

**Historic building recording
at King's Farm Barn, Bishops Lane,
Alphamstone, Essex
March 2014**



**report prepared by
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**commissioned by
Andrew Stevenson Associates
on behalf of
Mr and Mrs Franco**

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EHER summary sheet

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1 Summary

A programme of building recording was carried out by the Colchester Archaeological Trust on a timber-framed threshing barn at King's Farm, Alphamstone, Essex, in March 2014. The work was commissioned by Andrew Stevenson Associates on behalf of the owners, Mr and Mrs Franco. The barn dates to 1856-76 but nearly 50% of the timbers used in its construction have been sourced from an earlier structure(s) on the farm, possibly dating to the 17th century. Although it is a late example of an Essex threshing barn it has merit as part of the High Farming tradition of the 19th century, a movement that saw the replacement of earlier post-medieval farm layouts with modern scientifically-planned farms and embraced new agricultural ideas and techniques. The incorporation of bullock yards into this particular arable farm's layout pre-empted the diversification that became necessary for the survival of Essex farmers in the late decades of the 19th century and shows how King's Farm, although relatively small in size, was at the forefront of the Victorian drive to modernize agriculture.

2 Introduction (Fig 1)

This is the archive report on the historic building recording of a timber-framed threshing barn at King's Farm, Alphamstone, Essex, in response to an application for its conversion to a residential dwelling. The work was carried out on behalf of the owners, Mr and Mrs Franco, by Colchester Archaeological Trust (CAT) in March 2014. King's Farm is located on the south side of Bishops Lane, just outside the hamlet of Cripple Corner, between the villages of Alphamstone and Pebmarsh, three miles from the Suffolk border (NGR TL 8624 3483). The barn is part of a complex of farm buildings, comprising both historic and modern agricultural structures, located to the north-east of King's Farmhouse, a Grade II listed building thought to have been constructed around 1600 (EHER 28564). An 18th-century pump (EHER 28566) and a crinkle-crankle brick wall (EHER 28565) in the farmhouse grounds are also Grade II listed. The barn is curtilage listed to the farmhouse and dates from the mid 19th century, with a range of 1856-76 based upon map evidence. However, approximately half of the timbers used in the construction of the barn are re-used beams from an older building, most likely sourced from one of the earlier farm buildings on the complex.

Two planning applications (12/00650/FUL and 12/00651/LBC) were submitted to Braintree District Council in 2012 for the conversion of the barn to residential use. Given the potential impact of the proposed works on the historic integrity of the building, it was recommended that a historic building record be undertaken as a condition on the planning consent. This condition was based on the advice given in the National Planning Policy Framework.

In response to this condition a Written Scheme of Investigation (WSI) was prepared by CAT on behalf of Mr and Mrs Franco (CAT 2013). This was agreed with the Historic

Environment Adviser of Essex County Council's Place Services and all work was carried out in accordance with the WSI.

All work was carried out according to standards and practices contained in the Institute for Archaeologists *Standard and guidance for archaeological investigation and recording of standing buildings or structures* (2008), *Management of research projects in the historic environment* (MoRPHE), and *Standards for field archaeology in the East of England* (EAA **14**). In addition, the guidelines contained in *English Heritage: Understanding Historic Buildings, A guide to good recording practice* (2006) and *RCHME: Descriptive Specification 3rd Edition* were followed.

3 Aims

The aim of the building recording was to provide a detailed record and assessment of the barn prior to conversion. The building recording was carried out to Level 3 (English Heritage, 2006).

In particular the record considered:

- Plan form of the site and its landscape setting.
- Assessment of the barn.
- Materials, method of construction, dimensions and architectural treatments.
- Date(s) of the structure.
- Date and significance of surviving technology.
- Function and internal layout, including a discussion of the original function and later adaptations.
- Fixtures and fittings.
- The context of the barn within its immediate contemporary landscape.
- The significance and architectural merit of the barn.

4 Building recording methodology

The following are included in this report:

- A brief documentary and cartographic survey of the evidence pertaining to the history and evolution of the barn.
- A large-scale block plan of the site based on pre-existing architects' drawings. The position of each structure has been indicated noting date and function.
- Current floor plans, frame elevations and a cross-section, based on existing architects' drawings, at scale of 1:100 using the English Heritage (2006) drawing conventions. The floor plan depicts positions of doors, framing including studs and rafters, windows, internal partitions, stairs, bay divisions/truss positions and the positions of surviving technology (hoppers, winches etc), fixtures and fittings plus later additions and evidence of phasing.

- A detailed description of the barn. The description addresses features such as materials, dimensions, method of construction including brickwork, joinery, fenestration, spatial configuration, phasing, reused timbers, carpentry marks/graffiti and any evidence of original fixtures and fittings.
- A discussion of the history and development of the building, including its design, date, form and function and any significant modifications/reuse.
- A full photographic record, comprising digital photographs of both general shots and individual features (external and internal). Selected examples of the photographic record are clearly tied into the drawn record and reproduced as fully annotated photographic plates supporting the text (Appendix 1). The photographic record is accompanied by a photographic register detailing location and direction of shot (Appendix 2).

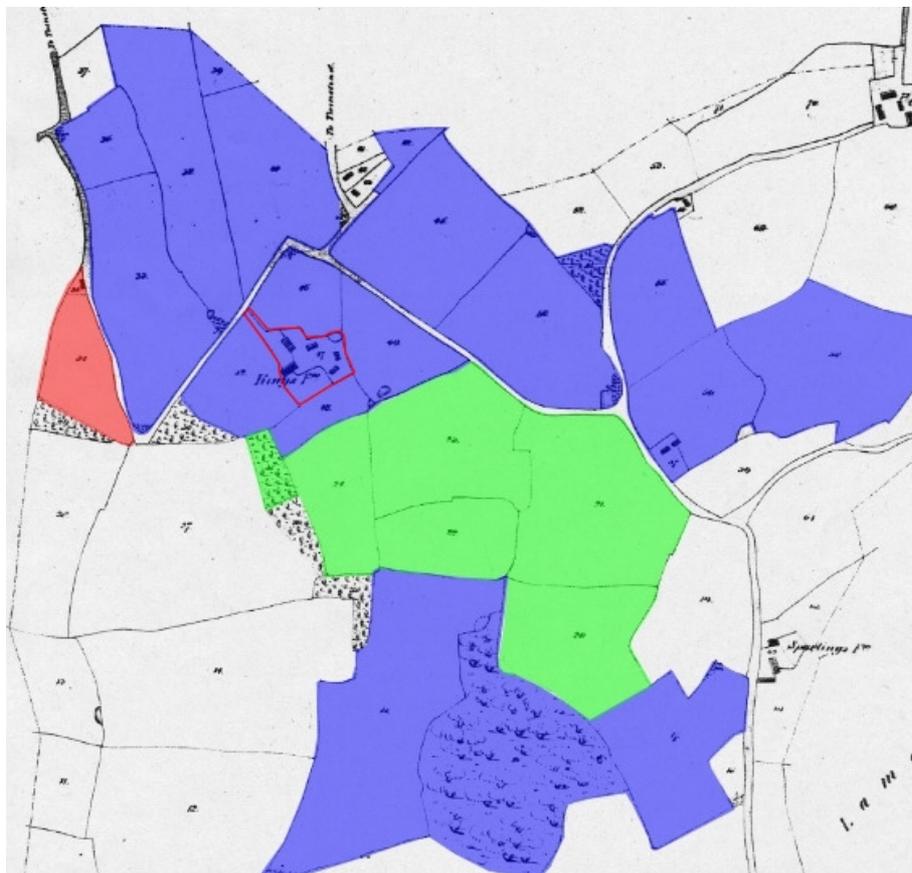
5 Historical background (Maps 1-5)

The barn at King's Farm is part of a complex of buildings curtilage listed to the Grade II farmhouse. The farmhouse is believed to have been constructed around 1600 and would have had associated agricultural buildings. However, the Chapman and André map of 1777 (Map 1) makes no reference to King's Farm and it is not until the tithe map of 1840 (Map 2) that the farmhouse appears on a cartographic source.



Map 1 Chapman and André map of Essex, 1777 (Plate III).

