

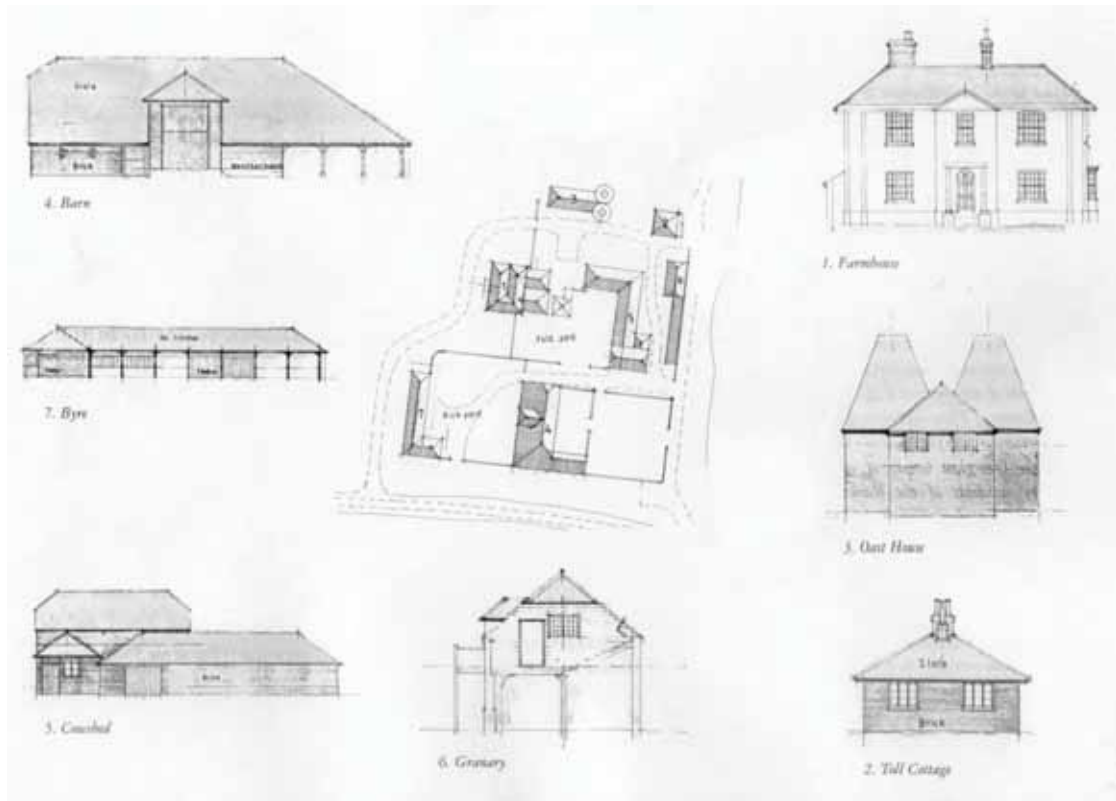
Channel Tunnel Rail Link
Union Railways (South) Ltd

YONSEA FARM, HOTHFIELD, KENT

ARCHAEOLOGICAL ANALYSIS DURING DISMANTLING

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Oxford Archaeological Unit
August 2000

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Oxford Archaeological Unit
August 2000

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Summary

The Oxford Archaeological Unit (OAU) carried out a programme of archaeological recording at Yonseas Farm, Hothfield (NGR TQ 9850 4505) for Union Railways (South) Limited (URS). The farmstead comprised a number of Grade II listed buildings and other non-listed structures:

<i>The Farmhouse</i>	<i>The Oasts</i>
<i>The Loose Boxes</i>	<i>The Toll Cottage</i>
<i>The Granary & Cart Sheds</i>	<i>The Cowsheds and Stables</i>
<i>The Barn</i>	

Due to the construction of the Channel Tunnel Rail Link, the buildings were to be dismantled for re-erection at the South of England Rare Breeds Centre, Woodchurch by the Traditional Buildings Preservation Trust (the Trust). OAU carried out a detailed survey of the farmhouse kitchen which had surviving features including a bread oven, range and double copper. In addition to this, a watching brief was carried out during the controlled demolition of the buildings. After the buildings had been removed, the site was further investigated by means of an archaeological evaluation. Both prior to and during the demolition, Rail Link Engineering (RLE) and the Trust commissioned and carried out substantial recording including measured surveys, rectified photography, historical research, oral history, video footage and general photography (Appendix C provides an index to the archive). The work carried out by OAU was therefore designed to augment that of the Trust and RLE, to inform the rebuilding of the complex and to record any information about the buildings that came to light during the controlled demolition.

Unusually for Kent, the farm was a planned model farm. It was developed between 1816-1819 by the 9th Earl of Thanet as part of the Hothfield Estate. However, the name 'Yonseas Farm' was first recorded in the 13th century (Walker, 1998) leading to suggestions that the model farm was a rebuilding on an earlier site. No evidence was found for earlier occupation during an evaluation by the Museum of London Archaeology Services in 1997 or in the evaluation carried out by the OAU and reported here.

The majority of the buildings making up the farm complex were of one-phase with few later alterations. A high degree of uniformity was seen throughout in terms of building style, construction details and materials. The buildings were of brick and timber framing. The brickwork was laid in Flemish bond (with salt-glazed headers) where visible and English bond where not. Many of the farm buildings were timber-framed on brick plinths with common features of jowled knee braces and vertical butt-edged weatherboarding. Roofs were hipped, boarded and covered with slate. Common component features seen through the roof construction included tapered king-post trusses with raking struts and ridge boards, structural wrought iron jointing and bolted purlins carried on the underside of rafters. The farmhouse displayed a level of sophistication over the working buildings and is believed to have been designed by George Stanley Repton working in the office of John Nash (Robinson, 1998).

The archaeological evaluation carried out after the demolition of the buildings was designed to provide more information about the foundations of the buildings, reveal previously obscured elements and look for any evidence of activity prior to the 1816-19 model farm. No structures pre-dating the farm were identified. Of most interest was the additional information gained from the floors of the oast house roundels. Evidence of two different firing techniques were



observed after the modern concrete floor was removed. The roundel to the south retained evidence of a hopper construction and that to the north had a sunken ash pit. R Walton, an authority on Kentish Oasts, visited the site and interpreted the different firing mechanisms as differences in fuel source, the southern roundel using charcoal and the northern roundel a modernisation designed to allow the use of coke or coal.

YONSEA FARM, HOTHFIELD, KENT

ARCHAEOLOGICAL ANALYSIS DURING DISMANTLING

1 INTRODUCTION

1.1 Background to the Project

1.1.1 The Oxford Archaeological Unit (OAU) was commissioned by Union Railways (South) Limited (URS) to undertake a programme of archaeological recording at Yonseas Farm, Hothfield, Kent (NGR TQ 9850 4505). A group of Grade II listed and other buildings making up the model farm complex, dated to 1815, were taken down ready for re-erection at the South of England Rare Breeds Centre, Woodchurch by The Traditional Buildings Preservation Trust (the Trust) prior to the construction of the Channel Tunnel Rail Link (CTRL).

1.2 Reasons for Work

1.2.1 Planning Background

1.2.1.1 During the passage of the CTRL bill through Parliament, the following undertaking (no. of 0340) was given to Ashford Borough Council (ABC) in relation to the Yonseas Farm complex:

- Farmhouse: demolition if detailed design demonstrates the necessity
- Barn and Byre, Large Barn, Granary and Cartshed: the Promoter was to be responsible for ensuring the dismantling and re-erection of only of those buildings it is necessary to remove to construct the CTRL when detailed design is known with the co-operation of the ABC and Kent County Council (KCC). Re-erection was to be for an appropriate re-use to secure the long term future of the buildings as a group in a manner which respects the integrity of the group and the relationship between the buildings.
- The Oast, barn and the bungalow were to be demolished if detailed design of the CTRL required it.

1.2.1.2 The CTRL Act 1996 disapples the requirement for obtaining listed building consent for the demolition of these buildings, however the nominated undertaker was required to obtain agreement under the Deed on Heritage (*Listed Buildings and Conservation Areas*) from Ashford BC for the necessary works to the structures. Heritage Deed submissions covering the demolition and dismantling where relevant were submitted to and agreed by ABC (refs: 400/ASH/2/H3 and 400/ash/2/h4).

1.2.1.3 Subsequently the Traditional Buildings Preservation Trust (TBPT) put forward a proposal to take down all six listed and one unlisted buildings of the complex and rebuild them adjacent to the Rare Breeds Centre at Woodchurch. Union Railways (South) Limited entered into an agreement with ABC and the TBPT to contribute an equivalent sum to that allocated for the dismantling and re-erection to which they were committed in a one off payment. The additional monies necessary to complete the rebuilding of Yonseas Farm would be sought by the TBPT and ABC..

- 1.2.1.4 The Trust then sought Listed Building Consent to dismantle and re-erect all the listed and unlisted Yonseas Farm buildings at the Rare Breeds Centre. This was granted by the Borough of Ashford (planning ref: 98/600/AS, 25th August 1998).
- 1.2.1.5 As part of this Listed Building Consent, a condition requiring a *‘full programme of archaeological recording of each building which it is proposed to re-erect’* was applied in accordance with the provisions laid down in Planning Policy Guidance Notes (PPGs) 15 and 16. This work was undertaken by OAU. The full procedure detailing the work undertaken can be found in the initial *Specification for Building Investigation and Recording* (URL, 1998). Further background information to the project can be found in the Trust’s *Recording Strategy for Re-Assembly and Archaeological Purposes* (October 1998).
- 1.2.2 The recording work forms a part of a wide ranging programme of archaeological recording and excavation work undertaken along the route of the proposed CTRL. The survey was undertaken in accordance with section §.5 of the ‘Sub-contract: Listed Buildings in East Kent; Method Statement for Archaeological Investigation’ prepared by OAU (September 1999).

1.3 **Presentation of this Report**

- 1.3.1 The report covers both the building archaeology and the below-ground evaluation elements of the archaeological investigation of the farm. Following a summary of the site location and topography (§.2), section §.3 provides a brief historical background of the farm, derived for the most part from previously available sources (URL 1995,1997 & 1998; Robinson, 1998 and the listing descriptions; Appendix A). Section §.4 presents a review of the recording methodology employed during the project. The description of the farm buildings themselves are presented in sections §.5-6. Section §.5 presents a detailed architectural description of the farm buildings as recorded, while a summary of the observations and their significance is given in section §.6. Section §.7 details the observations of the archaeological evaluation which took place following the removal of the standing buildings. Finally section §.8 provides a summary of the conclusions made as a result of the investigations.
- 1.3.2 Reference will be made to Figures 2-4 & 10-17 which are the pre-existing measured survey drawings annotated with any relevant archaeological features observed. Figures 5-9 are the detailed survey drawings of the farmhouse kitchen undertaken by OAU. Reference will also be made to Plates 1-8 which are a selection from the photographic record made by the Royal Commission on the Historic Monuments of England (RCHME) and are reproduced here with their permission (Copyright withheld). Index sheets included in Appendix C show the rest of their photographic record.



2 SITE LOCATION AND TOPOGRAPHY

- 2.1 Yonseas Farm is situated to the south side of the main London - Folkestone road (A20) approximately 3.5km to the north-west of the town centre of Ashford in the parish of Hothfield, Kent (NGR: TQ 9850 4505; URL Grid 78512/24961).
- 2.2 The underlying geology was Greensand overlain by orange Brickearth. The site was on a gradual slope to the west and the south and lies at an elevation of between 54m and 55m above Ordnance Datum.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Early History

3.1.1 The name Yonseas Farm was first recorded in the 13th century (Walker, 1998) and this has led to suggestions that the model farm was a rebuilding and modernising of a pre-existing farm. The pond and associated linear depression to the rear of the double oast was taken as possible evidence of this former settlement, possibly forming the south-east corner of a moated enclosure. In July 1997, the Museum of London Archaeology Service (MoLAS) carried out an archaeological evaluation to test this theory. From the six trenches excavated, only two yielded archaeological features and no material earlier than the 19th-20th century was recovered. This led to the conclusion that an earlier farm on the site was unlikely (URL, 1997). An alternative explanation of the pond and the ditch is that it was part garden feature – part drainage system for the farmhouse garden.

3.2 Yonseas Model Farm

3.2.1 The current Yonseas Farm was developed by the 9th Earl of Thanet (1769-1825) between 1816-1819 as part of the Hothfield Estate of the Tufton family. It represents a 'rare example in Kent of a Georgian planned model farm' (Robinson, 1998, 1). The philosophy of such farms was to be as efficient and productive as possible and put to full use the new theories of agricultural improvement. Although no architect is known for the house Robinson suggests that it may be attributed to George Stanley Repton working in the office of John Nash. He is known to have designed to similar briefs for the Earl elsewhere. The surrounding functional buildings would have been undertaken by the Earl's normal estate work force. The present Yonseas Farm was developed after the purchase of 30 acres of land also known as Yonseas Farm owned by John Barlow in 1814. It is possible that the 13th-century recorded name may refer to this Yonseas farm. This additional land was added to that which the Earl already held and created the opportunity for the re-arrangement of the fields and the building of the model farm. It is of interest to note that although hop prices were variable, there was a great increase in hop production in the first decades of the 19th century (Thirsk, 1989, 1057) and, with the evidence of the double oast, this may have been a motivating force in the farm development.

3.2.2 Once built the farm was leased out to long-term tenants of a degree of gentrification and education. During most of the 19th century the Strouts family were the occupants, very much the desired 'Gentlemen Farmers' for whom the Farmhouse was designed.

3.2.3 The majority of buildings making up the farmstead appear to be of a one-phase development of 1816-19 with few alterations after this date. However as described below some evolution and adaptation within the buildings was seen during the demolition process. Evidence of this limited evolution is seen in the Hothfield Tithe Map of 1840, the Daniel Smith and Son report on the estate of 1850 (Appendix B) and the 1872 Estate Survey and map. These sources show the 'bungalow' to be of a later date than the rest of the complex and it is reputed to be a toll cottage associated with the toll road from Ashford to Maidstone though this has not been established with certainty. Further information is likely to be yielded from the Trust's continuing documentary research. Relevant papers may be found in the Thanet (Hothfield) papers held at the Kent Archives Office, Maidstone.

4 RECORDING METHODOLOGY

4.1 The Programme of Recording

4.1.1 The work commissioned from the OAU, and reported here, is designed to augment that of the Trust and RLE. In addition to this written description of the buildings, a full set of measured survey drawings comprising of a minimum of four elevations at 1:100, floor plans at 1:50 and a cross section at 1:50 of each of the affected buildings had been undertaken partly by RLE and partly by McAnally & Associates, Civil & Structural Engineering Consultants. An accurate site plan at 1:100 was also made. An Historical Report had been undertaken by J M Robinson, an authority on model farms, upon which the foregoing historical background (§.3) has been based (Robinson, 1998). An archaeological evaluation had previously been carried out by MoLAS in July 1997 to test the theory that an earlier medieval moated site lay to the rear of the oast houses. During the dismantling, the Trust was responsible for producing a photographic record of the buildings to aid the proposed re-erection. This included colour print coverage (to be copied in black and white archivally sound format), rectified photography of the farmhouse and, in addition, thorough video coverage of the building before and during demolition. Numerous record drawings of the buildings were produced as detailed sketches recording the labelling system employed on the individual elements of the buildings. Prior to the start of demolition work, all elevations of the buildings involved were photographed by the RCHME, a selection of which are reproduced here (Plates 1-8). Appendix C provides an index to the archive generated during the dismantling.

4.2 OAU Involvement

4.2.1 The OAU's work comprised the detailed recording of the farmhouse kitchen and a general watching brief on the buildings during their controlled demolition, in order to produce a written commentary on the archaeological observations made during the process and a written description of the buildings making up the model farm complex. In addition to this a small scale archaeological evaluation was carried out after the demolition of the buildings. The findings of this element of the OAU's brief is reported below (§.7).

4.2.2 The Farmhouse Kitchen

The exceptional survival of features within the primary kitchen of the farmhouse has led to a more ambitious reconstruction proposal for this room and so further records were required. The double copper, brick bread oven, range and stone sink are all intended to be rebuilt on a brick-by-brick basis. As an aid to this, detailed measured drawings were made of each of the elevations of the room, marking on the brick courses at a scale of 1:10. A floor plan was made at a scale of 1:20 and detail drawings were also produced of the bread oven and the double copper.

4.2.3 The Watching Brief

During the demolition of the buildings, a number of site visits were made in order to monitor and record any archaeological features and events exposed during the project. As well as monitoring the actual historic fabric, the Trust's records; photographic, video and sketch drawings, were also reviewed and events and discoveries between visits were discussed. In this way, the written description of the buildings and their archaeology was compiled and is presented here as part of the archive produced during the demolition of the buildings.



4.2.4 **The Archaeological Evaluation**

Following the demolition of the buildings, a limited evaluation was carried out in November 1998. The aims of the evaluation was to access the foundations of the buildings, observe previously obscured features, such as the oast house floors, and investigate the possibility of remains of any earlier structures.

5 ARCHITECTURAL DESCRIPTION

5.1 Summary

5.1.1 The farm complex is made up of a number of buildings, many of which are individually Grade II listed, the remainder being curtilage buildings. The majority of the buildings were built as a one-phase development between 1816-19 and this is represented in a degree of uniformity in building style, construction details and materials. The materials seen throughout the farmstead are brick laid in single Flemish bond (ie. takes the appearance of Flemish bond where the wall was to be visible and English bond where the walling was to be hidden). To emphasise the decorative nature of the Flemish bonding many walls use salt-glazed headers, although this is not universal. Timber framing is another common component of the farm buildings with weatherboarded finish, often vertical butt-edged boarding. Jowled knee bracing are also a common characteristic throughout the buildings, giving a vernacular character. The roof structures of the various buildings are rather more sophisticated, and also display some common features; many of the roofs having tapering king-post trusses with raking struts and ridge boards. The trusses have wrought iron structural components at the foot of king-posts and ends of tie beams. Purlins are not structurally linked to the trusses but are instead bolted to the underside of rafters, in a manner so consistent as to appear an original rather than secondary feature. Roofs are commonly of hipped construction with lead flashings to ridge and ridge hips with coverings of slate commonly on boarding, the later buildings using batons instead.

5.1.2 The spatial arrangement of the buildings is designed to promote efficiency and be logical within the farm's working practise. The buildings form three main working areas. The barn and the loose boxes frame one yard – possibly used as a rick yard where harvested crops could be temporarily stored before processing in the barn. The farmhouse, although within the farm complex, strives to detach itself to some extent with its front elevation facing east, away from the working buildings and its approach also to the east. Both the house and its approach were screened from the working farm with Flemish brick walls and ornamental planting including yews and box. The track from the farmhouse leads to a further area of the complex with the oast houses to the south, with walled garden and orchard behind, the toll cottage to the south-west and granary with cart lodge below and adjacent implement shed along the western boundary wall. In the centre of the farmstead, another range of buildings divides the space and is thought to have been used as stables, bullock feeding stalls and slaughter house.

5.1.3 The buildings will be described individually. Throughout the report, a nominal north has been used, with the Maidstone road running east – west and north being the far side of the road from the farm (Figure 1).

5.2 The Farmhouse (Building 1, Figures 2-9, Plates 1 and 2)

5.2.1 General

5.2.1.1 The main farmhouse, thought to be architect-designed, is gentrified in its appearance and dimensions. The double-pile house is brick-built with a stuccoed front range of two storeys, with basements (used as pantry and dairy), covered by a series of slated hipped roofs. Adjoining the main house to the rear (west) are two kitchen areas, that to the north is contemporary with the main house and is the original kitchen with remarkable surviving features of bread oven, double copper, stone sink and range. The service use of this part of the original build is demonstrated externally with the block slightly set back from the line of the main house and with its Flemish bond walls left unrendered. The single storey kitchen to the south, with adjoining lavatory is a later addition. Access

to the house is from a track off the Maidstone road to the east of the farm running along the side of building 7 and across the front eastern elevation of the farmhouse, turning into the farm complex between the main house and the oast house.

5.2.2 Materials

5.2.2.1 The building is of red brick with some salt-glazed headers laid in single Flemish bond. Internally, the load bearing walls and those with fire stacks are of brick (many were dry-lined with lath and plaster on studs) with lesser partitions of softwood stud and lath construction. The majority of roof and floor timbers were of softwood and did not display evidence of reuse. However, during the dismantling a number of reused pieces of timber were uncovered, the majority of which used as lintels and wall noggins. The most interesting piece, in use as a wallplate, was clearly from a medieval timber-framed building and included a series of mortices for a stud wall broken by a window opening with three diamond mullions. Other softwood components were marked with Baltic timber marks. Several timbers displayed the same Baltic timber mark sawn through showing that they originated from the same piece or batch of timber.

5.2.3 External Appearance (Figure 2, Plate 1)

East (front) Elevation

5.2.3.1 The front elevation of the building faces away from the farmyard out into the fields and is clearly visible from the Maidstone Road. The symmetrical facade is stuccoed with a rather rough pebble textured render. This is thought to be the original mix as no other traces of previous renders were observed on removal. The façade is framed with a bracketed eaves cornice running around the stuccoed portion of the building and a black painted plinth running along the base of the wall at the level of the bottom of the front door. The central bay of the building projects slightly and has a pediment and porch of neo-classical inspiration. The porch has a flat corniced roof supported by Tuscan columns at the front and fluted pilasters at the wall face. Three stone steps lead to the round-headed front doorway with semi-circular fanlight. At first floor level, the bay has a single vertical sash. Flanking this central bay are two double bays pierced to ground and first floor with tripartite vertical sash windows. None of the sash frames in the building had horns. All the windows in the primary build of the farmhouse are fitted into openings with segmental heads and have stone sills. The façade is framed with the suggestion of giant pilasters formed by two vertical, raised brick strips under the render. The hipped slated roof has additional projecting eaves of exposed wooden boarding, currently late 20th-century replacements, thought originally to have been leaded, allowing for the bracketed cornice and throwing water clear of the walls in the absence of drain pipes and gutters. The two chimneys visible on the roof line are not symmetrically placed.

South Elevation

5.2.3.2 The east elevation was clearly the main façade designed to be the ‘polite’ face of the model farm, however, the southern elevation also demonstrates, to a more limited degree, the polite status of the main house in contrast to the service buildings at the rear. The eastern half of the façade, being the main domestic part of the farmhouse, retains the stuccoed finish of the front elevation and some other aspects of the architectural style such as the bracketed eaves cornice under the projecting additional eaves, the black painted plinth along the bottom of the walling and the raised framing pilaster detail at the eastern extent of the wall. The lesser status of this elevation is seen in the view of the double gabled ends of the two hipped roofs covering the main building and the fenestration. To the eastern bay of the main house are two blind windows, ground

and first floor, reminiscent of the proportion and size of the tripartite sashes of the front face. During the demolition of the building it became clear that these windows had never been functional but always blind suggestions. To the western bay of the main house the walls were pierced with four single vertical sash windows, two to the ground floor and two to the first floor. The westernmost example on the ground floor was seen to have been cut into the brick walling and had a brick rendered sill, unlike the rest of the stone sills throughout the building. However the positioning of this window within the design of the elevation appears to be original and the differences may perhaps be explained as an error during the construction stage rather than as a later addition to the building. To the west of the elevation are the unrendered Flemish brick walls of the single storey additional kitchen and adjoining lavatory with its hipped slated roof with catslide continuation to the lavatory. The lavatory is lit with a single casement and the kitchen has a single vertical sash both with stone sill and flat lintel.

- 5.2.3.3 During the demolition process evidence of an earlier building on the site of the second kitchen was observed. The evidence suggested that the earlier building only covered the eastern half of the additional kitchen area with the western half of the southern elevation of the original kitchen being external. The western door of the original kitchen block is believed to have been external and the eastern one internal providing access to this earlier service wing and the main house. The external western half of the angle of the original building may have been used as a household yard, for drying laundry and such like, as no windows from the main house overlook it. Along the southern elevation of the original kitchen ventilation grills are visible as in the north elevation. Two small windows appear to have been inserted into the south wall of the north kitchen just above the eaves of the south extension kitchen roof, they have segmental heads of brick voussoirs. Above these to the first floor of the northern kitchen wing are two double horizontal sliding sashes lighting the servants accommodation suite.

North Elevation

- 5.2.3.4 As in the south elevation, the eastern half of this elevation is stuccoed with plinth, projecting eaves and bracketed cornice and, at the east end, raised pilaster detail. The ground floor front room is lit with a projecting bay vertical sash with leaded flat roof. To the west are two vertical sashes, one to the ground floor and one to the first floor, with segmental heads and stone sills. Set back from the wall line of the main house is the north elevation of the original kitchen. This brick building is unrendered and laid in Flemish bond. To both the ground and first floor, the walling is pierced with two tripartite horizontal sliding sashes. The ground floor example has a segmental head of brick voussoirs and both have stone sills. Metal ventilation grills are also seen mid way up the wall serving the kitchen. These ventilation ducts are also on the south wall of the kitchen which became internal with the building of the southern extension. Some graffiti was observed scored into the brickwork of this wall: 'E' '10FT' '1'.

West Elevation

- 5.2.3.5 This elevation comprises the rear of all the associated parts of the farmhouse and faces the working side of the farm complex. The rear elevation of the main building is of Flemish brickwork left unrendered and pierced by a single vertical sash with segmental head and stone sill lighting the stair well. The extended eaves feature seen on the other three sides of the main stuccoed portion of the building stops shortly after turning the corner on both sides of the building. The south elevation of the north kitchen is featureless dominated by the flue system of the various pieces of equipment. The hipped end of the southern kitchen has the wooden planked back door and a single vertical sash under flat stone lintel and sill.

5.2.3.6 During the demolition of the additional kitchen evidence of a previous building was seen. The “ghost” of a former pitched roof building was observed in a whitewashed outline on this western elevation.

5.2.4 Internal Plan and Features - the ground floor (Figure 3)

General

5.2.4.1 The ground floor of the main house is divided into three principal rooms: two front rooms, and a rear room to the south. The front rooms are divided by a central entrance hall giving access to the main stair and rear service buildings. The basements are accessed from a staircase under the main stair to the first floor. To the rear are the two kitchen blocks divided by a corridor to the backdoor, with the adjoining lavatory to the south. The building has evidence of a phase of rearrangement thought to be stimulated by the addition of the southern kitchen block.

The Entrance Hall

5.2.4.2 The front door to the east of the building opens into the entrance hall. This hall-way provides access to all ground floor rooms and the stairs to the first floor and the basements. Before the addition of the southern kitchen extension it is thought that the hall way stopped at the western wall of the main house and did not provide access to the service area of the farmhouse, and this was provided by a parallel service corridor. Fragments of an early wallpaper were exposed during the demolition and appeared to be floral in design with wisteria type flowers and knarled branches, of almost oriental nature in pale purples and greens on a cream background.

Front Room to the South

5.2.4.3 This room was presumably used as a living room. It is lit by the large sash in the east wall and has an original black slate fireplace on the west wall and is accessed solely from the entrance hall to the north. The room is dry-lined with timber lacing pieces built into the brick wall, which internally is of English bond. To these timber lacing courses, some which have decayed to dust leaving a void in the wall, vertical timber studs are fixed to which a lath and plaster finish had been applied. This is the only ground floor room to be dry lined, presumably marking it out as the principal room. The window in the eastern wall was seen to be fitted into a larger opening and then bricked up to fit. It may be that the exact dimensions of the window fittings were unknown during the construction of the walling and so a larger opening was left to ensure that any fitting could be accommodated. Alternatively, it could be that a bay window with side shutters, as the north front room, was originally planned. The door to the entrance hall has a relieving arch of brick headers built into the walling over a substantial timber lintel which on demolition was seen to be a reused element.

Front Room to the North

5.2.4.4 This is another of the principal rooms of the ground floor and may have been used as a dining room, suggested by the direct service passage to the original kitchen. The room is lit by windows in the east wall and the projecting bay to the north. It has a fireplace along the south wall. During the demolition process it was observed that the wooden mantle with gothic tracery detail and brick-red tile surround with metal hearth is not original and that it has been fitted into a larger original opening (c1.53m wide x 1.22m high). Flanking the fireplace are two service bell handles, the metal wires of which run

in metal conduits to the floor and ultimately to the wall mounted row of bells in the partitioned off south-east corner of the original kitchen. Currently the sole means of access is from the entrance hall to the south but evidence for a former door in the west wall was observed during demolition. At the south end of the west wall a former door had been blocked with timber stud and lath partition, and this is clearly visible in plan (Figure 3). This doorway led to a service passage running parallel with the main hall way leading to the northern, original kitchen. It is thought that this passage was blocked at the same time the southern extension was built. This room was not dry lined but had the plaster applied directly to the English bond brick walling. The moulded, varnished cornice, picture rail and north-south ceiling beam covering may be secondary features as, upon their removal, the soffit of the ceiling beam was noted to be painted white, and additional, earlier wall paper fragments were discovered under the cornice and picture rail area which had been removed from the rest of the room. The earliest example of the two was of a dusky pink base with a stencilled design of flowers and dots in a darker pink and white. Overlying this was a paper of a similar colour scheme of mid pink with a pattern of vine type foliage and flock infill in a darker pink. The suspended floor in this room has a double layer of softwood floor boards (upper layer 12mm thick, lower layer 25mm thick). These boards are supported on oak joists running east-west and measuring 0.6 x 0.12m spaced at 0.38m centres. Below this a void of c.0.35m was filled with a substantial amount of debris.

