

HERITAGE NETWORK



TANKARDS BARN **Tea Green, Offley, Herts.**

HN446

*Historic Building Record
& Archaeological Monitoring Report*



THE HERITAGE NETWORK LTD

Registered with the Institute of Field Archaeologists as an Archaeological Organisation

Archaeological Director: David Hillelson, BA MIFA

TANKARDS BARN Tea Green, Offley, Herts.

HN446

Historic Building Record & Archaeological Monitoring Report

Prepared on behalf of the Kings Walden Estate

by

Karin Semmelmann, MA PIFA

and

Geoff Saunders, BA

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11 FURMSTON COURT, ICKNIELD WAY, LETCHWORTH, SG6
1UJ

TEL: (01462) 685991 FAX: (01462) 685998

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The cover photograph shows the landscape setting of the barn, looking east

Acknowledgements

The fieldwork for this project was carried out by Giles Scholl, Geoff Saunders, Mark Winter, and Karin Semmelmann. The report text and illustrations were prepared by Karin Semmelmann and Geoff Saunders. It was edited by David Hillelson.

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Summary

Site name and address:	Tankards Farm, Tea Green, Offley, Herts.		
County:	Hertfordshire	District:	North Herts.
Village/town:	Tea Green	Parish:	Offley
Planning reference:	1/02/0881	NGR:	TL 1392 2290
Client name and address:	Kings Walden Estate		
Nature of work:	Barn conversion	Present land use:	Barn
Size of affected area:	c.175m ²	Size of area investigated:	c.175m ²
Site Code:	HN446	Other reference:	n/a
Organisation:	Heritage Network	Site Director:	David Hillelson
Type of work:	Building recording/ Archaeological monitoring	Findings location/Museum:	NHDC Museum Service
Start of work	11/11/2003	Finish of work	14/01/2004
Related SMR Nos:	n/a	Periods represented:	Post-medieval
Previous summaries/reports:	n/a		

Synopsis: In response to a planning application for the conversion of a barn at Tankards Farm, Tea Green, Gt. Offley, Hertfordshire, the Heritage Network was commissioned to record the barn and monitor the groundworks associated with the development.

A photographic, drawn, and written record of the farm buildings was made prior to the start of the demolition and conversion works. The recording revealed evidence that the main barn was formed from two separate buildings of early 17th century date united on an early-mid 19th century dwarf wall. The livestock shed is a much later addition built from a mixture of new and used timbers.

The groundworks revealed no evidence of archaeological activity.

1. Introduction

1.1 This report has been prepared at the request of *DC Estates Ltd*, acting on behalf of the *Kings Walden Estate*, as part of a programme of historic building recording and archaeological monitoring at Tankards Farm, Tea Green, Gt. Offley, Herts (Fig.1). The archaeological fieldwork was undertaken in response to a condition placed on the planning permission for the development by the North Hertfordshire District Council (NHDC), in accordance with the provisions of the Department of the Environment's *Planning Policy Guidance Note 16* (PPG16). The scope of the required work was defined in a *Design Brief for Archaeological Building Recording and Archaeological Monitoring and Recording* prepared by the *County Archaeology Office* (CAO) of Hertfordshire County Council, acting as advisers to NHDC (ref. JS 21/07/03). The work followed the specification set out in the Heritage Network's approved *Project Design* dated November 2003.

1.2 The buildings consist of a T-shaped timber-framed barn, on an east-west axis, with a timber-framed extension running south from the western wing (Fig.2). The site is centred on grid reference TL 1392 2290.

1.3 The development includes the demolition of the southern extension and the conversion of the main barn to residential use. An extension in the middle of the southern elevation will be added, to complete a cruciform plan. Buildings such as these have been identified in regional research agendas as being of particular interest and as facing a high rate of loss through redundancy, conversion and demolition (*East Anglian Archaeology Occasional Paper 8, 2000*).

1.4 The design brief defined two areas of focus for the archaeological work: building recording on the historic structures, and monitoring of groundworks associated with their conversion.

- The aim of the building recording was to make a record of the structure, to monitor all aspects of the conversion programme which are likely to affect the fabric and integrity of the building, and to identify and record any historic features which are thus revealed.
- The aim of monitoring the groundworks associated with the conversion programme, was to identify and record any archaeological features and deposits which may be uncovered, and to retrieve artefactual and ecofactual elements which will allow the date, character, and significance of the site to be assessed, subject to the limitations of reasonable safety and practicality.

1.5 The aim of the project has been to record the existing fabric of the buildings prior to conversion and monitor all aspects of the development programme which were likely to affect either the fabric of the barn, or underlying archaeological remains.

