

**An Archaeological Interpretative Survey of
Barn at Randall's Farm, Westfield, East Sussex**

**Commissioned by C L M Planning on behalf of
Mr S McKimmie**

Project Reference. 2566



by David Martin FSA IHBC MIFA & Barbara Martin AIFA

2006

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OF**

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**Archaeology South-East
Institute of Archaeology
University College London**

2006

STANDING BUILDINGS

ARCHAEOLOGICAL INTERPRETATIVE SURVEYS

AN INTRODUCTORY NOTE

ABOUT THESE SURVEYS

The intended purpose of an *Archaeological Interpretative Survey* is to give an overview of the date, sequence of construction, and principal architectural features of a building. As such, they should not be regarded as a detailed archaeological record, nor should they be taken as definitive. Further research, particularly that undertaken during building works, is likely to refine and extend the archaeological record.

These reports are aimed at three groups of user, namely those owners who wish to know more about their property, those persons (architects and planners) who are charged with the responsibility for both conserving the buildings and ensuring that they are carefully adapted to the needs of the future, and finally the academic carrying out wider historical or archaeological research,. A secure use for the future is, in our opinion, the only way of ensuring the long-term survival of any historical building.

INVESTIGATIVE TECHNIQUE

Unless noted to the contrary, the assessments involve a visual inspection of the fabric, both internally and externally, including any accessible roof voids and basement areas. Except where building works are being carried out, intrusive techniques are inappropriate. Interpretation of the fabric and fittings therefore relies principally upon inspection of the visible evidence. As part of the interpretative procedure, a measured outline survey of every property is undertaken.

THE WRITTEN REPORT

For ease of reference the written reports are divided into sections under a series of headings and sub-headings. The typical sequence of headings is as follows:-

- 1 Location of the building.
- 2 Sequence of development.
- 3 Detailed architectural description, arranged period-by-period.

THE DRAWINGS

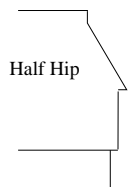
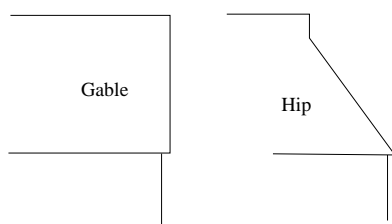
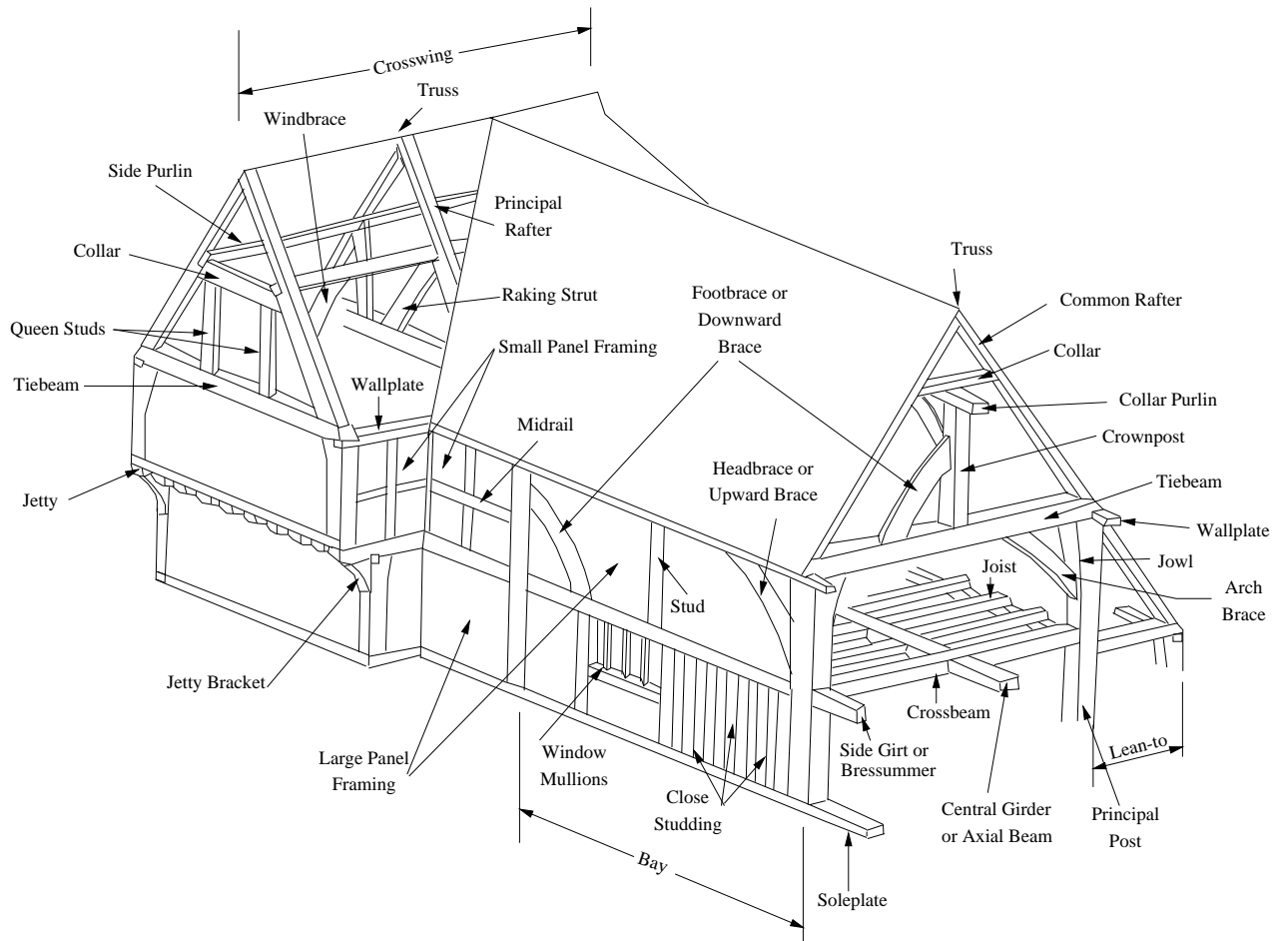
A set of drawings produced from an measured outline survey is included within the body of each report. The purpose of these drawings is to identify the features included within the written text and to illustrate, as far as is known, the form of the structure during its various stages of development. For clarity the drawings have been prepared in the form of scale 'sketches', rather than detailed archaeological record drawings. For reasons of economy, the making of detailed archaeological drawings is restricted to stripped-out or exceptionally important buildings.

