

Suffolk County Council
Archaeological Service

Barn at White House, Stradbroke, Suffolk

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Historic Building Record

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Barn at White House, Diss Road, Stradbroke, Suffolk

(TM 2297 7461)

An Archaeological Record

This report provides a written and photographic record at English Heritage (2006) Level 2 of a barn which formerly belonged to White House farm. The report has been prepared to a brief written by the Archaeological Service of Suffolk County Council (Dr Jess Tipper, 18th July 2008, Ref. /WhiteHouse_Stradbroke2008) and is intended to fulfil a condition of planning permission for domestic conversion (Mid Suffolk D. C. application 1098/08).

Introduction

The following report is accompanied by a CD containing a full photographic record in the form of 85 8.2 megapixel digital images (Appendix 1) but also includes printed photographs of key features (Appendix 2). Each digital image is separately described in the written report, and the CD includes the report in MS Word format. Where possible a white metre scale rod with centimetre sub-divisions was included in each photograph. The site was inspected on 19th September 2008, at which time conversion work had already begun but had been suspended for several weeks.

Summary

White House farmhouse is grade II-listed early-19th century building of white brick and slate on the northern edge of Stradbroke, approximately 750 m from All Saints church. The farm contained 142 acres in 1840, and a substantial complex of farm buildings lay to the south of the house. In recent years the farmyards and adjacent land were sold for development, and only the main barn still survived at the time of inspection, surrounded to the west and south by a new housing estate. The timber-framed and weatherboarded barn is not separately listed, but is of considerable historic interest. Extending to an impressive 28.2 m in length by 6.2 m in width (92½ ft by 20½) it dates only from the mid-19th century in its present form, but represents the reconstruction of a late-16th or early-17th century barn and stable shown as separate structures on the tithe map of 1840. The stable was raised in height but its wall framing remains largely complete and is a rare survival, with evidence of original doors and diamond-mullion windows.

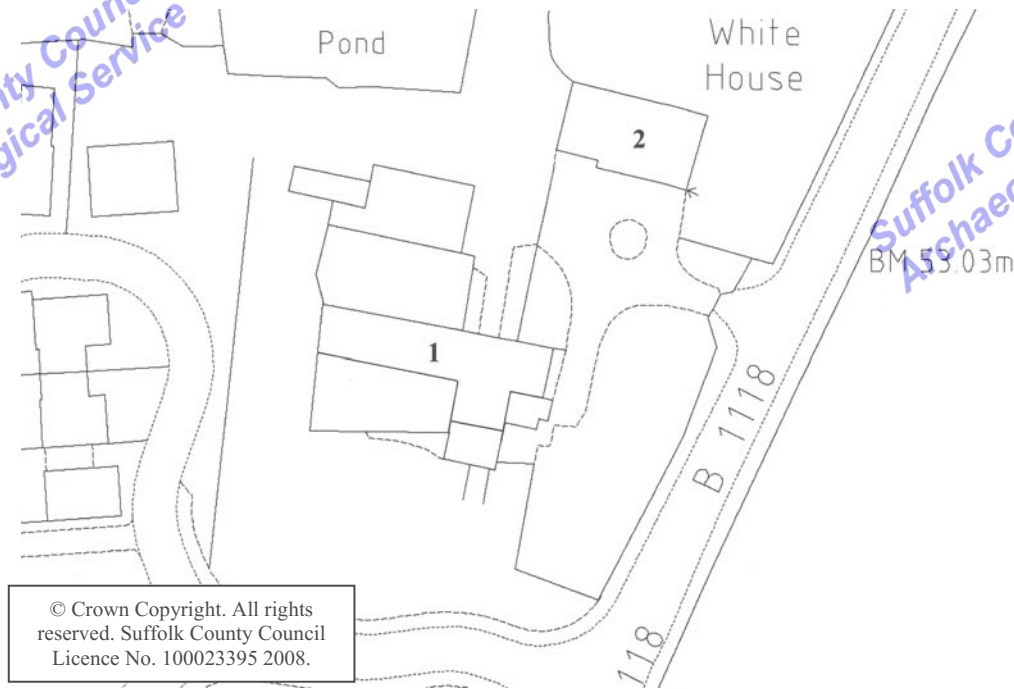


Figure 1

Existing Site Plan, showing the barn (1) and the grade II-listed building known as White House (2) with part of the new housing development to the left. The various ancillary sheds and yards attached to the barn had been demolished before inspection, and a new brick wall erected to separate it from the house.