The tithe map shows what was probably the original layout at King's Farm: a dispersed plan with four structures laid out in an arc to the north-east of the farmhouse. There is no indication of the surveyed barn and the land that the barn is located on (parcel 48) is shown as being an empty field. The tithe award does not refer to King's Farm by name but describes it as a homestead, with dwelling house, buildings and yards, totalling approximately 96 acres (shaded blue on Map 2). The land was rented by James Balls from William Mayhew, noted as the owner of the land in a mortgage agreement of 1836 (ERO D/Dsm/T88). An additional 31 acres owned by William Mayhew was rented to John Balls (shaded green on Map 2) and a Daniel Balls owned and occupied a small homestead and 3 acres to the immediate west of John Balls' land (shaded red on Map 2). This created a contiguous block of land farmed by three men with the same surname, probably all related, with the arable output of all the fields processed and stored in the barns at King's Farm.

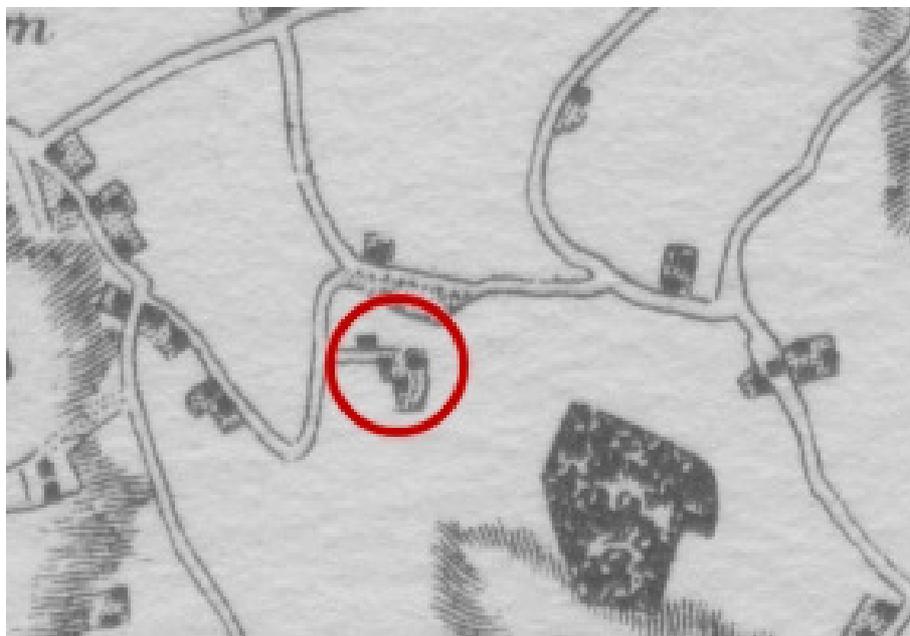


Map 2 1840 tithe map of Alphamstone (ERO D/CT 3) with land farmed by James Balls shaded blue, John Balls' land shaded green and Daniel Balls' land shaded red - King's Farm is outlined.

In 1841 William Mayhew put King's Farm on the market. A sales catalogue from that year (ERO D/DDw T176/21) describes the farm buildings, which included a barley barn, wheat barn, stable for six horses, cowhouse for five cows, lean-to cattle sheds, nag stable

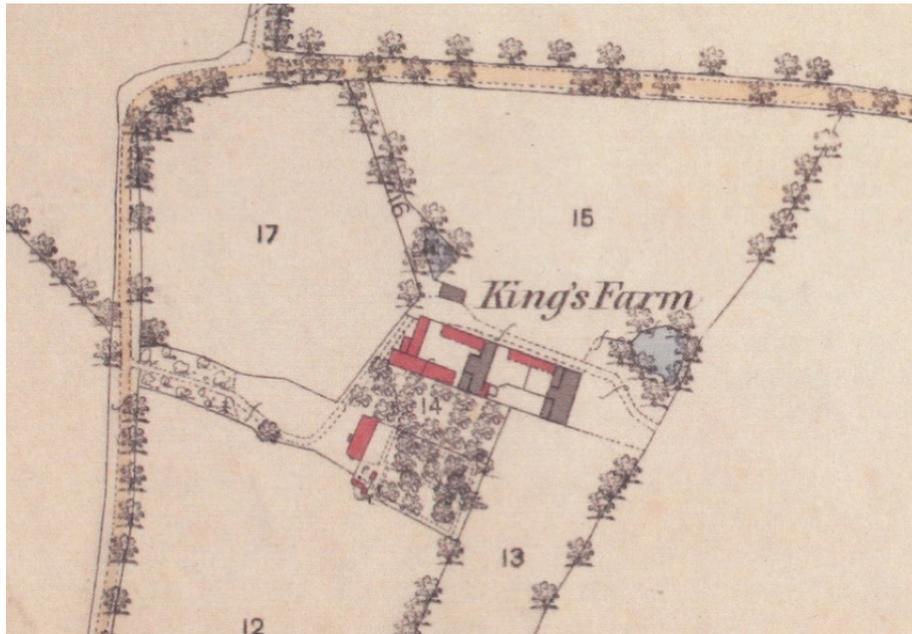
for two horses and chaise house, two cattle sheds, two wagon and cart sheds, a horse shed, piggery, coalhouse and henhouse. The four structures shown on the tithe map are likely to be the two barns and probably the stable and the cowhouse, with the other structures either built up against these or too small to be depicted. James Balls is recorded as the tenant at a rent of £180 per annum. It appears that James Balls purchased the farm as the deeds record that in 1842 he mortgaged the farm for £5000. However, Balls sold the farm in 1844 and it changed ownership several more times during the 1850s.

The Ordnance Survey Old Series mapping from 1856 (Map 3) appears to show little change to the farm layout from the tithe map, which suggests that the surveyed barn dates to the mid 19th century and no earlier.



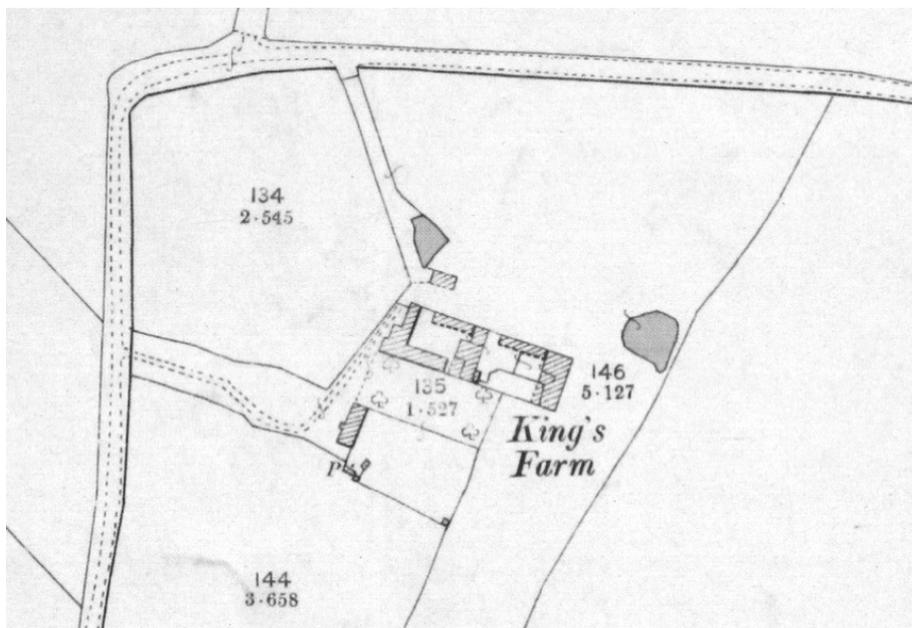
Map 3 Old Series OS map, 1856 (sheet 47) with King's Farm circled.

The first time that the barn is depicted is on the 1876 1st edition 25" Ordnance Survey map (Map 4). This shows a radical change to the layout of the farm buildings. Instead of the dispersed pattern shown by the earlier mapping, the farm complex has been rebuilt in a linear pattern, focused around a central, brick-built, stable block that appears to be located on the site of one of the barns from the earlier complex. The survey barn is located on the eastern edge of this linear arrangement, parallel to the stable block and constructed on land that was originally part of parcel 13. It is shown with a midstrey projecting to the north-west and lean-tos on either side of the midstrey. Yards and shelter sheds are indicated between the stable block and the barn. The stable block has survived into the 21st century and ornate strap hinges on the stable doors are identical to those on a feed door to the surviving lean-to on the barn. The planned linear arrangement of the farm buildings and the similarity of the hinges suggest that the new layout was constructed in one phase.



Map 4 1st edition 25" OS map, 1876 (sheet XII.15) with the survey barn on the eastern edge of the farm buildings.

There is no indication of any change to this new layout on the 1896 2nd edition Ordnance Survey map (Map 5). Alterations to the structures were carried out in the 20th century (Fig 1) but appear to have been confined to the conversion of the farm buildings and to expansion north of the 19th-century farm complex.