2. Evidence

2.1 The main barn (Building 1) is a 3-bayed, timber structure set on a dark red brick dwarf wall under a corrugated asbestos roof. There is a porch to the north and a livestock shed has been added to the south west corner of the barn (Plates 1a & 1b). The remains of a wall can be seen running northwards from the north east corner of the barn.

2.2 Although the weatherboarding on the barn is a mixture of pine and elm, the supporting dwarf walls are all built of similar hand-made bricks. They are made from low quality clay which was badly puddled resulting in a poor matrix. The bricks measure approximately 22 x 6.5 x 5.5cm (8³/₄x 2¹/₂x 2¹/₄ inches) and are predominantly set in a Flemish Cross Bond using lime mortar. Variations in brick form and bond include a soldier course of upended bricks in the west elevation of the porch and plinth bricks in the same elevation of the barn. Indeed, the west wall is the only one to contain decorative features, with an offset approximately 0.12m above ground level and flints set into the course of brickwork immediately above. The quality and form of the bricks and mortar suggest a date of c.1840.

2.3 There are three entrances to the barn; a stable door in the east elevation, a single door in the south elevation and double doors which are boarded, ledged and braced in the porch.

Roof

2.4 The barn has a queen post roof with vertical posts, and was probably originally thatched (Plate 2a). This form of roofing is indicative of a 16th or 17th century construction date. The curved wind braces suggest a date of c.1600. The present roofing material is supported by recently inserted rafters with cleats. Although most of the rafters are generally waney-edged, six on the south elevation are squared timbers, which may suggest that they are replacements. They all have additional braces at the bottom, which gives a stepped effect.

2.5 The trusses of the queen post roof appear to be of oak and the purlins are halved and axed, and waney-edged. The tie beams are chamfered and the principal posts have gently sloping jowls. The second truss from the west is supplemented by a more recent tie beam and northern principal post, held together by an iron angle tie.

2.6 The porch has a clasped purlin roof. The porch abuts but is not jointed to the barn. A tie beam has been set across the porch roof where it meets the barn, but the jointing between the two tie beams is of very poor quality.

Interior

2.7 The south and west elevations have primary bracing, which suggests a date of no earlier than c.1600. The wall plate and sill beam, however, have rudimentary scarf joints. The edge-halved joint in the wall plate west of the door and the edge-halved scarf joint with square abutments in the sill beam east of the door (Plate 2b) suggest a date prior to the end of the 16th century when face-halved scarf joints became more commonly used. Although two face-halved joints are also present in this elevation,

one has bridled abutments; a form which was superseded by counterbladed abutments in the early 17th century.

2.8 The westernmost sill beam of the south elevation shows evidence for Hertfordshire wattle and daub, in which wattles are housed in bored holes rather than the more common grooves. In contrast, the remainder of the sill beam and the wall plate, which is roughly axed, shows little evidence for re-use.

2.9 The western end of the barn has pine horizontal boarding, which is set on the sill beam. This could suggest that the barn was used either as a granary or for livestock at some time. The cleanliness of the boards would favour the former.

2.10 All of the timber work below the tie beam in the west elevation has been replaced with primary bracing in a timber subframe. An additional sub frame has also been added between the tie and collar beams. The studs are thin sections of sawn timber, primarily of Scots Pine, and may be dated to shortly before World War I.

2.11 Although much of the timberwork in the western half of the north elevation is obscured, this also appears to have primary bracing above a very curved sill beam.

2.12 In contrast, all the timber work in the eastern half of the north elevation is haphazard. The sill beam is very curved and the bracing is irregular. Nail holes for lath and plaster were noted on one stud towards the eastern end of the elevation. The wall plate is a re-used timber, which has been sawn off a little beyond the tie beam, which indicates that the elevation has been breached to allow for the addition of the porch. The joint immediately east of the tie beam may well be similar to the one directly opposite in the south elevation. This is a single open mortice and tenon with skewed shoulders.

2.13 The east elevation has internal tension bracing and a stable door offset towards the north. The door may be a later addition, as is suggested by the fact that the door frame posts do not reach the tie beam and that the sill beam to the south of it has been replaced. The bracing is of interest as the studs are not continuous behind the brace, but are tenoned into it, as would be the case in primary bracing. This technique, as well as the curved braces, suggests that this was constructed around 1600 AD.

Porch

2.14 The porch walls angle both outwards and from north to south.

2.15 The member, which crosses the junction of the barn with the porch, is made of a half-timber with the bark still *in situ*. A single re-used beam, with a mortice for a lap joint on the north face and pegs with timber staining around them on the lower face, crosses the porch immediately north of this tie beam. The purpose of this re-used beam is unclear.

