20th century (probably prior to 1986) a large opening was created in the northern gable end of the hay barn and a steel lintel inserted along with steel angle-irons to protect the flanking stonework, and the removal of the majority of the brickwork to the cross wall to create a large tractor-sized opening, supported with a steel lintel.



Left - 19th century brick piers inserted to replace oak posts and support the new lowered roof structure of king post trusses and double purlins. Right - imported Baltic timber (Scots pine) inscribed on the purlins with shipping containment / batch numbers

The main phase of remodelling in the mid 19th century removed the internal floors and may have been influenced by the development of winnowing machines in Staffordshire in the early 19th century, as the use of the five bays for storage of unthreshed grain was not unusual by the 19th century.



5.3 Coach-house and Coachman's Cottage

The "cottage" is a stone-built single-bay structure of the late 18th century, with square-faced block-mullioned window, regular coursed stone and raised coped gable. Even though the list description refers to this structure as an 18th century cottage, the position of the chimney stack / flues, within the brick building not the gable-end, the higher than average position of the window, and the additional unlit space and headroom above the ground floor accommodation in the stone building, all probably indicate that this was in fact built as a stable building, with a hayloft over, and was later adapted as accommodation. The presence of a large doorway and small mullioned window is typical of a small stable with a loose box. It was extended with a brick coach-house in the mid-late 19th century but this probably replaced an earlier stone-built coach-house for which the rear stone wall survives. There is documentary evidence for a groom and later a coachman living at Sutton House in the late 19th century.



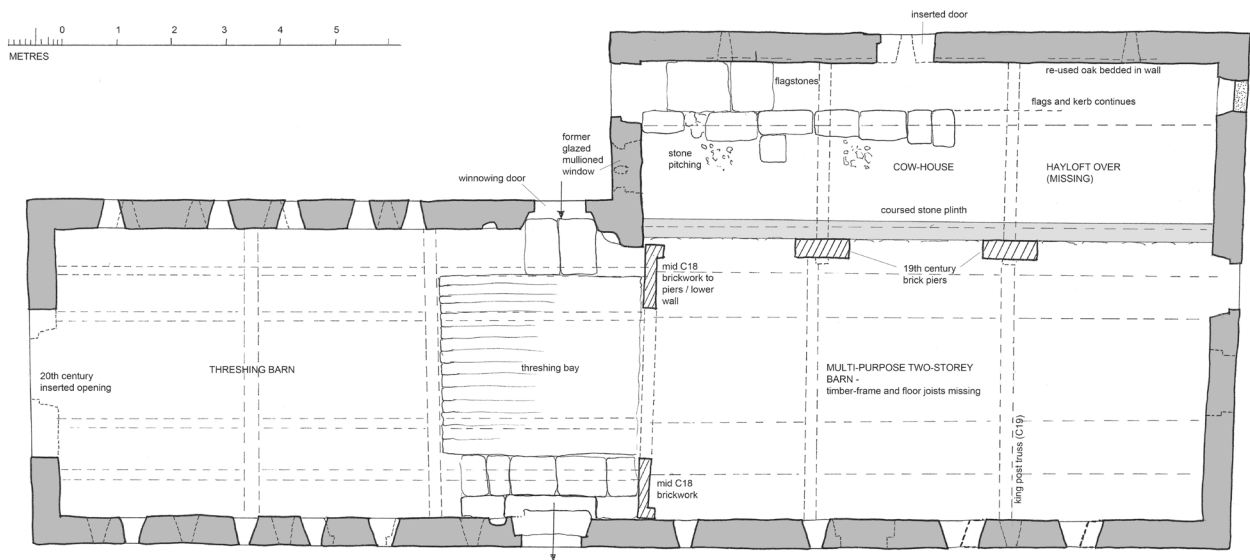
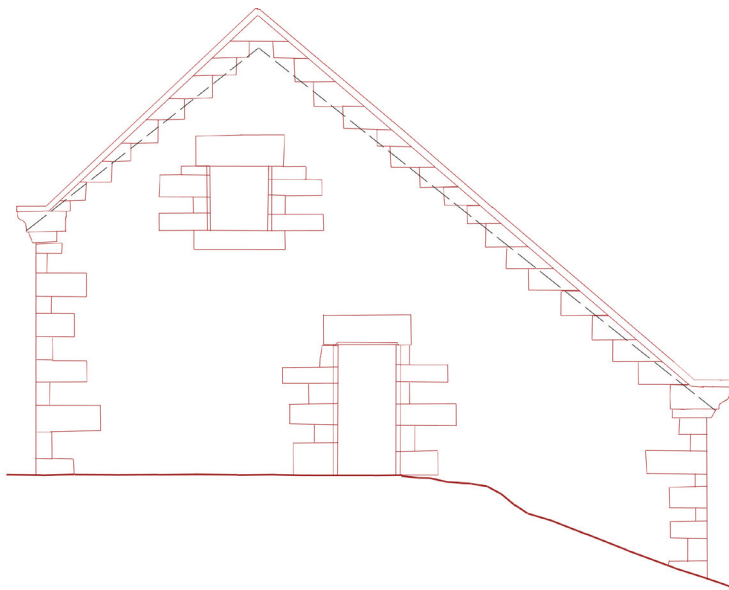


Plate 3 - Bank Barn - measured survey drawing overlaid with notes. Main phase is illustrated in dark grey tone. Inserted brickwork is hatched.