Map 5 2nd edition 25" OS map, 1896 (sheet XII.15).

A sales catalogue from 1927 (ERO SALE/A1043) records that, by the 20th century, King's Farm had become part of the Le Mote estate and, at 247 acres, was the largest farm on

the 1337 acre estate. It is described as a 'first rate corn and seed farm' with yards for bullock fattening and excellent farm buildings, including barns with concrete floors.

6 Descriptive record (Figs 1-7)

King's Farm is located on the south side of Bishops Lane, just outside the hamlet of Cripple Corner, between the villages of Alphamstone and Pebmarsh, three miles from the Suffolk border (Fig 1). Both the farmhouse and the farm buildings are accessed via short private tracks leading from the main road, with the farm buildings located to the north-east of the farmhouse. The landscape surrounding the farm is generally open farmland, interspersed with a network of lanes and isolated cottages, a landscape that varies little from the time of the Chapman and André survey in 1777. The barn lies at the east end of the linear arrangement of buildings constructed after 1856 and is orientated north-east to south-west. Brick walls between the barn and the stable block to the north-west create an enclosed yard, which is contemporary to the barn. The wall on the south side of the yard is constructed of red brick laid in English bond, whereas the wall on the north side is of Flemish bond. The map evidence indicates there was a structure located along the length of the north wall, probably an open-fronted shelter shed for cattle housed in the yard, whereas the south wall merely separated the yard from the fields. The need for the north wall to support the roof of the shelter shed may explain the difference in the bonding of the two walls.

External description

The barn is a rectangular timber-framed building, 21.7m long x 6.75m wide, with a centrally-located midstrey projecting from the north-west elevation (Plate 1). It is constructed from softwood timbers and the entire structure sits upon a plinth of red brick with dimensions of 226 x 115 x 65mm, laid in Flemish bond above a chamfered course and in English bond below it (Plate 2). The barn is clad in black-painted horizontal weatherboard and the gabled roof is covered with corrugated iron sheeting. To the south of the gabled midstrey, the north-west elevation has a single-storey lean-to, originally open-fronted but subsequently enclosed by a wall constructed from later Fletton brick. An animal pen, also constructed from Fletton brick, extends into the yard from the front of this lean-to. Although map evidence suggests there was a second lean-to on the other side of the midstrey this, and the shelter shed perpendicular to the barn, have been replaced by a single-storey range with a mono-pitch roof, which is built on top of the farmyard wall. The door opening in the midstrey is exceptionally high; reaching to the eaves. Although the lower barn doors have been replaced, the upper section retains the original barn doors, which are held on simple strap hinges (Plate 3).

The south-west elevation has an off-centre pitching door below the eaves level and a doorway has been inserted through the plinth at the south-east corner. The south-west wall

of the lean-to is predominantly of brick, laid several courses higher than the farmyard wall and with a small feed door within it (Plate 4). As with the north wall, the brickwork is Flemish bond and supports the roof timbers of the lean-to. The feed door has hinges identical to those on the stable block, suggesting the lean-to was constructed at the same time as the barn and the farmyard walls.

The south-east elevation has an off-centre doorway and two pitching doors below the eaves (Plate 5). The weatherboarding indicates that there were originally full height doors in the centre of the elevation, the opening for which has since been blocked. The plinth to either side of the doorway has been rebuilt in Fletton brick, although a section of this is missing next to the door (Fig 2).

The north-east elevation is unremarkable, apart from the insertion of a doorway through the plinth at the north-east corner.

Internal description

The interior shows the barn is divided into seven bays: three bays of roughly equal size (2.85m wide) on either side of a wider central bay (4.15m wide). This wider, central bay would have been the threshing floor, probably of hard brick raised higher than the other bays. However, any trace of this has been obscured by the insertion of the concrete floor mentioned in the 1927 sales catalogue. Recesses for a threshold leap in the door posts of the midstrey confirm that threshing took place in the barn, as does the presence of doorways in the side walls of the midstrey, which allowed labourers to exit the barn when the main doors were blocked by carts. The door in the north-east wall of the midstrey has been removed and the opening boarded over, but the one in the south-west wall partially survives (Plate 6). Opposite the midstrey, at the rear of bay 4, the original full height barn doors have been replaced by timber infill and the plinth on either side of the original opening has been extended to fill the gap (Fig 4). A doorway at ground level has been included in this infill and there is also a pitching door below the eaves.

The components of the frame are an almost equal mix of machine-cut timbers, original to the structure and re-used, hand-sawn timbers sourced from an earlier building. The re-used timbers all display empty mortices and recesses for bracing. The principle posts of the frame are formed of straight, hand-sawn timbers with variable dimensions of 140-200 x 140-200mm. The intermediate posts are predominantly straight, hand-sawn timbers, approximately 180 x 180mm, joined by girding beams with dimensions of 160 x 160mm. The different sections of the sill beam have variable dimensions of 150 -220 x 160-190mm and the wall plate is approximately 200 x 180mm. The girts, sill beams and wall plates are mainly re-used timbers, with some sections original to the structure. The studs have dimensions of 70-120 x 120-140mm with divisions of 300-350mm, with approximately half being re-used timbers. Bays 1-2 and 6-7 have primary bracing in both registers, forming a diamond pattern, as does the frame of the north-east gable end (Figs 3-5, Plate 7). Bays 3 and 5, flanking the threshing floor, have primary bracing only in the upper registers (Figs 3-

4). The frame of the south-west gable end has been completely rebuilt due to collapse. Although the wall plate, sill beam and the corner posts have been salvaged, the latter needing new bases scarfing to the main body of the post, the studding has been replaced with modern machine-cut timbers, reinforced with nailed plank bracing (Fig 6, Plate 8). This collapse was probably caused by pressure placed upon the frame when the sill beam and plinth was cut by the insertion of the doorway at the south-east corner.

The tie beams are original to the building and, although machine-cut, illustrate the difficulty in obtaining straight timbers long enough to span a structure of this width (Plate 9). Several of the tie beams have a sinuous profile, indicating that smaller trees were chosen to provide the timbers, rather than those with a continuous square section which were sourced from larger trees. Straight braces, attached to the intermediate posts and the tie beams by a bolt and two nails, support the tie beams (Fig 7). The heads of each tie are strengthened by iron strapping.

The tie beams are the only surviving members of the roof trusses. The original principle rafters, purlins and collars have been replaced by a modern roof with a covering of corrugated iron sheeting (Plate 9). The original roof covering can only be guessed, but comparison with the farmhouse and other surviving buildings on the farm suggest it was probably peg tile or slate, rather than thatch.

There are a number of scarf joints on the sill beam (Fig 2). These are all simple edge-halved joints secured with two wooden pegs (Plate 10). The wall plate has more varied scarf joints. The south-east wall plate has a face-halved scarf, secured by four pegs, in bay 2 and face-halved scarfs, with bladed abutments secured by four pegs, in bays 4 and 5 (Fig 4, Plate 11). The north-west wall has face-halved scarfs, with bladed abutments secured by four pegs, in bays 2 and 6 (Fig 3). There are edge-halved and bolted scarf joints in bays 3 and 5, close to the heads of the midstrey corner posts.

Despite the high proportion of re-used timbers in the structure, no evidence for carpentry or Baltic marks was observed. One instance of graffiti was discovered on the north-east midstrey wall: the initials 'E.S' were carved on a stud next to the internal corner post (Plate 12). These initials do not match the name of anyone encountered during the historical research of the farm and it is not possible to place a firm date to them. It is probable that they were carved there by a farm worker or possibly a carpenter during the alterations to the barn.

The midstrey offers one final point of interest. Brick nogging is present between the first few studs of the lower registers on both sides of the midstrey (Plate 13). There is no apparent trace of nogging between the other studs of the midstrey or in any other part of the barn's frame. It is possible that the nogging was inserted to strengthen the outer corners of the midstrey, perhaps in order to provide greater structural integrity where farm carts could potentially crash into the building.