2.16 The northern half of the east and west elevations have horizontal boarding, possibly of ash, to the mid rail, with that in the west elevation extending below the sill beam. The southern half of both elevations have brick nogging below the middle rail. The bricks, which are sandy red bricks, appear to

be Edwardian. The internal tension braces in both elevations suggest a late 16th century date. The principal posts in the north elevation, are tapered with square cut returns.

2.17 Graffiti is present on both sides of the porch. The initials *JAT* have been carved into the panelling on the west elevation whilst the initials *MM* on the south east principal post have been formed by a series of circular indentations (Plates 3a & 4b). The initials *MM* were frequently scratched into posts near to the entrances of buildings in the 17th century to ward off witches.

Livestock Shed (Building 2)

2.18 This building is orientated north to south and abuts the western end of the south elevation of the barn. It measures 13.50 x 3.40 x 2.25m (h). Whereas the south and west elevations rest on a low dwarf wall, the principal posts in the east elevation are set in concrete bases, which may suggest that this was once open-fronted.

2.19 The shed has five bays of varying widths under a timber and corrugated iron roof. For the purposes of this study, the bay numbers run from north to south.

2.20 The four tie beams are different in both their basic form and the type of timber used. Whereas, for example, the tie beam between Bays 1 and 2 is made of waney edged elm, the next beam along is roughly axed softwood with a chamfered edge. They are all similar, however, in that they have mortices with either nail holes or nails *in situ*, suggesting that the shed initially had internal walls. At present the shed is subdivided by an east-west orientated partition in Bay 3, which does not extend the entire width of the building.

2.21 There is a stable door at either end of the east elevation, with five ventilation shutters in the upper part of the bays between the doors. The shutters vary in length from 1.75 to 2.32m, but are all 0.47m high. Whereas Bays 3 and 4 both have two ventilation shutters, the other bays contain either a single ventilation shutter or a door. The panels below the shutters are bolted to the posts by iron angles.

2.22 Mangers run along the whole length of the west elevation, with the top of the feeding troughs standing 0.73m above the ground. The feeding troughs north of the partition have corrugated metal cladding.

2.23 Many of the principal timbers are re-used. The face halved and counter-bladed scarf joints in the wall plates and the gently sloping jowls on the southern principal posts suggest that they may have come from a late 17th century building.

2.24 The south elevation has half-height corrugated metal cladding above a concrete base.

2.25 The shed gives every appearance of having been built at a fairly recent date using both new and used timbers. It may well originally have been an open-fronted building which was enclosed to house livestock. The height of the troughs and the presence of mangers, however, suggests that the name “The Piggeries”, which had been used for the building, does not refer to its most recent use.

3. Fieldwork

Topography and Geology

3.1 The site lies to the south-east of the village of Tea Green on land which slopes gently from north-west to south-east. The geology was reasonably consistent across the site and comprised a layer of yellowish brown (10YR 5/8) clay with flints beneath approximately 0.20m of mixed overburden.

Results

3.2 The groundworks comprised four stages, including the excavation of a test pit, the excavation of the underpinning pits, the excavation of drainage trenches, and the excavation of a soakaway.

Test pit

3.3 A test pit measuring 2.25m in length, 1.60m in width and 1.30m in depth was excavated south east of the barn. No archaeological features or artefacts were revealed.

Underpinning pits

3.4 Fourteen underpinning pits were excavated. The stratigraphy in the pits varied only in the south west corner of the barn, where an area of chalk was revealed beneath the yellowish brown clay with flints. The underpinning pit to the north of the chalk was not observed and so its full extent is unknown. Its depth and position beneath the clay, however, suggests that it represents a high undulation within the natural geology. No archaeological features or artefacts were revealed in any of the underpinning pits.

Soakaways

3.5 A single soakaway was excavated approximately 10m south of the south-west corner of the barn. The stratigraphy consisted of 0.40m of dark brown silty clay topsoil over 0.20m of large flint rubble with mortar fragments. Below this was the same yellowish brown (10YR 5/8) clay with flints observed elsewhere on the site. No archaeological features or artefacts were revealed.

Drainage Trenches

3.6 The drainage trenches did not impact on the existing ground level and so monitoring of these trenches was deemed unnecessary.

4. Discussion & Conclusion

Building recording

4.1 The main barn appears originally to have been two individual structures that were united on a new dwarf wall during the first half of the 19th century. The joints, internal bracing and the type of timber used indicate a construction date for the frame and trusses of c.1600. Later re-working of the structure is shown by the primary bracing, the horizontal boarding, and most recently the replacement roof and concrete floor.