The symbols as used in the drawings attached to this report are as follows:

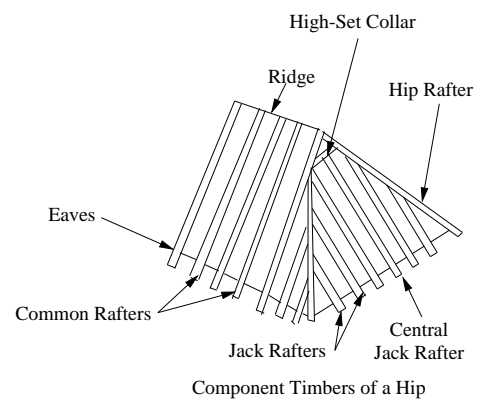
—————	Surviving Timber-Framed Wall
///////	Surviving Brick or Stone Wall
-----	Features evidenced but destroyed or masked from view
- - - - -	Beam or feature immediately overhead
- - - - -	Conjectural or very approximate
■	Structural timber
?	Details unknown or doubtful

OTHER CONVENTIONS USED -

- 1 Doors are shown in plan only where known: hence rooms may appear to have no obvious means of access.
- 2 With the exception of rafters, wallplates, and some chimneys and roof-lines, sections show features cut by or immediately adjacent to the cutting line only.



Roof Terminals



GLOSSARY OF PRINCIPAL TERMS



REPORT NO. 1635

WESTFIELD - BARN AT RANDALL'S FARM

NGR TQ 7938 1703

OVERVIEW OF THE BUILDING AND HISTORICAL NOTE [See Drawing No. 1635/1]

The frame of this three-bay barn was fabricated in the late 18th century [**Period A**] and was initially erected upon a site now unknown. At this stage it had a traditional hipped roof and seems to have been intended to be freestanding, otherwise it was very much as it exists today.

Evidently it fell redundant in its initial location, for between 1841 and 1873 [**Period B**] the frame was carefully taken down, repaired, and re-erected on its present site, close to the northern boundary of a south-facing 2¾ acre field of pasture, shown as plot 529 on the 1841 Westfield Tithe Map. At that date the combined farm of Randall's and Woodhouse was owned by Rev. George Augustus Lamb and was tenanted by George Bishop. It totalled 130 acres. The farmhouse stood where it does today (on plot 526) with a barn and yard on plot 527, on what is now open farmland to the north east of the house [East Sussex Record Office TDE 154 - for an extract *see* Drawing No. 1635/1]. When the present replacement farmyard was formed in *c*1855 the barn which is the subject of this report was re-erected upon its present south-facing slope, aligned east-west along the contour. It retained its original internal layout: that is, an open crop storage bay on either side of a central midstrey. However, the earlier building was fitted with new wallplates and a new gabled roof set to a more shallow pitch. Given that the remainder of the frame was retained, this suggests that the original roof had become defective, perhaps due to lack of maintenance to its roof coverings. In its new setting the barn was flanked by two long, low shelter sheds or cattle houses, making a bold statement when viewed across the valley from the south.

It was probably around 1900 [**Period C**] that the barn was adapted by the insertion of first floors in order to form a granary within the western end. The apparent inserted first floor within the eastern bay has since been removed.

In the early 20th century a single-storeyed shed with a lean-to roof was added against part of the western shelter shed's northern wall, and major repairs were made to this western annex. As in so many working farms, large new farm buildings of modern design were erected to the south and east of the original traditional complex, largely hiding it from view, despite its elevated location. By 2006 the barn had become totally redundant, the



attached eastern shelter shed had fallen down, as had the western end of the western shed.

All work carried out since period C is excluded from the more detailed architectural description which follows.

DETAILED ARCHITECTURAL DESCRIPTION

PERIOD A (Late 18th C) [Drawing Nos. 1635/2-3]

NOTE

When first erected in the late 18th century the frame of this barn was not located on its present site. This point is indicated by inconsistencies evident within the present frame (*see* detailed description of Period B below) and is confirmed by the 1841 Westfield Tithe Award Map and associated 1840 Tithe Award Schedule (*see* 'Overview of the building and Historical Note' above).

LAYOUT

When first constructed the barn comprised three bays in length and, internally, was open throughout its length and height. Measuring 11.60 metres x 6.05 metres (38'0" x 19'10") overall, it is of slightly above average size for a three-bay barn but, in common with most such buildings within the High Weald, it is small in comparison to the barns of many other regions. The proportions were changed during period B when the structure was re-roofed to a lower pitch, but it is, nonetheless a relatively lofty building with walls which measure 4.20 metres (13'9") from underside of soleplate to top of wallplate.

Both end bays are of equal size: they were designed for crop storage, at that time having been absent of upper floors. The central bay - the midstrey or wagon way - had full-height doors in both long elevations and was designed to house the threshing floor.