Back Room to the South

- 5.2.4.5 Another of the principal living rooms of the house, this room has secondary features from the rearrangement following the building of the southern extension and adjacent lavatory. As part of this alteration a corridor to the lavatory was partitioned off on the west side of the room and a doorway was inserted in what had previously been the external wall. The internal partition was of stud and lath construction and was placed across one of the two single sashes lighting the room in the southern wall. The northern wall of the room is also of stud and lath construction but this is of primary phase with softwood studs (0.06 x 0.1m) spaced at 0.37m centres and a diagonal bracing strut. The joints between the stud uprights and the horizontal fixing piece are nail fixed rather than jointed and pegged. The two doors within this wall are both believed to be original, with that to the west having a less ornate moulding suggesting use as a service access with the eastern door providing the main entrance from the hall. The fireplace in the east wall is of a mid 20th-century design of buff tiled finish.

Back Room to the North

- 5.2.4.6 This small room is believed to have functioned as a service room, possibly a housekeeper's office or maid's room. The room is currently accessed from the main entrance hall but originally may have only been reached from the parallel service passage. The remains of this through passage can be seen to the south of the room with the blocked doors, originally leading to the north kitchen and the front room, now visible as recesses. The unheated room has a floor of brick tiles (12" x 12" x 2") with a cupboard to the south-west corner. This cupboard had been applied to the wall directly after plastering and before any wall papering suggesting it is an original feature. The room is lit by a sash in the north wall. The southern wall is of timber stud and lath construction of primary phase.

The Northern Kitchen (Figures 6-9, Plate 2)

- 5.2.4.7 This is the original kitchen of the farmhouse and contains the remarkable survivals of a bread oven, range, double copper and stone sink. The walls are of brick construction and laid in single Flemish bond. A common feature throughout the walls is the use of

built in wooden noggin courses. A solider course over the noggin course is seen only in the northern wall associated with the bottom noggin. The walls are unplastered but colour-washed with a reddish-pink lime based wash. The floor is of stone flags. The ceiling is of lath and plaster and painted white with two beams visible. These beams sit on wooden plates set into the brick wall. One beam is angled in order to avoid structurally weak areas within the wall: the door in the south wall and the window in the north wall. This adjustment resulted in a substantial amount of additional work in the framing of the first floor structure since all the mortices for common joists had to be cut on an angle. To this end each joist has a unique tenon and would only fit its mortice along the beam. The floor was obviously pre-framed to achieve this variation successfully and every alternate joist is numbered in order to ensure that the structure could be reassembled with ease on site. This numbering is visible in a red material (?red lead) on the southern side of every alternate joist. The red marking material was also used to set out the mortices along the top of the main beams. The joists are trimmed around the western fireplace.

- 5.2.4.8 The surviving features consist of a large brick domed bread oven [1] * in the south-west corner of the room. This structure has a fire hole at ground level, cooking surface at chest level and flue above feeding into the stack of the range. During its demolition evidence for a former oven was seen in the exposed walling. The outline of the oven being demolished was seen in the contrast between the current pink wash of the walls and an earlier white wash finish which the oven had been built against. A smaller oven with flue feeding to a similar place in the range chimney was indicated in the contrast between the white washed wall and an area of unpainted brick wall. The oven that was demolished in the course of this project was of yellow brick, many broken fragments suited to the creation of the domed roof. A magazine called '*London Life*' dating to 1916 was discovered together with a red scarf hidden in the bread oven and provides an indication of the last time the oven was used. The content of the magazine would presumably have been considered racey if not pornographic at the time and so it can be assumed that the kitchen was a quiet place at this time! Centrally placed on the west wall is the cast iron range [2] with oven to one side of the fire grate and water tank to the other. On the wall to the north of the range fixing holes for wall brackets and a white shadow against the pink wash of the wall represents a former wall mounted water tank which fed directly into the water tank of the range to ensure it did not boil dry. To the west end of the north wall is a brick built double copper [3] with two flues also feeding into the range's stack. One of the coppers retains a lid of wooden planks with arched wooden handle. Neither of the copper vessels themselves survive although one of the metal doors to the fire box does survive, as do two metal hatches for cleaning the flue. During the demolition of this piece of equipment the flue system was explored further with the flue of the eastern most copper running along the wall side and the upper extent of the flue box and the western example being served by the room side and lower channel. After demolition of this double copper the walling behind was seen to be whitewashed which has led to the suggestion that this feature is also not of original date. An area of brick laid flooring, as opposed to the flag floor, is seen in the angle between the range and the double copper (Figure 5) and it has been suggested that an earlier single copper may have been situated in this area. An area of patching in the side of the range's stack suggests a previous flue connection which would fit with the idea of the single copper. The wall mounted water tank may have replaced this feature. The flag-stoned floor continued under the double copper, although that structure was built on a stone slab. The wall noggins in the northern wall stop short of this corner and so clearly a fire risk was anticipated from the start. Several cleaning implements are also retained within the kitchen and are brushes of various sizes fitted to lengths of wire

* Numbers in square brackets [] denote features marked on the detail drawings of the farmhouse kitchen (Figures 6-9).

handles. In front of the tripartite horizontal sash window in the north wall is a shallow stone sink [4]. The wooden stairs in the north-east corner of the room were originally the only means of access to the servants quarters to the rear of the first floor. A wooden hanging rack is suspended by means of a winch system in the centre of the room.

- 5.2.4.9 The original layout of the room appears from the plan and the continuation of the flagged floor to have included the south-east corner of the wing which was later separated. It is presumed that the west door in the south wall was originally the external 'back' door to an outside yard area, with the east door being internal and providing access to the earlier service building suggested from the evidence observed during the foundation examination. The blocked doorway from the service corridor to the front room is visible in the east wall of the partitioned off corner and has a wooden lintel over it. The partitioning off of the south-east corner of the room may have taken place at the same time as the construction of the southern extension as the room is accessed from the corridor within this extension and also two small additional lights were inserted into the walling above the extensions hipped roof to add to the lighting of the new room. The room seems to be used for storage but also possibly as an office with most of the walling holding shelving and the servants bell rack mounted at high level on the east wall. The partitions are of timber-framed construction with brick infill and include a large window in the northern side to borrow light from the kitchen.

The Southern Extension

- 5.2.4.10 This single-storied building was proved to be of a later date during the demolition process when it was demonstrated that its chimney stack was built against the whitewashed pitch roofed, outline of an earlier building. No exact date is known for the addition but it is likely to be of late 19th-century date and appears to post-date the survey of 1850. Subsequent study of the estate papers may clarify this. Internal features of note are the Aga cooking stove in the east wall and the vertical sliding shutters of the sash windows (elsewhere, the shuttered windows were of the horizontal folding type).

5.2.5 The Basement

- 5.2.5.1 The basement of the building is to be retained in situ for the protection of a colony of bats. The area of the basement extends from the east front of the house to the east wall of the kitchen and from the south wall of the building to the north wall of the entrance hall (Figure 3). It is accessed from a brick built stair case under the main stair in the entrance hall. The basement area is divided into three rooms relating to the south front room, the south back room and the entrance hall. The 1850 estate report (Appendix B) states that the basement functioned as a pantry and dairy and some evidence survives for these uses. The entrance hall area is surrounded by drainage channels and has evidence of brick piers, some of which survive, which may have supported stone sinks or work surfaces on which the milk pans could have rested. The floor as in all the basement is of laid bricks. The roof appears to be of reinforced cement and may represent a war-time conversion of the basement to air raid shelter. The two rooms to the south are both lit by semi-subterranean windows in the south wall of the building. The room to the east has no evidence for function. Projecting from the west wall are two brick piers which arch and merge together at ceiling height and support the hearth and stack above, and a similar arrangement is seen on the other side of the wall in the back room basement area. The ceilings in these two rooms are the underside of the wooden floor construction of the ground floor. The central beam onto which the joists are fixed is angled to avoid the hearth but runs approximately east – west with the joists running north-south. In the back room basement area the majority of the walls are lined with the brick piers seen in the corridor area, again presumably for storage space or work surfaces. Some of the piers remain whilst others have been demolished retaining

only a scar at the wall face. The piers are of a lower height than those in the corridor room. Within this room there has been modern structural support activity with late 20th-century brick and cement piers supporting the main beam framing the floor structure above.

5.2.6 The First Floor (Figure 4)

5.2.6.1 The main eastern block of the farm house is divided into four principal bedrooms with an adjacent unheated dressing room to the south-east chamber, a central landing provides access. All these rooms are drylined on riven pine laths and they all have fireplaces. The set of wooden fitted cupboards on the east wall of the landing were proved to be a secondary feature on removal as a number of layers of wall paper were exposed on the wall behind them. The fire surround in the south-east room was of a dark brown marble with an iron hearth. Several of the rooms had fitted cupboards made in alcoves next to the chimney breasts. Three cupboards are situated in the north-west quadrant of the house and are constructed from stud and lath partitions. One cupboard is accessible from the landing and the other two serve the northern bedrooms.

5.2.6.2 To the rear of the house the first floor of the northern kitchen block was originally used as servants accommodation and was not accessible from the front of the house. Only when the bathroom was inserted in the 20th century was the connecting door cut through from the landing. Previously the area had only been accessible from the stair case in the northern kitchen. The insertion of the bathroom has obscured the original layout of the area but it is thought that it was originally used as a suite of servants' rooms heated by a single fireplace. It may be that the servants of the farmhouse were a married couple and so could be accommodated in this way. None of the attic space was ever used for accommodation and further labourers cottages are not seen as part of the farmstead. The servants' rooms are plastered directly onto the external brick walling with internal walls of a mixture of stud and lath construction and stud framework with brick infill. The stud and brick infill wall abuts the fire breast, but is thought to be original. The room to the south of this partition has a small fireplace and a fitted cupboard with plain panelled doors. The rooms are lit by horizontal sliding sashes with the splayed openings on the southern side.

5.2.7 The Roof Structures

General

5.2.7.1 A number of separate slated roofs cover the building. The main part of the farmhouse is roofed under two hipped roofs running north-south, with a central hidden valley visible to the south but hidden by a further east-west running ridged roof along the northern side of the building. The two kitchen are separately roofed with east-west running hipped structures.

The Hidden Valley Roof and the Northern Kitchen Roof

5.2.7.2 The roof of the main farmhouse kitchen is of softwood with lapped collars clasping the purlins, and a ridge board; the slates are fixed to boarding. The corners of the building have dragon ties with fairly unsophisticated dovetailing. The same type of roof construction is seen in the northern kitchen but this area is ceiled at collar level meaning that the soffit of the roof pitch makes a coved edge to the ceiling of the servants' quarters.

The Southern Extension Roof

5.2.7.3 The roof of the single storied extension is of softwood collar and coupled rafter construction with ridge board. Unlike the two original roof structures, the external tiles are laid on batons. Under the batons an insulating layer of straw is secured by a further series of batons fixed to the underside of the rafters. The northern side of the roof did not have this insulating material but this may have been removed when the 20th-century roof lights were installed lighting the passage way.

5.2.8 The Outbuildings to the rear of the Farmhouse

5.2.8.1 A range of outbuildings runs to the west of the farmhouse. The range is built against a garden/boundary wall with sloping batter to the west side suggesting this side of the wall was originally external and that this range is of a later phase of construction. The other external walls of the building is built of brick walling laid in Flemish bond with a stepped plinth both internally and externally, with the exception of the privy building. During demolition a number of shaped bricks were recovered from the walling of this building, they matched those seen in the oast house floors examined during the archaeological excavation and were slightly wedge shaped with chamfered ends. The external walls facing east are all whitewashed. The internal walls of the range are of stretcher bond with timber noggin courses, as seen in the partition in the north kitchen. From south to north the range includes a privy with wooden floor suspended over a cesspit below. During archaeological investigation, this cesspit was excavated. This adjoins a rectangular building under a hipped roof which seems to be framed to support a square central feature, possible a clock or bell turret. This building is divided into two rooms with a central passageway. This central passageway may originally have linked to pigsties within a lean-to construction along the western side of the battered wall. At the west end of the passage way two lidded bins flank the corridor. The room to the north of the passage appears to have been used as a coal and wood storage area, serving the farmhouse kitchen. It has a rammed earth/chalk floor and is lit by a window opening in the east wall. The room to the south of the passage is whitewashed with a lath and plaster ceiling and brick floor. It too is lit by a window in the eastern wall. In the south-west corner there is a brick built closet with batons at high level with metal hooks. It is thought that this is a game or meat larder and that the room was used as an additional pantry/larder area to that in the basement. Further shelving is provided in the north-east corner of the room and along the south wall. Built against the north wall of this range and the same battered western wall is a later storage shed with corrugated iron roof. It is vertically weather boarded to the north and east and is partially open to the south. The passage between this service range and the farmhouse was seen to be of ragstone cobbles under the modern layer of tarmac.

5.2.9 Excavations around the Farmhouse

5.2.9.1 During the excavations carried out to investigate the foundations of the farmhouse a number of features were discovered which add to understanding of the area of the additional kitchen block and possibly indicate an earlier building than the model farm complex.

5.2.9.2 Excavations were carried out in the area of the additional south kitchen. In what had previously been the corridor between the two kitchens a circular well shaft was located. Measuring approximately 1.22m in diameter the well was constructed of irregular ragstone rubble and capped with a red brick dome with a round stone with countersunk iron ring providing access. Also along the passage, the remains of a brick wall running north-south were seen located between the two doors of the north kitchen. This wall

line was seen to continue across the area of the additional southern kitchen to run into a brick built feature on the southern side of the former room. This structure consisted of a brick-built pit approximately 1m square. The east wall of this structure is brick built and slopes at about 45 degrees. The fill of the pit was removed to c.1.5m depth from the general ground level and a brick base was observed. Evidence for a previous vaulted covering was seen in the south wall, where a springing point was suggested in the exposed brickwork. Evidence of an earlier structure was also seen on the southern side of the wall at the western end of the recently demolished lavatory building. The remains of brick walling was seen marking out an area of the same width of the lavatory but extending 1m to the west of its west external wall. The foundations of the additional kitchen were seen to be relatively shallow in comparison with these earlier features, extending down 0.37m below ground level compared with 1.05m of the earlier material.

- 5.2.9.3 Along the northern side of the building a number of excavations were made to explore the water tank and the septic tank situated close to the wall of the north kitchen. In addition to this a test pit was excavated to the west of the former bay window of the front lounge. This exposed a brick wall with red tile bonded with lime mortar on a ragstone rubble foundation. The wall was 0.37m in width and its upper level was c.0.96m below ground floor level. The upper 0.15m of the wall was not bonded but was loose and appeared to be demolition debris contained within a wall trench. At the top of this deposit to the north of the test pit a 0.02m thick layer of mortar and brick fragments was observed and interpreted as a demolition layer.

5.3 **The Barn** (Building 4, Figure 11, Plates 3 & 4)

5.3.1 General

- 5.3.1.1 The barn is situated to the north of the farmstead and runs north-south with its hipped end to the Maidstone Road. Its porch on the east side suggests that it was approached from the nearby gate in the boundary wall to the east of the building.

5.3.2 Materials

- 5.3.2.1 The barn is of timber-framed construction, built on a brick plinth, with external covering of horizontal weatherboarding. The north wall of the barn complex is the boundary wall of the farmstead. It is laid in Flemish bond with decorative features of staggered plinth and raised pilaster strips and a cornice made of alternate projecting headers. The south wall and the south end of the east side of the building is of Flemish bond brickwork. The roof is of slate on boarding and is fully hipped to the north and half hipped to the south.

5.3.3 External appearance

East elevation

- 5.3.3.1 The east elevation is dominated by the large central porch fitted with four leaf doors and hipped roof. A row of five openings above the doors suggest dove boxes rather than ventilation holes. To the south of the porch, the walling is of brick with a wooden panelled stable door. The lower half of the brickwork has been pitch washed and the upper half included two ventilation slits. To the north of the porch, the first bay is of horizontal weatherboarding with the remaining three bays open to the elements and divided with vertical timber posts on stone plinths attached with iron pins and with jowled knees supporting the wall plate and tie beam.

South elevation

- 5.3.3.2 The south elevation is of Flemish brickwork with a number of vertical ventilation slits arranged in a pyramidal design in the main barn wall with two further slits in the ancillary animal shed to the east. A number of ancient fruit trees are still in situ trained against this south facing wall.

West elevation

- 5.3.3.3 The west elevation has the opposing double threshing doors to those of the porch, again of four leaves. The elevation is of weatherboarding on the brick plinth. Two later buildings have been constructed against this side of the barn, a 19th-century machine shed to the north and a 20th-century concrete framed store to the south.

North elevation

- 5.3.3.4 The north elevation of the building is dominated by the hipped slated roof and is built on the flemish bond brick boundary wall of the farmstead.

5.3.4 Internal Plan and Features

General

- 5.3.4.1 The building is separated into a number of individual rooms. The main barn area with its eastern porch is surrounded on the east and north by other divided areas.

The Main Barn and Porch

- 5.3.4.2 The main barn is of five bays with the threshing floor in the middle third bay. All the walls, with the exception of the south, are of timber framing with a brick built plinth. Each individual bay is framed with horizontal timbers of a sill beam, mid rail and wall plate with principal studs at either side and centrally. Diagonal struts running from the central principal stud of each bay down to the mid rail and from the strut to the sill plate bracing the frame and the other vertical studs are jointed to these members. The Flemish brickwork making up the southern elevation and the southern end of the east elevation is secondary. During the demolition of the building elements of the original timber framing were observed within this brickwork, as rather than removing the posts and studs they were built around. The replacement of the timber-framed walling with the brick walling was not to increase the size of the building but just to alter its external appearance. The southernmost bay of the main barn is of a slightly smaller width than the others in the building to allow for the width of the brick end wall. When the brick wall was constructed the two end posts, with mortice holes from the original timber-framed end, were moved in slightly in order to build the brickwork up under the original roof structure. From examination of the brick wall it is clear that it was erected against the pre-existing timber frame as the mortar has not been pointed on the inner side by the posts and the sill beams of the frame do not sit in sockets within the wall but instead appear to have been built around with shallow (0.08m) depressions in the walling. The walls of the main barn are all clad with weatherboarding fixed to the outer side of the wall and open to the stud frame on the inner side. This is the case even when the walls are not external, as along the east and north sides of the barn. This weatherboarding is not exclusively for shelter from the elements but rather to enclose the main barn threshing floor and storage area from the flanking rooms. The floor of the porch is of substantial wooden boards, running north-south, on a suspended floor construction.

5.3.4.3 The hipped roof structure of the main barn is of the same tapered king-post design as recorded elsewhere in the farm complex, with raking struts, iron joints and bolted purlins. In addition to this, however, the tie beams are supported and jointed to the wall posts with jowled knees, again secured with iron bolts. In the middle of each bay there is a collared truss which clasps the purlins. All the rafters in the roof and a substantial amount of the walling timbers are reused material with mortice slots and nail holes relating to their previous location. The nail holes visible in the rafters suggest that in the previous location the timbers had been ceiled with a lath and plaster finish. The wall plate running in front of the brick southern wall is also clearly of reused material with mortice holes visible on the under side suggesting a timber-framed wall with central opening framed by more substantial posts.

Corn hole

5.3.4.4 In the northern angle of the porch and the main barn is an enclosed area with a suspended boarded floor. Again, as in the barn, the area is enclosed with weatherboarding with access from the porch. This area was used as a corn hole: a storage area where threshed grain could be temporarily stored until enough had been gathered for winnowing. The raised floor is a defence against vermin damage and damp. The pit beneath the suspended floor was seen to include a layer of debris much of which was grain and chaff.

Animal sheds

5.3.4.5 At either end of the east side of the barn are two animal sheds. That to the north is open to the east side with timber posts on stone plinths with jowled knee bracings as seen throughout the buildings of the complex. The knee braces are attached to the wall plate, tie beam and stone plinth block with metal bolts. The southern shed was originally open on the east side but subsequently bricked in with Flemish bond brickwork which was of the same construction as the southern wall of the main barn. The original posts with jowled knee braces are buried in the brick walling and still appear to be providing the structural element of the wall with the bricks acting as infill.

5.3.4.6 A further enclosed area is situated to the north end of the barn. Its function is at present unclear.

5.3.4.7 The roof construction of these adjacent buildings is clearly contemporary with the main barn showing the barn complex to have been conceived and built as a one-phase building. The roof structure consists of a sloping tie beam supported at one end on a bolted jowled knee and at the other by a iron strap attached to the mid rail of the timber-framed panels of the main barn area. The rafters of the construction are jointed into the main barn wall plate and the purlins are clasped by queen posts, themselves supported by a raking strut and flying rafter.

Machine room

5.3.4.8 A later timber-framed building is situated to the north-west of the barn. It is built up against the northern boundary wall of the farm complex, the barn to the east and another brick wall to the west. The building is of four bays and is supported on timber posts on prefabricated stone plinths with straight braces supporting the wall plate of the building. The hipped roof is covered with slate on batons and has sloping tie beams supported on posts with the same pattern of jowled knee braces seen throughout the complex. The remaining equipment within the shed shows that it functioned as a machine room. To the south of the west end of the building the foundations for a brick built engine house

are visible. This would have housed a steam engine which would have been connected to a flywheel in the machine shed by a drive belt, the gap for which is seen in the west end of the building. Still within the building is the drive shaft which would have been powered by the machine. It is supported by further timber posts on prefabricated stone blocks, and had two further fly wheels with oiling points.

5.4 **The Oasts** (Building 3, Figure 12, Plate 7)

5.4.1 General

5.4.1.1 The oast house is situated to the south-east corner of the farmstead and consists of two round drying kilns to the west and a two storied receiving and processing barn to the east. The building is of brick mostly laid in Flemish bond, although the roundels are laid in header bond up to the plat band of the northern elevation marking the first floor level. The complex is roofed with slate covered boarded roofs, with cones to the roundels and a hipped construction to the adjoining building. Neither of the roundel cowls survive but the windvane of the northern most roundel is extant. The 1850 estate survey suggests that there was only one roundel at that time and that the current double oast is a later addition. It had been suggested that a central single roundel was demolished and replaced with the current arrangement. The current roundels are contemporary with each other but do not bond with the two storey adjacent building. During demolition of the building a number of reused timbers were identified. A series from the first floor joists appeared to be from a jettied building as had the marks of the wall plate set back from their ends. Various pieces of pencilled graffiti were identified on the partition to the lower flight of stairs with various numbers being identified. The floors of the oasts were further investigated during the evaluation, but no evidence was seen for an original single roundel.

5.4.2 External Appearance

North and South Elevations

5.4.2.1 The north elevation of the building has a set of double doors to the east for loading and unloading of the hops. A single door mid way along the building provides access to the room to the east of the drying kilns and two smaller blocked openings are visible, one either side of this extant doorway. A further inserted door is present into the drying kiln itself. The first floor storey level is marked by the raised plat band along this side of the building and the eaves are marked by a dentil cornice, as seen in the barn, building 7 and the granary, with alternate projecting headers. Along the first floor, there is a small window opening and a door with projecting hoist timber. A further two brick-blocked windows, of the same size as the extant example, can be seen to the east end of the building. The south elevation has a single window opening to the first floor at the west end and a series of brick blocked openings along both ground and first floor, three openings at each level. The ground floor openings have arched brick voussoir heads. In the angle of the roundel and the adjoining building the remains of a lean-to greenhouse with brick built base are evident. At the north-east corner of the oast building is a brick built structure with a lead piped water pump with underground tank.

East and west elevations

5.4.2.2 The west elevation is the plain walls of the brick roundels and the east elevation of the adjacent two storey building is broken by two horizontal sliding sash windows at first floor level.

5.4.3 Roundels - Internal plan and features

Ground Floor

- 5.4.3.1 The ground floor of the brick roundels had been quite substantially altered with doors inserted into the north external wall of the north roundel and in the dividing wall between the two kilns. The floors of the roundels had been sealed with modern concrete screed surfaces which were removed during the archaeological investigation revealing evidence of the former fire arrangement. During the Trust's excavation of a test pit to locate the depth of foundations, an air flue channel was located immediately to the east of the double roundels. The air flue was constructed in brick and capped with brick and seemed to serve the southern most kiln.

Upper levels

- 5.4.3.2 The wooden slatted drying floors of the roundels still survive supported on softwood joists and a T-section cast iron lintel. The floor of pine slatts or batons are spaced to support the hops and let the heat through. The conical ceilings above this floor level are plastered on oak riven laths attached to the rafters forming the cone. The rafters of the structure run from the base to the top of the cone, from the wall plate to the cowl curb. The rafter structure is covered with diagonally laid boards. By laying the board diagonally the curve required to fit the cone is reduced and the wood is placed under less stress. The slates making up the external roof covering are all individually tapered to produce total coverage of the conical roof.
- 5.4.3.3 Although both cowls are lost from the roundels the internal supporting structure, the cross trees, survives in both as well as the weather vane of the northern example. To enable the cowl to move with the wind direction it was supported on a central post with a metal pivot at the base fitted to two horizontal supporting timbers morticed into the rafters of the cone construction.

5.4.4 The Stowage – Internal plan and Features

Ground Floor

- 5.4.4.1 The ground floor area of the building adjoining the roundels is divided into two rooms with an interconnecting door in the brick partition wall. The flooring is of brick tiles. The angle between the two roundels is blocked off at the west end of the western room and used as a storage area. The flight of stairs to the first floor is along the south wall of this room enclosed behind a door and partition. The north and south walls of the room originally had a further 4 openings as shown in Figure 12, presumably to aid ventilation and provide natural light.

First Floor

- 5.4.4.2 The first floor of the building functioned as one area open to the roof trusses. Unlike the ground floor it has natural light from casement windows in all three external walls, as well as a door in the north wall at the west end. Originally there were a further 5 windows in the north and south walls, shown in Figure 12. The stairs to the south-west of the room have a door and waist height partition around them. The partition is on hinges and can be dropped to floor over the stair opening. The walling of the room is plastered and finished with a faded whitewash. On the north wall an imprint of the 'Strouts' hop pocket stencil was seen under the nail on which the stencil would have hung. Some of the trusses also had number stencil imprints on them. It was from this

level that the drying floor of the oasts was accessed. A short wooden ladder provides access to a raised platform in the angle between the two roundels; from this, the drying floors are reached behind double leaf wooden panel doors. The floor to the south roundel is slightly higher than that to the left. The freshly harvested hops would be fed onto the drying floor through the linking doors and after drying the hops would be removed and spread out over the whole floor to cool before being loaded into hop pockets. Some modern reinforcement of the building had been carried out during the 20th century with RSJ's visible in the first floor room.

The Roof Structure

5.4.4.3 The roof structure is of raised tie beams with tapering king-posts with raking struts, ridge board and bolted purlins. The design is very similar to that seen throughout the buildings of the farm complex and includes wrought iron jointing straps and bolts. The external slate covering is fixed to boarding. Within the roof structure, fixed east-west between two trusses, a timber is supported by the raised tie beams. This is situated over a trap door in the wooden boarded floor. It is thought that this was involved in the process of pocketing the dried hops. No evidence of a hop press was observed and it is thought that the hops may have been treaded into the sacks. The sack would have been suspended through the trap door supported by a sling and hops shovelled into the bag and trampled down by a *bagster* standing in the sack with the hops. To steady himself the *bagster* would hold a rope attached to this timber.

5.5 **The Loose Boxes and Byres** (Building 7, Figure 13)

5.5.1 General

5.5.1.1 This brick and timber-framed animal shed is located to the east of the main barn and was access from the gate in the northern boundary wall to the west. The 'L'- shaped building comprises of a number of loose boxes and open stalling areas. The north wall of the building is the Flemish bond brick boundary wall. This continues to form the east side of the building where the bond changes to English where the walling is out of sight and then goes back to Flemish for the southern end wall. The southern end wall also has the dentil cornice of projecting headers as seen on other buildings in the complex including the barn, oast and granary. The west side of the building is of timber-framed construction with partial vertical weatherboarding. The hipped roof is of slate fixed to boarding with lead flashings to the ridge and ridge hips.