Historic Context: Documentary & Cartographic Record

White House lies approximately 750 m north of All Saints church on the western side of the Diss Road. Until the early-21st century it lay beyond the village margin in open arable countryside but the land immediately to the south and west of the site has recently been developed. An extensive complex of farm buildings which adjoined the house on the south has been demolished to leave only the barn and one lean-to brick shed still standing. The barn now occupies a small enclosure bordered on the north by the former farmhouse (from which it is divided by a new brick wall), on the east by the B1118 Diss Road and on the south and west by a housing estate known as Ash Plough and The Paddocks. The house is a grade II-listed building of early-19th century appearance, with a white brick façade and slate roof, but is said in the Schedule of Listed Buildings to contain an earlier rear wing which may date from the 16th or 17th century.

The farmhouse is shown with its existing outline on the Stradbroke tithe map of 1840 (figure 2) along with four detached outbuildings to the south. The accompanying apportionment gives the total extent of the farm as 142 acres, with 109 acres of arable land and 33 of pasture. Such a holding was large by the standards of its day, but the property was a tenanted farm in the ownership of Giles Borrett and the occupation of William Girling. Borrett was of an old Stradbroke family whose ancestor of the same name gave 3 acres and 2 roods of land for the relief of the poor in 1667 (noted in White's Suffolk Directory of 1844). The 1840 farm buildings include a barn with a central, south-facing porch on the same site as the present barn, and a slightly smaller detached building to the west. This detached building is almost certainly the stable which now adjoins the rebuilt barn under the same roof. An enclosed yard to the north may have operated as a stable yard but the northern wall of the shed against its northern boundary is shown as open-sided on the Ordnance Survey of 1905 (figure 4) and was probably a cart lodge rather than a horse shelter. A third shed in the north-western corner of

the site may have formed a cow house as the adjoining land on the west and south was known as Neathouse Meadow (neathouse was a common Suffolk term for cowhouse). The yard was divided from the meadow by a large L-shaped pond of which no trace now remains.

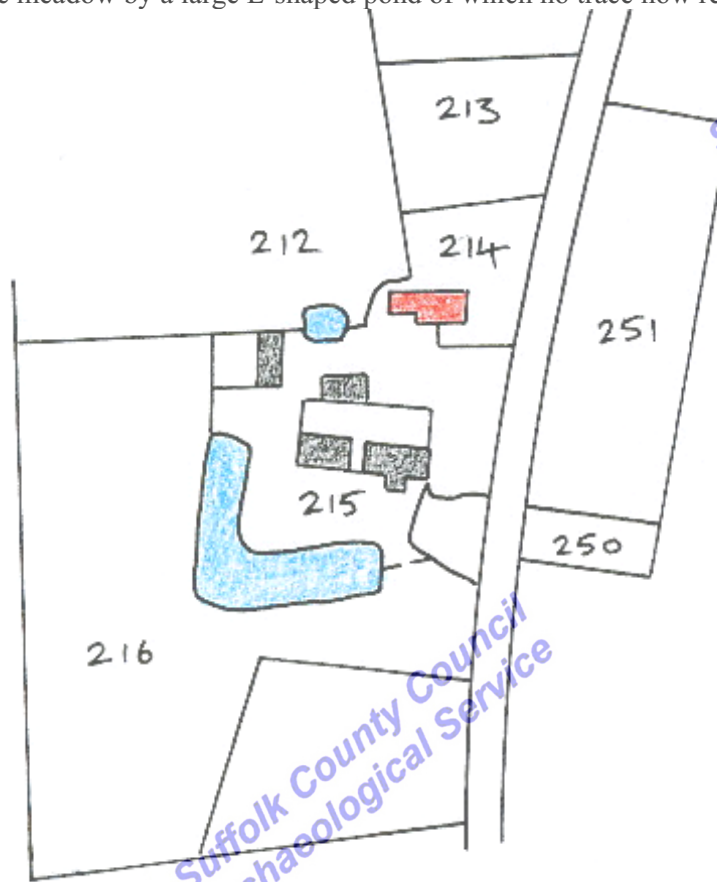


Figure 2.

The site in 1840, redrawn from the Stradbroke tithe map (Suffolk Record Office) The barn and stable of *circa* 1600 appear to be shown as detached structures with an enclosed horse yard and shelter to the north. The apportionment refers to the numbered areas as follows: 212. Wash House Meadow (so-named as it lay beyond the wash house or service wing to the west of the farmhouse); 213. Little Hempland; 214 & 215. Premises; 216. Neathouse Meadow (presumably because it lay beyond the cow house when viewed from the farmhouse, i.e. the building in the north-western corner of the yard); 250. Stackyard.