WALL DESIGN

The main frame utilizes standard traditional timber-framed techniques of construction, having jowled principal posts which support the wallplates and tiebeams in normal assembly throughout. The jowls are heavy and exceptionally long, with rounded bowls typical of 18th-century work. Both the side and end walls of the two end bays are



subdivided in their length by full-height intermediate posts, those in the side walls being incorporated at one-third distance along each bay in order to best suit the wall design. The level of the side girts and cross beams is staggered on either side of these posts so as not to weaken them at the joints - this too is a feature which represents an 18th-century innovation (*see* Drawing Nos. 1635/2 and 3).

Unlike in earlier timber frames, the infill framing itself utilizes regularly-spaced studs spaced relatively closely so as to support the weatherboard cladding. Such techniques became increasingly common as the 18th century progressed and by the end of the century the studs were often nailed into the frame after the principal timbers had been erected. In this instance they are traditionally morticed and tenoned into position - all, that is, except the joints to the replacement period-B wallplates, which are nailed (*see* Period B). A full compliment of raking struts are included within the walls at both the upper and lower levels, fully triangulating the structure against racking. As is usual, these interrupt the studs, which at this point are angle-cut and nailed to them. In the original scheme the struts were morticed and tenoned into position and had pegged joints (but *see* Period B below).

Within the eastern end wall (towards its southern end at the lower level) is a short rail set above the raking strut. Cut into the top face of this rail is a rectangular notch. It is possible that the notch is associated with a drive shaft for a piece of agricultural machinery (such as a horse-gin or similar), or it may have helped support some form of small internal platform. The precise date of this feature is uncertain - it may not have been incorporated until the barn was re-erected during Period B.

OPEN TRUSSES

Both internal trusses (B-B and CC) have cambered tiebeams and combine the use of arch braces and long down-going shores as an original feature. The virtually straight arch braces triangulate from the principal posts to the tiebeam and, as is usually the case, these are faced up towards the wagon way face of the trusses, whereas the long down-going raking shores are faced up towards the reverse side, allowing the two to pass. The arch braces and the raking shores are face pegged together where they cross, giving extra triangulation against racking. Unusually for this period there is no mortice evidence in the internal faces of the principal posts to indicate that the trusses incorporated dwarf boarded walls flanking the threshing floor and encapsulating the bottoms of the raking shores. However, in the early use of down-going shores sometimes the dwarf walls were only fitted between the feet of the shores and did not cross the full width of the barn, allowing access on either side. As the feet of the shores were removed during Period C, this point cannot be confirmed.



DOORWAYS

Set within the side elevations of the central bay were a pair of full-height doors giving access to the threshing floor. In the side faces of the principal posts, immediately under the wallplates of both elevations are mortices for a second plate or 'under plate'. The function of this second plate was twofold - it gave additional strength to the wallplate where it crossed the doorway and allowed the top of the tall doors to be dropped so as not to be fouled by the feet of the rafters.

The wall framing is sufficiently complete to indicate that smaller pedestrian/cattle doors and pitching hatches were not incorporated into the barn's walls when first constructed. The present hatches and small doorways were added later - the hatches when the frame was re-erected and the doorways later still.

FLOORS

Set between the two wagon doors would originally have been a threshing floor. Some local barns also incorporated partial upper floors forming lofts set above cattle housing, but sufficient framing detail survives to confirm that this was not the case here.

ROOF

When the barn was reconstructed upon its present site the roof was rebuilt to a totally new design. The fact that not only was the original roof totally discarded, but the wallplates were also replaced suggests that the former roof covering (most likely thatch) had not been maintained and had caused the roof to rot. Luckily both original end tiebeams (trusses A-A and D-D) were retained within the rebuild. Each has ten birdsmouths in its top face indicating that in its Period-A form the roof was fully hipped. There are no central birdsmouths, showing that the heads of the hips were not carried by small high-set collars - further evidence of the 18th-century date.

In many 18th-century (and, indeed, mid/late 17th-century) fully-hipped roofs the bay divisions do not coincide with the bay divisions of the main frame below. However, in this instance pegged mortices in the top face of the two internal tiebeams (trusses B-B and C-C) indicate that proper traditional roof trusses were supported by the tiebeams. The mortices in the ends of the two tiebeams carried the feet of the principal rafters, whilst those towards the centre show that the trusses incorporated raking struts. Whether these struts supported clasped side purlins or rose to principal rafters which in turn carried butt purlins is impossible to know - the former is by far the more common arrangement locally.



PERIOD B (1841x1873) [Drawing Nos. 1635/4-5]

LAYOUT

As already indicated, the present site of the barn was still field when the tithe map was drawn in 1841, but by 1873 (when the survey work for the 1st edition 25" O.S. map was carried out) the barn had been erected upon its present site [1st edition 25" O.S. map. Sussex sheet 44/13]. Based upon this data, and the structural evidence on site, the re-erection of the frame can be firmly dated to the period 1841x1873. Presumably either redundant or inconvenient on its old site (wherever that might have been) the frame of the original barn was taken down, repaired and reconstructed, complete with new wallplates and roof, but otherwise reusing the original configuration of the timbers and retaining the period-A layout unaltered. Thus, at this date it still functioned as a traditional three-bay crop storage barn designed for hand threshing - the first floor was added later (*see* Period C). The only concession to improvements in crop handling was the incorporation of high-level pitching doors within the north elevation of both storage bays. Whether or not wagons were drawn through the barn during period-A - entering by one door and leaving by the other - is not known: despite the incorporation of two full-height doors (rather than the usual one full-height and one half-height) wagons were by no means always driven through. Indeed, once re-erected upon its present site it can be certain that wagons were not drawn through this building, for the site has a sharp southward slope and as a result the southern wall of the frame is elevated on a high ground wall (*see* 'Wall Design and Open Trusses' below).