5.5.2 External Appearance

5.5.2.1 As described above, the north, east and south elevations of the building are of brick, mostly laid in Flemish bond with an expanse of English bond to the east where the wall is screened by foliage framing the approach to the farmhouse. This brick walling is featureless other than the decorative plinth and pilaster design of the Flemish bond boundary wall.

5.5.2.2 The western elevation of the main range is of timber-framed construction. To either end the building is open to the elements and supported with timber posts with the characteristic jowled knees and stone plinths with iron bolted joints. The central bays are enclosed with vertical butt-edged weatherboarding. All the timber shows signs of being pitch painted.

5.5.2.3 The smaller east-west wing of the complex is also timber-framed to the west and south elevation. It is covered with the same vertical butt-edged weatherboarding. A door is

situated to the west end. The roof of this building had already collapsed at the time of observation as had part of the roof in the main range.

5.5.3 Internal Plan and Features

General

5.5.3.1 The building is divided into three main areas: the east-west range, the north-south range and an enclosed room in the north-east corner. The roof structure is common to the range as a whole and is described separately.

The east-west range

5.5.3.2 This two-bay area seems to have been used as an enclosed loose box. It is entered by a door to the west and has a brick trough along the northern wall. The roof of this range had completely collapsed obscuring any more points of detail in this area. The roof structure was as that of the rest of the building suggesting that it was a one phase construction.

The north-south range

5.5.3.3 This range is subdivided into four separate areas; to the north of the range are three bays open to the west side, then two single-bay, enclosed loose boxes and finally at the southern end a further open area of two bays. The loose boxes are enclosed with wooden partitions made from salvaged materials including beaded tongue-and-groove panels and doors. The partitions are attached to the truss tie beams and have access doors to the west end. Along the eastern wall of the range is a brick built food trough with uprights to the truss ties. In the northern two bays this trough is also fitted with a wooden hay rack.

Loose box in the north-east corner

5.5.3.4 The corner room also functioned as a loose box. Its north and east walls being the brick boundary wall with the south and west walls being Flemish internal brick walls. The room has a door at west end of south wall and a plank shuttered window at the south end of the west wall. To the north of this window is a wall fixed hay rack.

The roof structure

5.5.3.5 The hipped roof structure throughout the complex is of tied trusses with tapered king-posts, raking struts and ridge board. The minor joints were pegged but the major joints relied on metalwork for structural integrity such as at the junction of the tie with the wall plate and king-post with tie beam. Purlins ran the length of the roof but were not structurally connected to the trusses, being instead bolted to the underside of the rafters. The roof covering was of slate on boarding.

5.6 **The Granary and Cartshed** (Building 6, Figure 14, Plate 8)

5.6.1 General

5.6.1.1 The granary and adjacent cartshed / implement shed (to the north) and 20th-century garage (to the south) are constructed against the west boundary wall of Flemish bond brick with decorative plinth and raised pilaster detail. The granary also has a dentil cornice as seen in the barn, oasts and animal shed. The boundary wall has been

heightened for the construction of the cartshed and a straight joint in the brickwork is clearly visible. To the north end of the building the boundary wall is returned to its normal height in an decorative curve. The east elevation of the granary is also of brick with cornice and plinth but the rest of the walling is timber-framed with some external weatherboarding. The granary is a two-storey building and the implement shed is a single-storey lean-to. The implement shed is covered with a lean-to slate roof on batons and the granary has a half hipped roof of slate on boarding with lead flashings to ridge and ridge hips.

5.6.2 The Granary

External Appearance

5.6.2.1 The east and west elevations of the building are of brick. Structural iron ties visible on the east and west elevations as 'S' plates are thought to be original. They are designed to tie in the brick walls with the rest of the structure and are anchored to the first floor structure. The east elevation has a door at first floor level under a projecting hipped slate porch with access provided by an external wooden staircase. The ground floor of the building was originally open at these ends and acted as a 'waggon lodge' as the 1850 estate survey records.

Ground Floor

5.6.2.2 The ground floor was originally used as a wagon lodge and as such was open at both ends so that vehicles could be driven through. The ends have subsequently been screened off with vertical weatherboarding across the whole of the south end and the western half of the northern end. The eastern half of the northern end has been left open for use as a garage. The floor is of rammed chalk throughout. The building is of four bays and the timber frame is the buildings structural support with the brick walling only acting as a covering skin. The oak framing beams of the granary floor above are supported on eight timber posts with jowled knee braces. One post at the outer corners of the building and a longitudinal row of five posts down the central of the ground floor. Currently the north-west corner is screened off from the rest of the ground floor with vertical boarding.

First Floor

5.6.2.3 This area was used for the storage of the processed grain and has a oak boarded floor. The south and north walls are horizontally boarded internally with the east and west brickwork exposed and whitewashed. Under the patchy boarding the stud framework is visible in places, two diagonal bracing struts flank the central window to the south with one to the north. There are two access doors, one at the north end of the east side, accessed by the external stair and the other at the east end of the north side. The room is lit by two horizontal sliding sash windows centrally placed at the north and south sides of the building. The room is open to the roof trusses which are of a raised tie design with the tapering king-posts seen elsewhere throughout the complex and bolted purlins, however the king-posts do not have struts as in the other examples. The eastern side of this roof is of modern replacement slates and boarding.

The Cart Shed

5.6.2.4 This later building, post-1850 survey, is also built against the west boundary wall and the granary to the south. The boundary was heightened by six courses when the cartshed was constructed. The east elevation is mainly open to the elements with a number of timber posts supporting the roof structure, the first bay, however, next to the

granary is enclosed with vertical boarding. Unlike the other buildings, the posts did not have knee braces or stone plinths but rather were set on cement blocks set into the ground. To the south end, the first bay of the building is enclosed with a weather boarded finish; to the north end, the last two bays are narrower in width. This open side with varying width bays suggests that the building stored both farm vehicles and implements. The north elevation is partially weather boarded to the upper part of the wall within the pitch of the lean-to roof. Included in this is a hinged door to allow implements to be inserted into the back of the building resting on the tie beams of the roof. A rick pole was discovered in this position. The slate lean-to roof is supported on a rafter and tie beam construction. The sloping ties are fixed to the eastern wall plate and western boundary wall with structural plain iron bands, unlike those seen elsewhere in the complex. The rafters sit on a projecting sill band built into the heightened portion of the boundary wall. The slates are fixed to batons.

5.7 **The Toll Cottage** (Building 2, Figure 15)

5.7.1 General

5.7.1.1 This Flemish bond brick bungalow is situated to the south-west corner of the farm complex. It is thought to be later than the majority of the farm buildings and is not mentioned in the 1850 estate survey. Its name comes from an alleged association with the Ashford to Hothfield turnpike road. The original house is based on a square plan with slate covered pyramidal hipped roof and central chimney stack. To the west side is a 1960s extension with rendered walling and catslide slate roof. The elevations are very plain with two and three light casement windows.

5.7.1.2 The building was originally divided into four rooms, recently described as two bedrooms to the north side, and kitchen and lounge to the south. The 1960s extension provided a bathroom and lavatory, porch area and extension to the kitchen. Three of the original rooms are heated with a range of original fireplaces remaining in situ, all feeding into the central stack. The original rooms were all dry lined although during demolition it was observed that this had been replaced in the 1960s renovation with modern plasterboard. In the north-west room along the western wall a central blocked window is visible in crack lines in the plaster surface. This was presumably infilled following the 20th-century extension. Due to the symmetry seen in the rest of the building this may provide evidence for the former west wall in the extended kitchen area. The doors of the building were of vertical boarding with horizontal and diagonal batons.

5.8 **The Stable and Cowsheds** (Building 5, Figure 16, Plates 5 & 6)

5.8.1 General

5.8.1.1 This range of buildings is situated in the centre of the farmstead. It consists of a single-storey 'L' shaped cow shed with food processing room at the south-west corner and a brick built two-storey building at the north thought originally to have functioned as a stable, with a single storey slaughter house to the rear. The buildings are of a mixture of brick laid in Flemish bond and timber framing with weatherboarded exterior. The roofing is of slate over boarding, with the stable covered by a half-hipped roof and the animal sheds by hipped roofs. The buildings are situated around a fold yard which would have been important in the collection of manure. Currently, a concrete path surrounds the buildings with a central grass area, however the original surface has been seen to be of ragstone rubble cobbling. A later cow shed is situated along the eastern side of the yard, built against pre-existing walls with a corrugated roof.

5.8.2 The Stable

External Features

5.8.2.1 The stable is constructed of Flemish brick walling with internal and external plinths and cornice band of projecting headers. The west elevation has a large double door, the southern side of which is a stable door, which opens outwards under a metal lintel. To the north wall is a single span door and a barred and glazed window with segmental heads of brick voussoirs. Along the east wall, at mid height, are two ventilation holes in the brickwork, three more examples are seen along the south elevation. The building is supported by two levels of inserted metal ties serving to pull the walls together: to the top of the roof the ties are secured with 'S' plates and at mid wall level with circular plates. The mid wall level ties are fixed to the east elevation with an external metal band. Despite this structural attention cracks are seen in the brick walling. This building seemed to be of a lesser quality than the rest of the farm buildings. To the north of the east elevation along the ground floor is a shuttered window or pitching hole and centrally to the first floor is a two-light casement window.

Internal Features

5.8.2.2 The stall divisions on the ground floor of the building have been removed but the traces of divisions for four stalls and hoof-trample marks within the four stalls are visible in the floor. The room is whitewashed and has a ladder at the east end providing access to the first floor via the trap door. The floor is of brick setts and the drainage channel, running the length of the building, is still extant. A pitching hole to the fold yard is located at low level in the east wall. To the east end of the building, to the north side of the room, is a hatch in the ceiling giving access to the first floor which was presumably originally used as a hay loft. The first floor area has a wooden boarded floor and a roof structure of raised tie beam trusses. It differs from those seen in other buildings throughout the farm as the joints are pegged with the only structural ironwork being the bolted purlins. It has the same tapering king-post detail, but without struts. The roof is boarded and tiled. A number of metal poles pierce the brick walling close to the top of the wall and span the length and breadth of the building tying it together. A graffito of 'RM 1824' was observed in this area.

5.8.3 The Cow Sheds

External Features

5.8.3.1 The southern wall of the range is of Flemish bonded brick with a projecting plinth. It is featureless other than the large double door of the food preparation room to the west. The eastern elevation of the cow shed is also of featureless brick with an ancient fruit tree trained against it. The western elevation of the long range is again of Flemish bonded brick. To the centre, a further brick structure is built against the cow shed. It may have had a lean-to roof structure but this has been lost. The rectangular, low walled structure was recently being used as a rubbish dump but its original use may have been as a store. To the south end of the elevation is a door to the feeding passage and shuttered window lighting the food preparation room. The northern elevation of the cow shed is of vertical butt-edged weatherboarding. To the east end, an area of horizontal plank patching has been applied to the bottom of some decayed vertical boarding. A door in the centre bay provides access to the range. Along the length of the building above the wooden boarding runs a ventilation flap with a panelled shutter. The corner angle between the two ranges of cow sheds is crossed by a weatherboard door, providing access to the feeding passage linking the food preparation room and the

stalls. The east elevation of the longer range is the same as this with vertical weatherboarding, ventilation flap running the length of the building. There are three doors along this elevation; one in the second bay from the south, one in the fourth bay from the south and one to the north next to the brick stable. The timber boarded walls of the cow sheds are fixed to a row of timber posts with the jowled knee braces bolted to the post and wall plate, as seen on so many of the buildings in the farm complex. It is possible that originally the byres were open to the elements, as with building 7, and that the boarding, ventilation slit and sky lights are later features.

Internal Features

- 5.8.3.2 The smaller range of bullock fattening stalls is divided into four stalls and one loose box. The four stalls are placed centrally in the range with a brick-built feeding trough and hay rack to the south. The wooden partitions dividing the stalls are of vertical panelled construction, higher at the head than the rear. The floor is of brick and to the north side of the stalled area is a filled in drainage channel. Running along the back of the trough is a feeding passage with an earth floor which continues to the west of the fourth stall. Another passage to the north of the range leads to the loose box at the east end of the building. It has a hay rack mounted on the south end of the west wall. The lighting for the range is from skylights in the slated roof, thought to be inserted later features. The roof structure of the food preparation room is screened off from the stalled area with a partition made of vertical batons attached to the tie, collar and rafter timbers.
- 5.8.3.3 The larger range of the cowsheds is divided into two large loose boxes and one smaller one to the south. Each of the two larger enclosed areas had a door to the east. The thin bay to the extreme north of the range gave access to the surviving manual, cast-iron water pump. This pump fed directly into the brick trough. It took its water supply from a brick-built well. During demolition, this well was examined and found to be constructed of specially manufactured wedge-shaped bricks. Along the west of the range is the feeding passage with a cobbled floor providing access to the brick built feeding trough running the length of the building. The flooring of the animal pens is of brick and slopes down to a drainage channel running the length of the building to the east. The stalls are divided by panelled wooden partitions up to the tie beams with interconnecting doors to the east side of the range. Again, as in the smaller range, the roof structure of the food preparation room is screened with a partition made of vertical batons attached to the tie, collar and rafter timbers.
- 5.8.4 Food Preparation Room
- 5.8.4.1 This square, whitewashed room has the north-east corner partitioned off with a 0.07m concrete plinth of unclear function. It has double doors to the south for the unloading of the root crops and other food stuffs. The single door to the north connects with the feeding passages extending along both ranges of stalls to the rear of the feeding troughs. In the west wall is a small shuttered pitching hole.
- 5.8.5 Roof Structure
- 5.8.5.1 The cow sheds and the food preparation building all have hipped slated roofs with the characteristic tapering king-post with raking struts on the tie beams, with ridge board and bolted purlins and structural ironwork.



5.8.6 The Slaughter House

- 5.8.6.1 The southern elevation is the only one with any features. The wall is of brick laid in Flemish bond and has a two-leaf door to the west with a two-light casement window with stone lintel and sill to the east. The door has a slatted ventilation grill above it. Internally, the square room is plastered and white washed and has the remains of a lath and plaster covering to the soffit of the roof. To the west wall are two narrow horizontal recesses at the top of the wall. The floor is of brick with a central drain with channels running to it. During the demolition process a blood tank was discovered which this drain fed into. The blood would have been laddled out and used as fertiliser. The roof structure in this building is different to that commonly seen around the farmyard. It has one principal rafter pair with collar claspings the purlins and tie beam at wall plate level with the typical metal plate jointing technique seen throughout the farm. In addition to the ventilation grill above the door there is also a vent in the roof.

6 DISCUSSION

6.1 General

6.1.1 The most important characteristic of the farm is the fact that it was planned as a model farm unit. Such complexes are rare in Kent. Model farms became popular in the late 18th and early 19th centuries and are part of the ideal of agricultural improvement. The farm buildings were to be of good quality and planned on the ideal of efficiency to minimise labour and promote the production of manure (Barnwell & Giles, 1997, 5). Model farming was based on integrated farming with barn buildings, animal shelters and even the farmhouse based around enclosed yards. The underlying philosophy was that livestock needed to be looked after in order to produce manure to fertilise the fields and so increase cereal yields. In conjunction with this, crop rotation schemes were followed with root crops being used to feed the cattle and over winter increasing numbers of beasts. With the cow shed in the centre of the enclosed yard, all the manure was contained and available for use (Robinson, 1983, 63). The buildings making up the Yonsea complex clearly demonstrate this philosophy and manner of farming.

6.2 Plan Layout of the Farm

6.2.1 Farming at this time was increasingly becoming an honourable and patriotic way in which to spend time and the leaders in agricultural improvement were predominantly members of the aristocracy who had both time and money to speculate and experiment with innovative methods and ideas (Robinson, 1983). Many of the model farms built by men such as Coke of Norfolk were decorative both in terms of plan and buildings. Although Yonsea was developed by the 9th Earl of Thanet, it is clearly not in the same league as some model farms with elaborate elevations to working buildings and precise geometry within their layout. Instead, the Yonsea developers invested in an architect-designed farmhouse but perhaps left the rest of the design to estate managers. So although the buildings are arranged efficiently their placement is not part of an overall geometric design. The farm buildings are arranged around a number of yards such as the possible rick yard to the east of the barn, the cattle yard enclosed by the cow shed and a general area to the north of the oast house with access to the granary and cart shed. Intelligent grouping of buildings produced the desired efficiency of layout such as the food preparation room and the slaughter room connected to the central cow sheds close to the barn.

6.3 Status within the Farmyard

6.3.1 Throughout the use of materials and fittings within the farm yard is the idea of status. An example is the differential use of Flemish and English bonds in brick walls. Where the walling is visible, such as the south elevation of the barn, it is laid in Flemish bond but where it is screened from view, such as the middle of the east elevation of the open cattle shed, English bond is used. Equally within the farm house the servants' areas are screened off from the main house with the use of two sets of stairs and a parallel service passage on the ground floor. Vertical sashes are used in the main house and horizontal sashes to the rear.

6.4 Evidence for an Earlier Building

6.4.1 During the dismantling of the complex, much re-used timber was observed, such as the evidence for the medieval diamond mullioned window in the farmhouse, the jettied building timbers from the oast and the bulk of the timber used in the barn construction. Although the MoLAS excavation suggested that there was little likelihood of an earlier medieval or post-medieval building on the site, the Sparrow map dated to 1812 prior to

the building of the complex, suggests that there was an extant building, as does the surrounding field names of 'Stable Field' and 'Barn Field'. It is possible that this earlier building(s) was demolished as part of the development. It may be that the reused timber seen throughout the complex comes directly from these predecessors, however the range and the amount of timber suggests that the material came from several buildings within the Hothfield Estate or were imported. The timbers from the oast and the farmhouse suggest a medieval jettied, timber-framed building with three light diamond mullioned windows as the provenance for some of the reused material. The red brick, tile and ragstone wall seen just to the north of the farmhouse was the strongest evidence for an earlier building on site. The area is not being affected by the rail link construction and so any further evidence will be preserved *in-situ*.

6.5 The Farmhouse

6.5.1 The architect-designed farmhouse is a typical feature of model farms of the period. The developing landowner realised that to attract the kind of 'improving' tenant, with enough capital to experiment, he had to provide a sophisticated house to suit the aspirations of this new class of 'Gentleman Farmer'. Yonsea typifies this new strain of farmhouse, the 'Georgian box' described by Robinson as a neat, well-proportioned house, spacious and solid of brick and slate (Robinson, 1983, 74). In his historical report on the farm complex, Robinson suggests that George Stanley Repton, the youngest son of Humphry Repton the landscape garden designer, working in the office of John Nash, may have designed the farmhouse; he is known to have designed other cottages and farmhouses elsewhere for the 9th Earl of Thanet (Robinson, 1998, 2). It is suggested that the design is also influenced by features associated with Samuel Wyatt who designed many of the numerous farmhouses built by the great improver Coke of Holkham, Norfolk. Many of Wyatt's farmhouses there were of two storeys, three windows wide with projecting porches with neat, baseless Tuscan columns and overhanging eaves (Robinson, 1983, 48 & 75). The Coke farmhouses had a roughly standard provision for accommodation which set the standard for similar developments including Yonsea. They consisted of compact villas with central passage and staircase flanked by two sitting and dining rooms or parlours, a study or business room, with service rooms to the rear including two kitchens – one a living kitchen for farm servants, two pantries, a larder, dairy and store room with four principal bedrooms on the first floor (Robinson, 1983, 75 & 76). Clearly, whoever designed Yonsea farmhouse was designing to this basic model.

6.5.2 The building contains many of the original fittings and features with limited alterations following the addition of the southern kitchen extension. Many layers of wall papers were revealed and samples were retained during the demolition; from these it may be possible to reconstruct the décor of the building as it was presented to the first prospective tenants. The survival of the fittings of the northern kitchen is due to the addition of the more modern, southern kitchen. Instead of pulling out the old fittings of the north kitchen and replacing them with aga or cooker, washing machine and stainless steel sink unit these developments were all carried out in the new kitchen. It is thought that this kitchen was added in the late 19th century. During the demolition process and the examination of foundations, evidence was uncovered which suggests an earlier building occupied the eastern half of the site of the additional kitchen. The whitewash on the back of the main house wall suggests that this building had a pitched roof and was of one-storey construction. The below ground features suggest that it was a service wing with an earth closet. It is thought that the west door of the north kitchen was external with the east door providing access to this service room, which may also have had a door to the rear. The recently demolished service wing to the rear, with privy, is thought to be of a later phase because of the reused materials and use of a pre-existing

boundary wall to the west. It may be that this wing was built to replace the original service area when the new, modern kitchen was required.

- 6.5.3 The addition of the south kitchen led to a number of changes being made to the farmhouse. Space was no longer at a premium in the north kitchen and so the south-east corner of the room was partitioned off to form a pantry store, which required the insertion of two small windows at high level just above the single-storey roof line of the extension. The service passage linking the original kitchen with the front northern dining room was no longer relevant and so the doors were blocked with lath and plaster partitions. A corridor was partitioned off from the back southern room truncating the western sash providing access to the additional lavatory through the inserted door made in the previously external wall of the farmhouse. This corridor was accessed by the pre-existing service door to the room under the main stair. The main entrance hall at the front of the house was joined to the new corridor between the two kitchen areas by cutting a splayed door way through the back wall of the main house.
- 6.5.4 Alterations to the first floor are evident mainly in the first floor level of the northern kitchen. Originally this area held a suite of rooms providing servant accommodation heated by a small fireplace. When the bathroom was fitted the room divisions of this area is thought to have been altered and the connecting door between the front and back of the house was inserted. Prior to the introduction of the bathroom, the two areas of the first floor were isolated from each other with the only means of access to the rear of the house via the stairs in the northern kitchen.

6.6 The Barn

- 6.6.1 The barn is orientated so that the threshing floor is ventilated by the prevailing east-west winds, as advised by Lord Belhaven, in order to keep dust down during the threshing process (Robinson, 1983, 78). The porch on the east side suggests that the building was approached from the east with loaded carts entering the rick yard via the gated entrance in the boundary wall. The porch provided shelter for the crops during unloading. The unprocessed crop would be stacked up to the roof on one side of the threshing floor and the cart driven through to exit on the west side, the side of the cart shed. The threshing would be carried out during the winter and processed grain would be stored in the corn hole in the northern angle of the porch and main barn and the straw on the other side of the threshing floor. Both these storage areas were temporary; after winnowing, the grain would be moved to the granary and the straw used as fodder and bedding in the numerous cattle sheds and stables.
- 6.6.2 It is clear that when the barn was originally built, the threshing of cereal crops was still carried out by hand. Later when the engine house and machine shed were added to the west of the barn, some amount of mechanisation within the process was possible. The engine could have powered a number of processes including food preparation and threshing. Related to the mechanisation of the processing of cereals is the increasing storage of harvested crops in rick yards and the general reduction in size of barns. Previous to mechanisation crops were usually stored within the barn to one side of the threshing floor where they would be protected from the weather but prevented from going mouldy by the ventilation slits in the walling or in the case of weatherboarding from the natural air flow. With mechanisation the threshing process was speeded up and so crops could be stored outside for short periods of time without being damaged by the weather. It may be that the yard to the east of the barn functioned as a rick yard. A rick pole was discovered in the cartshed, giving credence to this theory.

6.7 The Oast House

- 6.7.1 The oast house is a common component of Kentish farms reflecting the fertility of the area and the quantity of wood in the vicinity enabling cheap, successful drying of the hops. It is of interest to note that, although hop prices were variable, there was a great increase in hop production in the first decades of the 19th century (Thirsk, 1989, 1057) and this may have been a motivating factor in the planning of the double oast. The Yonseas example is thought to have been last used to dry hops in the late 1940s, after that it was converted into a garage and store with little effect on the fabric of the building (Walton R & I, 1997, 64). The 1850 survey of the estate suggests that at that time there was only one round drying kiln; the evidence of the extant fabric of the contemporary double roundels, which is unbonded to the receiving barn, supports this theory. Round kilns were introduced at the beginning of the 19th century and were thought to be more efficient than older, square design. Therefore the suggested original single kiln at Yonseas would have been one of the early prototype designs and another example of the Earl of Thanet's interest in agricultural improvement. However, the kiln design proved not to be so efficient and in 1835 the design was improved by John Read from Horsmonden in west Kent. This development led to the building of two roundels allowing twice as many hops to be dried with better results because of an increased distance between the kiln and the fire. The current double roundel arrangement may therefore represent a design improvement or an expansion in hop production.
- 6.7.2 No evidence of the original arrangement for the fires, or a single roundel was seen during the demolition due to the modern reflooring of the kilns. It may be that multiple fire places were employed which have allowed for better heat distribution throughout the kiln. No evidence for a hop press was seen in the building either. Although this equipment could have been sold at the end of the working period of the oast, the steadying timber in the roof structure suggests that the pocketing of dried hops was carried out manually with the *bagster* treading the material into the sacks. This would certainly have been the original method used in the building as the hop press is not thought to have been introduced until c.1850 (Filmer, 1982, 65).
- 6.7.3 The function of the series of blocked openings seen along both first and ground floors of the south side of the building is not clear. It is suggested that they may represent a form of ventilation to cool the hops after heating in the drying kiln. The openings may have been fitted with louvered shutters allowing a high degree of control over the amount of ventilation reaching the hops.

6.8 Uniformity of Design

- 6.8.1 That the farm was conceived and built as a mainly one phase development is clearly seen in design aspects of the buildings making up the complex. Common features are seen throughout the buildings. One such common feature are the jowled knee braces seen in many of the open fronted, or formerly open fronted, buildings such as the open shed, the granary, the central cow sheds and the surrounding buildings around the barn. A common roof type is also seen throughout the complex, with a limited number of variations and exceptions including the farmhouse. The normal construction consists of a tapered king-post sitting on a tie beam and supporting a ridge piece. The king-post is supported by two raking struts joined to the principal rafters marking out the truss. The purlins are not framed as part of the truss but instead are bolted to the underside of the rafters. The truss joints are secured with metal ties at the base of the king-post and at the wall plate. The knee braces are also attached to the wall posts and plates with metal pins and bolts. A raised tie variation of this design are seen in the oast house and granary. The slaughter house has only one truss with clasped purlins. The vertical butt-



edged boarding and Flemish brickwork and slated roofs also serve to unify the buildings.

6.9 The Development of the Farm

- 6.9.1 The majority of the buildings under investigation were clearly designed and developed as one unit in 1816-19 however a number of subsequent alterations are evident or suggested within the building fabric. A series of later buildings are identified mainly by the use of batons rather than boarding under the slate roof coverings. These include the southern single storied kitchen in the farmhouse, the Toll Cottage, the cart shed and 20th-century garage adjoining the granary and the machine shed and engine room adjoining the barn. Of these, only the additional farmhouse kitchen is included in the 1850 survey. This document suggests that the double kilns of the oast house are also secondary, however they both had boarded roofs unlike the rest of the secondary additions to the farm complex. The 1850 survey lists other buildings which are difficult to identify within today's complex such as the 'coach house and stable' discussed with the farmhouse and pleasure grounds and the 'Poultry House...and piggeries' discussed with the yard containing the barn. The latter may be explained in terms of a change of use to parts of the lean-to compartments around the barn but the former may indicate the loss of some of the original buildings.

7 ARCHAEOLOGICAL INVESTIGATIONS

7.1 Introduction

7.1.1 In November 1998, following the demolition of the buildings, a small scale archaeological evaluation was undertaken. A total of seven trenches were excavated (Figure 18). The general aim of the investigation was to examine the foundations of the buildings, observe other previously obscured features (such as the oast house floors) and to investigate the possibility of remains of any earlier structures. The more detailed aims of the individual trenches are set out below, together with the reporting of the observations presented in a trench by trench account working from the earliest deposits up. A discussion and interpretation of the findings concludes this section.

7.1.2 Geology and Topography

The underlying geology was Greensand overlain by orange Brickearth. The site was on a gradual slope to the west and the south and lies between 54m and 55m OD. The general soil type seen during the excavation was brickearth overlain by clay loam and ground conditions were moderately wet.

7.1.3 Fieldwork and recording

Trenches 1-6 were excavated by hand. A mechanical excavator was used for trench 7. The trenches were cleaned by hand and the exposed features were investigated to determine their extent and nature, and to retrieve finds. All archaeological features were planned at an appropriate scale (usually 1:20) and excavated sections were drawn at scales of 1:20. All features were photographed using colour slide and black and white print film. No deposits were identified suitable for environmental sampling. Recording was in accordance with standard procedures set out in the *OAU Fieldwork Manual* (ed. D Wilkinson, 1992).

7.2 Archaeological Description

7.2.1 Trench 1 and 2 (south end of barn)

7.2.1.1 Two small test pits (Trench 1 – 1.6 x .9m, Trench 2 – 1.1 x 1.05m) were dug against the south wall of the barn. The aim was to determine if the building had originally extended further south, as suggested by features within the building. Historic map evidence suggested that, at one time, the line of the Ashford to Maidstone road had originally crossed what was to become the farm yard, possibly becoming the track running to the south of the barn; trenches 1 and 2 were located to investigate this hypothesis.