7 Discussion

The barn was designed and constructed for the processing and storage of a grain crop. A grain crop, whether wheat, oats, barley or rye, is called corn and requires processing to be of use. The grains need to be separated from the stalks and chaff removed from the grains. Before the advent of mechanization, this process, called threshing, was carried out by hand flail, a practice in use from the medieval period to the mid 19th century (Brunskill 2000, 158). After the harvest, carts piled high with sheaves of unthreshed corn were brought into the barn, through the rear doors which faced the fields. The sheaves were unloaded and stacked in the bays to one side of the threshing floor and the cart driven out of the barn through the midstrey doors. The height of the doorways gives an indication of just how heavily laden the carts were, but there is another reason for the large size of the doorways. Threshing was carried out over the winter, providing employment for the farm labourers when they could not work the fields, with the large doorways admitting the maximum amount of daylight to the otherwise gloomy barn. A cross draught was needed to winnow the chaff from the grain and this was also assisted by the tall doorways. To prevent farm animals from wandering into the barn during this process, boards called a threshold leap were inserted into the barn door openings. These barriers may be the reason why doorways are nearly always found in the side walls of the midstrey. As the stacked sheaves were threshed, the grain was taken away, in earlier centuries to be stored in the attic of the farmhouse, but by the 19th century to purpose-built granaries, which were a feature on nearly every farm. The remaining straw was stored in the bays on the other side of the threshing floor, to be used for the farm animals throughout the winter.

The barn was built in the mid 19th-century, in the middle of what are known as the 'High Farming Years'. This period is characterised by increased agricultural output and technological innovation resulting in high prices. Steam-powered machines were transforming farming, taking over processes once carried out by man and beast. As a result more land was available for cash crops and the improvement and expansion of infrastructure provided a wider market for farmers. An Act of Parliament in 1849 provided loans for investment in new farm buildings and this may have provided the impetus for the post 1856 redevelopment of King's Farm. However, this redevelopment to 'high farming' was a high-input, high-output mixed system, not within every farmer's ability to achieve, and often a characteristic of estate farms rather than individual holdings. In the early 19th century King's Farm was part of William Mayhew's estate and, apart from the 1840s-50s when it was independently owned, appears to have returned to an estate farm by the mid 1850s. The rapid turnover of ownership may have been one of the reasons behind redevelopment of the farm by the estate owner. The main reason for rebuilding tenant farmsteads was to attract sought-after men of intelligence and capital who would improve the farm, thus increasing its long-term value (Wade Martins 2002, 158).

However, there is an incongruity to all this at King's Farm. Although the majority of the earlier farm buildings were replaced by a planned linear layout, the barn was designed and

constructed to a traditional design, using established techniques and with approximately half of its timbers re-used from an earlier building. This scenario falls short of the new model farms that were constructed on many Victorian estates throughout England in the 19th century. However, in the mid 19th century Essex, in the rural south-east of the country, was a county where labour was still cheap and there was little incentive to replace manpower with machinery (Wade Martins 2002, 129). Threshing at King's Farm was clearly intended to be carried out as it always had been, despite the new layout. This was not that unusual for the East of England: a traditional threshing barn for processing by hand flail was built at Mendlesham, Suffolk as late as 1894 (Harvey 1980, 135). The high proportion of re-used timbers in the barn indicates either a desire/need to reduce costs or a difficulty in sourcing adequately-sized timbers, as evidenced by the sinuous tie beams.

There was a nation-wide fall in cereal prices after 1870 in the face of competition from cheap foreign imports. This was catastrophic for arable producers and forced many to adopt a trend that had been increasing in popularity since the 18th century, namely the fattening of bullocks in yards over winter. At King's Farm this practice appears to have been incorporated into the farm's output from the start of the redevelopment. The walls between the barn and the stable block formed a yard; with the lean-tos on either side of the midstrey (as shown on Map 4) forming open-fronted shelter sheds for the bullocks. These lean-tos were either contemporary to the barn or constructed very soon after. By-products from the threshed corn, the straw and the chaff, were used as bedding and feed for the animals, with the manure going to the fields in spring.

The cheap price of domestic corn meant feed prices were lower. This encouraged the growth of dairying, particularly around large towns or the railways leading to them. Milk consumption rose from 170 million gallons in 1861 to 600 million gallons in 1900 and Essex changed from primarily a cereal county to a dairying one, with the acreage of pasture increasing by 67% in the last quarter of the 19th century (Wade Martins 1995, 114). There is no direct evidence for dairying taking place at King's Farm but the small narrow doors at the corners of the barn may indicate that the barn was converted to house animals. If feed troughs were installed along the length of the barn, the doorways would provide a walkway to service them and the concrete floor would facilitate the cleaning of the barn. Cows could then be milked, with the nearby towns of Halstead and Sudbury providing a market for the produce.

The barn at King's Farm is not particularly old, although it has components that may well date to the 17th century, but that is not to say it is an unimportant structure. It dates from the High Farming period in Victorian history and illustrates that this was a time of evolution, not change, when new concepts were married to traditional techniques and the pace of progress varied from area to area. As a component of an estate farm the barn is also a visual symbol of a hierarchical system of landlord and tenant, a way of life with associated social and class ramifications dating to the medieval period, which was to be eroded and forever altered by the technological innovations that the High Farming tradition embraced.

New technology and practices invariably reduced the number of workers required in agriculture, prompting an economic migration towards the towns and cities that depopulated the countryside and increased the size of fields, significantly altering the landscape. Structures such as the barn at King's Farm stand as reminders of this process.

8 Acknowledgements

Colchester Archaeological Trust would like to thank Mr and Mrs Franco for funding the building recording and for their assistance on site.

Plans are based on surveys provided by Andrew Stevenson Associates.

The building recording was carried out by Chris Lister.

The project was monitored by Teresa O'Connor on behalf of Essex County Council Place Services Historic Environment.

9 References

Note: all CAT reports, except for DBAs, are available online in .pdf format at

<http://cat.essex.ac.uk>

Brunskill, R	2000	<i>Vernacular Architecture, An Illustrated Handbook</i>
Brunskill, R & Clifton-Taylor, A	1977	<i>English Brickwork</i>
CAT	2014	<i>Written Scheme of Investigation for Historic Building Recording at Kings Farm Barn, Bishops Lane, Alphamstone, Essex</i>
DoE	2010	<i>Planning Policy Statement 5: Planning for the Historic Environment</i>
EAA 14	2003	<i>Standards for field archaeology in the East of England</i> , East Anglian Archaeology, Occasional Papers 14, ed by D Gurney
English Heritage	2006	<i>Understanding Historic Buildings, A guide to good recording practice</i>
Harvey, N	1980	<i>The Industrial Archaeology of Farming in England and Wales</i>
IfA	2008	<i>Standard and guidance for archaeological investigation and recording of standing buildings and structures</i>
MoRPHE	2006	<i>Management of research projects in the historic environment</i> (English Heritage)
Wade Martins	1995	<i>Farms and Fields</i>
Wade Martins, S	2002	<i>The English Model Farm, Building the Agricultural Ideal, 1700-1914</i>

Websites consulted include:

<http://www.britishlistedbuildings.co.uk>

10 Abbreviations and glossary

carpenters' marks	symbols scratched, incised or chiselled into timber to assist in assembly
CAT	Colchester Archaeological Trust
chamfer	the splayed face resulting from the removal of the angle along a piece of timber or brick
collar	horizontal member in a roof spanning between a pair of inclined members such as principal or common rafters
crinkle-crinkle	a form of brick garden wall, usually only half a brick thick but which gains

	stability from serpentine curves on plan
EHER	Essex Historic Environment Record, held by the ECC
feature	an identifiable thing like a pit, a wall, a floor; can contain 'contexts'
HE	Historic Environment
girding beam	a timber beam placed horizontally in a wall frame at a level between the sill and the tie beam or wall plate.
IfA	Institute for Archaeologists
modern	period from the 19th century onwards to the present
NGR	National Grid Reference
post	in wall frames vertical members which rise the full height of the frame, being either main posts at the bay divisions or intermediate posts within the bay
post-medieval	after Henry VIII to around the late 18th century
purlin	longitudinal roof timbers, intermediate between wall-plate and ridge, carried by roof trusses and giving support to rafters
sill beam	the beam at the foot of a timber-framed wall from which rise the all the studs (and usually the posts)
tie beam	beam tying together the post-heads of a timber-framed wall or the upper surfaces of a solid wall
truss	a frame consisting of several pieces of timber, jointed and triangulated in order to retain its shape under load
wall plate	a timber running horizontally along the top of a wall to receive the ends of common rafters

11 Archive deposition

The paper and digital archive is currently held by the Colchester Archaeological Trust at Roman Circus House, Circular Road North, Colchester, Essex CO2 7GZ, but will be permanently deposited with Braintree Museum (accession code requested).