WALL DESIGN AND OPEN TRUSSES

When the frame of the barn was taken down care was taken not to damage the component parts - the erection marks indicate that this was not a case of demolition with the intention of reusing the timbers *ad hoc*, but dismantling for re-erection in its original form. Given this observation, it is somewhat surprising to note that all the tenons on the raking struts were cut through, instead of the pegs being withdrawn and the joints taken apart as elsewhere in the building. Both the pegs and sawn-off tenons were left *in situ* and, when re-erected, the struts were merely nailed into position against the sawn-off tenons. It can only be assumed that the carpenters did not regard the time taken to dis-assemble these joints to be warranted, and certainly by this date it was usual practice to nail struts and studs into position. In fact, because they were defective the barn required new wallplates and here too the heads of the regularly-spaced studs were likewise nailed into position against the new plates, despite the existing joints having been reused elsewhere. Only the principal posts and intermediate posts were secured to the new plates by means of mortice-and-tenon joints, and even in these instances the timbers were not pegged into position, but



merely relied upon the weight of the roof.

The wallplates excepted, the only recognizable alteration to the framing was the inclusion of two doorways or 'pitching hatches' within the upper part of the two end bays in the north elevation. In order to accommodate these, in each case a panel of studwork was omitted, as too was the raking strut. The former raking strut is evidenced by its pegged mortices. It can be certain that the hatches were not inserted later, during period C, because there are no nail holes in the soffit of the wallplate above either hatch to indicate removed studs. All other timbers within the frame were re-positioned into their original mortices, reusing the original assemblage. No period-B alterations are detectable within the open trusses.

As reconstructed, the barn was set on English-bonded brick ground walls. Because of the slope on the site the ground wall on the southern side is *c*1.50 metres (5'0") tall, and here the ten courses of brickwork rise above a sandstone base.

DOORWAYS

When the frame was re-erected the wagon doors in both the north and south elevations were retained as full height openings, but the 'under-plates' was not reinstated - instead the mortices for these plates were left empty. Nailed to the inner faces of the principal posts (door jambs) are slides for lift boards. All four slides remain in position. As their name implies, they were used to accommodate removable boards which were dropped into position at the base of the openings in order to prevent grain from bouncing out when threshing was taking place and to discourage both wild and farmyard animals from entering the building.

As noted under 'Wall Design and Open trusses', two high-level doorways or pitching hatches were incorporated into the north wall of both end bays when the frame was erected. Both have separate nailed-in timbers forming their heads, just below the wallplate. As initially installed their cills were formed by the side girts, though new cills at a higher level were fitted later (*see* Period C). No other doorways were incorporated at this date.

FLOORS

The barn as re-erected would have been fitted with a traditional threshing floor crossing the building between the full-height doors, but of this no evidence now remains. The present first floor in the western bay is a later insertion (*see* Period C).



ROOF

Pitched off of new (Period B) wallplates of the same heavy cross section as the originals, the roof is of cut-and-pitched type with the rafters merely nailed to the top face of the wallplates (rather than fitted into traditional birdsmouths) and likewise nailed to the continuous ridgeboard at the apex. Both wallplates have halved-and-table-pegged scarf joints towards their end - the joint in the north wallplate is at the eastern end whilst that in the southern plate is towards the western end.

As reconstructed at this date, the roof is of relatively shallow pitch, fully gabled, and covered with imported (presumed Welsh) slates. It is of clasped-side-purlin type, the side purlins being carried by raking struts over the two internal tiebeams and by three nailed-in intermediate collars. Rising diagonally from the tiebeams, up the internal face of the rafters within the eastern and western bays are plank windbraces which are nailed to each rafter in order to prevent the roof from racking. The gables are infilled using regularly spaced thin studwork which are nailed to the tiebeam at the base and notched-and-nailed around the rafters at the head. Within the western gable a pair of struts rise past the internal face of the studs in order to support the ends of the purlins, but for some uncertain reason there are none within the eastern gable - instead additional studs are incorporated for this purpose.

THE TWO ATTACHED SHELTER SHEDS

Extending eastwards and westwards from the end walls of the barn, and slightly narrower than the barn itself, are long, low shelter sheds or cattle houses [*see* representation on 1873 25" O.S. sheet reproduced in Drawing No. 1635/1]. It is not known whether these were originally open fronted or whether they were fully enclosed. It is possible that they formed open-fronted shelter sheds serving the yard(s) to the south of the barn.

Part of the 'shelter shed' which extends westward from the barn survives. The range measures 12.60 metres (41'4") long and was originally of timber construction - two very rotten posts still survive embedded in its rear (northern) wall. However, apart from these, all walls below wallplate level have been rebuilt in blockwork. The western end of the roof has collapsed, but where it survives further east it is of standard cut-and-pitch type, the heads of the rafters being nailed to a continuous ridgeboard. The side purlins are supported by nailed-on collars. Where the roof joins the barn the flashing details are the same as the shelter shed at the eastern end.

The superstructure of the eastern building has totally gone, but comprised a single-storeyed range and measured approximately 12.30 metres (40'4") long: its footprint is still clearly visible as brick foundations and brick-on-edge flooring, surrounded by the concrete pavings of the farm track and yard. The height and shape of the roof is embedded in the



eastern end wall of the barn, where the flashing between its roof and the weatherboarding of the barn still survive.