7.2.1.2 Trench 1

The earliest deposit was a disturbed layer of orange brickearth (100). The brickearth was truncated by a 0.36m deep vertical construction cut (106) for the barn. The barn was constructed in two parts. The westerly section consisted of a foundation of red brick rubble (103). The foundations were exposed to a depth of 0.45m. The foundations were overlain by six courses of unfrosted red bricks (102) laid in Flemish Bond. The bricks measured 220mm x 100mm x 60mm, the footings surviving to a height of 0.49m. The easterly section did not have a rubble foundation. It was constructed from 16 courses of unfrosted red bricks identical to those used in structure 102. It survived to a height of 1.16m.

7.2.1.3 Overlying the brickearth was a deposit of flint and Ragstone (101) 0.07m thick. This was sealed by clay loam topsoil (105) with inclusions of fragmented red brick and flint. The deposit was 0.34m thick.

7.2.1.4 Trench 2

The natural consisted of orange brickearth (200) and was excavated to a depth of 0.34m. The natural was truncated by an irregular cut (201), which was interpreted as a tree bowl. The cut was filled by a mid-brown sandy clay (202) with inclusions of flint, CBM and flecks of iron panning. Deposit 202 was truncated by a vertical construction cut (203). The cut was excavated to a depth of 0.4m but not bottomed. The cut was entirely filled by the barn wall (204), which was constructed from 13 courses of unfroged red bricks. The wall was exposed to a height of 0.99m.

7.2.1.5 Deposit 202 was overlain by a 0.12m deep deposit of flint and Ragstone (207). This was overlain by a clay loam topsoil (205).

7.2.2 Trench 3 - Granary

7.2.2.1 A small test pit (0.9m x 0.8m) was dug within the demolished post-built drive-through cartshed below the granary to determine the nature of archaeological remains of the building, to access the foundations and the imprint of the building.

7.2.2.2 The natural consisted of orange brickearth (302) excavated to a depth of 0.16m. This was overlain by a 0.33m thick deposit of silty clay (301) which had flecks of charcoal and wood chippings on its upper surface. Deposit 301 was truncated by a linear construction cut (304) for the granary. The cut was excavated to a depth of 0.49m and had vertical sides. The granary (305) was constructed with a Ragstone foundation overlain by a red brick wall constructed in single Flemish bond. The bricks were bonded with lime mortar. A grey-brown silty clay (303) filled the construction cut. A rammed chalk floor (300) overlay the construction cut and deposit 301 to a depth of 0.05m.

7.2.3 Trench 4 - Outside Privy

7.2.3.1 The cesspit of the domestic earth closet behind farmhouse was investigated, to recover any household rubbish that may have been deposited there.

7.2.3.2 The privy (402) was rendered on its elevations and had internal dimensions of 1.15m x 1.47m. The base of the structure sloped to promote drainage through a channel in the western side. The western face was constructed in Flemish bond with an open arch 0.37m wide. The remainder of the structure was in English bond. The structure contained a mixed clay loam and cess deposit (401), which contained large quantities of pottery and glass. Deposit 401 was overlain by a layer of decayed lime and lime render (400).

7.2.4 Trenches 5 - Oast House (Figure 19)

7.2.4.1 The floors of the oast house were investigated following the removal of the 20th-century concrete floor. Two trenches were excavated within the imprint of the roundels of the oast to determine their phasing, and to identify evidence for the firing arrangements. Trench 5 was situated to the northern extent of the southern roundel and was 1.6m x 1.5m in size. Trench 6 was situated within the northern roundel and was 3.25m x 3.9m in size.

7.2.4.2 The natural consists of compact orange brickearth (508) with inclusions of manganese. Deposit 508 was overlain by a mixed brown sandy clay (507) with inclusions of brick dust. The deposit was 0.22m thick. This was overlain by a burnt clay layer (506). The deposit was 0.06m thick and contained charcoal flecks (< 1%). Deposit 506 was truncated by a vertical construction cut (502) for the oast house wall. The cut was 0.45m wide but was not bottomed. The oast house wall was 0.44m thick and constructed from unfrogged red bricks (501) of dimensions 220mm x 100mm x 60mm. A thin layer (10mm thick) of clay loam (503) filled the remainder of the construction cut. The construction cut was sealed by a 0.08m thick layer of fine yellow sand (505). This deposit formed a bedding for the oast floor. The floor was constructed from a single layer of dry bedded red bricks (504) of dimensions 220mm x 70mm x 100mm.

7.2.5 Trench 6

7.2.5.1 The earliest deposit identified was natural brickearth (604). This was overlain by a mixed sandy clay (603) with inclusions of flint and brick dust. The deposit was 0.24m thick. Deposit 603 was truncated by a vertical construction cut (605) at least 0.4m deep. The cut was partially filled with a clay loam (606). Within the construction cut was a brick built hearth (Figure 19). The hearth (607) was 0.78m high and constructed from 10 courses of unfrogged red bricks in the shape of a cross. The bricks showed evidence for burning and their mortar bond had powdered. The floor (608) of the hearth was constructed from the same bricks, which measured 220mm x 60mm x 100mm. The earliest fill of the hearth consisted of black clinker and charcoal (609) with inclusions of brick dust. The deposit was 0.10m deep. The secondary fill of the hearth was demolition material (610) consisting of mortar and brick rubble. The fill contained several voids giving the impression that the deposit had collapsed into the hearth rather than being deliberately backfilled.

7.2.5.2 The floor of the oast house was constructed of dry bedded tapered bricks, which formed a series of decreasing circles towards the hearth. The bricks appeared to be re-used.

7.2.6 Trench 7 – Cowshed and Yard

7.2.6.1 A trench (8.3m x 1.6m) was dug to investigate for evidence of any former yard surfaces of the fold yard and to test for presence of earlier structure or building, which was suggested by the location of a well, indications noted during dismantling, and the early 19th-century estate map.

7.2.6.2 The earliest identified deposit was natural Greensand (700). A deposit of orange brickearth with occasional flecks of manganese (710) overlay deposit 700. Within 710 was a more mottled area of brickearth (707). The brickearth was truncated by a 0.85m deep linear cut north-south aligned cut (711). The cut was flat bottomed with an irregular western edge. The eastern edge of the cut was not visible within the trench. The primary fill of 711 was a black cassy deposit (701) 0.04m deep. The deposit contained a single unworked piece of timber close to the bottom of the cut associated with fragments of red tile. This was overlain by a tenacious blue-grey clay (702). The deposit was 0.75m thick and contained fragments of tile and brick rubble. A deposit of Greensand and clay (708) with inclusions of organic matter overlay deposit 702. The deposit extended for 2m in section and was up to 0.5m deep.

7.2.6.3 A 0.12m thick layer consisting of brick and Ragstone rubble (703) sealed the cut feature. This formed the make-up for a crude chalk floor (704). The floor varied in thickness from between 0.05 and 0.10m. A 0.2m thick deposit of clay and organic material (705) overlay the chalk floor. This was sealed by a secondary chalk floor

(706), which extended across the entire trench. A clay loam (709) topsoil overlay deposit 706.

7.3 Finds

7.3.1 With the exception of Trench 4, very few finds were recovered during the evaluation. From Trench 2 (context 202) a number of small sherds of red ceramic building material were recovered and from Trench 3 (context 301) a copper alloy coin (possibly a token) measuring 19mm in diameter, but in unreadable condition, was recovered. The remainder of the finds were recovered from the earth closet, Trench 4. Finds included china and pottery of both domestic kitchen ware and finer bone china services described in further detail below, a range of glass bottles and sherds of white, blue, green and brown glass. The numerous bottles including a green square bottle (0.10m by 0.04m) labelled with raised script 'Foster Clark Ltd, Maidstone' on one side and 'Eiffel Tower Fruit Juices' on the other, an assemblage of animal bone – mostly chicken, and iron fragments including oil lamp wicks, an iron strip and a round pot (0.13m tall, by 0.1m diameter). All the finds come from the model farm period of the sites occupation and none suggest an earlier period of activity.

7.3.2 Pottery from Trench 4

7.3.2.1 A large assemblage of pottery and china sherds was recovered. This includes fragments from a range of vessels including cups and saucers, plates and side plates, vases and bottles. The range of fabrics is wide with kitchen equipment including sherds from a pudding basin and mixing bowl to thin bone china services. The vast majority of the finer examples are of white bodies with coloured transfer patterns following a floral theme. A number of pieces have gilded decoration, others raised ornamentation and others typical blue and white patterns including willow pattern fragments. Only one example of hand painted china was recognised. This is the base of an ornate cup with an exaggerated bulbous bowl and base with stylised feet. The basic blue outline of the floral design was transfer applied with hand applied colour wash to highlight details of the design. In addition to this patterning under the glaze, a further golden hand-applied highlight was applied above the glaze. The majority of the assemblage appears to date to the mid-late 19th century.

7.4 Interpretation and Discussion

7.4.1 Reliability of the Field Investigation

7.4.1.1 The trenches did not identify elements of an earlier structure. However, works undertaken by the Traditional Buildings Preservation Trust at the same time as the evaluation identified a ragstone constructed well and wall of brick, tile and ragstone in the area of the recently demolished farmhouse. These features may relate to activity prior to the model farm.

7.4.2 Summary of Results

The Barn

7.4.2.1 Trenches 1 and 2 did not yield any evidence for an original southern extension of the barn. The flint deposits 101 and 207 were interpreted as farm trackways laid down to facilitate access. The robustness of the structures suggested farm tracks rather than the main Ashford – Maidstone road.

The Granary

- 7.4.2.2 Deposit 301 in trench 3 was interpreted as the working surface for the construction of the granary. This was supported by the presence of charcoal and wood chippings pressed into the clay. The rammed chalk floor (300) directly sealed this deposit.

The Privy

- 7.4.2.3 The investigation of the outside privy, Trench 4, produced a large quantity of domestic debris including broken china, pottery jars, glass bottles and fragments of metal. The assemblages seemed to date to the late 19th century.

The Oast House Roundels

- 7.4.2.4 No structural evidence for an earlier single oast house was identified in trenches 5 or 6. However, deposit 506 contained significant burnt remains that were sealed by the oast house floor. The sandy make-up (505) which overlay deposit 506 did not contain any charcoal or burnt clay so it would seem unlikely that the burning within 506 came from the overlying hearth. This would suggest some burning activity pre-dating the double oast.
- 7.4.2.5 The removal of the concrete floor revealed the historic brick floor. The floor was laid with tapering bricks designed to overlap each other and able to be laid in the diminishing circles indicated in Figure 19. Although the brick floor appeared primary to the building the bricks were laid in a haphazard manner within the circular pattern and displayed signs of re-use, possibly having been imported from another oast on the Hothfield estate. Evidence of the firing techniques of both the roundels was observed. In the southern roundel the hopper construction type of firing had left a circular white stain on the surface of the bricks although no trace of the actual construction remained. Trench 6 excavated the fire pit used in the north roundel. Following excavation, the oast house was visited by R. Walton author of 'Kentish Oasts 16th-20th centuries'. The variation in fire arrangement was interpreted as a difference in fuel source rather than a different drying technique or phase of construction. The northern roundel with its sunken ash pit represented a modernisation in hop production with the use of coke or coal. Whilst the southern roundel had remained unmodified running on charcoal.

The Fold Yard

- 7.4.2.6 The unworked timber at the base of cut 711 within trench 7 was not interpreted as being structural. However, the cut itself may have related to features pre-dating the 1816 construction or may have been connected with the storage of manure in the model farm. Two chalk floors were identified and interpreted as former fold yard surfaces or the bedding layers for ragstone surfaces, the earliest floor 704 requiring repair / remodelling by the second floor (706) to maintain access.

8 CONCLUSIONS

- 8.1 Yonseas Farm was planned and executed, in the main, as a one phase development by the 9th Earl of Thanet as part of his Hothfield Estate in 1816-19. The complex represents a model farm development which is unusual in Kent. The buildings are used to form enclosed yards and are located for efficiency and production of manure to fertilise the fields and increase crop yields. From the surviving buildings, it can be shown that an integrated regime of mixed farming was being practised with cereals, root crops, hops and livestock all playing a part in the farm's economy.
- 8.2 The farm buildings are of common materials of red brick laid predominantly in Flemish bond and timber framing with jowled knee braces and vertical butt-edged weatherboarded external cladding and slated roofs. The farm house is thought to have been architect-designed by George Repton (Robinson, 1998) however the rest of the farmyard buildings were presumably undertaken by the Hothfield estate. A common roof type characterised by tapering king-post with raking struts and structural metal-work.
- 8.3 The seven trench evaluation did not recover significant archaeological evidence pre-dating the 1816 construction suggesting that there was little activity within the area of investigation. This supports the conclusions of the previous, 1997 MoLAS excavations undertaken in the moated garden area. The only structural evidence for an earlier building was identified within the works undertaken by the Traditional Buildings Preservation Trust and not within the OAU trenches and seems largely to relate to earlier service buildings associated with the model farm. Useful information regarding the floors and the firing arrangements of the double oast was, however, gained as a result of the investigation.
- 8.4 Although some documentary research has been carried out on the complex it is suggested that further searches at the local Record Office may yield further information about the farm, as will the Trust's continuing gathering of oral history from people related to the working life of Yonseas Farm.

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November 1999 (Revised August 2000)

Bibliography

- | | | |
|------------------------|---------------|---|
| Barnwell P S & Giles C | 1997 | <i>English Farmsteads 1750-1914</i> RCHME |
| Filmer R | 1982 | <i>Hops and hop picking</i> |
| Lake J | 1989 | <i>Historic Farm Buildings</i> |
| Peters J E C | 1981 | <i>Discovering Traditional Farm Buildings.</i> |
| Robinson J M | 1983 | <i>Georgian Model Farms: a study of decorative and model farm buildings in the age of improvement, 1700-1846.</i> |
| Robinson J M | January 1998 | <i>Historical Report on Yonseas Farm, Hothfield, Kent.</i> Unpublished client report. |
| Thirsk J (Ed.) | 1989 | <i>The Agrarian History of England and Wales, 1750–1850.</i> |
| URL | 1995 | ‘Report on Historic Buildings, Feasibility Studies’. Prepared by OAU. |
| URL | 1997 | ‘Archaeological Evaluation at Yonseas Farm’. Prepared by MoLAS. |
| URL | 1998 | ‘Specification for Building Investigation and Recording, Demolition of Yonseas Farm, Ashford’. Prepared by OAU. |
| Walker I | 1998 | <i>Yonseas Farm and Land.</i> Brief preliminary report on documentary research. |
| Walton R & I | 1997 | <i>Kentish Oasts: 16th – 20th century, Their history, construction and equipment.</i> |
| Watts and Partners | February 1995 | <i>Yonseas Farm, Hothfield.</i> Unpublished client report. |
| Wilkinson D | 1992 | <i>OAU Fieldwork Manual</i> |



Appendix A: Copies of DoE List Entries

The Farmhouse

1.
5272 HOTHFIELD MAIDSTONE ROAD
Yonsea
TQ 94 NE 11/15

II

2.
Circa 1830, Two storeys stuccoed. Hipped slate roof. Bracket eaves cornice with small pediment in centre. Three sashes with glazing bars intact. Porch containing a round headed doorway with a semi-circular fan-light.

The Oasthouses

1.
5272 HOTHFIELD MAIDSTONE ROAD
Oasthouses to south
of Yonsea
TQ 94 NE 15/15A

II

2.
Circa 1830. Two cylindrical brick oasts, with conical roofs, fantails and cowls, attached to a red brick building with hipped roof.

The Granary and Cartshed

1.
5272 HOTHFIELD MAIDSTONE ROAD
Granary and Cartshed
To north-west
of Yonsea
TQ 94 NE 11/15B

II

2.
Circa 1830. Two storeys faced with red brick. Half-hipped roof. Weatherboarded side elevation. Attached to the north-east is a brick sided open cart shed, supported on square wooden piers.

The Toll Cottage

1.
5272

HOTHFIELD

MAIDSTONE ROAD
Yonseas Bungalow

TQ 94 NE 11/15C

II

2.
Circa 1830. One storey red brick. Hipped slate roof. Two sashes.

The Barn

1.
5272

HOTHFIELD

MAIDSTONE ROAD
Range of barns about
50 metres to north of
Yonseas

TQ 94 NE 11/15D

II

2.
Circa 1830. Range of brick barns with hipped slate roofs and hipped waggon entrance. West elevation weatherboarded.

The Cowshed

1.
5272

HOTHFIELD

MAIDSTONE ROAD
Range of barns about
50 metres to west of
Yonseas

TQ 94 NE 11/15E

II

2.
Circa 1830. Range of brick barns with half hipped slate roof.



Appendix B: The Estate Report of 1850.

This report was carried out by Daniel Smith & Son for Richard Tufton, illegitimate son and heir of the 11th and last Earl of Thanet and is taken from Robinson, 1998, 7-8.

Yonseas Farm is in the occupation of the Mr Edward Strouts under lease expiring in 1853. This is a capital farm though comprising some poor land.

The Homestead is of a very superior character and description and pleasantly situated upon the high road to Maidstone within two miles of the Town of Ashford.

It consists of a handsome modern House, stuccoed, brick and slated containing servant' room, five best bedrooms, two large parlours, a third room, kitchen, a back ditto, Pantry and a Dairy in basement. It is surrounded by Pleasure Grounds, Garden and Orchard opening to a large Park like Paddock with good wooded scenery - Yards nearly all walled in with Coach house and Stable.

The Farm Buildings consist of a Hop Oast and circular kiln with cooling room etc, Waggon Lodge and Granary over; capital fattening Lodge for 10 Bullocks, Turnip House, Pump and Cow Houses and good stabling for 7 or 8 horses - a Second Yard with a good large Barn and return shed and Poultry House, Straw House and Piggeries.

These buildings are all substantial nearly all slated and in excellent repair.

Appendix C: Guide to the Project Archive

This appendix is designed to provide an ordered structure to the archive. At present, some of the information is held by TBPT and some at the offices of RLE. It is intended to deposit the final archive with the Centre for Kentish Studies, Maidstone, Kent..

GENERAL INDEX TO THE ARCHIVE

The archive comprises of the following categories of information:

- Introduction documents: Specifications and methods statements
- Reports: Reports including historical research, archaeological evaluation and excavation and building analysis
- Drawings: Measured Drawings and sketch pattern drawings
- Photographic record Photographic record produced during the project, including video footage
- Archaeological archive Context sheets, trench plans and section drawings, photographic record of trenches, recovered finds

INTRODUCTION DOCUMENTS

URL	March 1995	<i>Report on Historic Buildings, Feasibility Studies.</i> Prepared by OAU.
URL	Oct 1998	<i>Demolition of Yonseas Farm, Ashford: Specification for Building Investigation and Recording.</i> Prepared by OAU.
The Traditional Buildings Preservation Trust	1998	<i>Yonseas Georgian Model Farm: Recording Strategy for Re-Assembly & Archaeological Purposes</i>

REPORTS

URL	Nov 1999	<i>Yonseas Farm, Hothfield. Archaeological Analysis during Dismantling.</i> Prepared by OAU.
URL	Nov 1997	<i>Archaeological Evaluation at Yonseas Farm.</i> Prepared by MoLAS.
Robinson JM	Jan 1998	<i>Yonseas Farm, Hothfield, Kent.</i> Unpublished historical report.

CATALOGUE OF DRAWINGS

Drawings prepared by Rail Link Engineering:

Building 6: Granary and Cart shed buildings

Scale 1:50

6316-GS Ground and first floor plans of granary and cart shed

Scale 1:20

6316-CP2 Ground floor ceiling plan of Granary.
 6316-BE39A Elevation 39 (LH Part) – External west elevation.
 6316-BE39B Elevation 39 (RH Part) - External west elevation.
 6316-BE40 Section H1/Elevation 45, 40 – External south elevation with section through the garage & internal section with south elevation details.
 6316-BE41 Elevation 41 – External east elevation.
 6316-BE42 Section H/Elevation 47 & 42 – External north elevation with section through cart shed & internal section with north elevation details.
 6316-BE43A Section G/Elevation 43 (LH Part) – Longitudinal section through the building with west elevation detail.
 6316-BE43B Section G/Elevation 43 (RH Part) – Longitudinal section through the building with west elevation detail.
 6316-BE44 Elevation 44 – External E elevation of cart shed.
 6316-BE46 Section G1/Elevation 46 – Longitudinal section through the granary with east internal elevation details.
 6316-BE48 Section 1/Elevation 51/Elevations 48/49/50 – External north elevation of cart shed and three cross sections through the cart shed.
 6316-BE52 Elevations 52, 53, 54, 55 – Internal cross section through the cart shed.
 6316-BE56 Elevations 56 & 57 – Two internal cross sections of the granary, on line of the two north most trusses.
 6316-BE58 Elevation 58 – Internal cross section through the granary – south end.

Building 5: Cow shed, food preparation room, slaughter house and stable

Scale 1:50:

6316-BB Floor plan of the complex

Scale 1:20:

6316-CP1 Ground floor ceiling plan of the stable.
 6316-BE1 Elevation 1 - External south elevation of the cow shed and food preparation room.
 6316-BE2 Elevation 2 – External east elevation of E-W cow shed range.
 6316-BE3 Elevation 3 – External north elevation of E-W cowshed and corner angle.
 6316-BE4A Elevation 4 (LH Part) – External east elevation of N-S cow shed range.
 6316-BE4B Elevation 4 (RH Part) - External east elevation of N-S cow shed range .
 6316-BE5 Elevation 5 – External north elevation of the stable.
 6316-BE6 Elevation 6 – External west elevation of the stable and slaughter house.
 6316-BE7 Elevation 7 – External south elevation of the slaughter house.
 6316-BE8A Elevation 8 (LH Part) – External west elevation of N-S cow shed range.
 6316-BE8B Elevation 8 (RH Part) - External west elevation of N-S cow shed range.
 6316-BE9 Section C/Elevation 9 – External south elevation of stable with sections through the slaughter house and N-S cow shed.
 6316-BE10 Section E1/Elevation 10 – Longitudinal section through the E-W cow shed range with south elevation details.

6316-BE11	Elevation 11 – Internal elevation of east wall of the E-W cow shed range.
6316-BE12	Section E/Elevation 12 - Longitudinal section through the E-W cow shed range with north elevation details.
6316-BE13A	Section A/Elevation 13 (LH Part) – Longitudinal section through the N-S cow shed range with east elevation details.
6316-BE13B	Section A/Elevation 13 (RH Part) - Longitudinal section through the N-S cow shed range with east elevation details
6316-BE14	Section B/Elevation 14 - Longitudinal section through the stable with north elevation details.
6316-BE15A	Section A1/Elevation 15 (LH Part) – Longitudinal section through the N-S cow shed range with west elevation details.
6316-BE15B	Section A1/Elevation 15 (RH Part) – Longitudinal section through the N-S cow shed range with west elevation details.
6316-BE16	Section B1/Elevation 16 - Longitudinal section through the stable with south elevation details.
6316-BE17	Elevations 17 & 18 – Internal elevations of the south and west walls of the slaughter house.
6316-BE19	Elevations 19 & 20 – Internal elevations showing the baton partitions screening the roof construction of the food preparation room – north and east elevations.
6316-BE21	Elevations 21, 22, 23 – Details of three roof trusses of the stable.
6316-BE24	Elevations 24, 25, 26 – Elevations of northern three trusses and internal partitions within the N-S cow shed range.
6316-BE27	Section D/Elevations 28, 27, 29 – Elevations of southern three trusses and internal partitions within the N-S cow shed range.
6316-BE30	Elevations 30, 31, 32, 33, 34, 35 – Details of stall partitions in the E-W cow shed range.
6316-BE36	Section F/Elevation 37, 36, 38 – Three cross sections through the E-W cow shed range.

Drawings prepared by N J McAnally & Associates, Civil & Structural Engineering Consultants:

1654/A1/01	Farm complex site plan
1654/A1/02	Building 1: The Farmhouse. East and north elevations @ 1:100. Ground floor plan @ 1:50.
1654/A1/03	Building 1: The Farmhouse. West and south elevations @ 1:100. First floor plan @ 1:50.
1654/A1/04	Buildings 2 & 5: The Toll Cottage and Cow shed and stable complex. 4 elevations of the cow shed and stable complex @ 1:100. 4 elevations of the Toll Cottage @ 1:100. Ground floor plan of the Toll Cottage @ 1:50.
1654/A1/05	Building 5: The Cowshed and Stable complex. Ground floor and first floor plans @ 1:50. 2 cross sections @ 1:50, 1 through the stable building and 1 through the cow shed.
1654/A1/06	Building 3: The Oasthouses. 4 elevations @ 1:100. Cross section, ground floor plan and first floor plan @ 1:50.
1654/A1/07	Building 4: The Barn. 4 elevations @ 1:100. Cross section and ground floor plan @ 1:50.

1654/A1/08

Building 6: The Granary and Cart shed. 4 elevations @ 1:100. Cross section, ground floor plan and first floor plan @ 1:50.

OAU drawings:

ASYON.001	Kitchen floor plan @ 1:20
ASYON.002	Wall elevation A-A @ 1:10
ASYON.003	Wall elevation B-B @ 1:10
ASYON.004	Wall elevation C-C @ 1:10
ASYON.005	Wall elevation D-D @ 1:10
ASYON.006	Wall elevation E-E @ 1:10
ASYON.007	Wall elevation F-F @ 1:10
ASYON.008	Wall elevation G-G @ 1:10
ASYON.009	Wall elevation H-H @ 1:10
ASYON.010	Bread Oven; elevation, longitudinal and transverse sections @ 1:10
ASYON.011	Bread Oven; cross sectional plans 1, 2, and 3 @ 1:10.
ASYON.012	Bread Oven; plan @ 1:10
ASYON.013	Double Copper; elevation,

The Traditional Buildings Preservation Trust:

During the demolition process sketch drawings were made of each building showing the labelling of each structural component to aid reconstruction. These sketches include wall elevations and architectural / structural details.

FARM HOUSE:

D/NO	DESCRIPTION
1-11	Roof structure
12	Gutter eaves detail
13-19	First floor stud wall details
20-21	Ground floor stud wall details
22-24	Additional kitchen roof structure

BARN:

D/NO	DESCRIPTION
-	Key to drawings
1-6, 9	Internal elevations of main barn area
7	East internal elevation of SE barn off shoot
8, 18	North and east internal elevation of seed store
10, 11	North and east internal elevation of NE barn off shoot
12-14	N, E & W internal elevations of northern barn off shoot
15-17	N, S & W internal elevations of machine shed
19	Truss design of barn off shoots and plan of machine shed with post numbers

OAST HOUSE:

D/NO	DESCRIPTION
1-4	Internal elevations, first floor and roof
5 - 8	First floor floor plan, including roundel drying floors
9	Stair case
10	



PHOTOGRAPHIC RECORD

English Heritage National Monuments Record at Swindon:

External and internal photographic coverage of all the buildings in the farm complex. See following lists and index sheets of images (Appendix D). Plates 1 – 8 are taken from this coverage.

The Traditional Buildings Preservation Trust:

Rectified photography:

Coverage of the external elevations of Building 1, the farmhouse.

Advanced Photo System:

During the dismantling excess of 20 films were exposed. See individual photographic record sheets held by the Trust.

Video recording:

Before and during the dismantling extensive video footage was produced. This includes general site shots of the buildings, detailed views and interviews with project team members. The film is digital allowing any frame to be reproduced as a still.