4.2 Although it is not possible to give an exact date for the livestock shed, it appears to have been constructed fairly recently. It is constructed of new and used timbers and was probably originally open-fronted. At a later date the building was enclosed for the purpose of housing livestock.

Groundworks

4.3 The monitoring of the groundwork associated with the conversion of the barn did not reveal any archaeological features or deposits.

4.4 The underpinning pits demonstrated that the dwarf wall on which the timber frame of the barn rests has only very shallow foundations and in places is built directly onto the natural geology.

4.5 The work demonstrated that the natural geology lies at an approximate depth of only 0.2m below the existing ground surface. This suggests that the ground has been levelled at some point, possibly at the time that the dwarf wall of the barn was constructed during the first half of the 19th century. Any archaeological evidence of activity predating the levelling appears to have been removed.

5. Schedule of Site Visits

Date	Staff	Hours	Comments
11/11/03	KS, GIS, GS	11	Record barn
11/11/03	DJH	2	Record barn
13/11/03	KS	4	Record barn
24/11/03	KS & AG	4	Record barn & test pit
04/12/03	GIS	3	Inspect underpinning pit O & P & soakaway 1
09/12/03	KS	3	Inspect pits A & B
11/12/03	KS	2	Inspect pads D-F
15/12/03	MW	3	Inspect pads G-I
17/12/03	MW	3	Inspect pads J-L
19/12/03	MW	3	Inspect pad M & trench N
14/01/04	KS	3	Inspect drainage trenches

6. Bibliography

Hillelson, D. 2003. *Tankards Farm, Tea Green, Offley, Herts: Project Design* Heritage Network

Smith, J. 2003, *Design Brief for Archaeological Building Recording and Archaeological Monitoring and Recording Tankards Farm, Tea Green, Offley*. Hertfordshire County Council

7. Illustrations

Figure 1	Site location
Figure 2	Site layout
Figure 3	Barn elevations
Figure 4	Sections
Plate 1a.....	Barn (Building 1)
Plate 1b	Livestock shed (Building 2)
Plate 2a.....	Building 1: queen post roof, looking east
Plate 2b	Building 1: edge halved scarf joint with square abutments
Plate 3a.....	Graffiti on the west elevation of the porch
Plate 3b	Graffiti on the south east principal post of the porch

Appendix 1:

Black and White Photographic Log

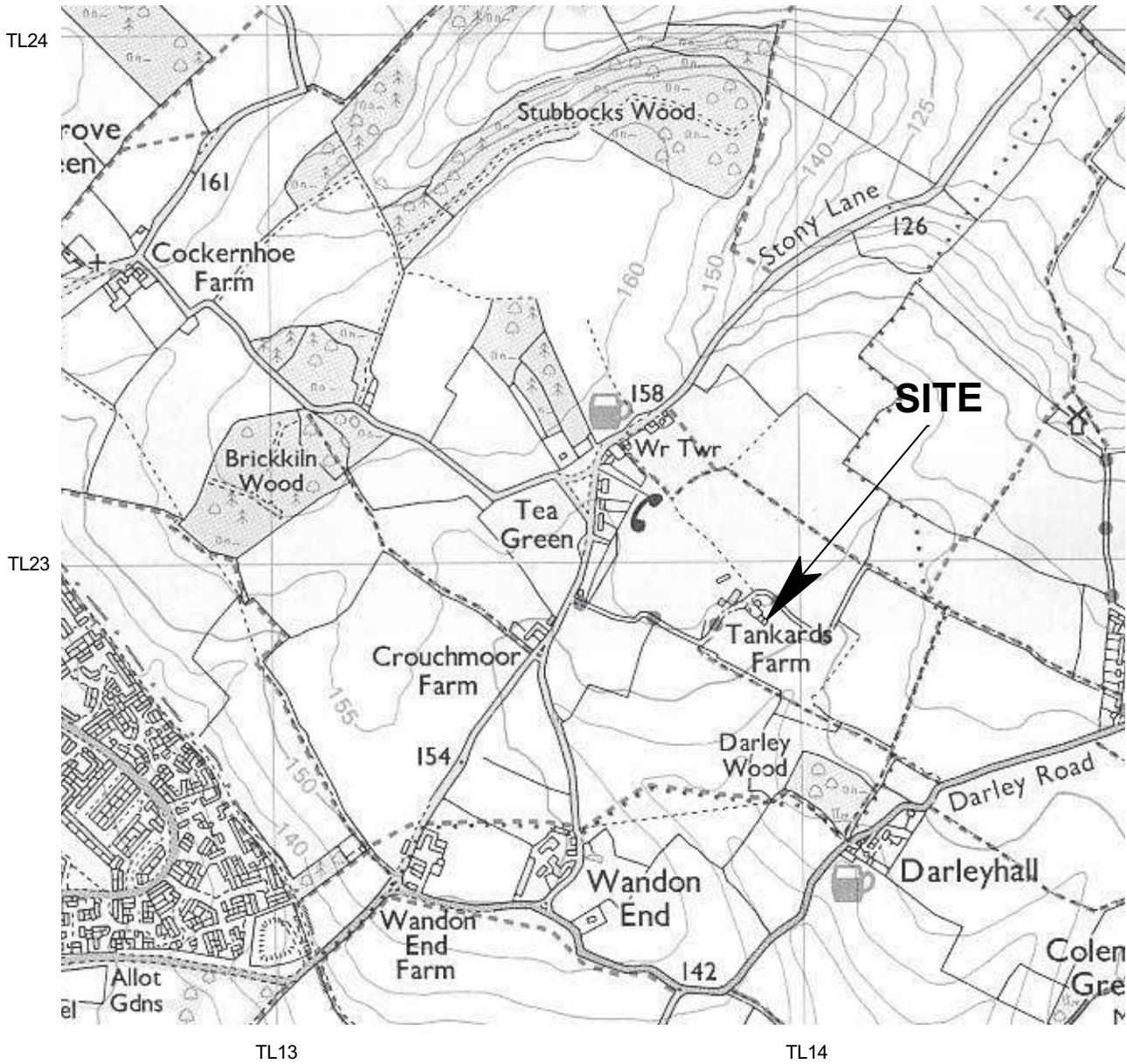
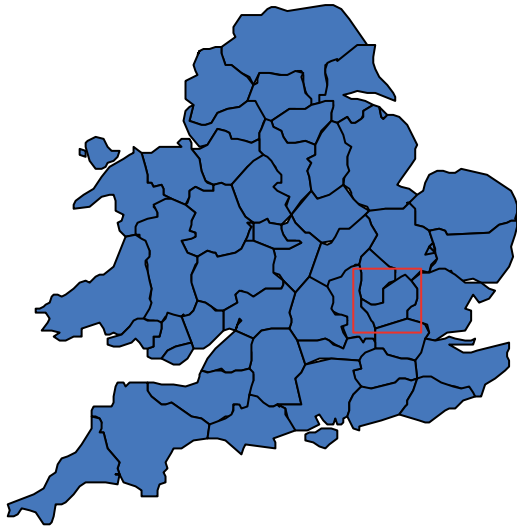
Roll No.	Photo No.	Description	Facing
1	1	Building 2: S elevation	S
	2	Building 2: tiebeam 3	S
	3	Building 2: tiebeam 1 detail	SE
	4	Building 2: N elevation	N
	5	Building 2: N elevation	N
	6	Building 2: mangers	SW
	7	Building 2: N aspect	N
	8	Building 2: N aspect	N
	9	Building 2: face halved scarf joint	N
	10	Building 2: face halved scarf joint	E
	11	Building 2: principal post	W
	12	Building 2: detail of vents	NW
2	1	Building 1: S elevation	N
	2	Building 2: S elevation	N
	3	Buildings 1 & 2 from the NW	SE
	4	Buildings 1 & 2 from the NW	SE
	5	Porch	S
	6	Building 1: E elevation	SW
	7	Building 1: E elevation	W
	8	Building 1: detail of W wall	E
	9	Building 1: S elevation sill beam	S
	10	Building 1: S elevation sill beam	S
	11	Building 1: graffiti W wall of porch	W
	12	Building 1: graffiti principal post of porch	E
3	1	Building 2: tiebeam 2	S
	2	Building 2: tiebeam 2	S
	3	Buildings 1 & 2 from the SE	NW
	4	Building 2: E elevation	W
	5	Building 1 & 2: W elevation	E
	6	Building 1 & garage	S
	7	Barns & outbuildings	W
	8	Barn 1 & outbuildings	NW
	9	Barn 1 & outbuildings	NNW
	10	Barn 1 & outbuildings	NNE
	11	Barn 1 & outbuildings	SE
	12	Building 1: N elevation, E end	S