PERIOD C (c1900) [See Drawing No. 1635/1]

It seems to have been around 1900 that two first floors were inserted into the barn. That at the western end supported a granary, with horizontally boarding applied to the lower part of the existing stud walls: some of this boarding remains *in situ*. As part of these alterations the bottom of the hatch was raised to coincide with the new floor level, thereby allowing the hatch to continue in use. The new first floor consists of longitudinally aligned sawn hardwood joists lodged over three heavy inserted cross timbers, one fixed against internal truss B-B, one midway along the bay, and the other against the internal face of the western end wall. That at the western end is supported by piers and blockwork, whilst that against truss B-B is not only bolted to the main frame, but also supported by heavy vertical timbers bolted back to the tiebeam and raking shores of the truss. The bases of the shores were cut off to allow free access into the ground-floor area.

Similar alterations were made to the eastern end bay, but here the floor has been removed and the only evidence is the timbers bolted into truss C-C, the fact that the bottoms of the shores have likewise been cut-off, and the cill to the hatch raised to suit the level of the (since removed) floor.

Possibly as part of these alterations, but perhaps carried out subsequently, both full-height wagon doors have been reduced to half height, the areas above the new door heads being infilled utilizing regularly-spaced studs covered on the exterior in weatherboarding so as to match the remainder of the barn. A new narrow doorway has been cut into the northern ground floor wall of the western bay, whilst provision has also been made for a doorway through the western end wall of the same bay, linking to the western shed. In similar fashion, a cut-in low door in the eastern end wall allows access to the now destroyed eastern range. The infill studwork to both the south and west walls has been repaired.

LISTED STATUS AND HISTORICAL SIGNIFICANCE OF THE BUILDING

According to the English Heritage 'Images of England' website the barn at Randall's Farm is unlisted, and this is also the case with regards to the farm house: the farm buildings upon this site therefore have no statutory protection either as listed buildings or as curtilage buildings of a listed structure. This omission is not solely explained by the fact

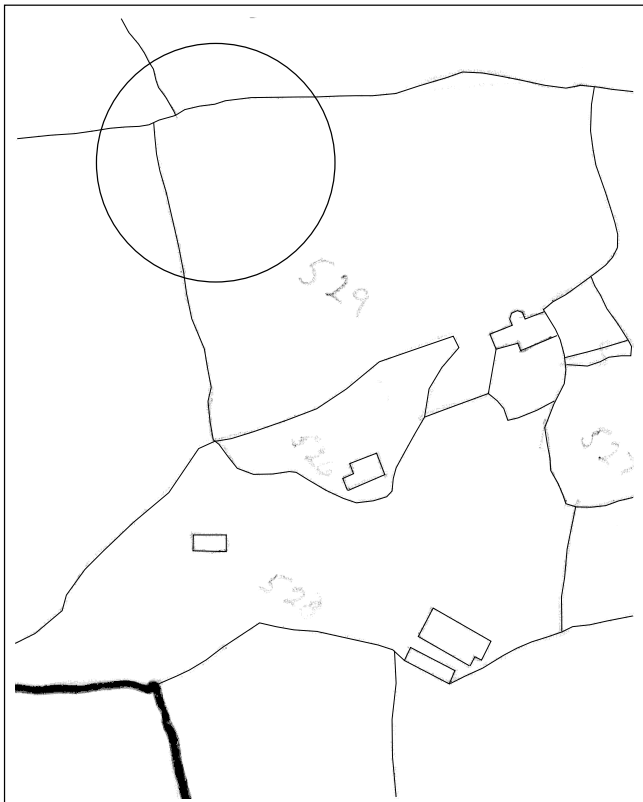


that the barn is today largely hidden from view behind modern farm buildings: it is not unusual in East Sussex to discover that good-quality traditional farm buildings are unlisted.

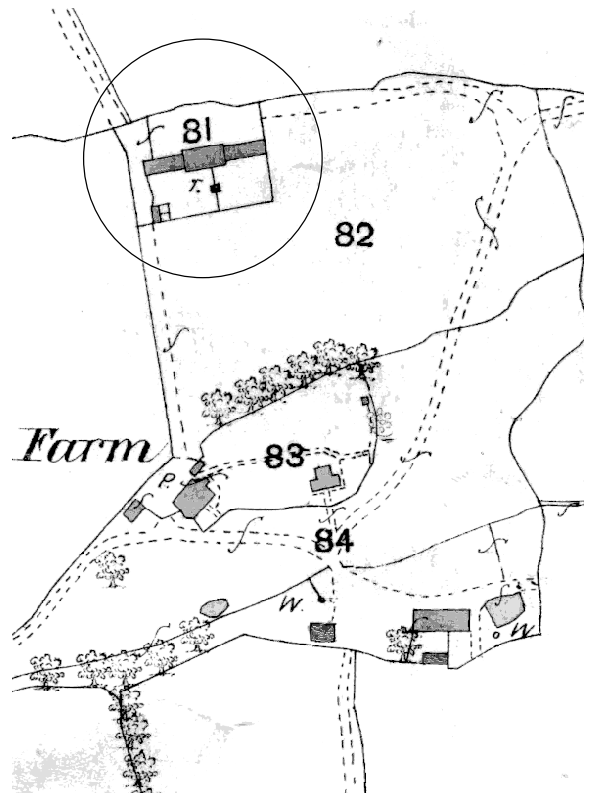
The barn at Randall's Farm was built during a crucial period in the history of agriculture, a period when farming practices were changing rapidly. Farming within the High Weald of East Sussex tended to be small scale and had been heavily biased towards cattle fatstock, though during the late 18th century cereal acreage was rising and modifications to existing barns - such as the removal of floored ends and the conversion of hipped roofs to half-hipped and gabled designs so as to maximize storage space - became commonplace [D & B Martin, *Old Farm Buildings in Eastern Sussex, 1450-1750*, Historic Buildings in Eastern Sussex **3** (1982); P S Barnwell and Colum Giles, *English Farmsteads, 1750-1914* (Royal Commission on the Historical Monuments of England, (1997)]. These changes accelerated during the 19th century.