12 Contents of archive

One A4 document wallet containing:

1 Introduction

- 1.1 Copy of ECC Historic Buildings and Conservation Advice letter
- 1.2 Copy of WSI produced by CAT
- 1.3 Risk assessment
- 1.4 Copies of existing plans and elevations (4 sheets A4)

2 Site archive

- 2.1 Digital photographic record.
- 2.2 Digital photographic contact sheet.
- 2.3 Attendance register
- 2.4 Site photographic record on CD

3 Research archive

- 3.1 Client report

Distribution list

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Appendices
Appendix 1
Selected photographs



Plate 1 North-west elevation of the barn - view north-east



Plate 2 Detail of the brick plinth, with Flemish bond above the chamfered course and English bond below



Plate 3 Surviving portion of the full-height barn doors in the midstrey - view south-east



Plate 4 South-west elevation of the lean-to, with Flemish bonded brickwork and the feed door with hinges identical to those of the stable block - view north-east



Plate 5 South-east elevation, showing the blocked cart door opening and the inserted pitching doors below the eaves - view south-west

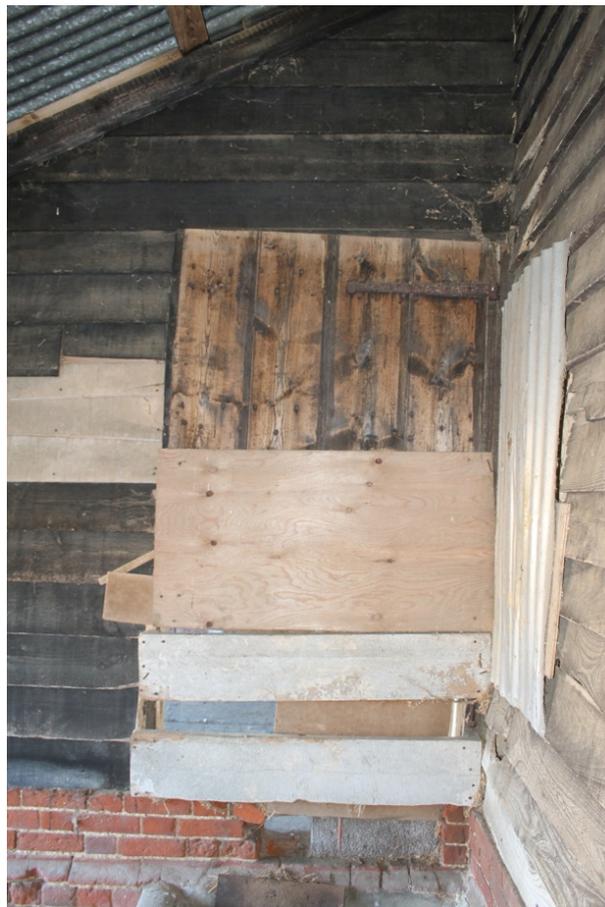


Plate 6 Remains of original door in side wall of midstrey - view north-east



Plate 7 Framing of bay 6, showing the primary bracing forming a diamond pattern - view north-west



Plate 8 The south-west frame, rebuilt after collapse, with modern machine-cut studs and nailed plank bracing – view south-west



Plate 9 The original tie-beams with the replacement roof above - view north-east.



Plate 10 Detail of edge-halved scarf joint, secured by two pegs in the sill beam of bay 6 – view south-east



Plate 11 Face-halved scarf joint with bladed abutments, secured by four pegs in the wall plate of bay 5 – view south-east



Plate 12 The initials 'E.S' carved into a stud in the north-east wall of the midstrey - view east



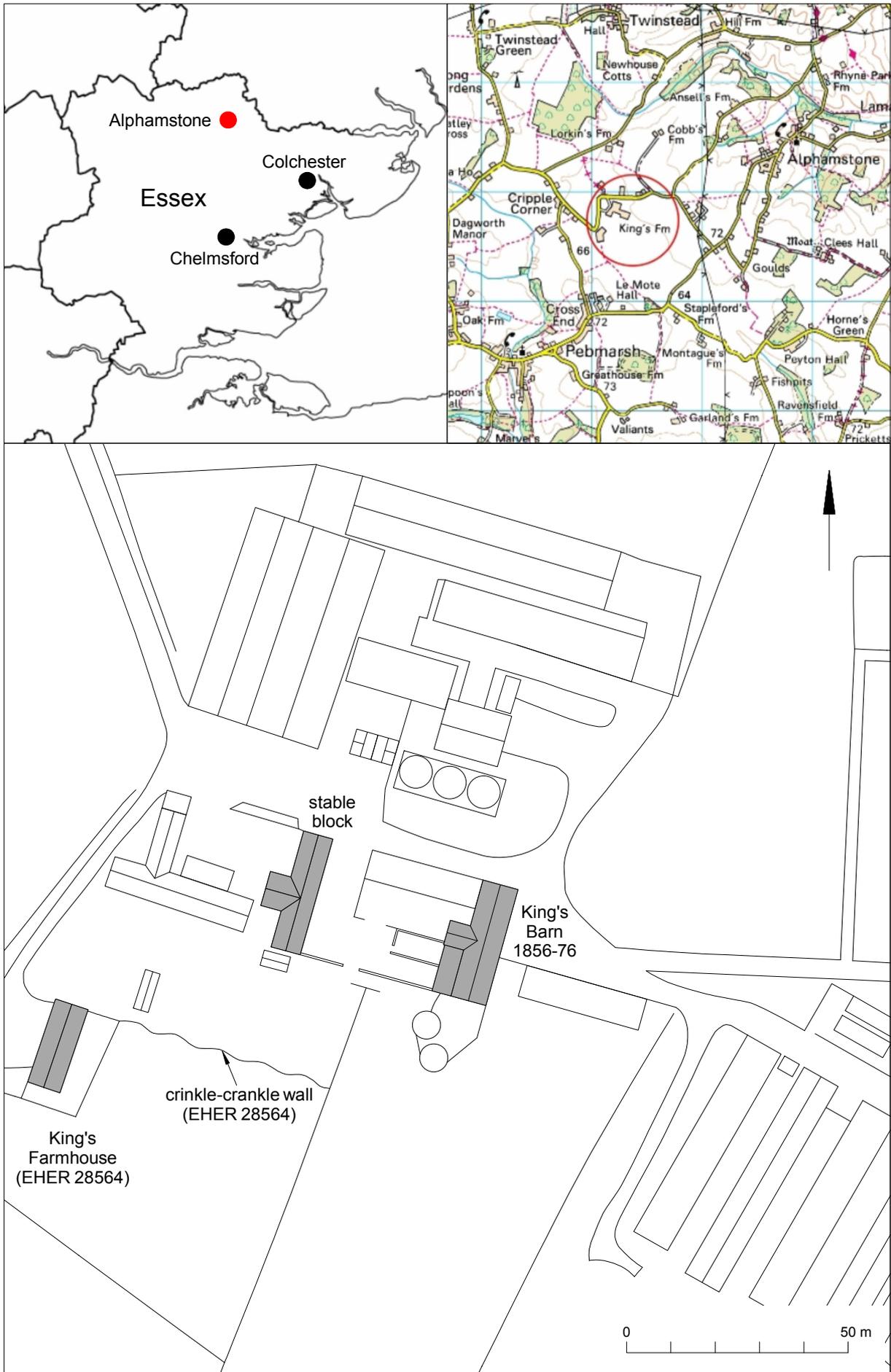
Plate 13 Remains of brick nogging between studs of midstrey wall - view north-west

Appendix 2

Full list of digital photographic record (images on accompanying CD)