Roll No.	Photo No.	Description	Facing
4	1	Building 1: S elevation, W end	S
	2	Building 1: W bay, S roof	
	3	Building 1: N elevation, W end	W
	4	Building 1: W bay, N roof	
	5	Building 1: W elevation	W
	6	Building 1: W elevation	W
	7	Building 1: W elevation	W
	8	Building 1: W elevation	W
	9	Building 1: S elevation	S
	10	Building 1: eastern bay roof	S
	11	Building 1: barn/porch roof junction	N
	12	Building 1: barn/porch roof junction	N
5	1	Building 1: porch, N elevation	N
	2	Building 1: porch, N elevation	N
	3	Building 1: porch, E elevation	E
	4	Building 1: porch roof, S end	S
	5	Building 1: barn/porch roof junction	
	6	Building 1: barn/porch roof junction	
	7	Building 1: porch, E elevation	E
	8	Building 1: porch roof, N end	
	9	Building 1: S elevation, W end	S
	10	Building 1: western bay roof	
	11	Building 1: eastern bay roof	
	12	Building 1: eastern bay roof	
6	1	Building 1: N elevation, W end	NN
	2	Building 1: E elevation	E
	3	Building 1: E elevation	E
	4	Building 1: looking west	W
	5	Building 1: looking west	W
	6	Building 1: looking west	W
	7	Building 1: looking east	E
	8	Building 1: looking east	E
	9	Building 1: looking east	E

Appendix 2:

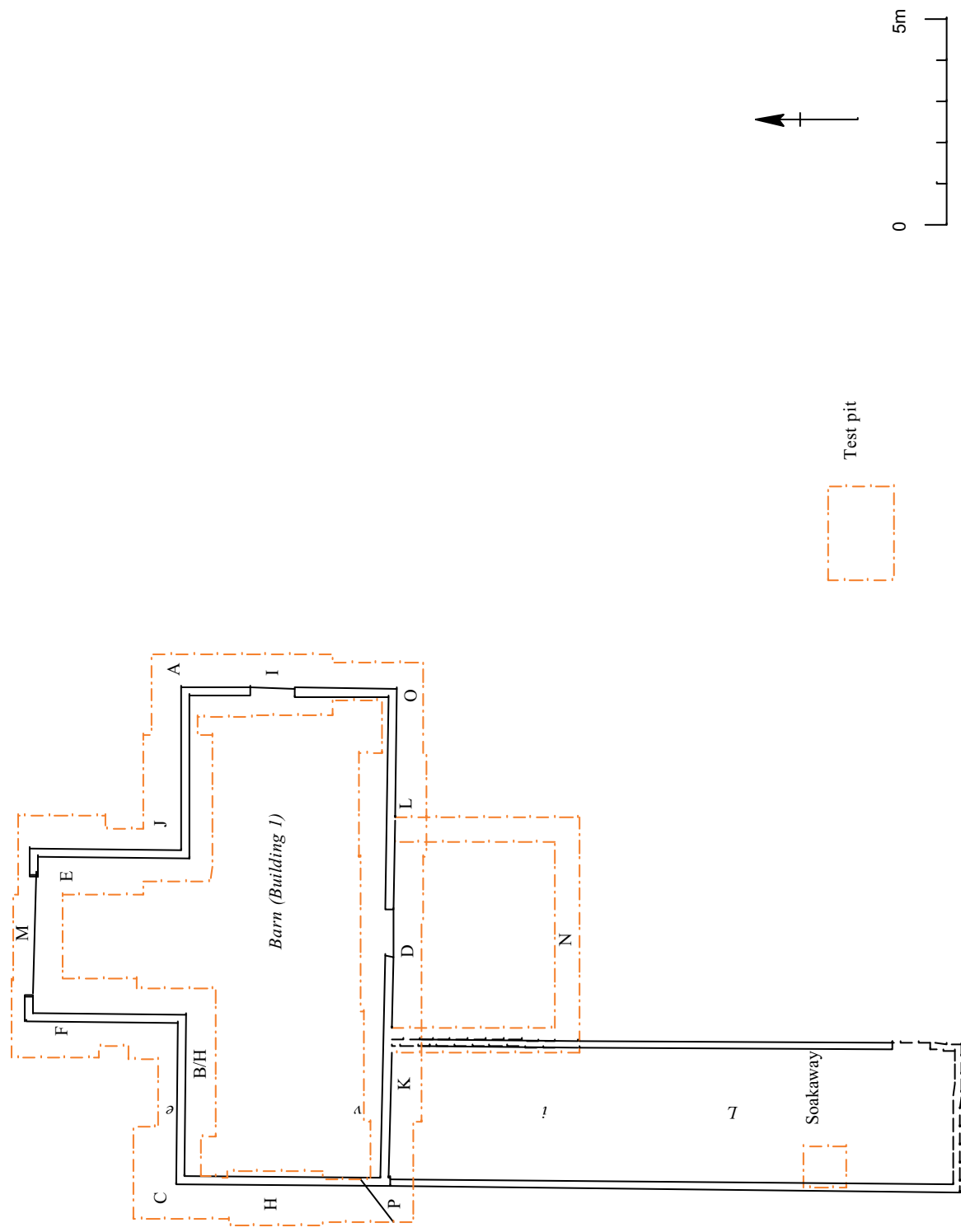
Digital Colour Photographic Log

Photo No.	Description	Facing
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3	Building 1: N elevation	S
4	Building 1: N elevation	S
5	Building 2: E elevation	W
6	Building 1: looking north	N
7	Building 1: scarf joint, S elevation	S
8	Building 1: S elevation joinery	SW
9	Building 1: looking East	E
10	Building 1: looking North	N
11	Building 1: scarf joint, S elevation	S
12	Building 2: scarf joint, E elevation	E