It is surprising that when this barn was first built few concessions were made to incorporate improvements - shores were included on either side of the midstrey, but the roof continued to be of hipped form. With the implementation of mechanized threshing during the 19th century barn design began to change in order to encompass the new requirements, yet when this barn at Randall's was re-erected upon its present site in the third quarter of the 19th century no attempt was made to modify its internal layout - the only concessions were the inclusion of large pitching hatches within the northern side wall and the use of gabled terminals to the new roof. This roof was built to the techniques of the day, being of cut-and-pitch type with a continuous ridgeboard, all set to an angle appropriate for a covering of imported (assumed Welsh) slate. A further feature of the barn is its demonstration of the methods used in moving and re-erecting a frame of this type: for example, it remains a mystery why the struts were cut out of the frame during dismantling, only to be nailed back into their original locations.

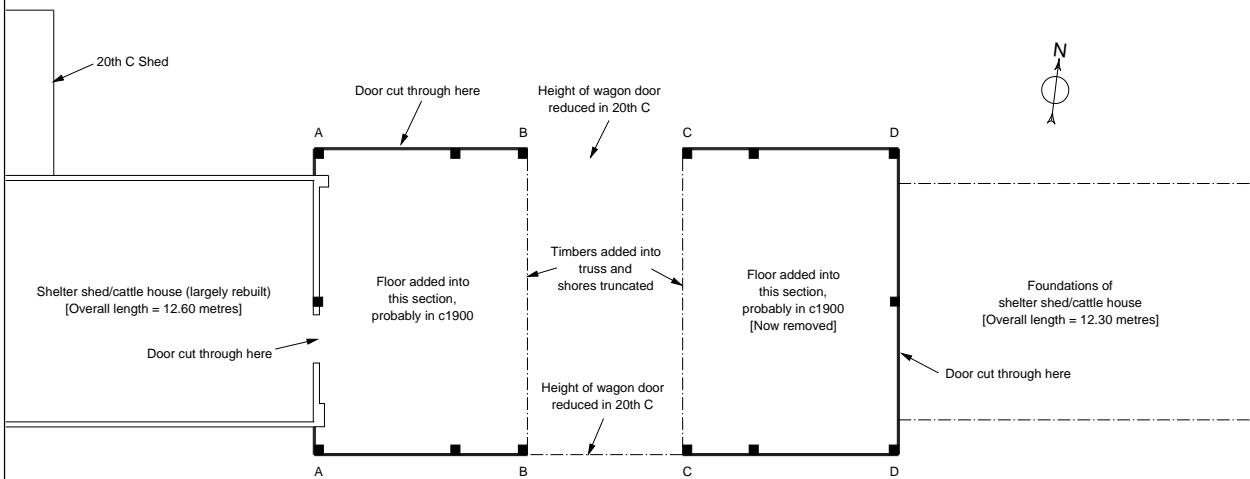
The barn is today mainly hidden from view behind modern buildings, but would, in its day, have made a dominant statement within the landscape and - if the modern buildings were removed - it could do again.



Tracing from 1841 Westfield Tithe Map
[ESRO TDE 154]



Extract from 1st Edition 25" O.S. Map, Surveyed 1873
[O.S Sussex Sheet 44/13]



GROUND PLAN SHOWING ALTERATIONS



**BARN AT RANDALL'S FARM, WESTFIELD, EAST SUSSEX
HISTORICAL PLANS AND SEQUENCE OF DEVELOPMENT**

Site Ref **P47/23**

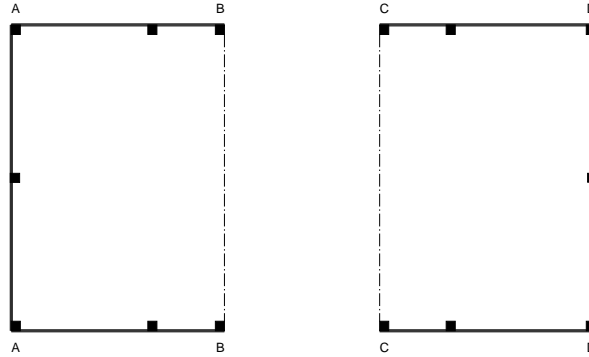
Drawing No. **1635/01**

Drawn By **D Martin**

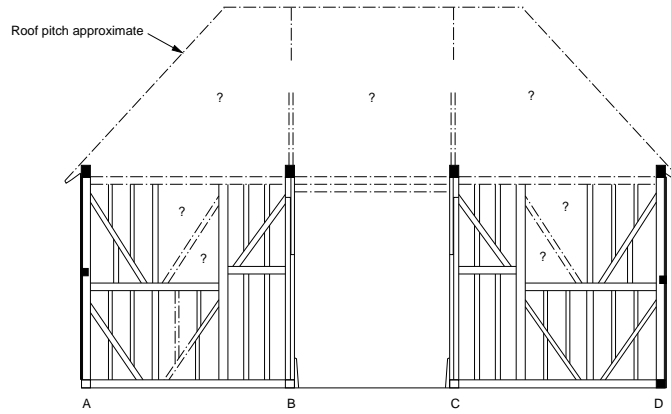
Revision No -

Date of original survey **2006**

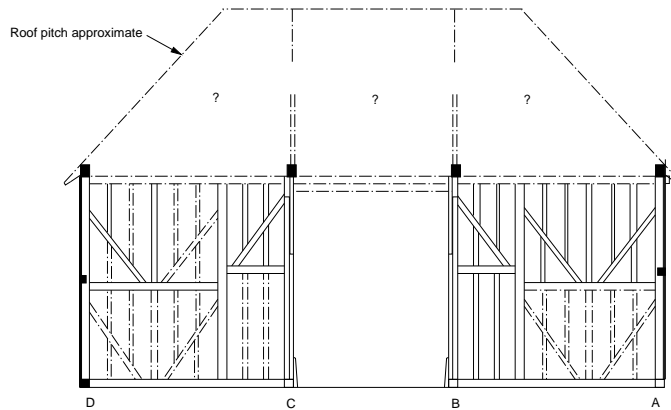
Date of this revision **2006**



GROUND PLAN



LONGITUDINAL SECTION LOOKING 'NORTH'