The situation had changed almost beyond recognition by the Ordnance Survey of 1886 (figure 3) which shows an exceptionally sophisticated complex of new yards and sheds. This mid-19th century transformation, which probably occurred in the 1850s or 1860s, is typical of Suffolk farms, which had previously focused on arable production, buoyed by the high price of grain during and after the Napoleonic wars, but were forced to diversify into mixed animal husbandry after the repeal of the Corn Laws in 1846. This date fortunately coincided with the arrival of the railway in Stradbroke, which opened up new urban beef and dairy markets. The detached barn and stable shown in 1840 had, most unusually, been rebuilt as the single structure which is all that survived on the site at the time of inspection. The roof scars of the adjoining sheds shown in 1886 were still visible on the weatherboarding, and much of the complex in figures 3 and 4 had evidently been present when conversion work began, but unfortunately nothing more remained to permit any detailed analysis of its original layout and function.

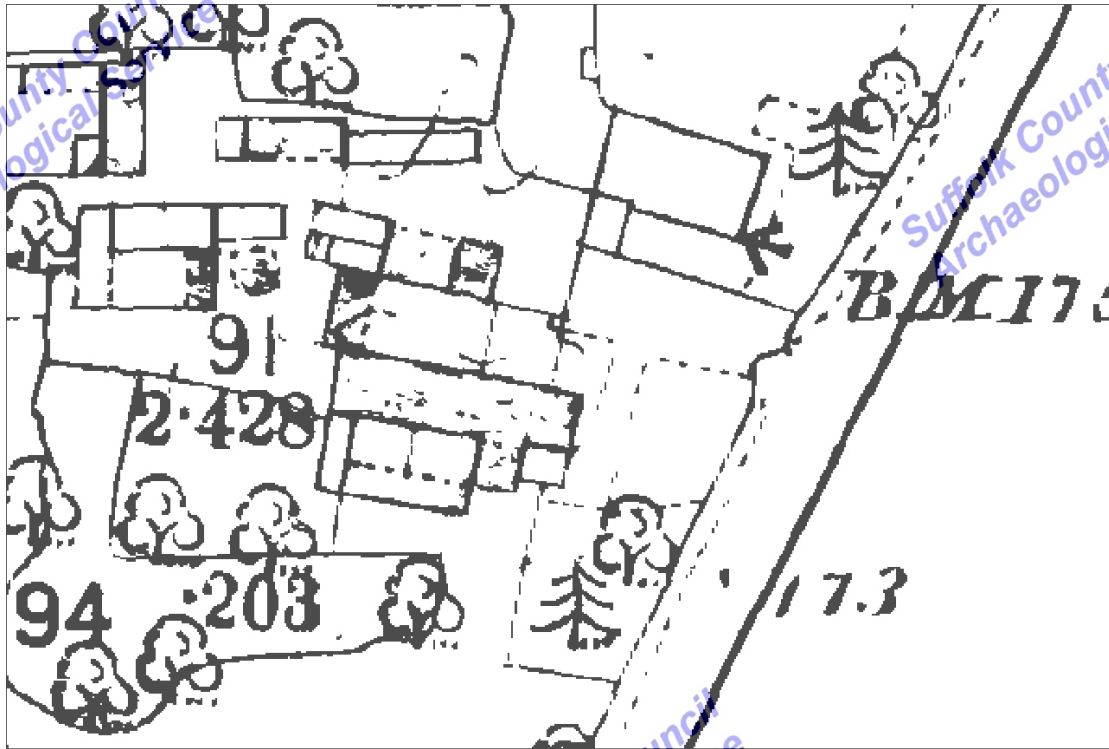


Figure 3

First Edition 25 inch Ordnance Survey of 1886

The farm complex had been extensively redeveloped since 1840, with the addition of numerous buildings and yards. The surviving combined barn and stable is shown, and the roof scars of the adjoining sheds were still visible at the time of inspection