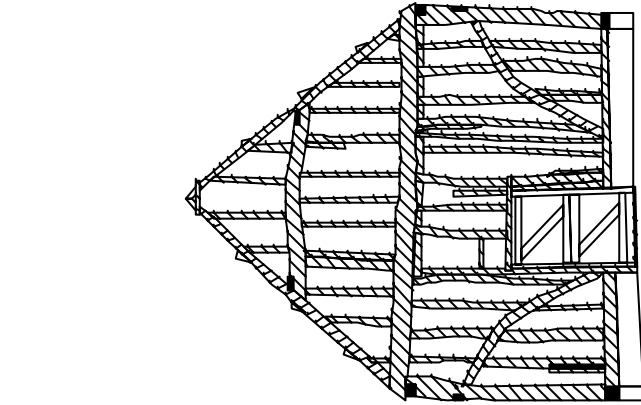


Site Location

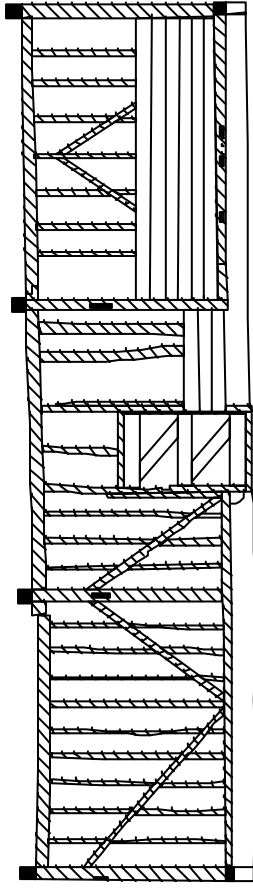
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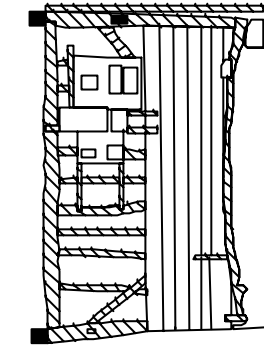
Site layout