LONGITUDINAL SECTION LOOKING 'SOUTH'



**BARN AT RANDALL'S FARM, WESTFIELD, EAST SUSSEX
RECONSTRUCTION DRAWINGS AS FIRST BUILT**

Site Ref **P47/23**

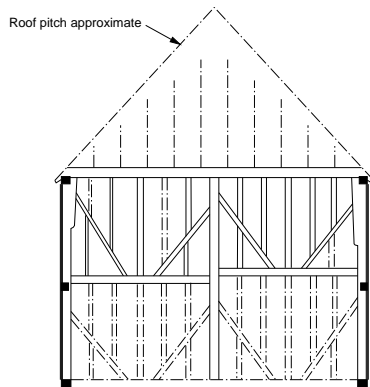
Drawing No. **1635/02**

Drawn By **D Martin**

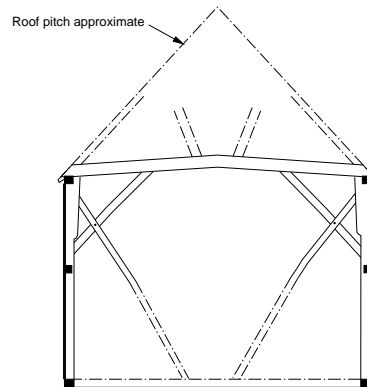
Revision No -

Date of original survey **2006**

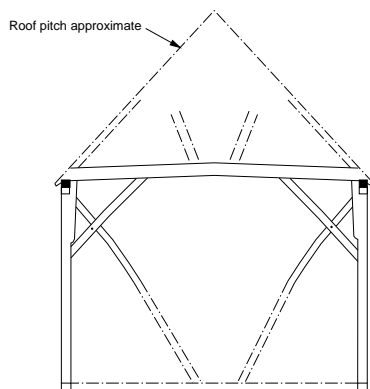
Date of this revision **2006**



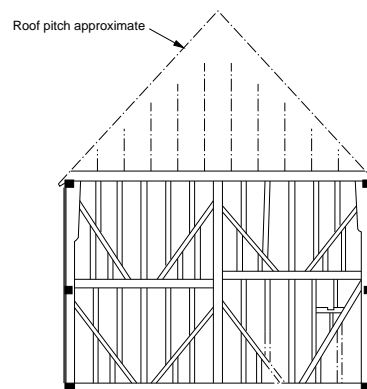
TRUSS A-A FROM EAST



TRUSS B-B FROM WEST



TRUSS C-C FROM WEST



TRUSS D-D FROM WEST



**BARN AT RANDALL'S FARM, WESTFIELD, EAST SUSSEX
RECONSTRUCTION DRAWINGS AS FIRST BUILT**

Site Ref **P47/23**

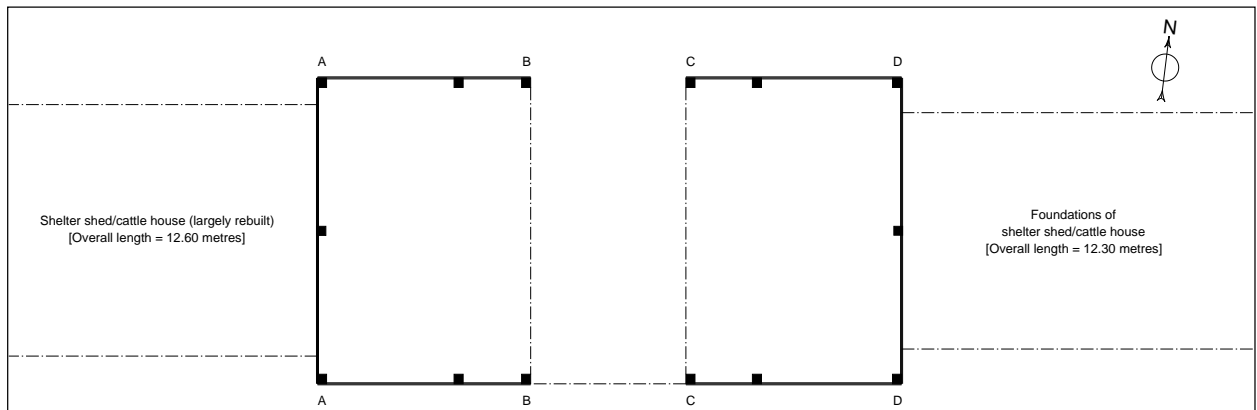
Drawing No. **1635/03**

Drawn By **D Martin**

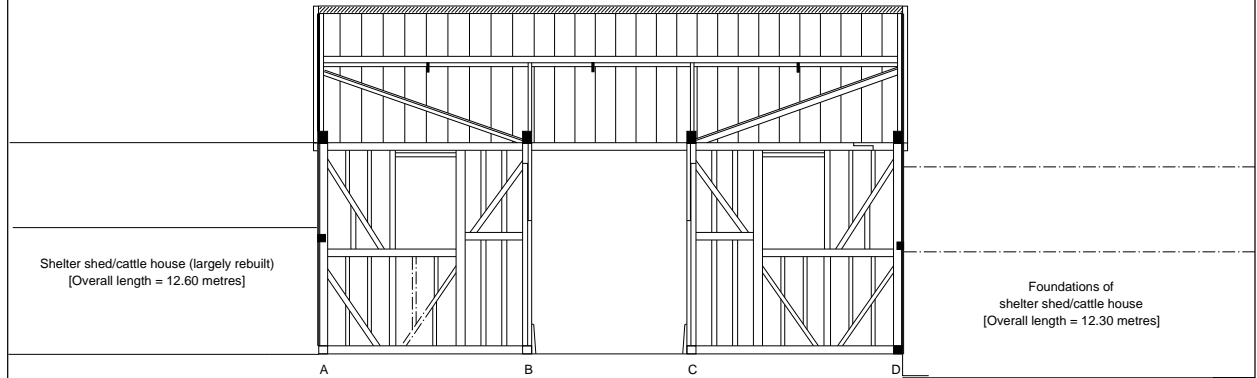
Revision No -

Date of original survey **2006**

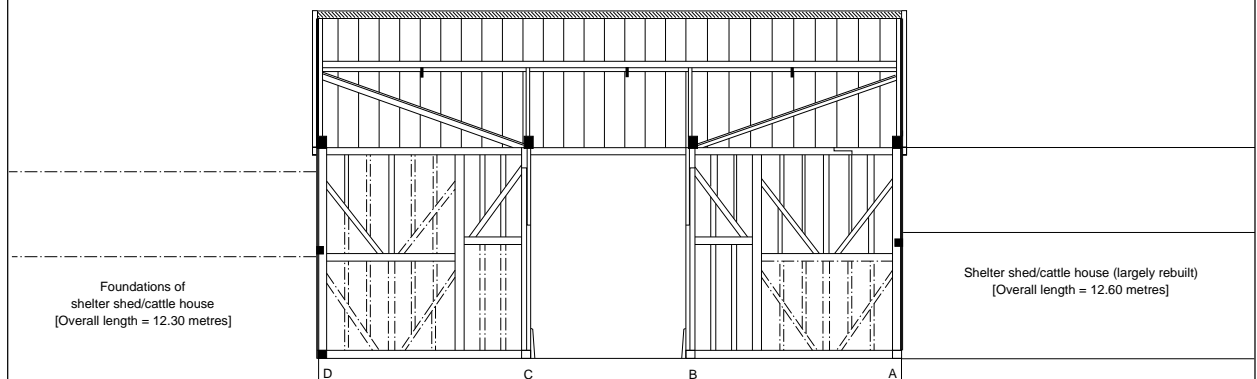
Date of this revision **2006**