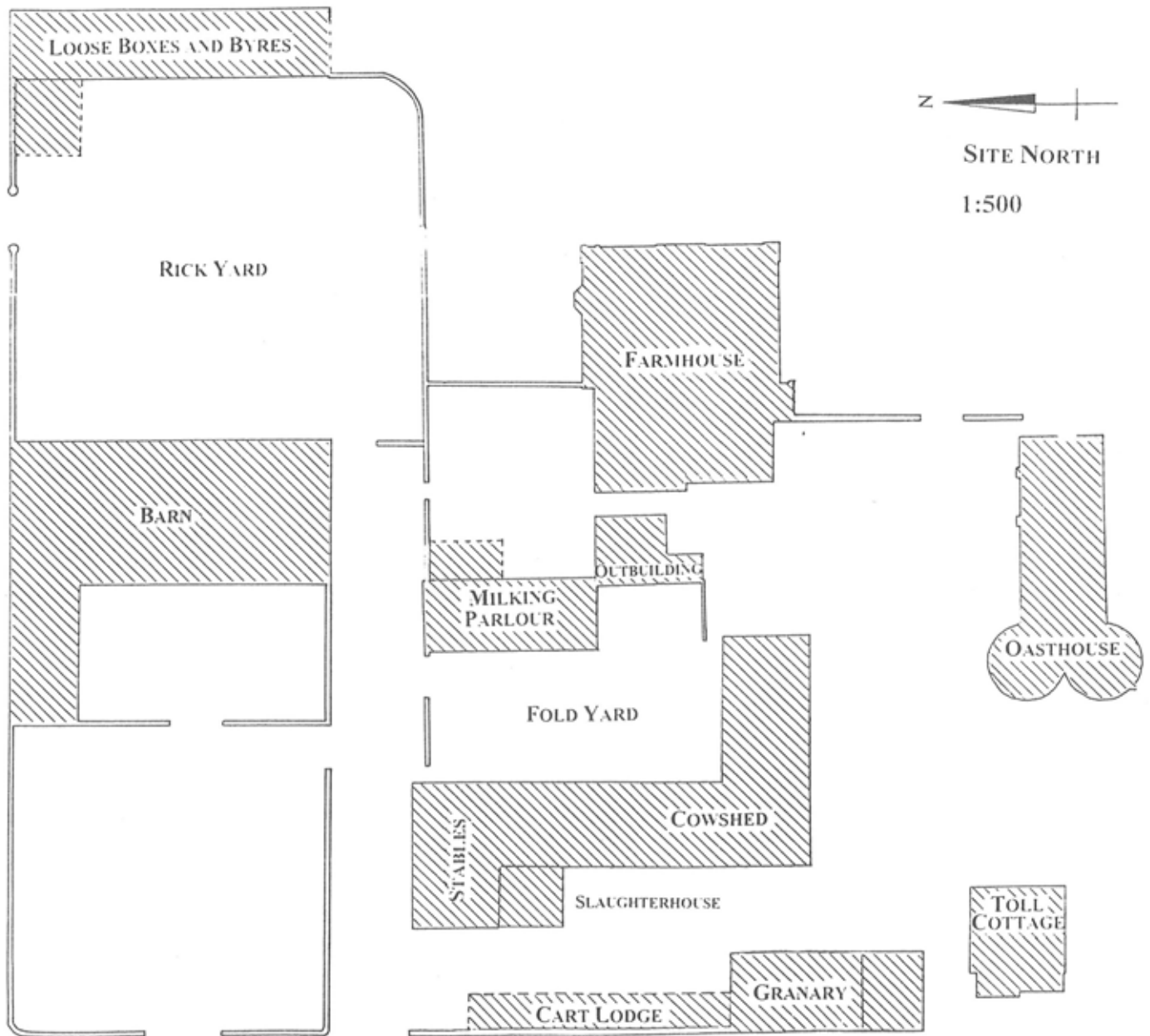
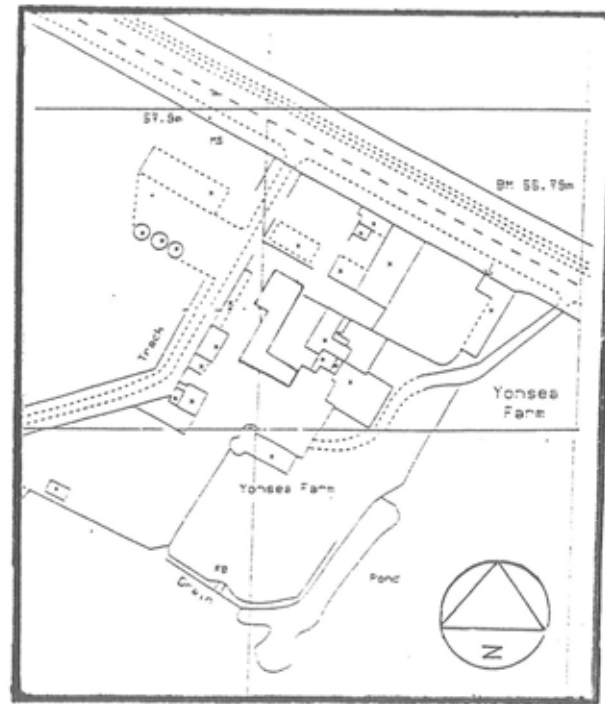
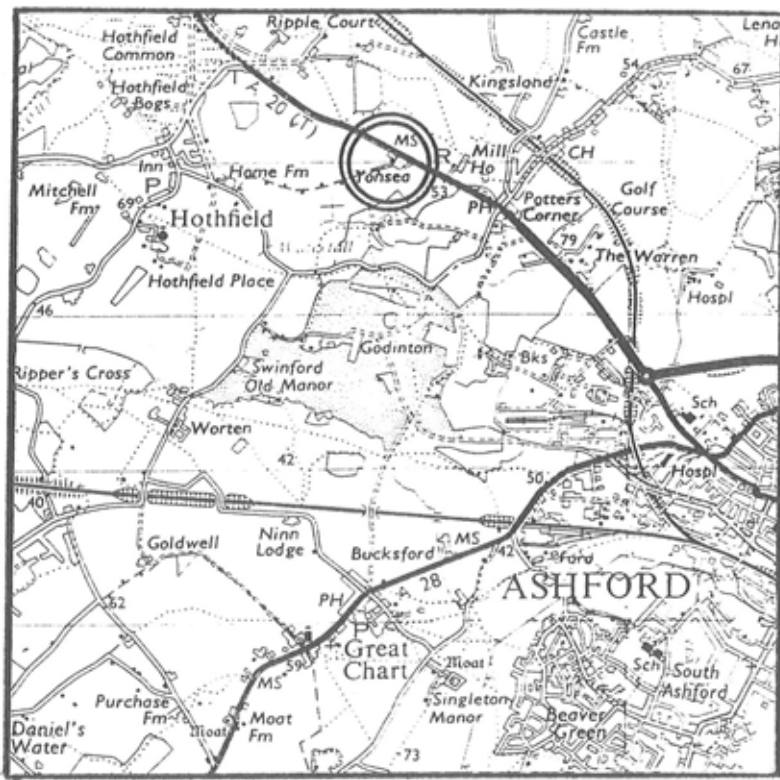


Figure 1: Site Location and Site Plan (after N J McAnally & Associates survey)

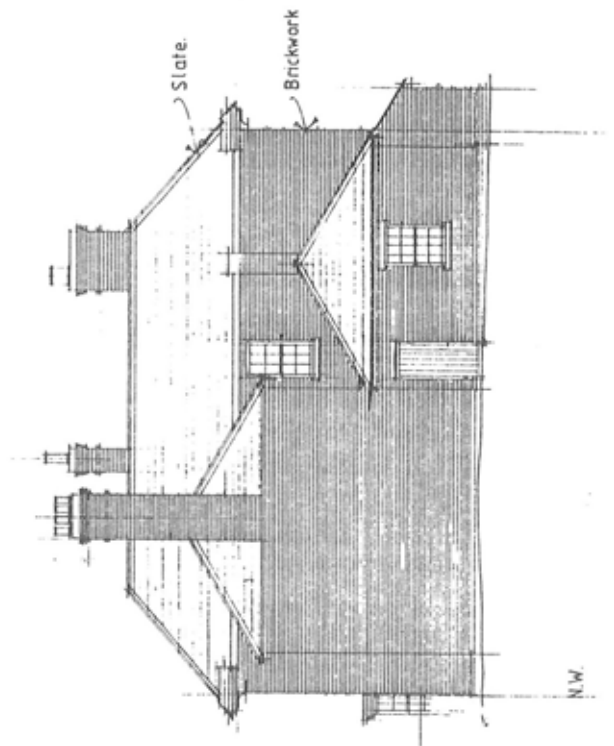
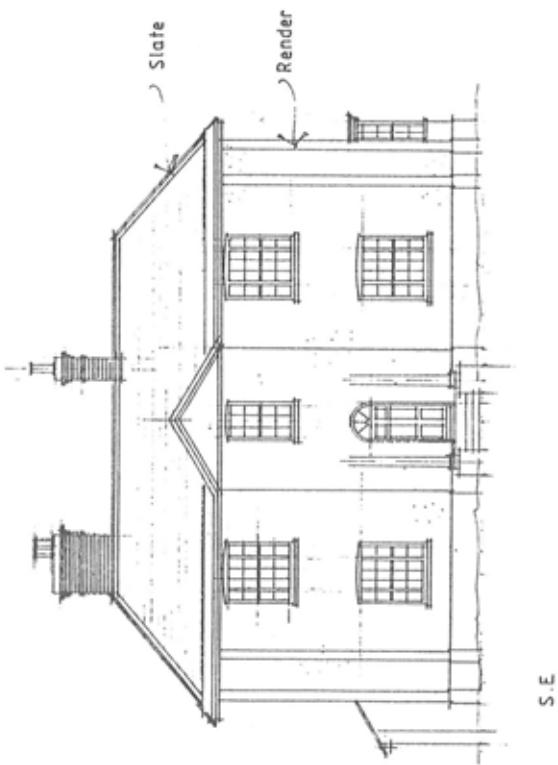
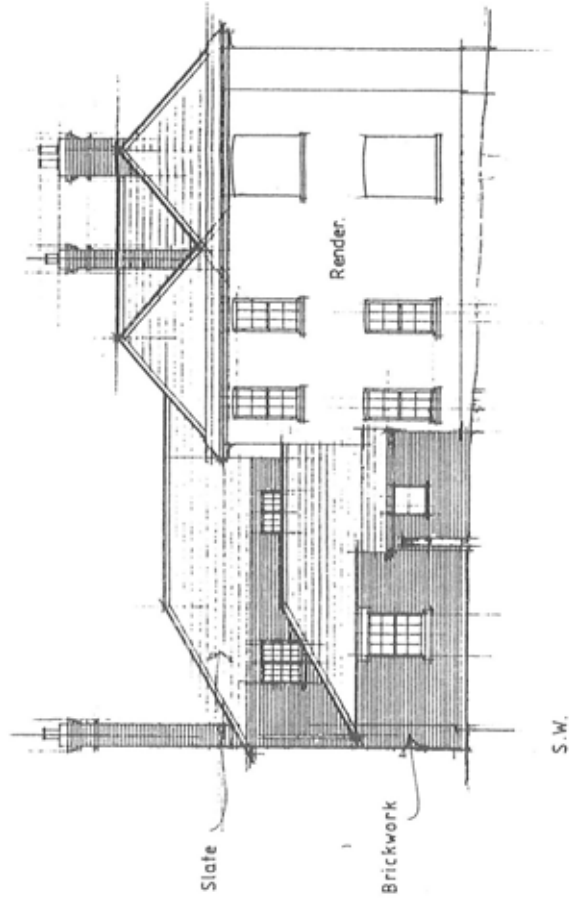
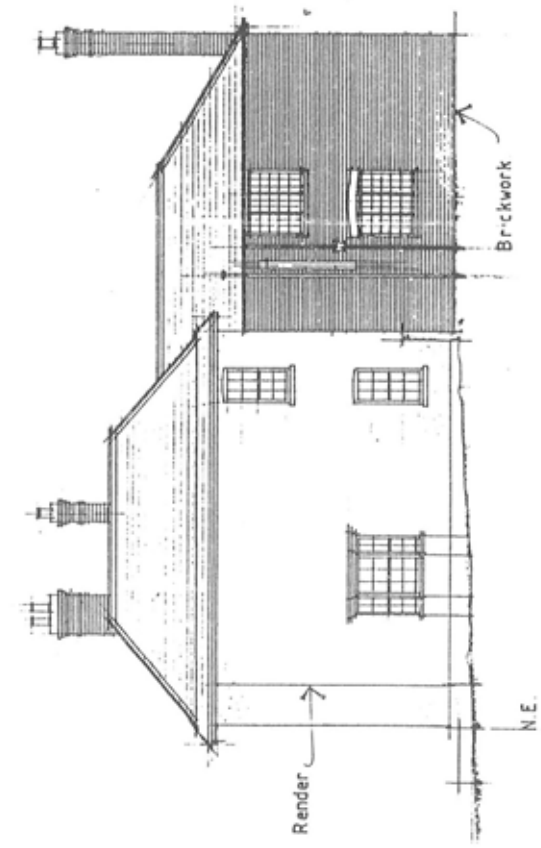
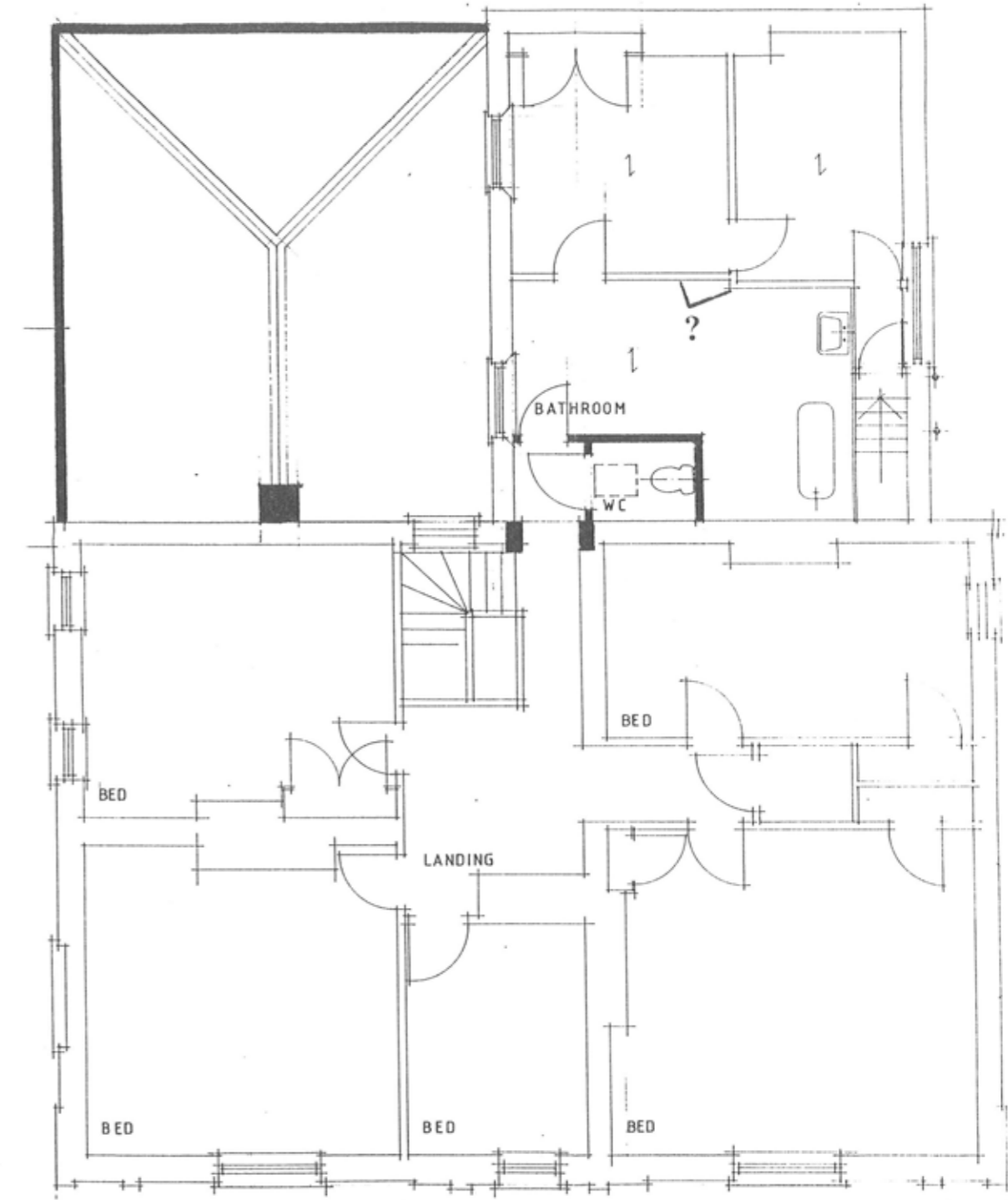
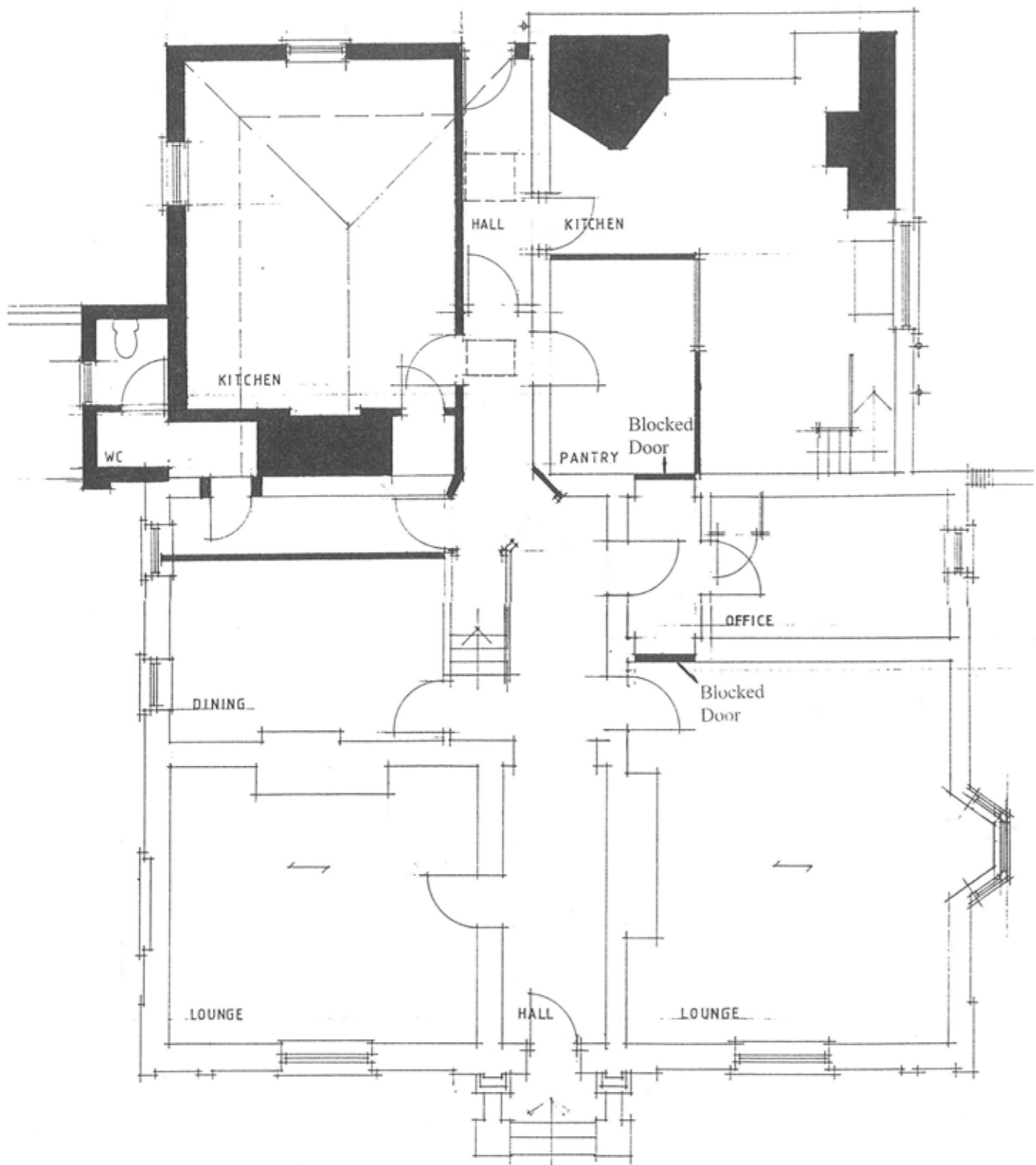


Figure 2: Elevations of the Farmhouse, 1:200 (N J McAnally & Associates)

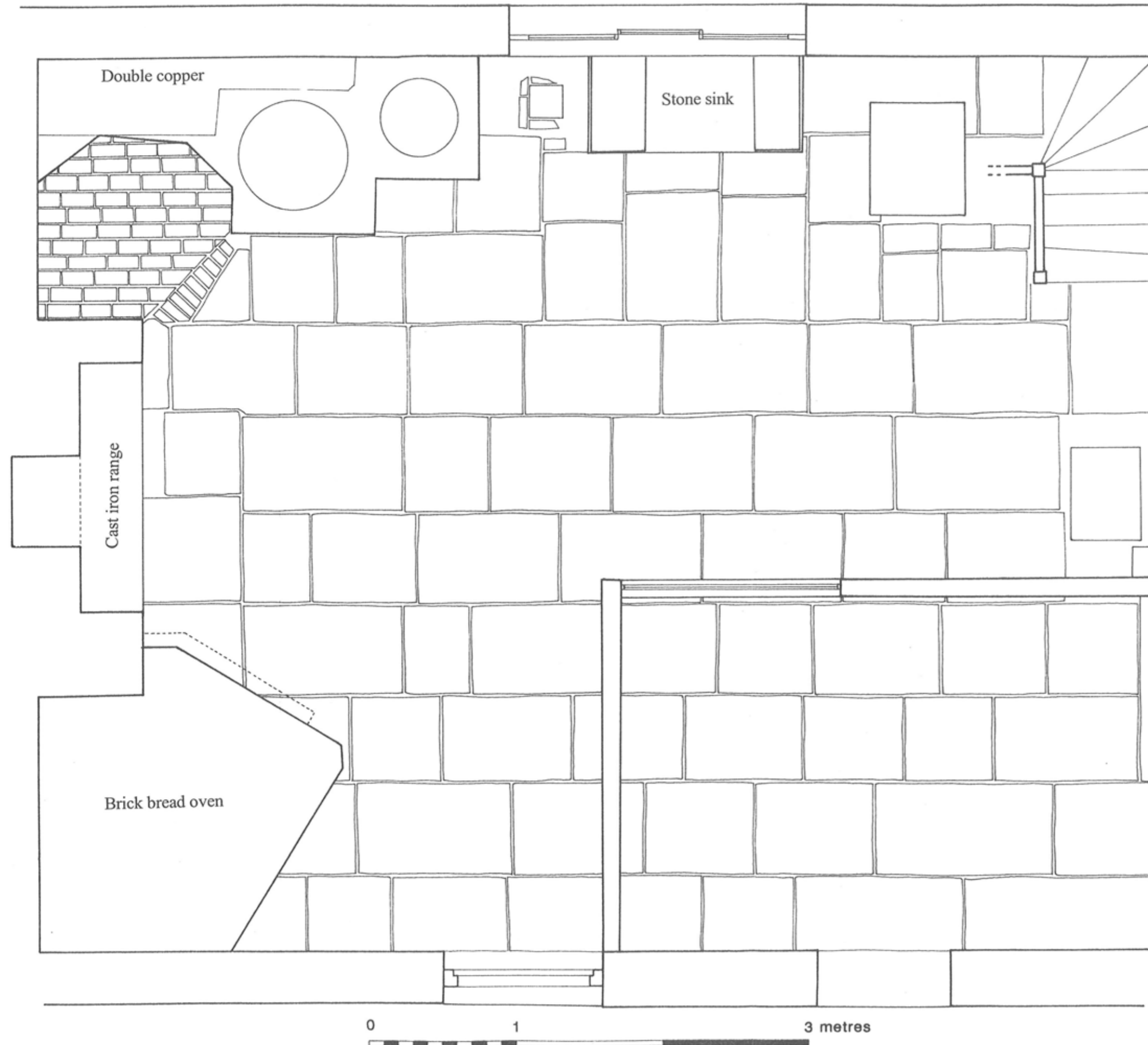
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● Secondary fabric

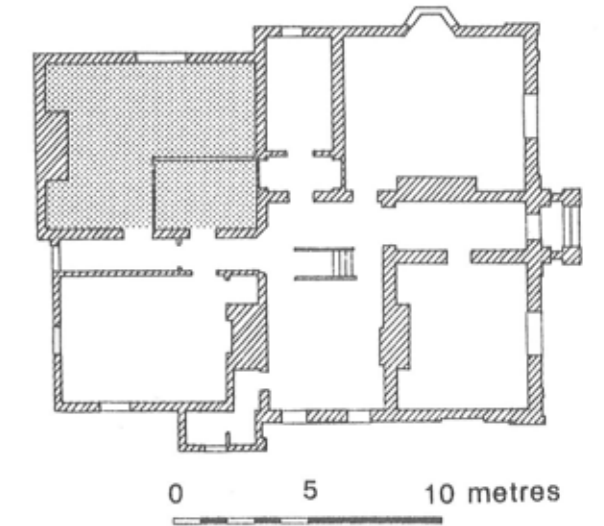


Figures 3 & 4:
Ground and first floor plans of the Farmhouse, 1:100
(Base by N J McAnally & Associates)

Figure 5: Plan of Farmhouse Kitchen



Location Plan




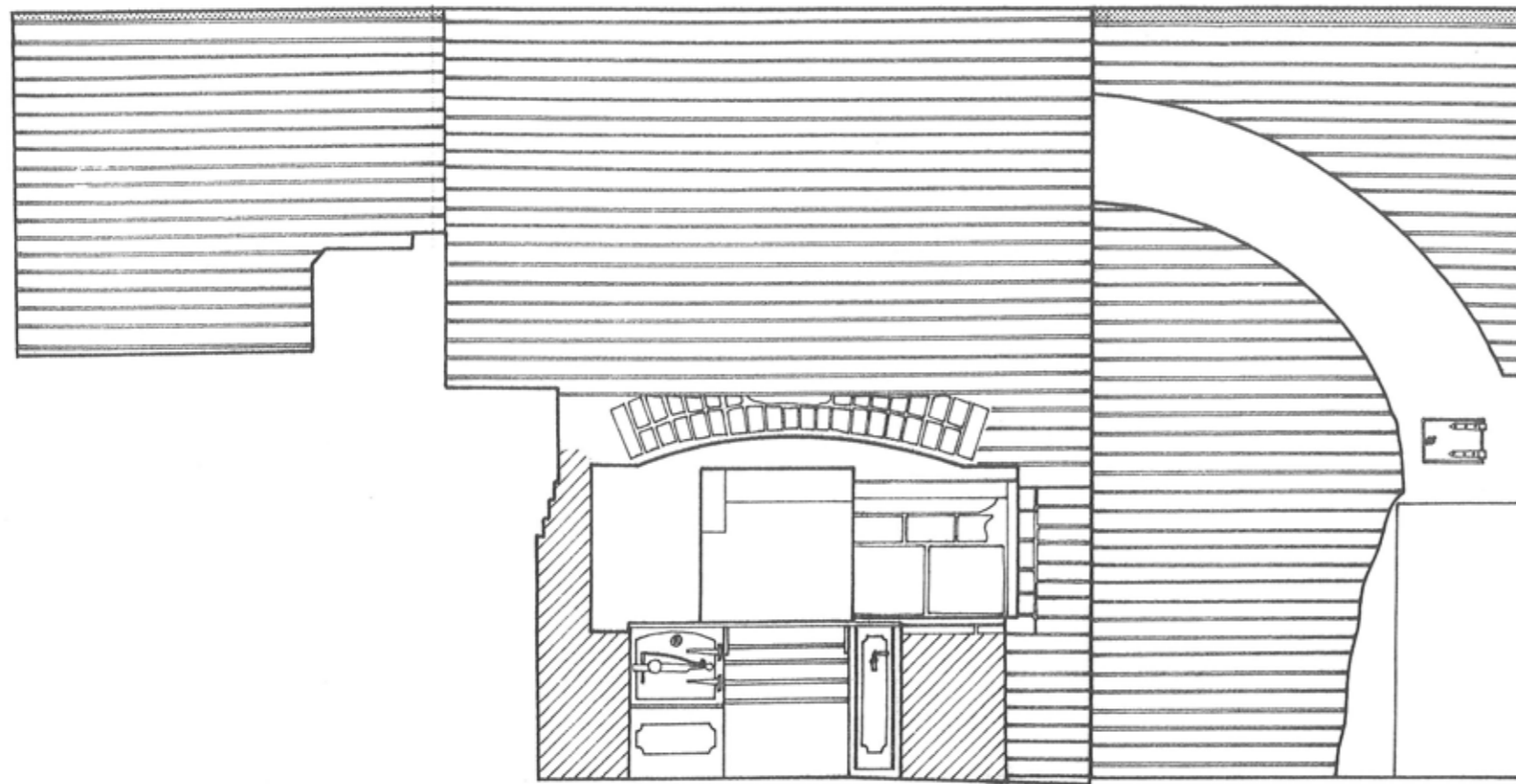
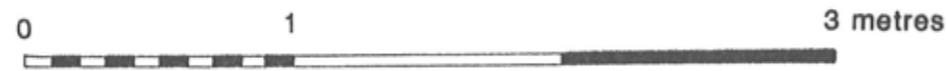
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Architectural Survey		
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Subject:	Yonse Farm, Ashford, Kent. Farmhouse Kitchen. PLAN	
Survey Date:	October 1998	
Surveyed by:	RDT	
Drawn by:	RDT	
Scale as drawn:	1:20 (at A2)	
Drawing No.:	ASYON.BS.98/001	
Issue Date:	November 1998	