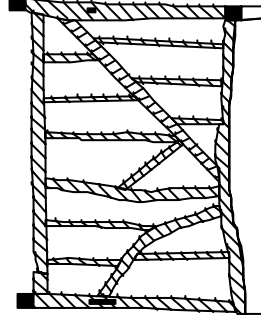
East elevation



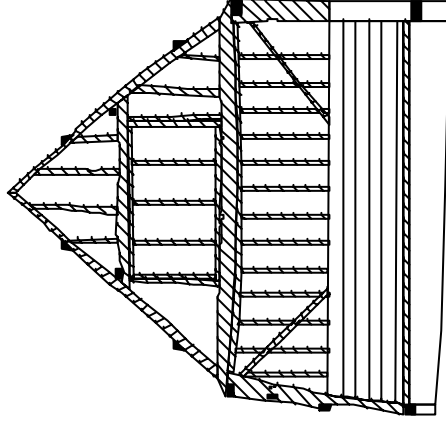
South elevation



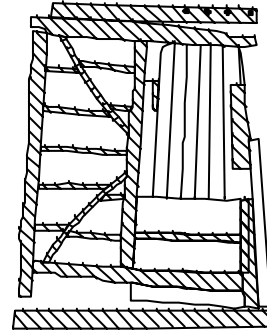
North elevation, west end



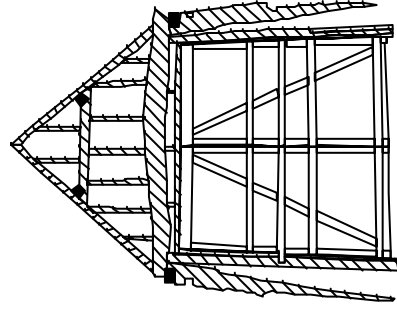
North elevation, east end



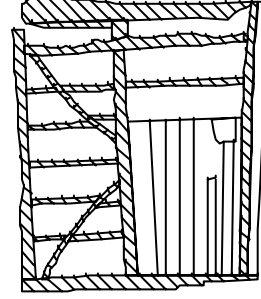
West elevation



West elevation of porch



North elevation of porch



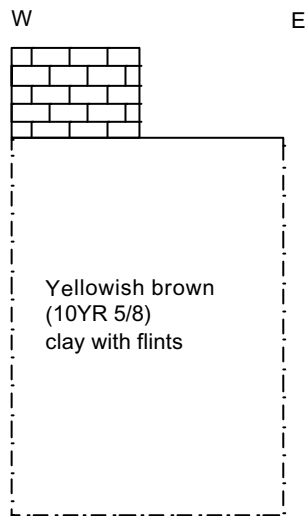
East elevation of porch



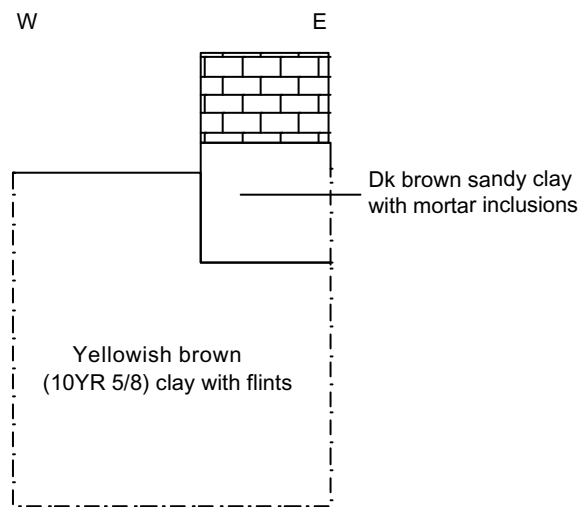
Barn elevations

Scale 1:100
Figure 3

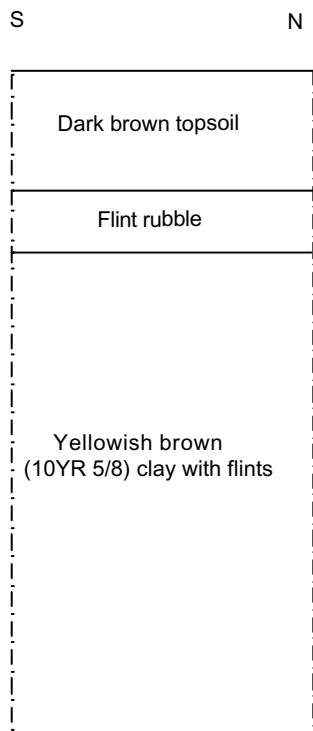
South facing section of Trench O



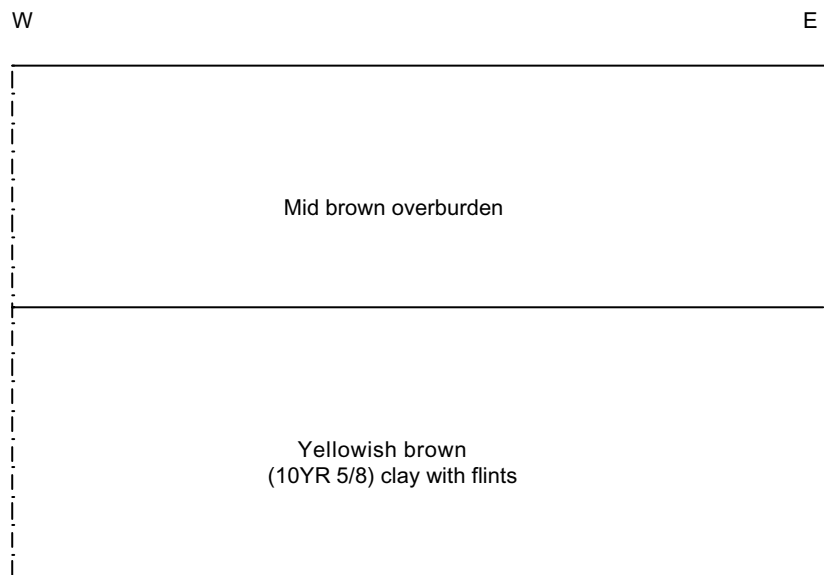
South facing section of Trench P



East facing section of Soakaway 1



South facing section of Trench K



Barn footings





Barn (Building 1)

Not to scale

Plate 1a



Livestock Shed (Building 2)

Not to scale

Plate 1b



Building 1: queen post roof, looking east

Not to scale

Plate 1a



Building 1: edge-halved scarf joint with square abutments

Not to scale

Plate 1b



Graffiti on the west elevation of the porch

Not to scale

Plate 2a



Graffiti on the south east principal post of the porch

Not to scale

Plate 2b