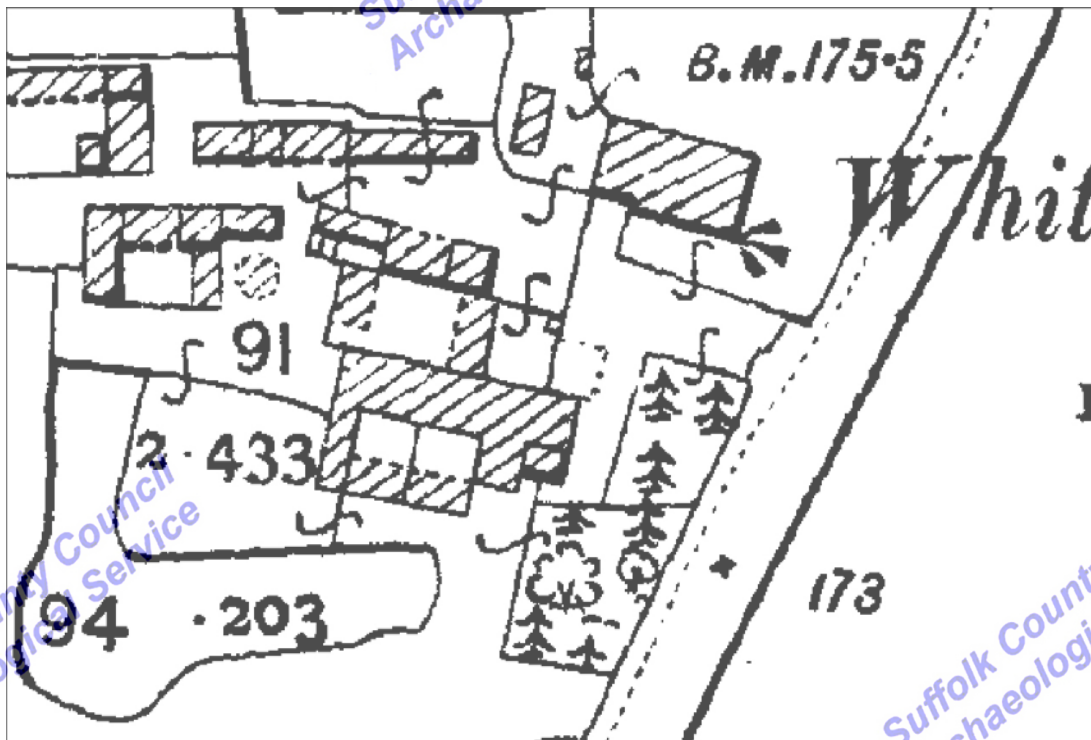


Figure 4

Second Edition 25 inch Ordnance Survey of 1905, showing the demolished sheds in more detail. The open sides of animal yard shelters and lodges are indicated by broken lines, and the circular feature was probably a horse mill.

Building Analysis

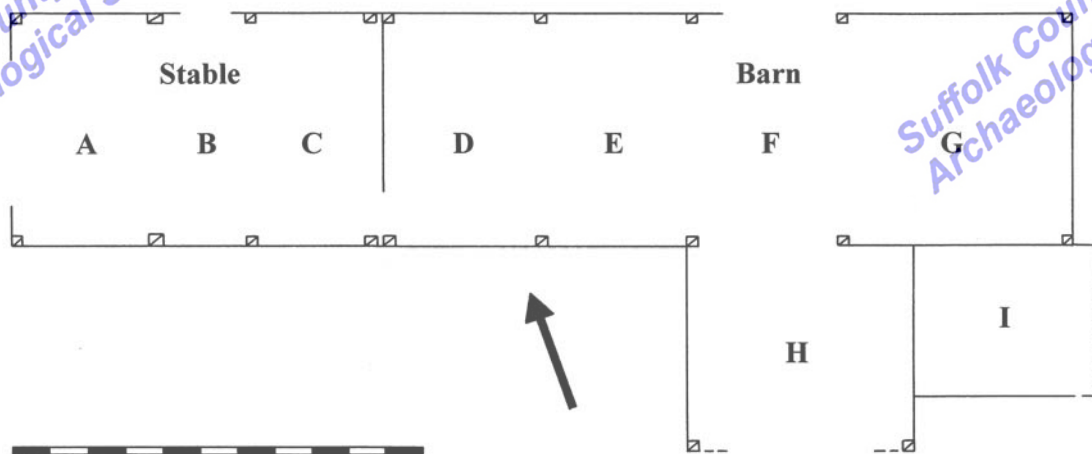


Figure 5

Schematic Block Plan of Barn (scale in metres)

Identifying each bay and unit for ease of reference in the text and photographic record. H indicates the porch and I a lean-to brick shed.

N.B. Conversion work was well-advanced at the time of inspection and the photographic record includes various features such as newly inserted windows, rebuilt brick plinths and roofing felt that do not reflect the historic fabric. The ceiling in the stable had been removed and, with the exception of two harness hooks and the hay loft doors, no historic fixtures or fittings survived.