- 001.jpg North-west elevation of the barn - view east.
- 002.jpg North-west elevation of the barn, partially obscured by later structures - view north-east.
- 003.jpg ?contemporary 19th-century lean-to with inserted 20th-century Fletton brick walls and the original bullock yard wall to the right - view east.
- 004.jpg King's Farmhouse (EHER 28564) and the crinkle-crankle garden wall (EHER 28565) - view south-west.
- 005.jpg South-west elevation of the barn - view north-east.
- 006.jpg South-west elevation showing the 19th-century lean-to and the bullock yard wall - view north-west.
- 007.jpg 19th-century lean-to constructed on top of the bullock yard wall - view north-east.
- 008.jpg Feed door to 19th-century lean-to, with original hinges - view north-east.
- 009.jpg Detail of the brick plinth, showing the chamfered course.
- 010.jpg South-east elevation of the barn - view north.
- 011.jpg South-east elevation of the barn, showing the inserted pitching doors beneath the eaves - view south-west.
- 012.jpg North-east elevation of the barn - view south-west.
- 013.jpg The north wall of the bullock yard, incorporated into a later structure - view south-east.
- 014.jpg Former open-sided shed built on top of the north wall of the bullock yard - view north-east.
- 015.jpg Animal pen formed by Fletton brickwork walls inserted into the bullock yard - view east.
- 016.jpg Original gateway in the south wall of the bullock yard - view south-west.
- 017.jpg Surviving portion of the full-height barn doors in the midstrey - view south-east.
- 018.jpg Interior of the 19th-century lean-to with later feed trough and dividing wall - view north-east.
- 019.jpg Interior of the 19th-century lean-to, showing original weatherboard surviving on barn - view east.
- 020.jpg Original roof beams in 19th-century lean-to - view north-east.
- 021.jpg Partially surviving and boarded over doorway, providing access from 19th-century lean-to into midstrey - north-east.
- 022.jpg Initials, 'E.S.' carved into stud of midstrey.
- 023.jpg North-east frame of the midstrey - view north-west.
- 024.jpg Lower register of the north-east frame of the midstrey, with brick nogging between some of the studs and the remains of an inserted doorway to the right - view north-east.
- 025.jpg Upper register of the north-east frame of the midstrey, showing primary bracing - view north-east.
- 026.jpg Doorway inserted into north-east frame of midstrey, subsequently boarded over - view north-east.
- 027.jpg South-west wall of the midstrey - view west.
- 028.jpg Lower register of the south-west wall to the midstrey, showing the remains of the doorway inserted into the frame - view south-west.
- 029.jpg Upper register of the south-west wall of the midstrey, with primary bracing - view south-west.
- 030.jpg North-west wall to bay 3, with primary bracing to the upper register - view north-west.
- 031.jpg North-west wall to bay 2, with primary bracing to both registers and inserted doorway in the lower register - view north-west.
- 032.jpg North-west wall to bay 1, with primary bracing to both registers - view north-west.
- 033.jpg Framing of gable end to bay 1, with primary bracing to upper and lower registers - view north.
- 034.jpg Framing of gable end to bay 1, with primary bracing of the lower register truncated by a doorway inserted through the brick plinth - view north-east.
- 035.jpg Gable to bay 1 - view north-east.
- 036.jpg South-east wall to bay 1, with primary bracing to both registers - view south-east.
- 037.jpg Lower register to south-east wall of bay 2, with primary bracing - view south-east.
- 038.jpg Upper register to south-east wall of bay 2, with primary bracing - view south-east.
- 039.jpg Lower register to south-east wall of bay 3 - view south-east.
- 040.jpg Upper register to south-east wall of bay 3, with primary bracing truncated by inserted pitching door - view south-east.
- 041.jpg South-east wall to bay 4, with modern framing and Fletton brick plinth replacing the original full height barn doors - view south-east.
- 042.jpg South-east wall to bay 5, with primary bracing to the upper register - view south-east.
- 043.jpg South-east wall to bay 6, with primary bracing to both registers - view south-east.
- 044.jpg South-east wall of bay 7, with primary bracing to both registers - view south-east.
- 045.jpg Framing of gable end to bay 7, rebuilt with modern timbers and strengthened with nailed plank bracing. A doorway has been inserted through the plinth - view south-west.
- 046.jpg North-west wall of bay 7, with primary bracing to both registers - view north-west.
- 047.jpg North-west wall to bay 6, with primary bracing to both registers - view north-west.

- 048.jpg North-west wall to bay 5, with primary bracing to the upper register - view north-west.
- 049.jpg Replacement roof above original tie beams supported by bolted straight bracing - view north-east.
- 050.jpg Edge-halved scarf joint in north-west sill beam of bay 6 - view north-west.
- 051.jpg Edge-halved scarf joint in north-west sill beam of bay 6 - view north-west.
- 052.jpg Replacement timber scarfed to base of south-west corner post - view south-west.
- 053.jpg Edge-halved scarf joint in south-east sill beam of bay 6 - view south-east.
- 054.jpg Edge-halved scarf joint in south-east sill beam of bay 6 - view south-east.
- 055.jpg Edge-halved scarf joint in south-east sill beam of bay 2 - view south-east.
- 056.jpg Edge-halved scarf joint in south-east sill beam of bay 2 - view south-east.
- 057.jpg Edge-halved scarf joint in north-west sill beam of bay 2 - view north-west.
- 058.jpg Edge-halved scarf joint in south-east wall plate of bay 2 - view south-east.
- 059.jpg Face-halved scarf joint in south-east wall plate of bay 4 - view south-east.
- 060.jpg Face-halved scarf joint in south-east wall plate of bay 5 - view south-east.
- 061.jpg Face-halved scarf joint in north-west wall plate of bay 6 - view north-west.
- 062.jpg Edge-halved scarf joint in north-west wall plate of bay 3 - view north-west.
- 063.jpg Face-halved scarf joint in north-west wall plate of bay 2 - view north-west.
- 064.jpg Midstreys roof, with original tie beam - view north-west.



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Fig 1 Site location.

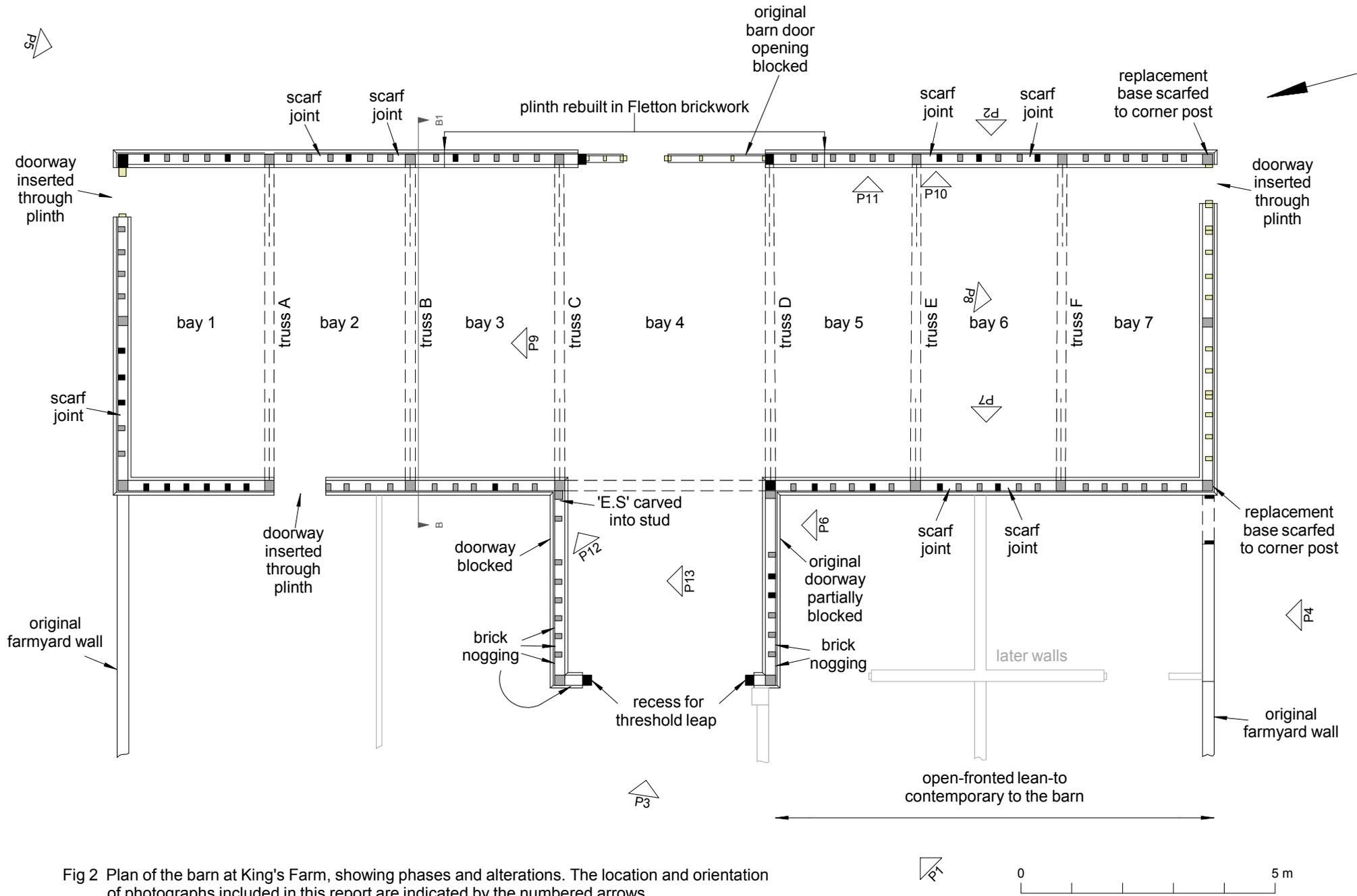


Fig 2 Plan of the barn at King's Farm, showing phases and alterations. The location and orientation of photographs included in this report are indicated by the numbered arrows.