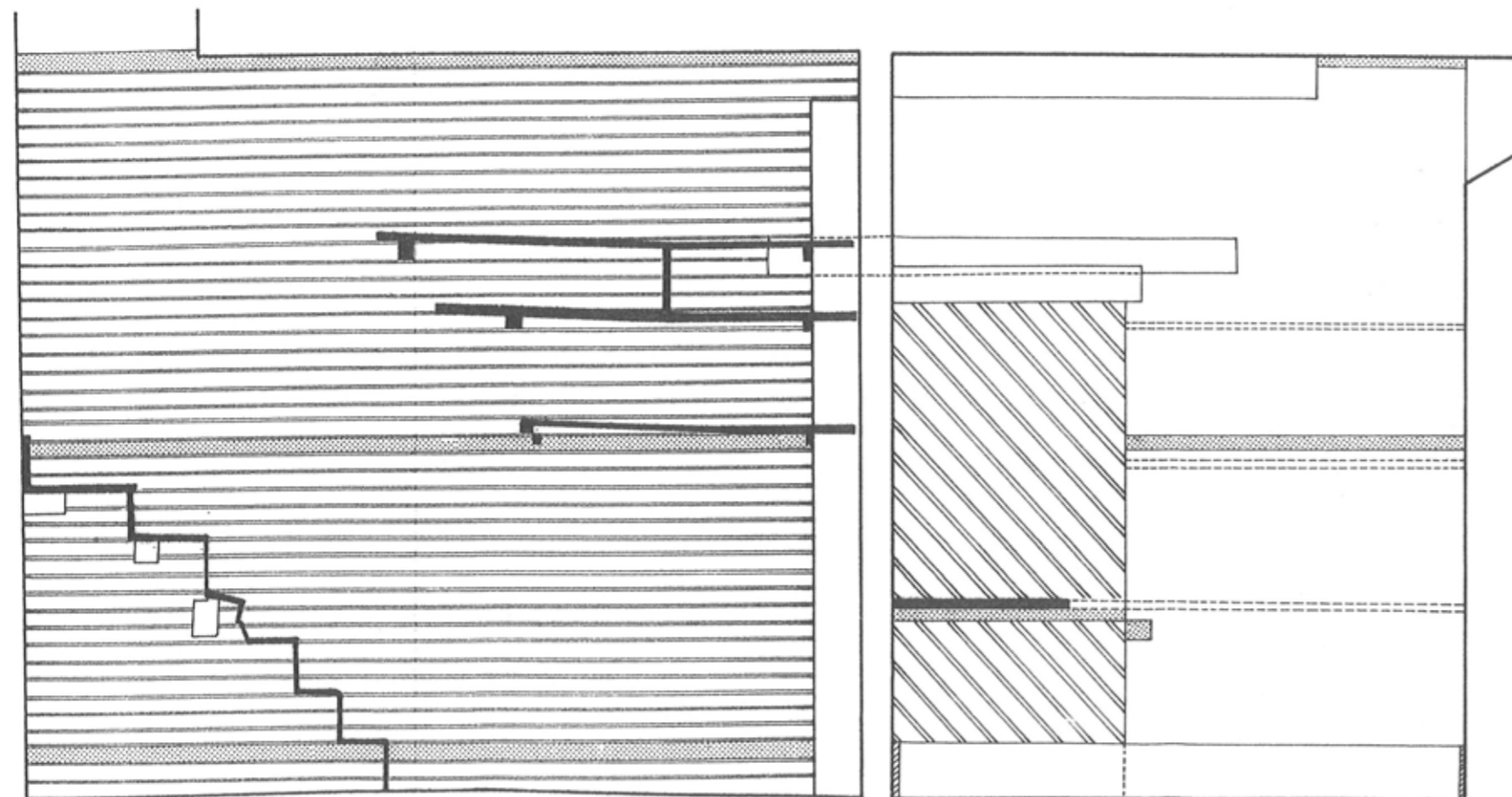
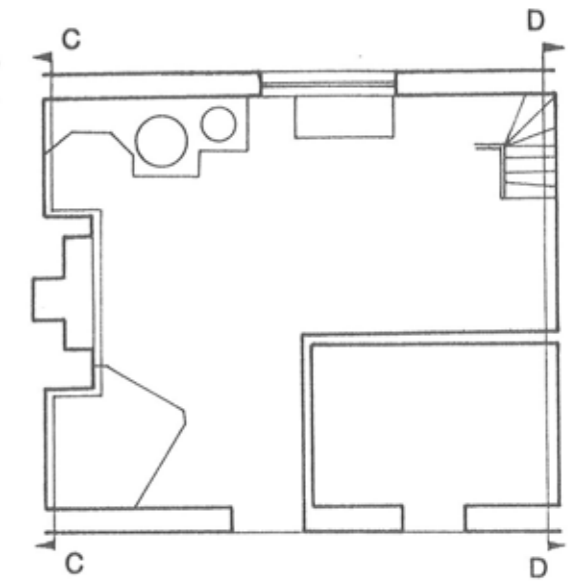
Figure 6: Farmhouse kitchen elevations



Elevation C-C



Location Plan



Elevation D-D


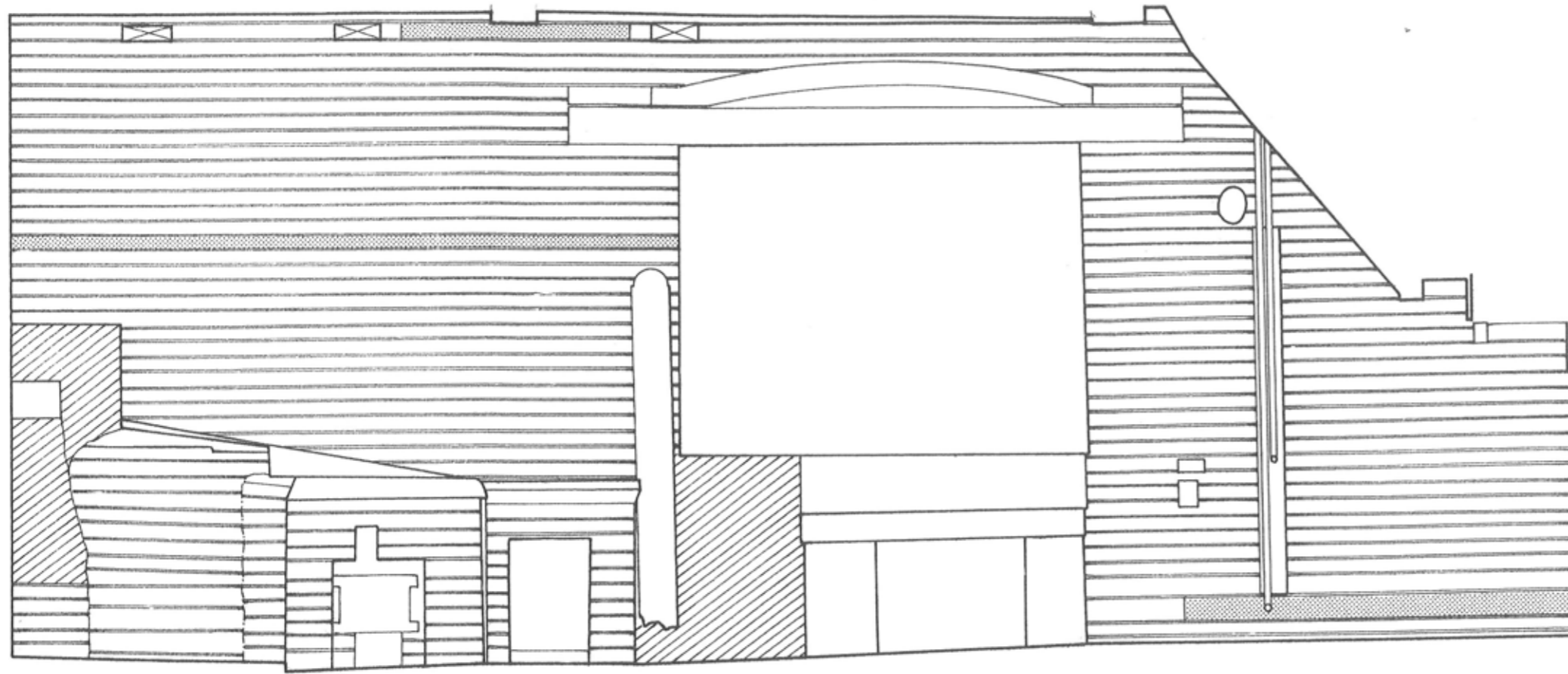
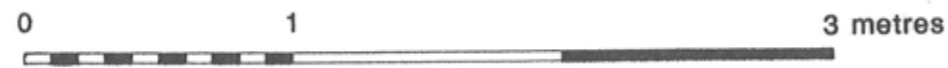
Oxford Archaeological Unit		
Architectural Survey		
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Subject:	Yonse Farm, Ashford, Kent. Farmhouse Kitchen. WALL ELEVATIONS (1 OF 3)	
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Surveyed by:	RDT-KSN	
Drawn by:	RDT	
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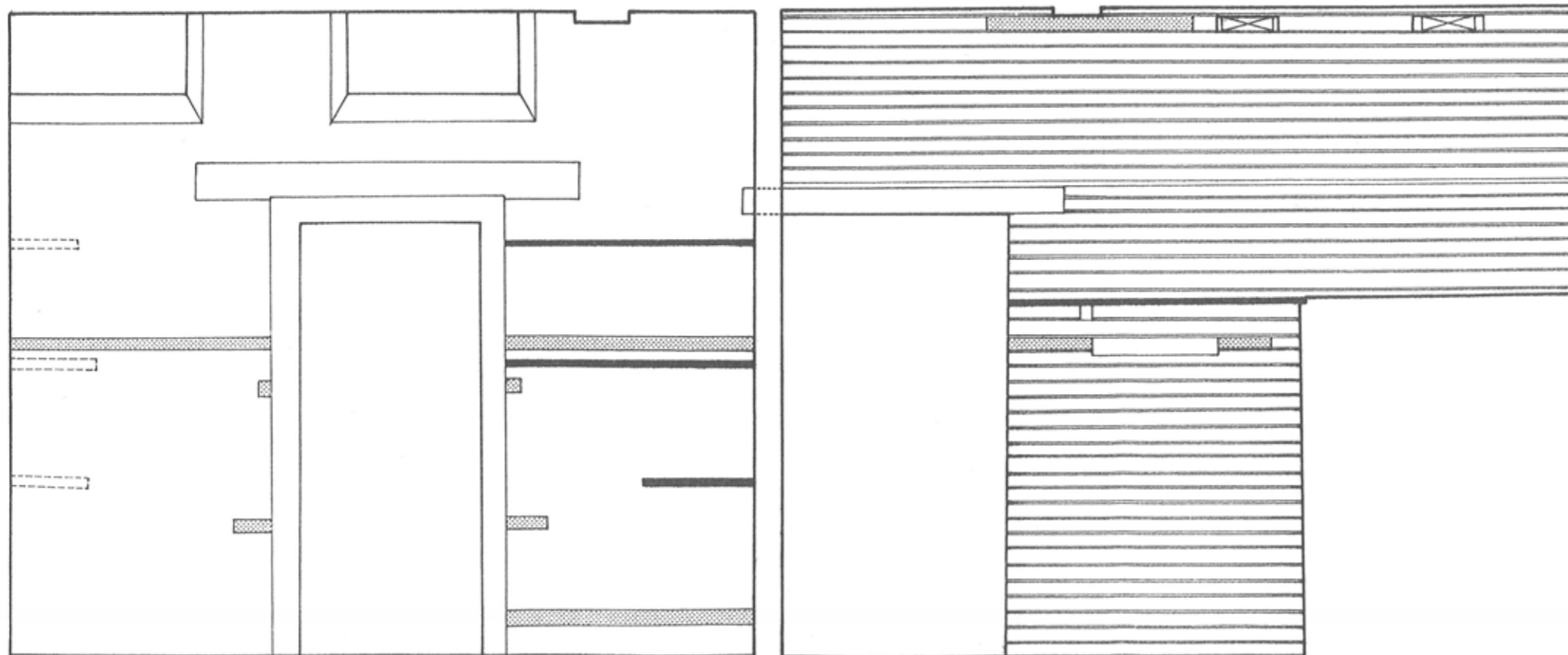
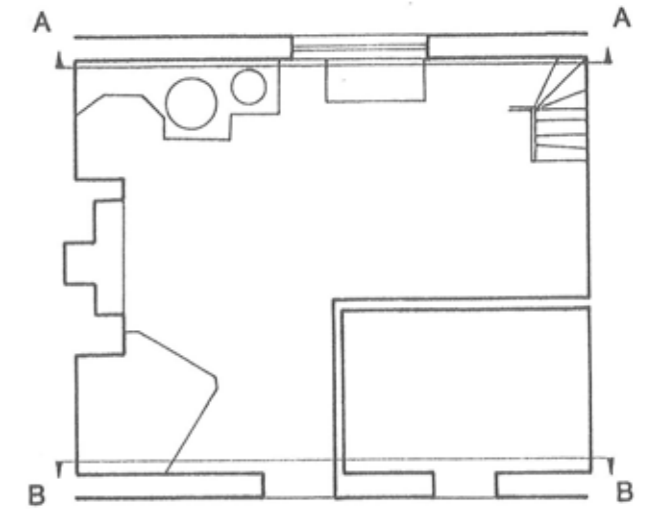
Figure 7: Farmhouse kitchen elevations




Elevation A-A

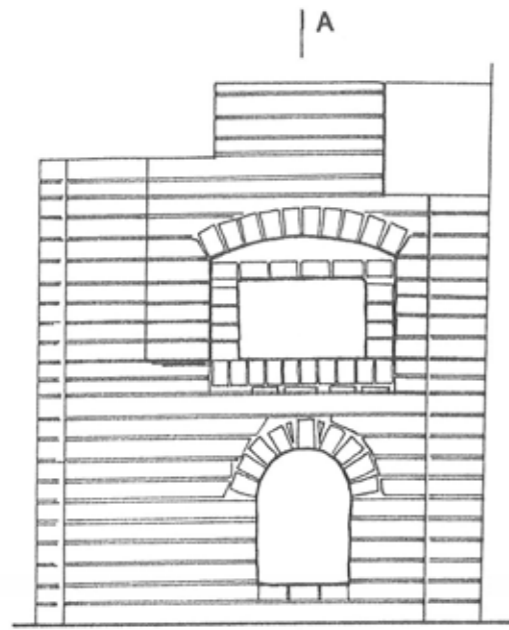


Location Plan

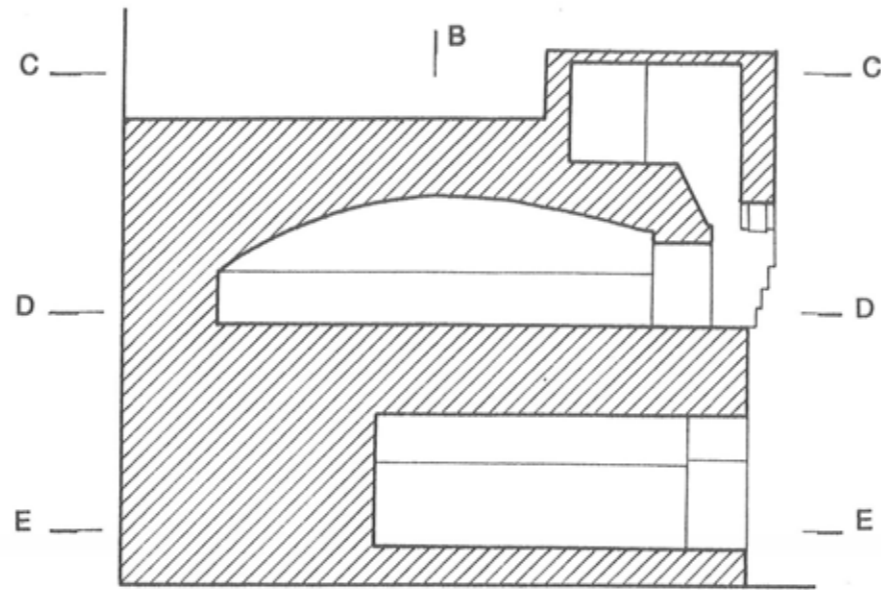


Elevation B-B

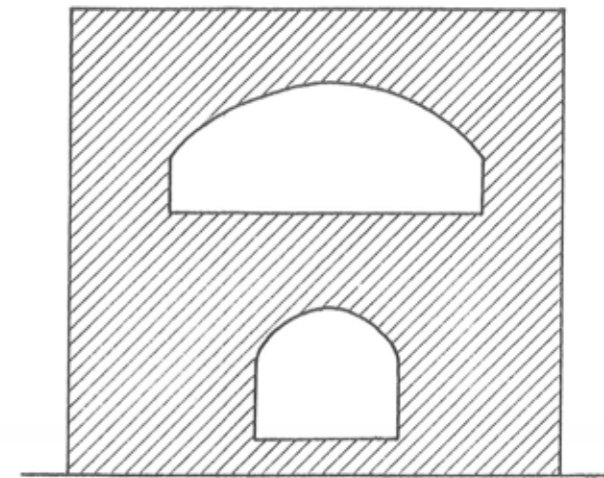
Oxford Archaeological Unit		
Architectural Survey		
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Surveyed by:	RDT-KSN	
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Drawing No.:	ASYON.BS.98/003	
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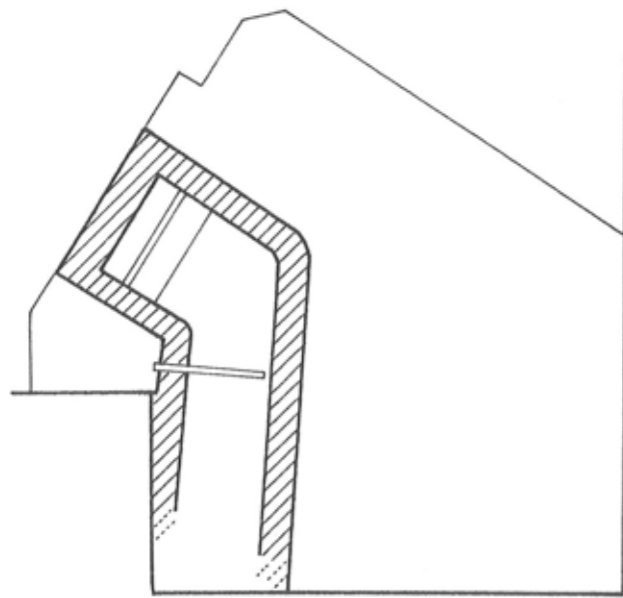
Elevation



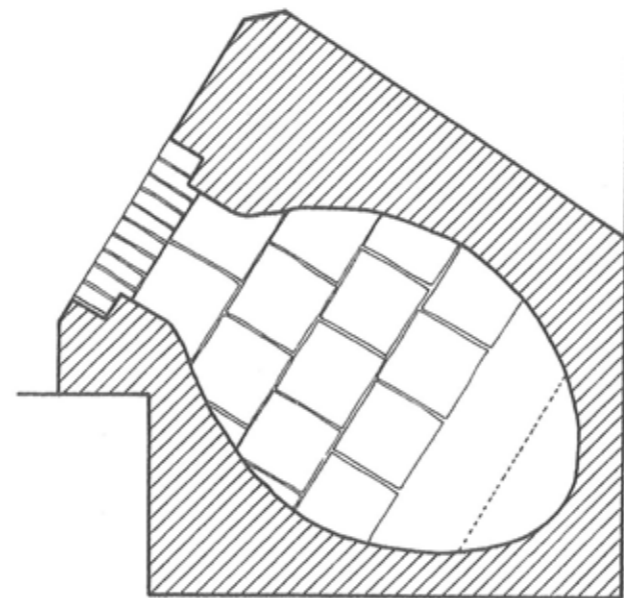
Longitudinal section A-A



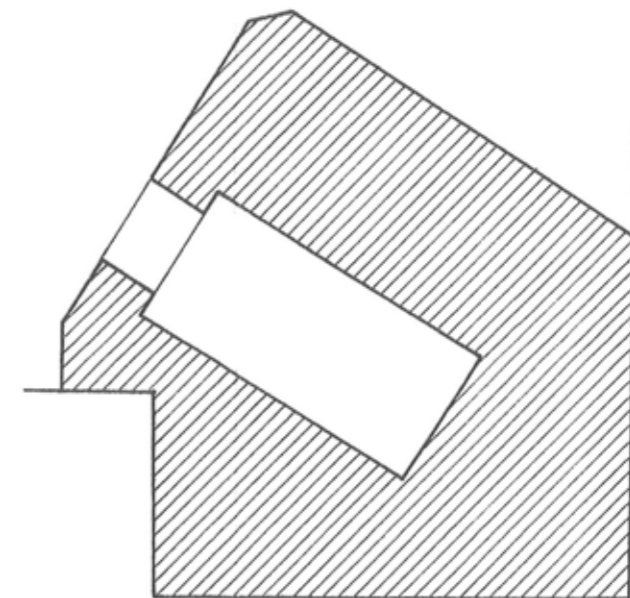
Cross section B-B



Plan C-C



Plan D-D



Plan E-E

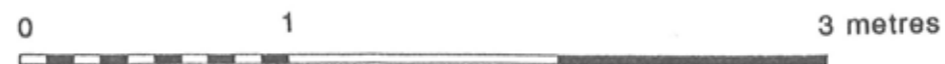
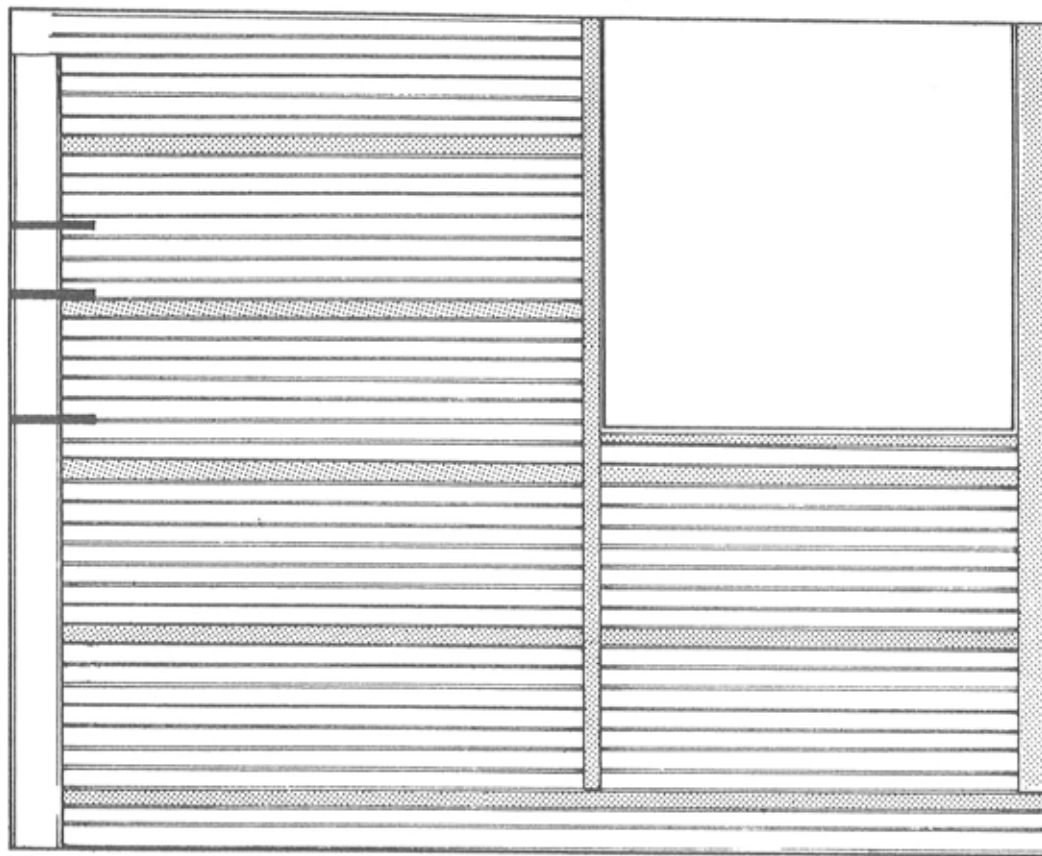
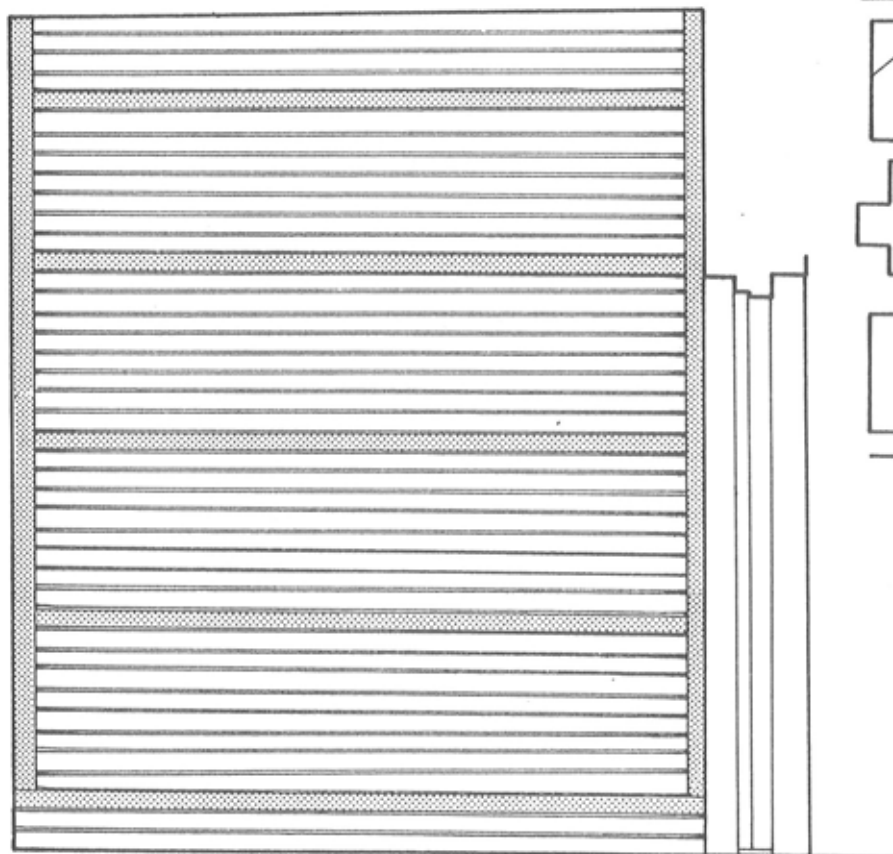


Figure 9:
Farmhouse kitchen, detail of bread oven, (1:20 at A2)



Elevation E-E



Elevation F-F

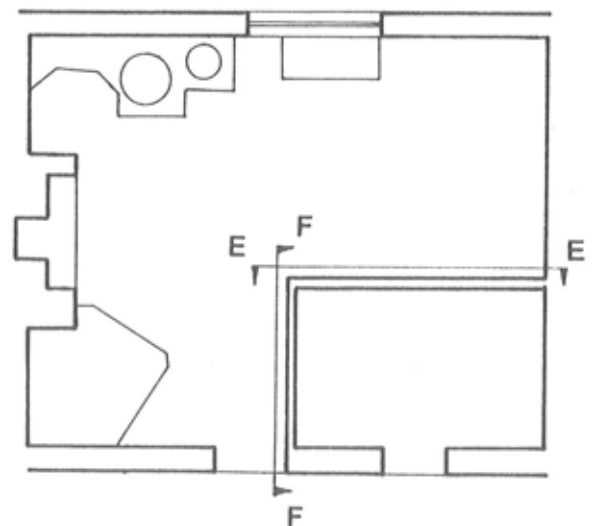


Figure 8: Farmhouse kitchen elevations, (1:20 at A3)