Bank Barn - reconstruction drawing of the south elevation showing the original form of the roof with stone copings and the current pitch and alignment (dotted)

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6. Statement of Significance

The farm group at Sutton House is an important, loose courtyard plan farmstead, with evidence of incremental development from the early 17th century through to the mid 19th century (high evidential value).

The foldyard and the relationship between the buildings is well-preserved and a particularly important part of the significance of the group (high evidential value). The use of the space should preserve the openness and the visual and physical relationships and it should not be subdivided in any way.



Dr. Cleverdon's report on "Conversion of Listed Agricultural Buildings" in the Moorlands describes Sutton Barns as one of only four groups in the Moorlands where three or more elements of the group are individually listed.

It is very rare for farmsteads to have more than a barn and house dating from 1540-1750. For this reason the group is of high significance. Surviving examples of pre-19th-century cow houses – including within combination barns - are rare in a national context and are of high significance.

The main barn at Sutton House is a rare and early survival in this district (ca. 1700) and an unusual building type in the region (high historical value). There are only 3 true dated bank barns of this type and 18th century date in Cumbria and none recorded in Staffordshire or Derbyshire, although on close inspection there are several which may prove to be the same type.

Its historic and architectural character is largely manifest in the external elevations (moderate aesthetic value). Internal modifications have changed the character of the space and have removed much of the evidence. However, the northern threshing barn remains substantially as built and the low cow-house contains evidence in the walls and floor for its original function.

There are some buildings in the Moorlands which are similar in detail and age, such as the barn and stables at Broadmeadow Hall, Sheen, the barn at Blackbrook Farmhouse, Ipstones, and the barn at Hollins Farmhouse, Kingsley.

The list descriptions for both the Stable and The Cottage (coachman's accommodation and ancillary coach-house) state that large parts of the attached buildings are not included in the listing. This was intended, presumably, specifically to address their relative merit, as it was thought that the attached structures were not listable and were much later buildings. Certainly, in the case of the Coach-house, much of the brickwork is a 19th century addition, but the Stable is only one bay of a three-bay 17th century stone building and this Heritage Statement recognises its value as such. The attached structures to the principal listed buildings are of some heritage merit and they are heritage assets. They are particularly important to the setting of the group as they contribute to understanding the evolution of the farmstead.

English Heritage's advice on farm buildings states that significance can be heightened by any of the following aspects of particular rarity and significance:

- any 18th century or earlier buildings, pre-1700 examples including evidence for timber framing (often encased in later brick or stone walling) being extremely rare by national standards
- Unusual surviving building types
- Interior stalls and other interior features (e.g. mangers, hay racks) of 19th century and earlier date
- Threshing floors, often of wood and sometimes of stone flags, brick or earth, are now very uncommon
- Timber-framing rarely survives within farm buildings¹³

Of these additional characteristics, which the group once possessed, there are no surviving interior stalls or hay racks or internal divisions, there is no surviving timber-framing. However, the threshing floor and the stone thralls to the cow house may be of particular interest and these should be examined in detail and recorded archaeologically prior to any lifting and restoration in-situ. The report should be deposited with both the Historic Environment Record and the Historic Farm Buildings Group.

The special interest and significance, therefore, lies in the unusual surviving building type of the combination bank barn, and the strong presence of at least three elements of the 17th and 18th century structures within all three buildings surrounding the courtyard.

None of the buildings are sufficiently complete or intact examples of their date of construction to warrant any higher designation – all have been altered and there are few internal features of particular significance. If the bank barn had retained its original roof structure and roof pitch, stone coped gables and verge stones and had not been altered with the insertion of the large opening in the northern gable then it would be of very high significance. As it stands, it is of high significance.



Alterations such as the expansion of barn space by taking down divisions, extending the building, or adding porches or building an entirely new barn are all changes which are part of the farm's history. Whilst on this site the 19th and 20th century alterations show the evolution of farming practices, they have not added significantly to the special interest of this group. In the case of the uphill "stable" range they have detracted from its significance.

¹³ Staffordshire Farmsteads Character Statement – SCC and EH