GROUND PLAN



LONGITUDINAL SECTION LOOKING NORTH



LONGITUDINAL SECTION LOOKING SOUTH



**BARN AT RANDALL'S FARM, WESTFIELD, EAST SUSSEX
RECONSTRUCTION DRAWINGS AS RE-ERECTED**

Site Ref **P47/23**

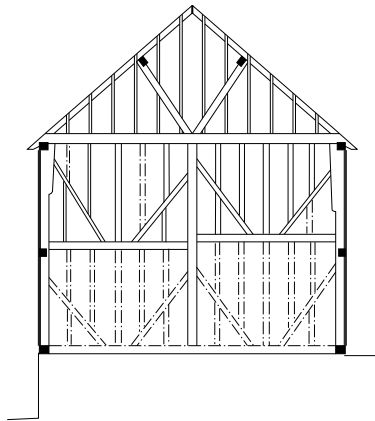
Drawing No. **1635/04**

Drawn By **D Martin**

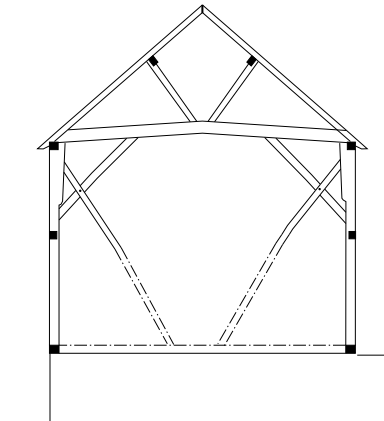
Revision No -

Date of original survey **2006**

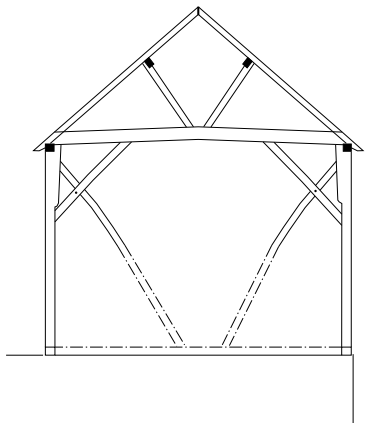
Date of this revision **2006**



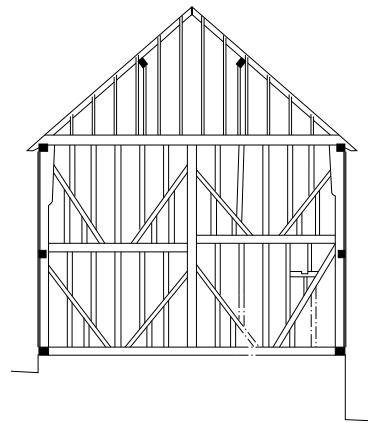
TRUSS A-A FROM EAST



TRUSS B-B FROM WEST



TRUSS C-C FROM WEST



TRUSS D-D FROM WEST



**BARN AT RANDALL'S FARM, WESTFIELD, EAST SUSSEX
RECONSTRUCTION DRAWINGS AS RE-ERECTED**

Site Ref **P47/23**

Drawing No. **1635/05**

Drawn By **D Martin**

Revision No -

Date of original survey **2006**

Date of this revision **2006**

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