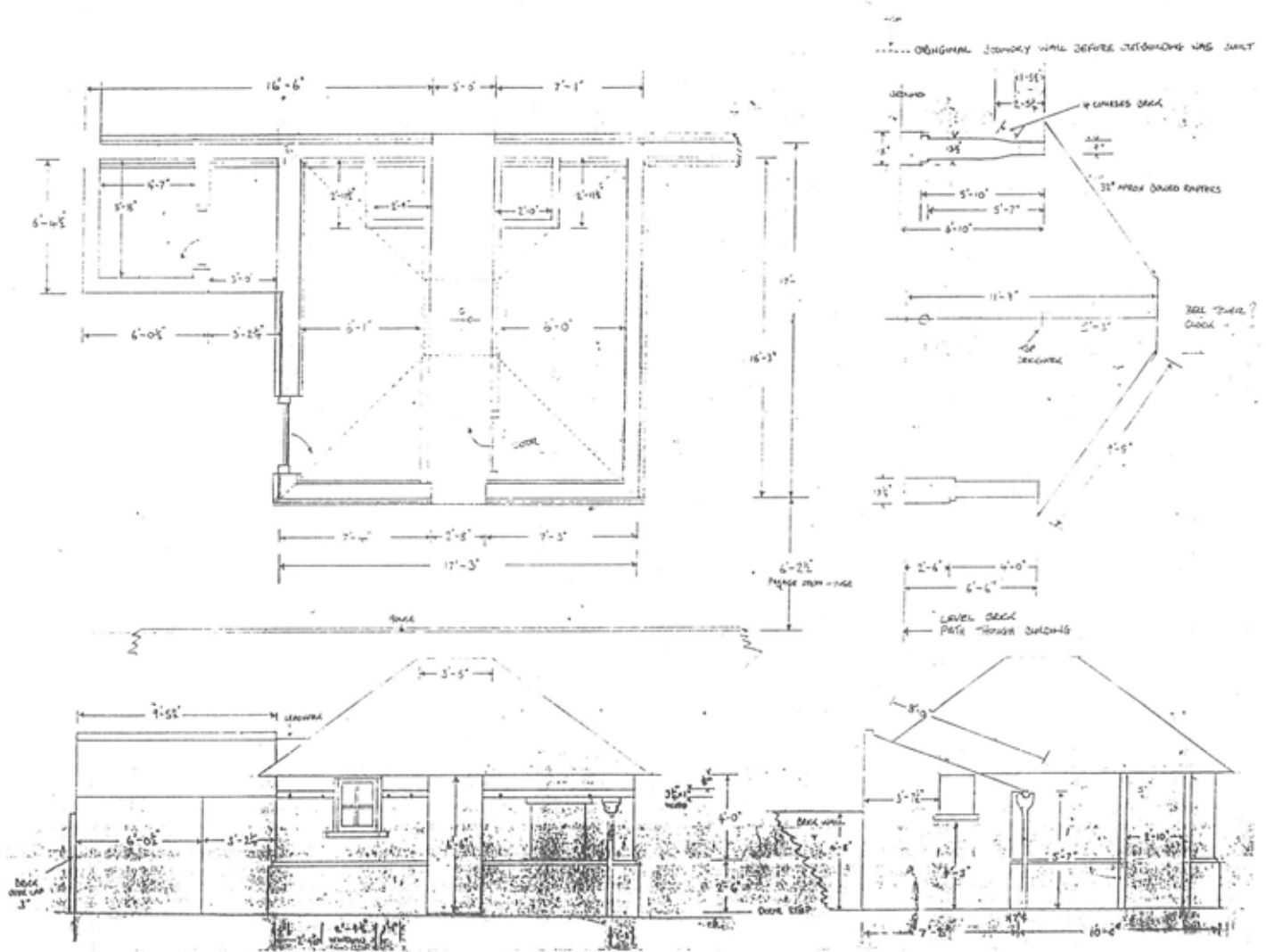
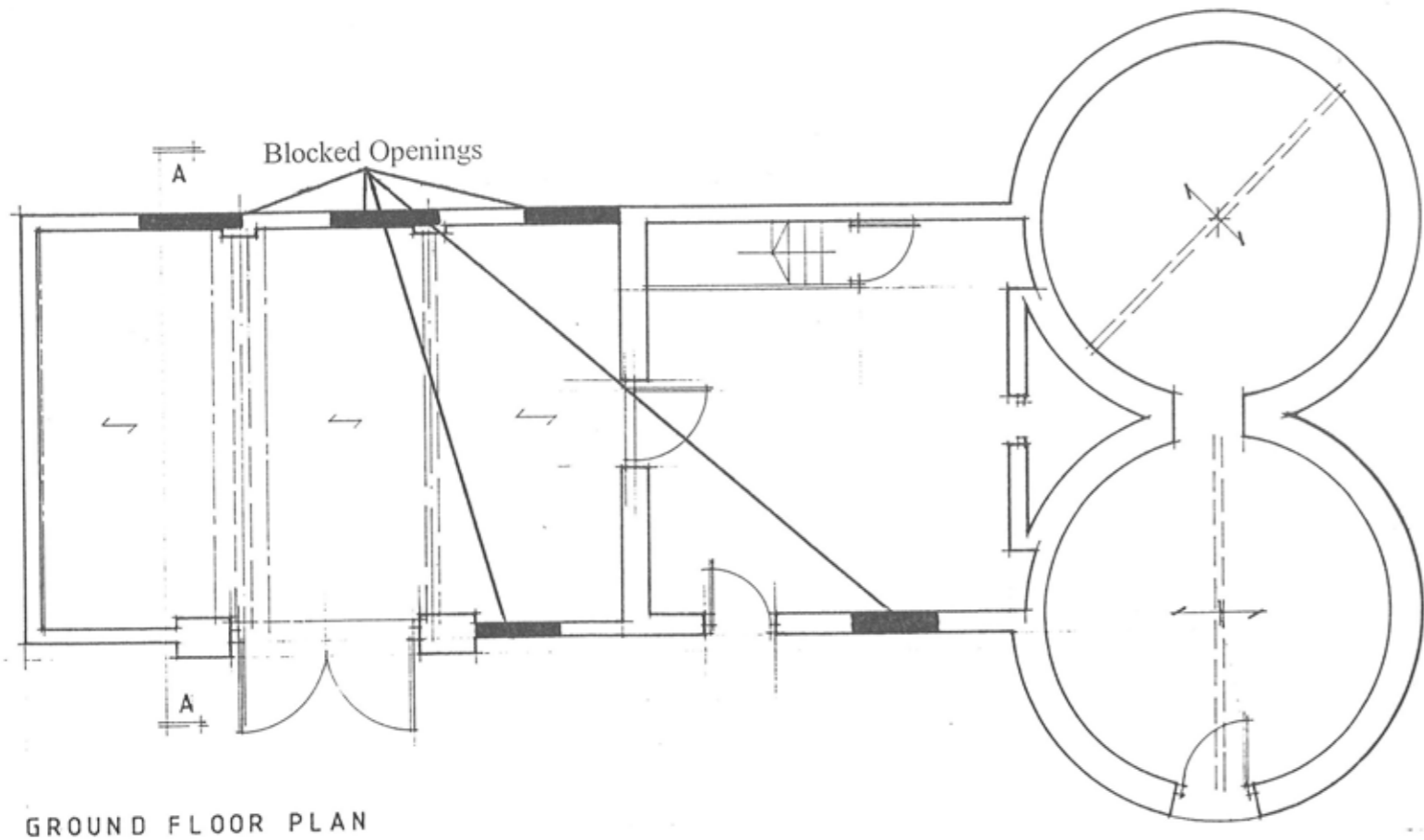
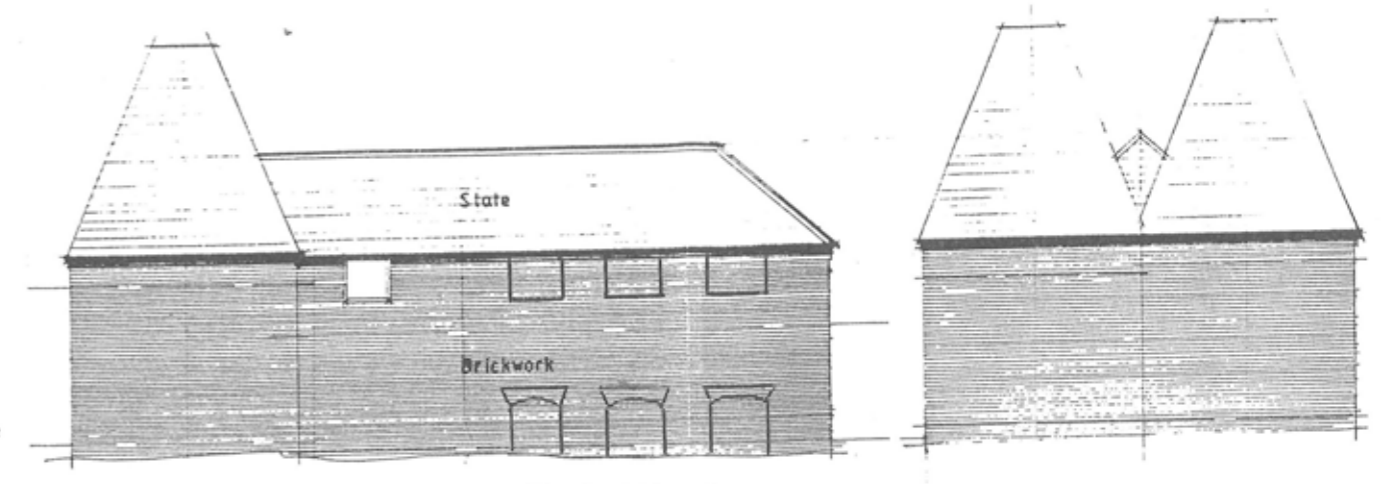


Figure 10: Preliminary site drawings of the Outbuilding to the rear of the Farmhouse 1:100 at A4 (P Macey)



GROUND FLOOR PLAN



S.W.

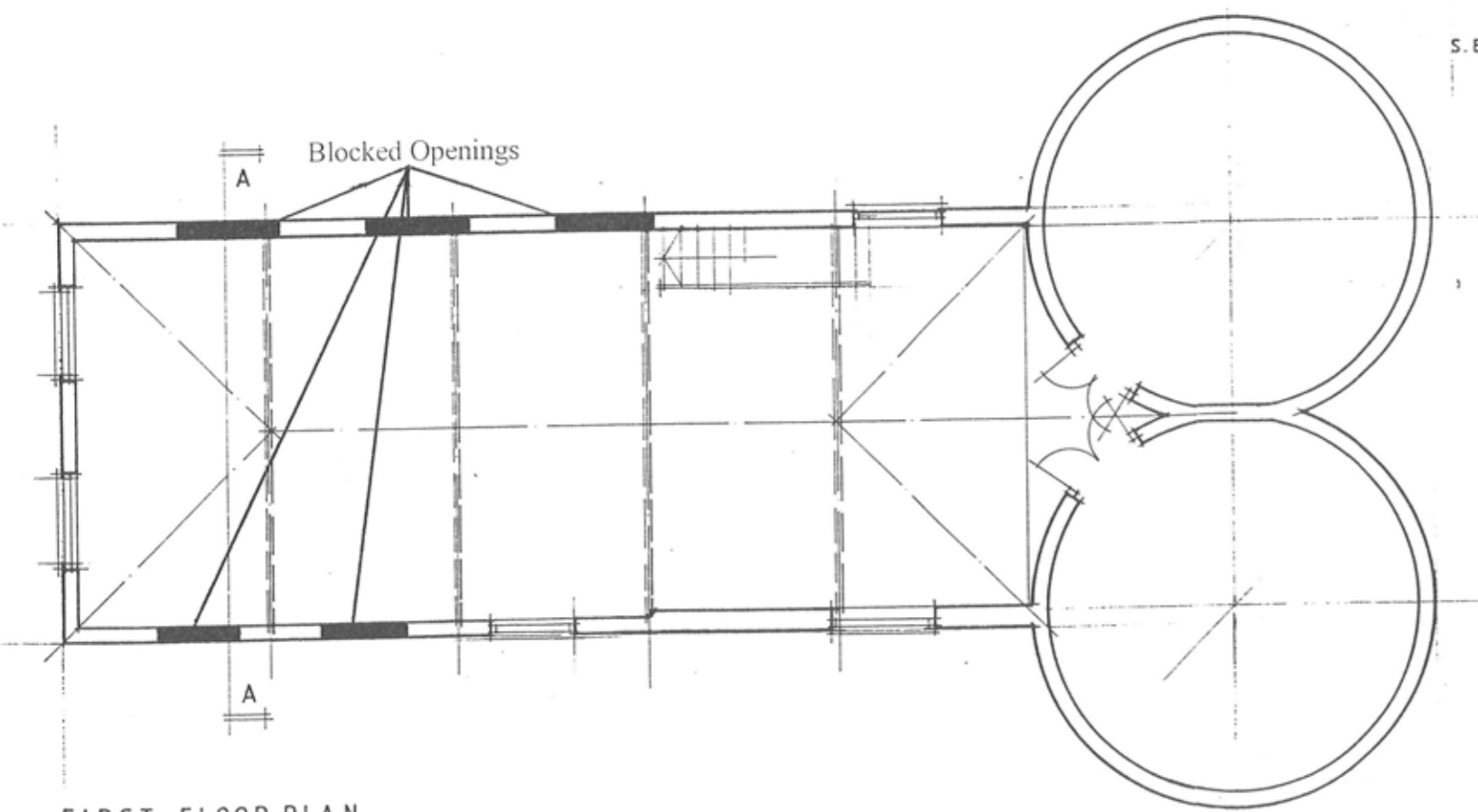
Blocked Openings

N.W.

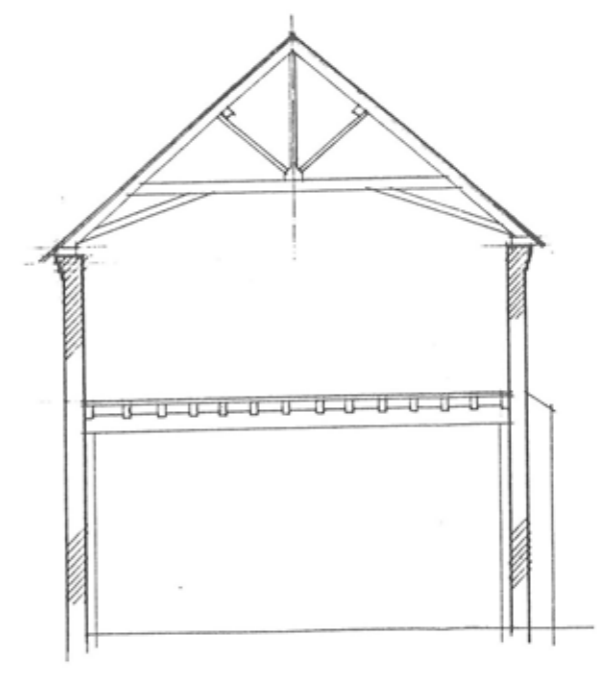


S.E.

N.E.



FIRST FLOOR PLAN
Building n°3



SECTION A-A

Figure 12:
The Oasthouse, 1:100 & 1:200
(N J McAnally & Associates)

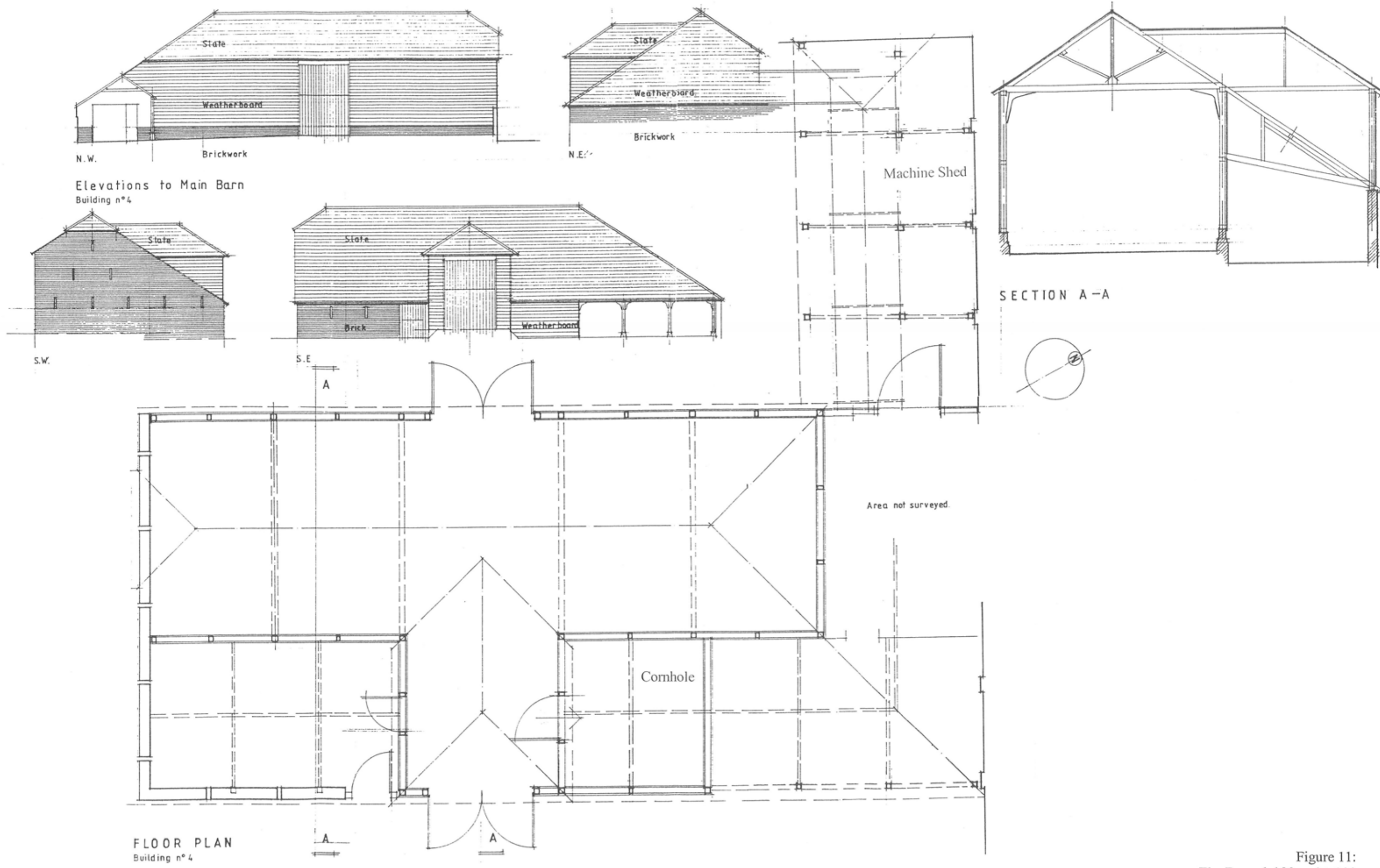
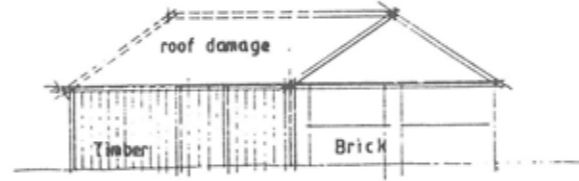
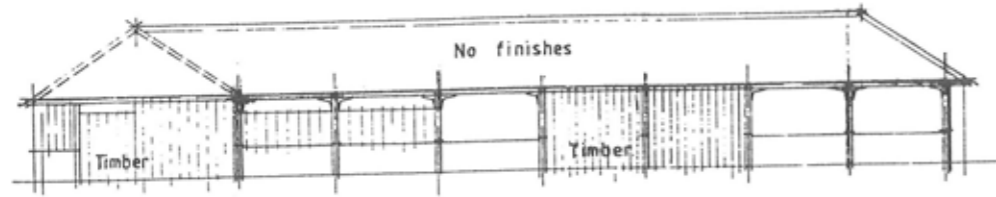
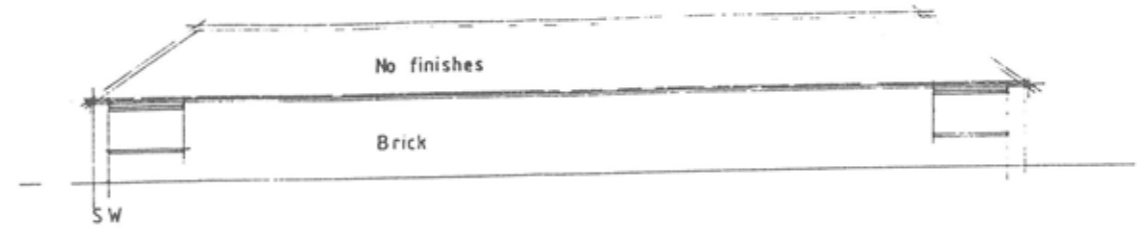
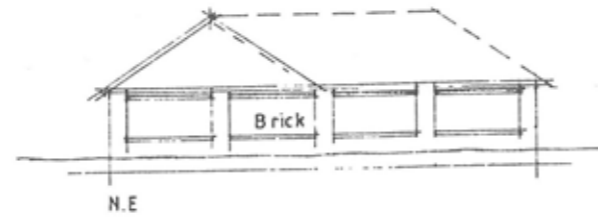


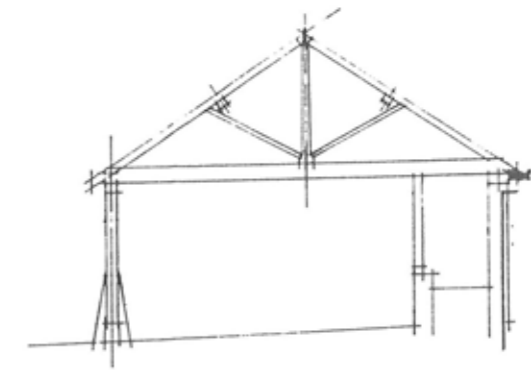
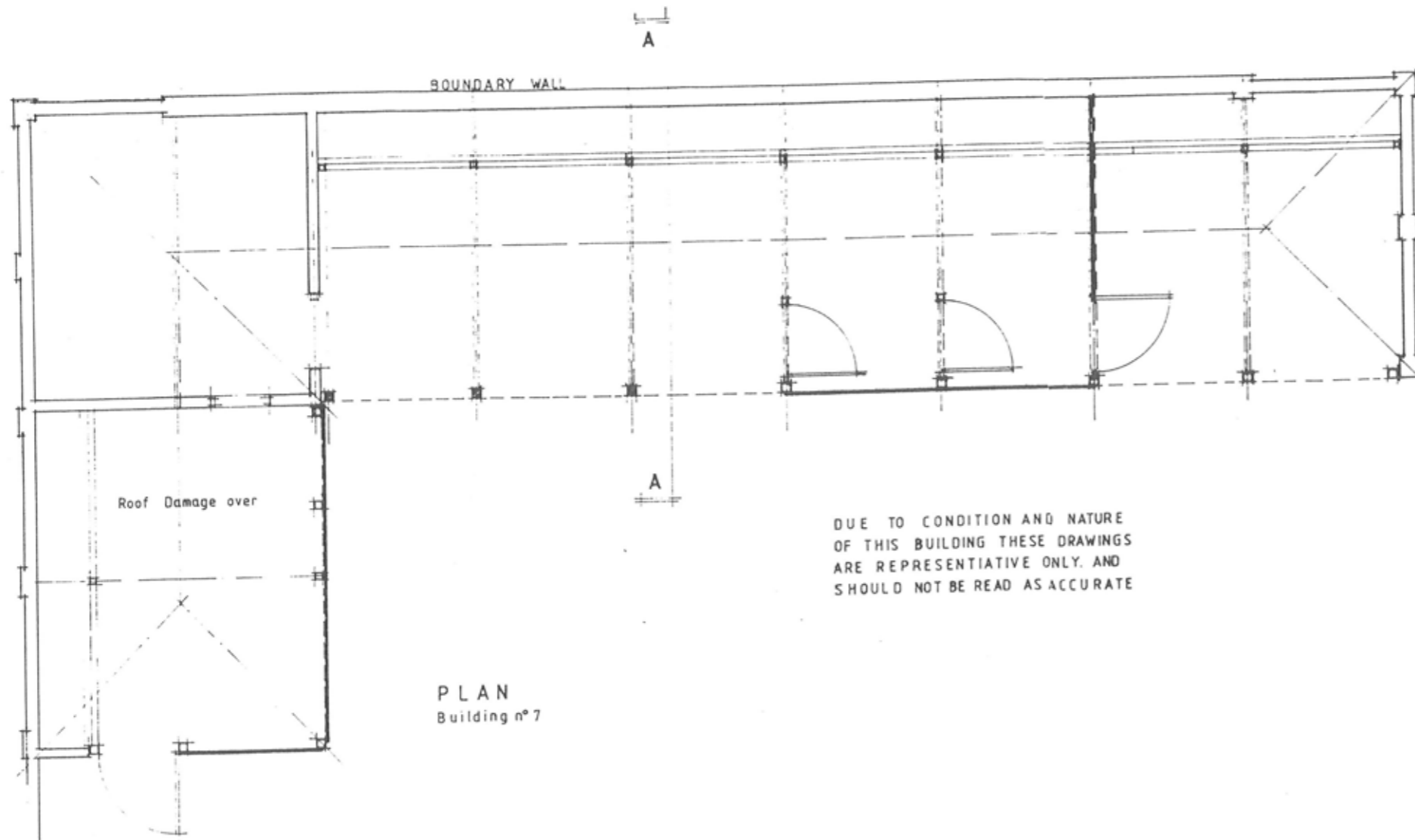
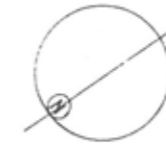
Figure 11:
The Barn, 1:100 and 1:200
(N J McAnally & Associates)



N.W.

S.E.