original fabric
 re-used timbers
 modern replacement timbers

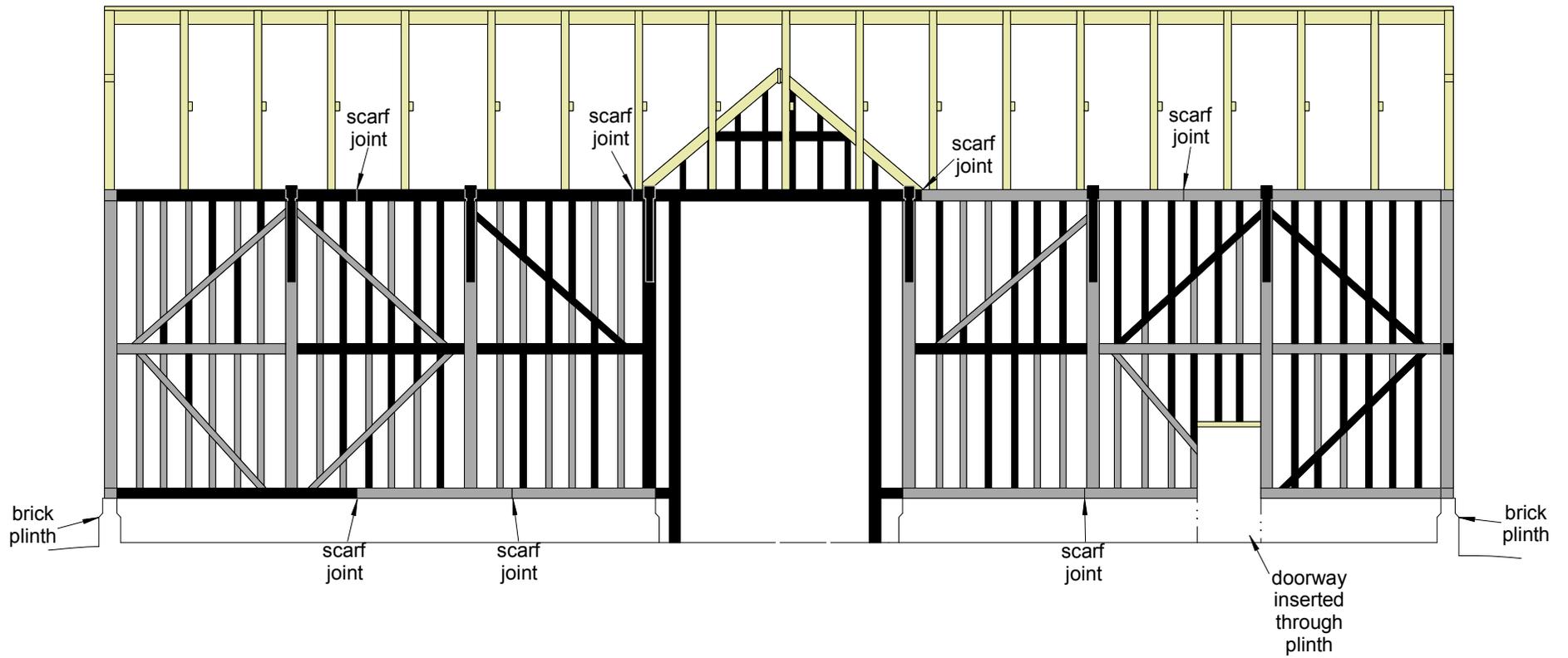


Fig 3 Frame drawing of north-west elevation, indicating the locations of original, re-used and replacement timbers.



original fabric
 re-used timbers
 modern replacement timbers

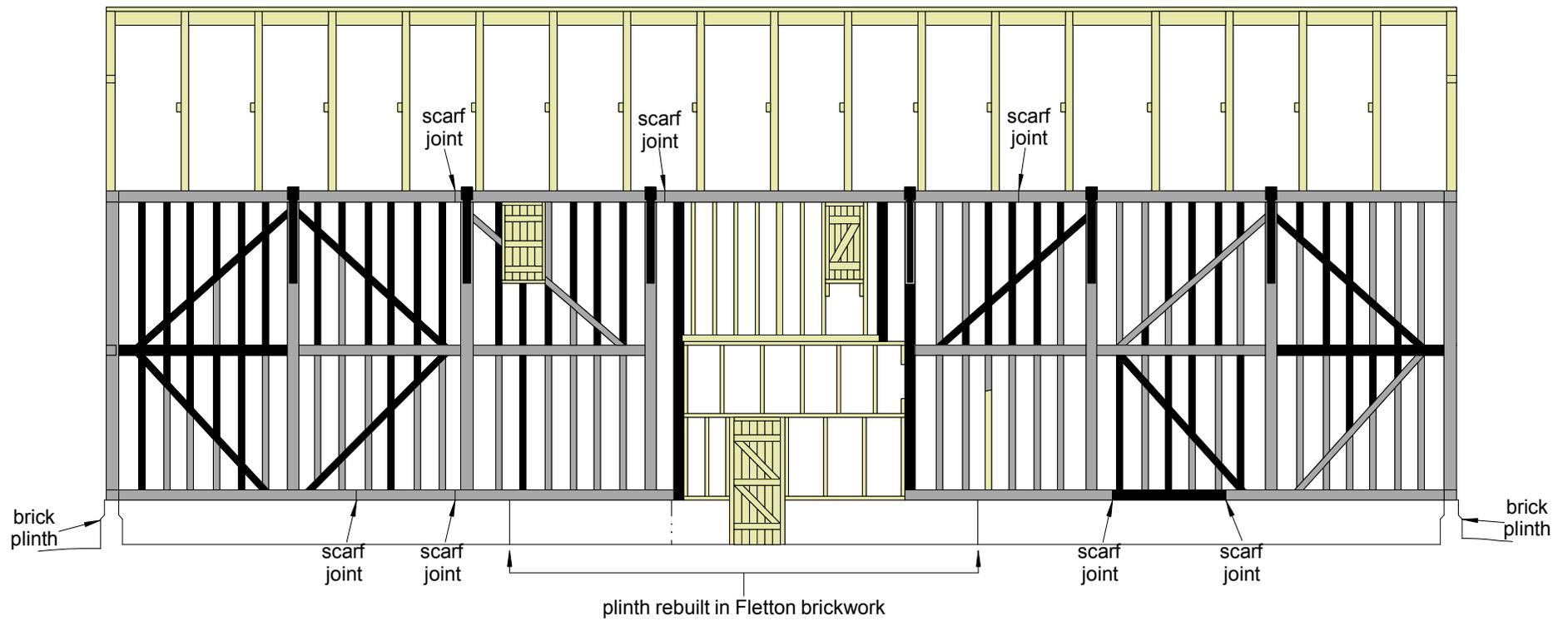


Fig 4 Frame drawing of south-east elevation, indicating the locations of original, re-used and replacement timbers.



- original fabric
- re-used timbers
- modern replacement timbers

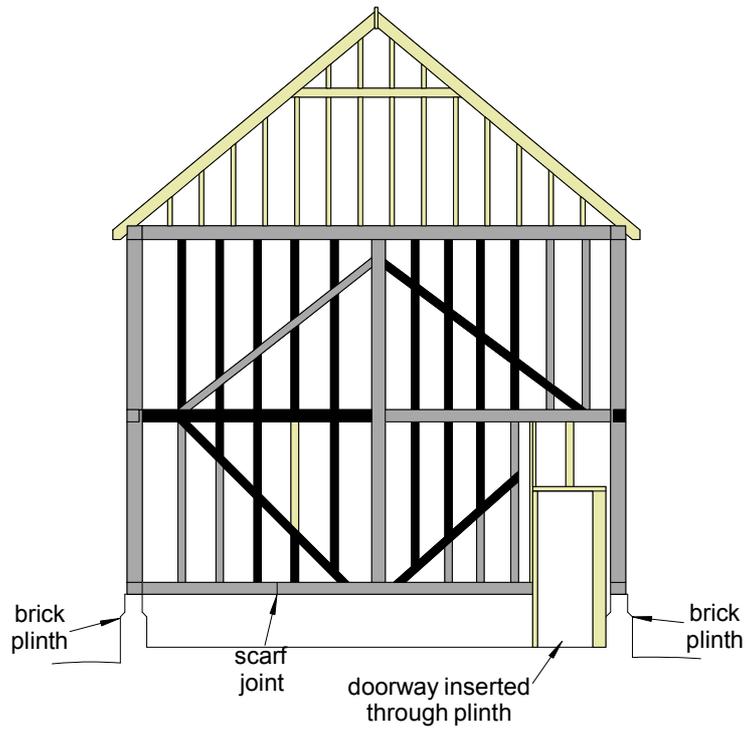


Fig 5 Frame drawing of north-east elevation, indicating the locations of original, re-used and replacement timbers.