Elevations to building n°7
Scale 1:100

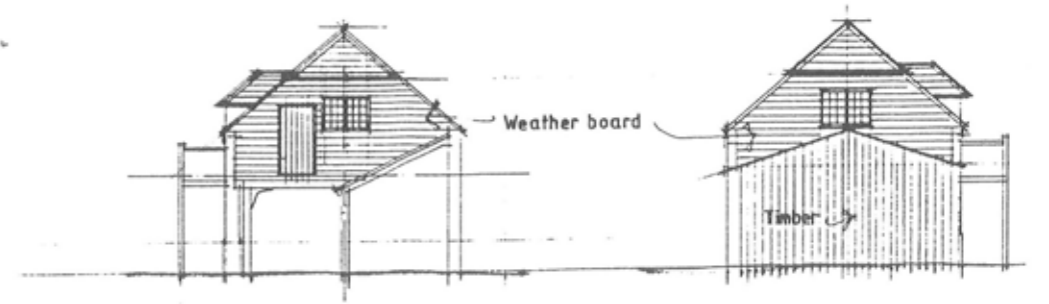
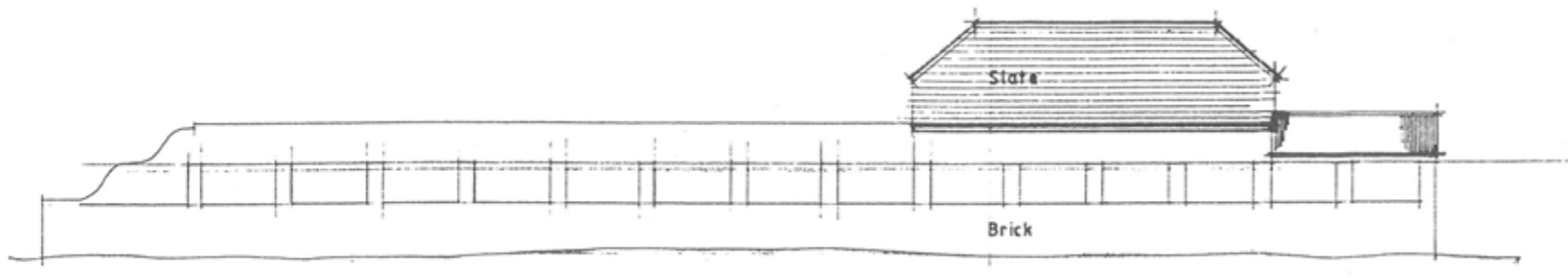


SECTION A-A
SCALE 1:50

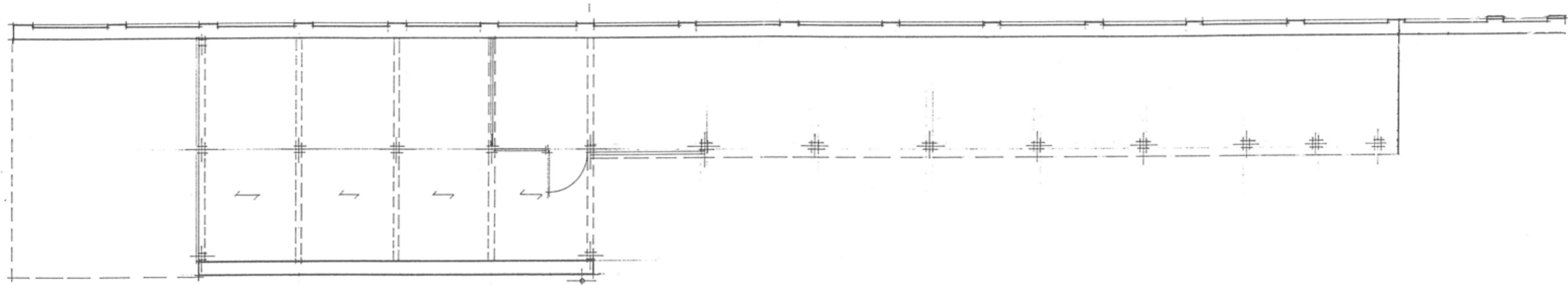
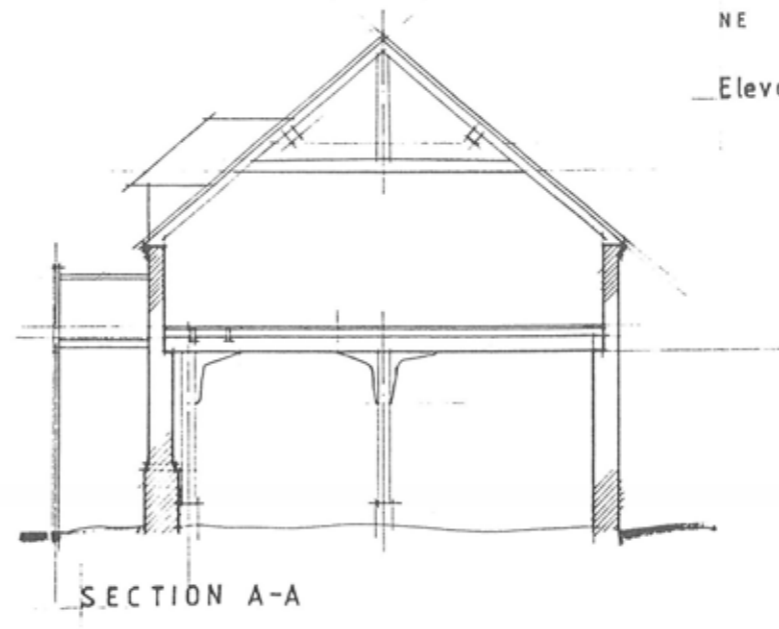
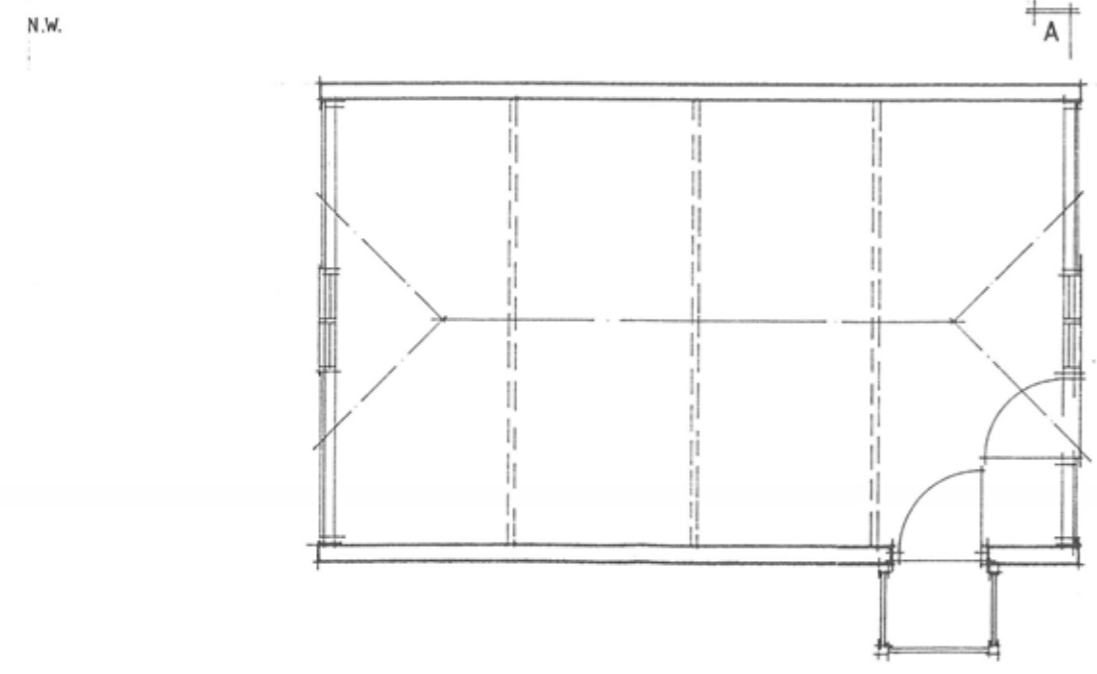
DUE TO CONDITION AND NATURE
OF THIS BUILDING THESE DRAWINGS
ARE REPRESENTATIVE ONLY, AND
SHOULD NOT BE READ AS ACCURATE

PLAN
Building n°7

Figure 13:
Loose Boxes and Byres, 1:100 & 1:200
(N J McAnally & Associates)



NE
SW
Elevations to Granary



GROUND FLOOR
Building n° 6

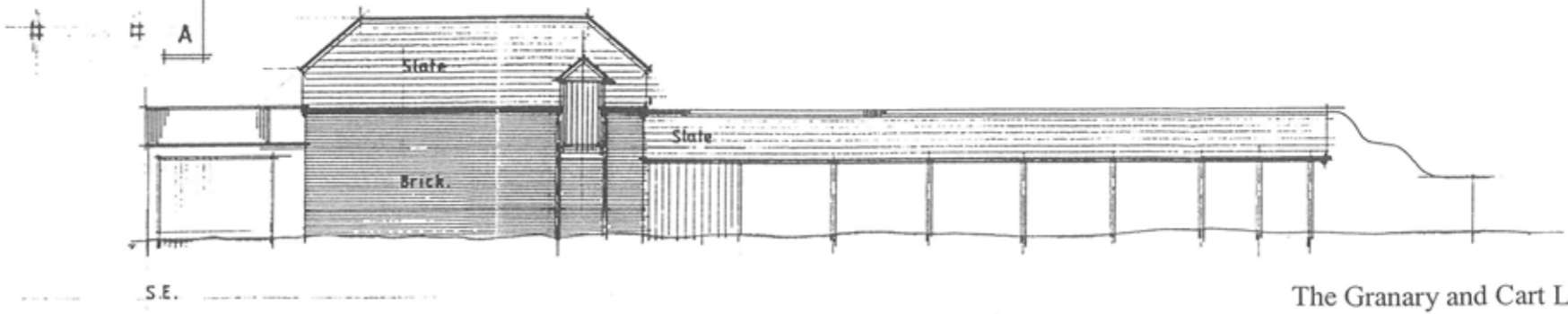
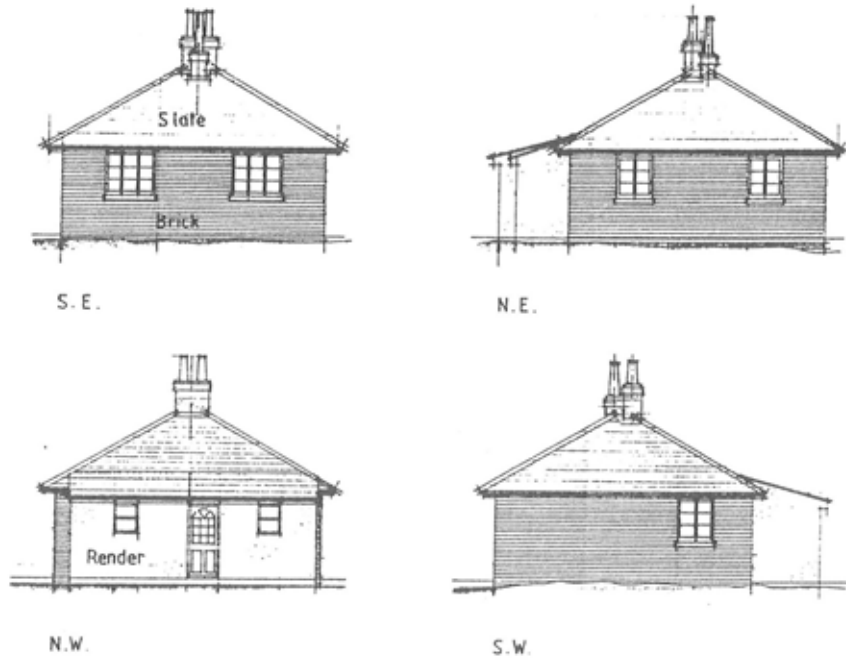
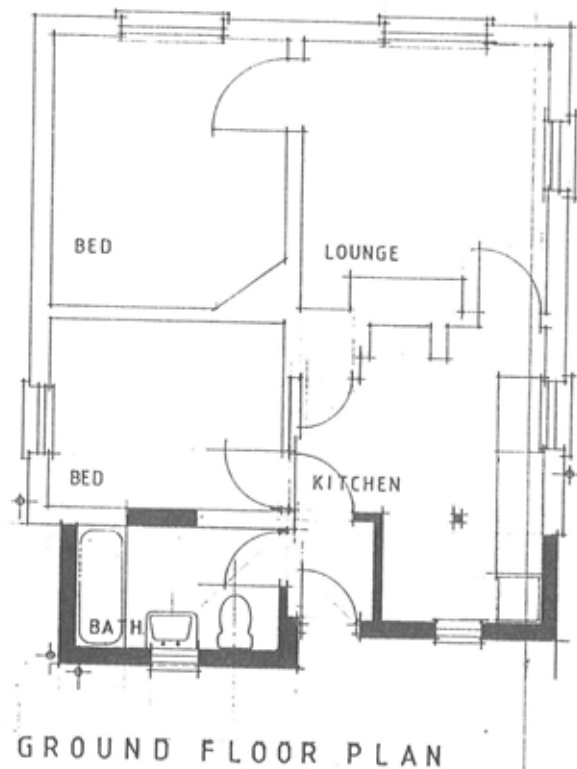


Figure 14:
The Granary and Cart Lodge, 1:100 & 1:200
(N J McAnally & Associates)



Elevations to Toll Cottage
Building n° 2



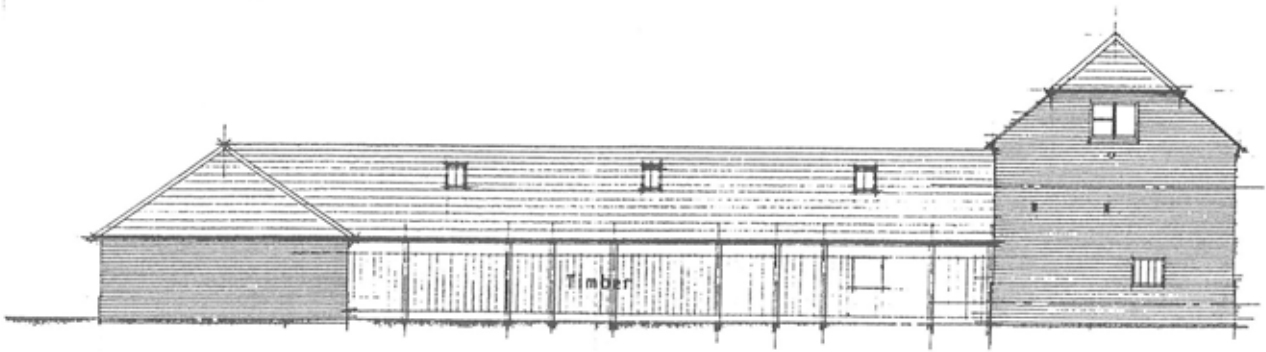
KEY:

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- Secondary fabric

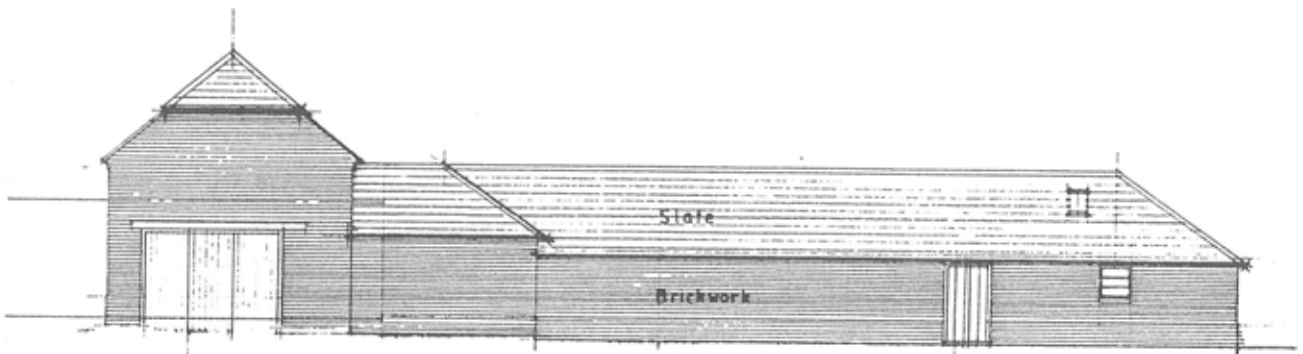


Figure 15: The Toll Cottage. 1:100 and 1:200, (N J McAnally & Associates)

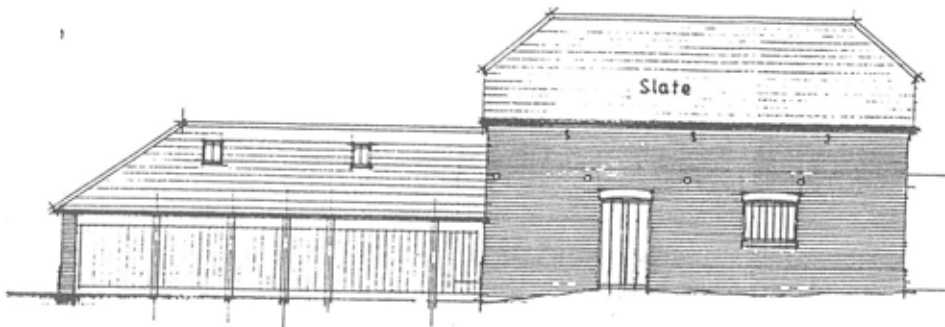
Elevations to Cowshed
Building n° 5



S.E.



N.W.



N.E.

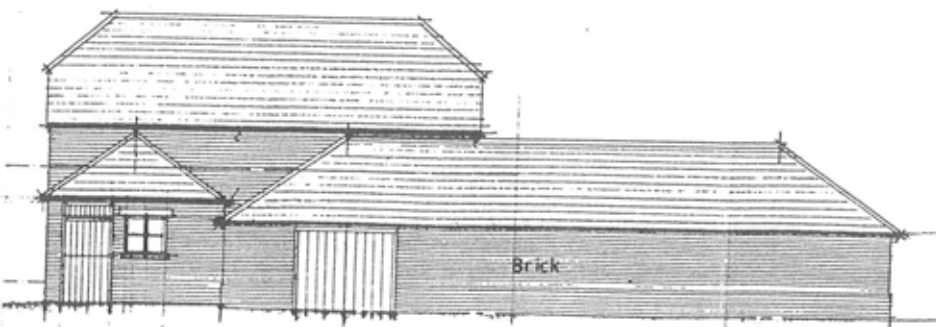
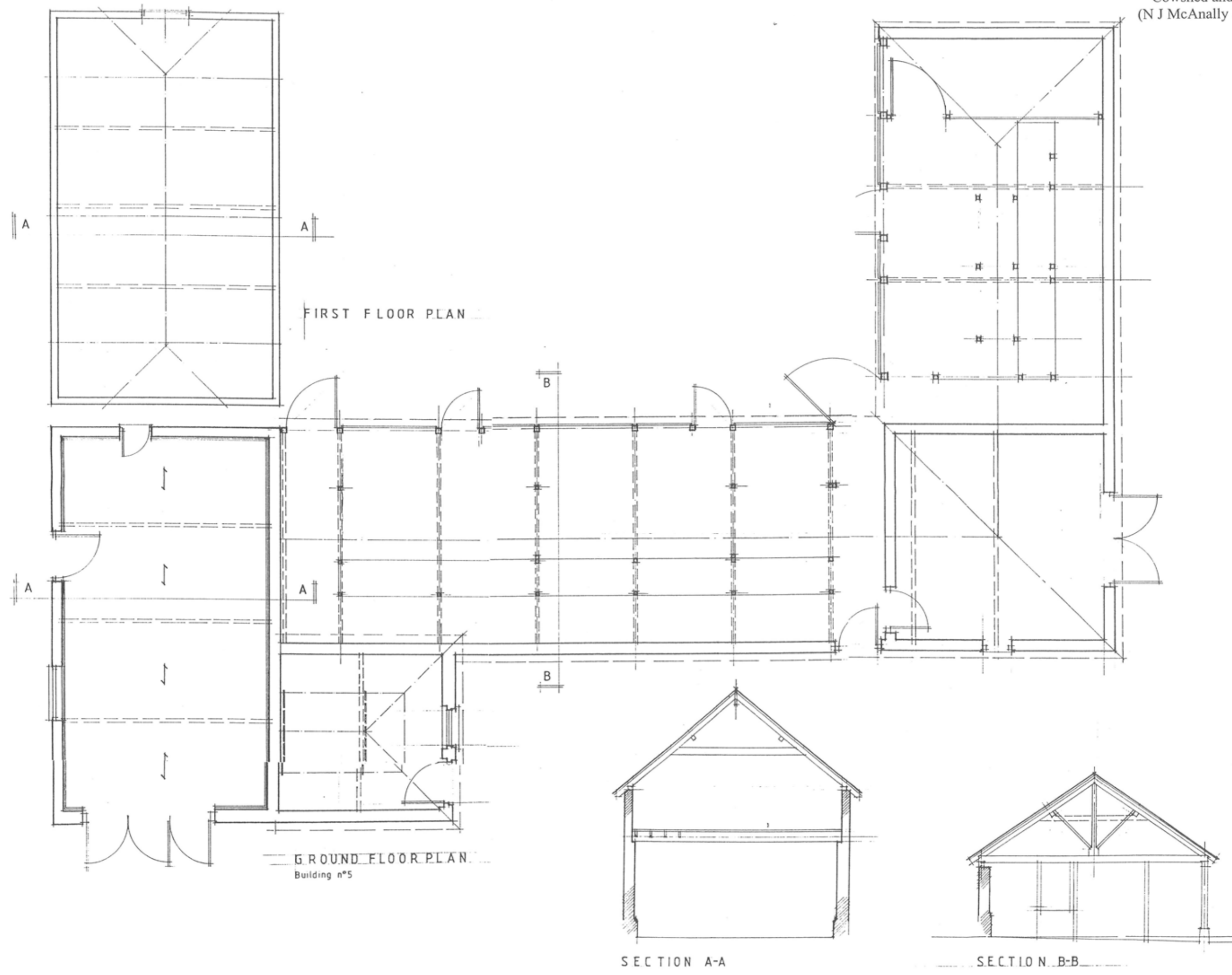
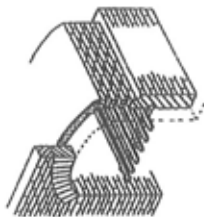


Figure 16: Elevations of the Cowshed and Stable complex, 1:200
(N J McAnally & Associates)



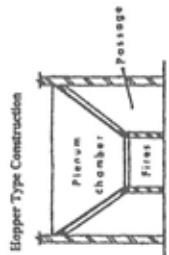
COAL FIRES



Closed - In Coal Fire

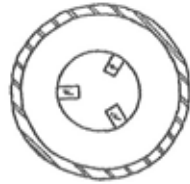


Open Coal Fire



Hopper Type Construction

SECTION THROUGH FLUE



PLAN OF FIRE TYPE 'C'

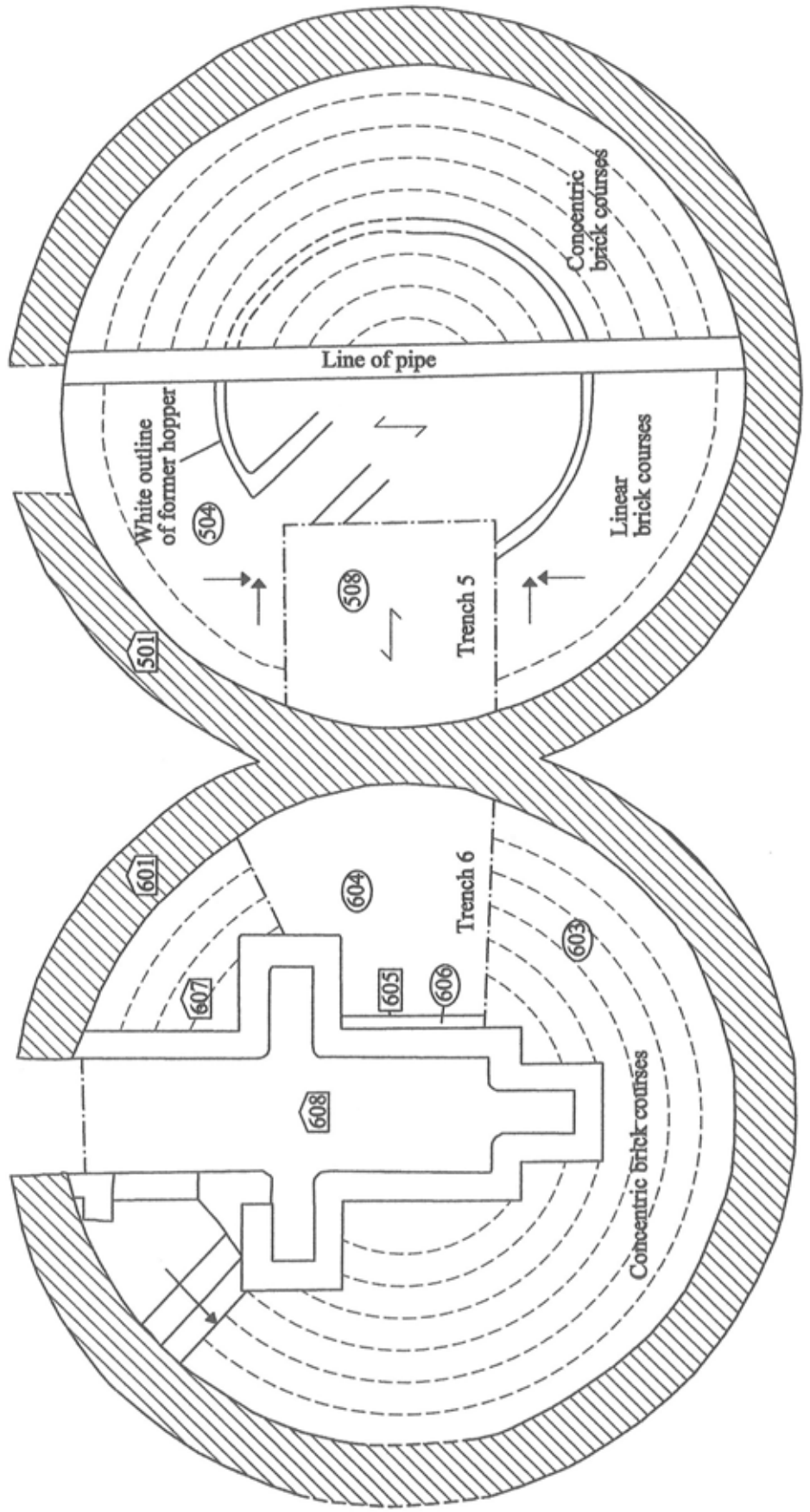


Figure 19:
Oasthouse floors, 1:50 at A4
Inset diagrams taken from Walton and Walton, 1997

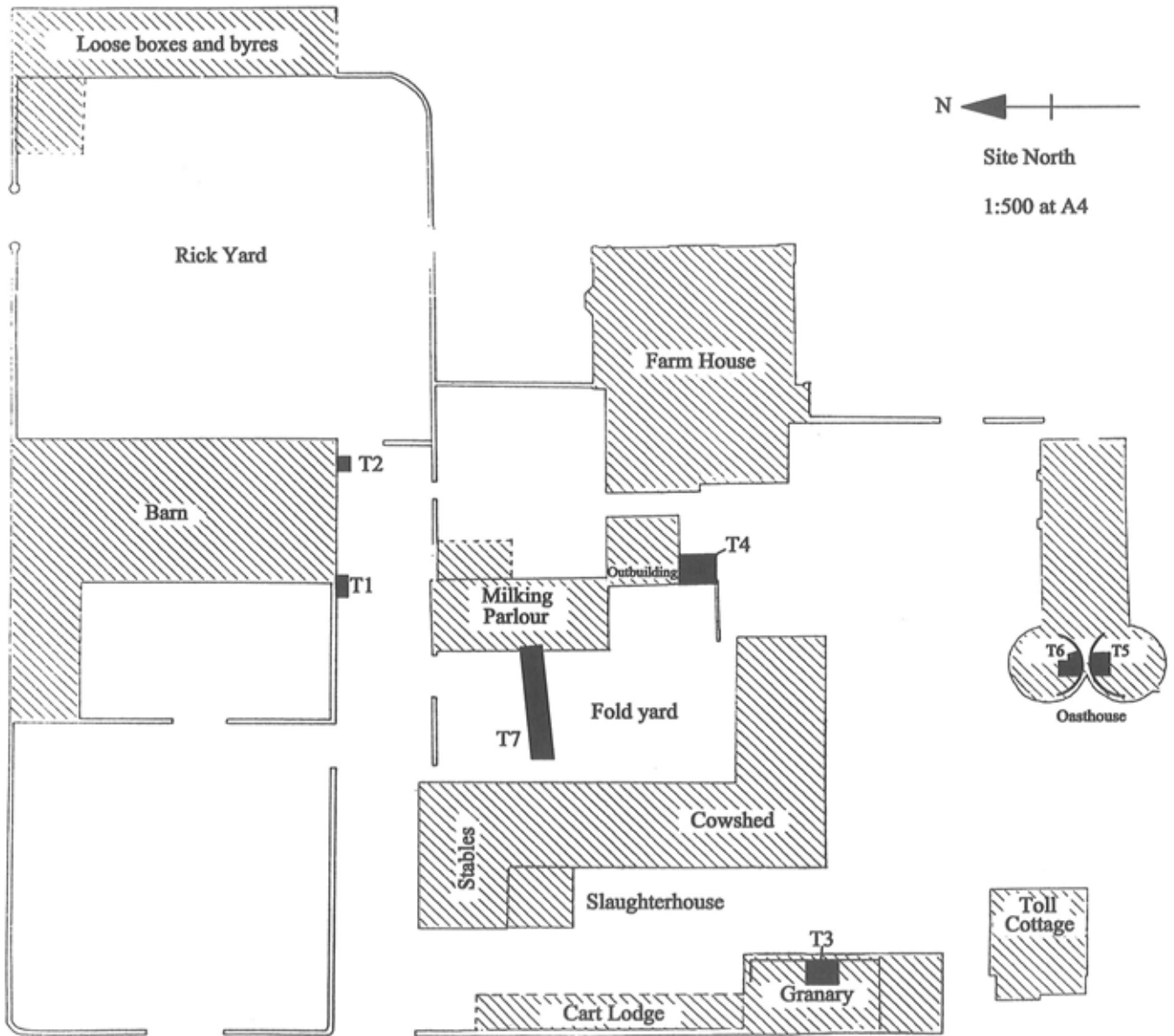


Figure 18:
Trench location plan (after N J Mc Anally & Associates survey)



Plate 1: Front elevation of the farmhouse

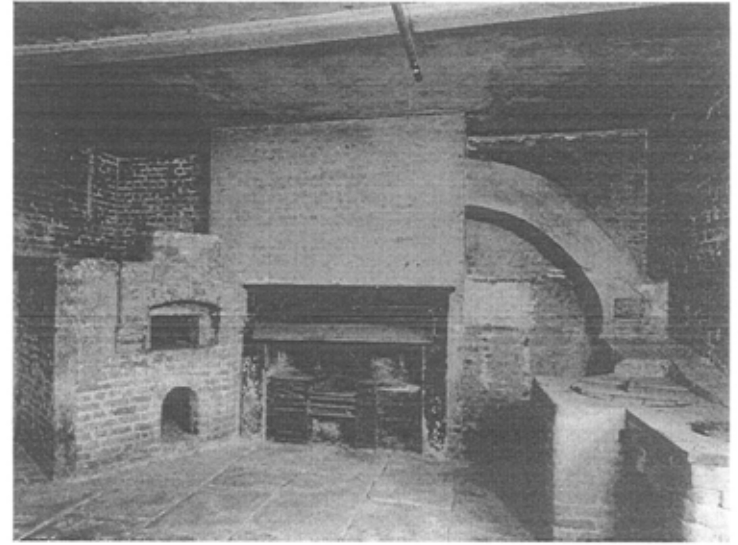


Plate 2: Internal view of the original farmhouse kitchen



Plate 3: East elevation of the barn



Plate 4: Barn and stable, west elevation



Plate 5: Cowsheds enclosing fold yard



Plate 6: Cowsheds from south-west, slaughterhouse to left



Plate 7: North elevation of double oast



Plate 8: East elevation of granary