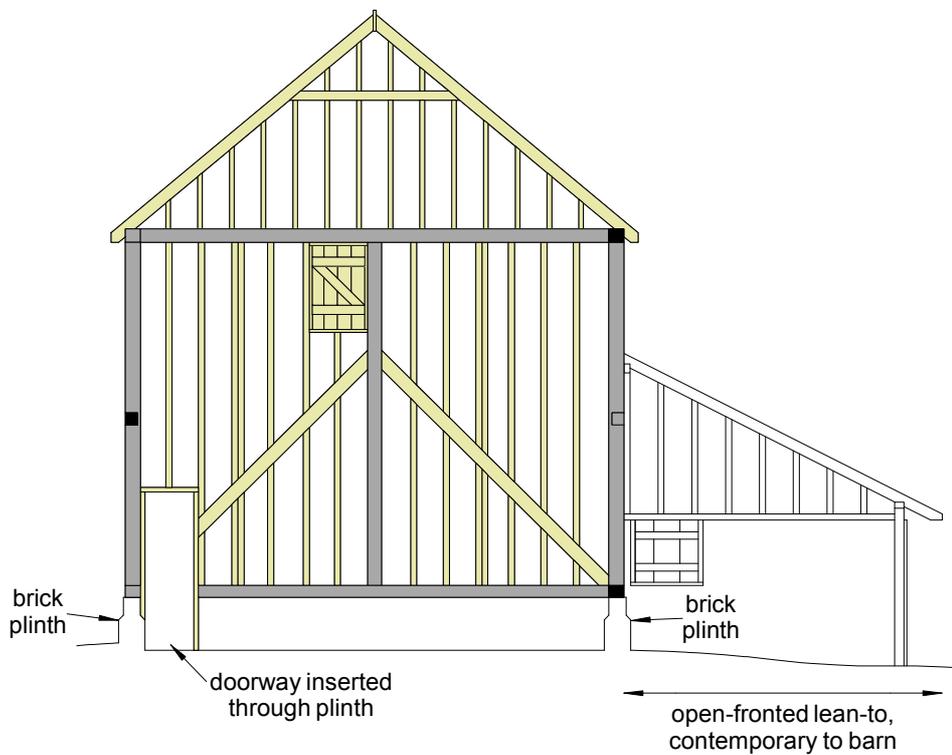


Fig 6 Frame drawing of south-west elevation, indicating the locations of original, re-used and replacement timbers.

original fabric
 re-used timbers
 modern replacement timbers

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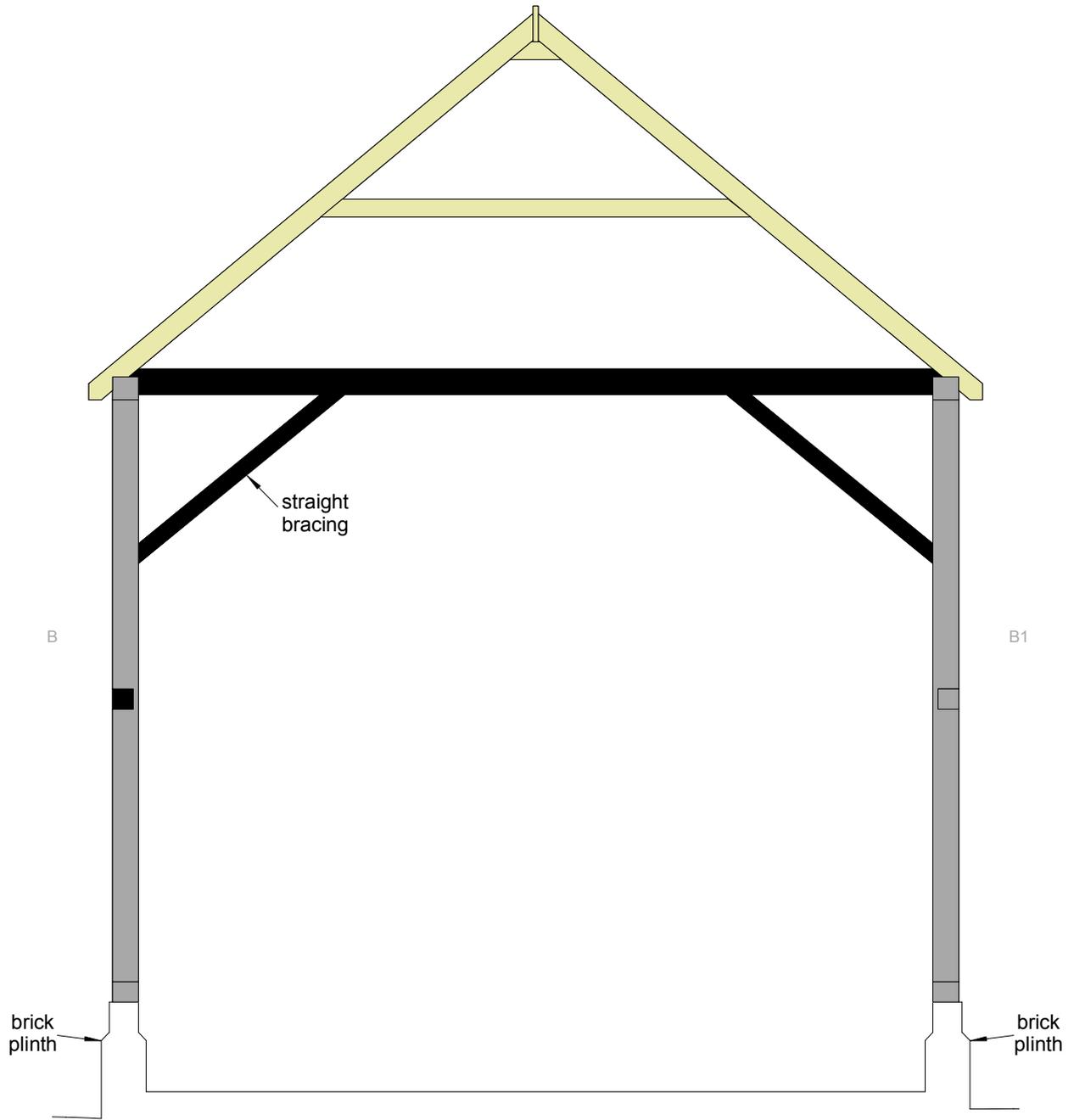


Fig 7 Cross-section of truss B.



-
 original fabric
-
 re-used timbers
-
 modern replacement timbers

Essex Historic Environment Record/ Essex Archaeology and History

Summary sheet

Address: King's Farm, Bishops Lane, Alphamstone, Essex	
Parish: Alphamstone	District: Braintree
NGR: TL 8624 3483 (c)	Site codes: CAT project – 14/03f ECC HEM code – APKF14 Museum accession code – requested
Type of work: Building recording	Site director/group: Colchester Archaeological Trust
Date of work: March 2014	Size of area investigated: n/a
Location of curating museum: Braintree Museum	Funding source: Client
Monitored by: Teresa O'Connor, Historic Environment Adviser, Place Services, Essex County Council	
Further seasons anticipated? No	Related EHER numbers: 28564-6
Final report:	CAT Report 767
Periods represented:	19th century
<p>Summary: A programme of building recording was carried out by the Colchester Archaeological Trust on a timber-framed threshing barn at King's Farm, Alphamstone, Essex, in March 2014. The work was commissioned by Andrew Stevenson Associates on behalf of the owners, Mr and Mrs Franco. The barn dates to 1856-76 but nearly 50% of the timbers used in its construction have been sourced from an earlier structure(s) on the farm, possibly dating to the 17th century. Although it is a late example of an Essex threshing barn it has merit as part of the High Farming tradition of the 19th century, a movement that saw the replacement of earlier post-medieval farm layouts with modern scientifically-planned farms and embraced new agricultural ideas and techniques. The incorporation of bullock yards into this particular arable farm's layout pre-empted the diversification that became necessary for the survival of Essex farmers in the late decades of the 19th century and shows how King's Farm, although relatively small in size, was at the forefront of the Victorian drive to modernize agriculture.</p>	
Previous summaries/reports: none	
Keywords: barn, high farming, timber-framed	Significance: *
Author of summary: Chris Lister	Date of summary: May 2014