Introduction

In its present form the barn is a timber-framed and weatherboarded structure of the mid-19th century which is not shown on the parish tithe map of 1840. It contains an open barn of four bays to the east with a south-facing porch and a stable of three bays to the west which formerly contained a ceiling and hay loft. The two areas are divided by a brick wall on the lower storey and a boarded partition on the upper. The barn was built from the timbers of a late-16th or early-17th century barn of similar proportions which occupied the same site but was completely dismantled. The stable, in contrast, was formed by raising the walls of a late-16th or early-17th century stable on a new brick plinth without dismantling the frame, and by raising its eaves still further with vertical struts to meet the higher eaves of the new 19th century roof. The arrangement of the original barn and stable, which in 1840 were detached but in close proximity to each other, can be reconstructed with some accuracy.

Mid-19th Century Structure and Layout

The existing barn is a substantial structure which extends to 28.2 m in length and 6.2 m in overall width (92½ ft by 20½). Its roof-plates lie 4.4 m above the ground (14½ ft) including a tall red brick plinth of 1 metre (39 ins), with 3.3 m between the sill beam and roof-plate (10 ft 9 ins). A contemporary porch of 6 m in width projects by 5.5 m from the southern elevation, overlapping part of the wider eastern bay (G) in addition to the narrow entrance bay of 3.6 m or 12 ft (F) which has no stud mortises in its roof-plate. The opposite, northern elevation of bay F contains a narrower original doorway with a lower lintel that was nonetheless of sufficient size for vehicle access. A brick lean-to shed in the eastern angle of the porch and barn is probably a slightly later addition which consists in part of brickwork laid on edge in 'rat-trap' bond, but this had been largely rebuilt prior to inspection. Much of the external weatherboarding has been recently renewed, but an area of tarred boarding to the west of the

southern elevation (bay A) preserves the roof scar of a demolished shed (presumably that shown in figures 3 & 4), and similar features are visible on the northern wall where the boarding was not tarred and had apparently been protected within another demolished shed or covered yard.

Evidence of a 16th or 17th Century Barn

The roof structure and framing are typical of the mid-19th century with butt-purlins and a ridge piece on pine roof-plates with face-halved scarf joints that bear complicated 'Baltic' markings in several bays. The walls contain primary diagonal braces which interrupt the vertical studs, and both studs and braces are tenoned or nailed but not pegged to the sills and plates. The horizontal tie-beam which divides bays D and E is original to the structure and is linked to the storey posts with bolted knee-braces. The sill beams and plinths are also primary to the 19th century structure, but a large proportion of the individual timbers are very different in character and were re-used from an older structure. Most dramatically, the tie-beams flanking the entrance bay (F) are linked to their storey posts by massive, chamfered arch-braces of a type not found later than the mid-17th century, and the tie-beams and storey posts are of similar style with pegged mortises and jowls. The timbers of the open truss to the east of the entrance are consistent with each other, but the tie-beam to the west contains mortises for two queen posts in its upper face and wider arch-braces beneath. This tie-beam was evidently cut for a 15th or 16th century barn and may have been re-used in the immediate predecessor of the present structure. The great majority of individual studs and braces also contain empty mortises or brace trenches that bear no relationship to their present positions and were salvaged from a dismantled structure with no attempt to reconstruct the original wall frames. The principal rafters all contain empty mortises for a clasped-purlin structure with an upper tier of wind-braced clasped-purlins and a lower tier of butt-purlins in the standard form of the late-16th and early-17th centuries, and it seems almost certain, given the evidence of the tithe map, that a barn of this period stood on the site. It was presumably lower in height by approximately a metre than its replacement, and may have been in poor repair or simply too low for the larger vehicles of the mid-19th century.

The Stable

The interior of the barn extends by 16 m (59 ft) from the eastern gable to a brick and boarded wall that divides it from a stable of 9.6 m in overall length (31½ ft). An original internal connecting door lay against the northern elevation. The stable retained only fragments of 19th century ceiling at the time of inspection, including a short length of binding joist secured by an inverted bolted knee brace, but the former presence of a complete hay loft was indicated by loading doors in both gables. Access to the loft was also obtained by a vertical ladder, the rungs of which were nailed to the wall studs to the west of the northern storey post between bays A and B. Two bentwood harness hooks projected from the southern wall of bay A, but no other relevant fittings remained. The 19th century stable seems to have possessed a central cross-passage: an apparently original half-hung door of 1.2 m in width and 2.2 m in height (4 ft by 7) lies in the centre of the northern wall with evidence of another, blocked doorway immediately opposite. More recent double doors in the western gable suggest the space may have been converted into a cart shed during the 20th century. The stable would have been adequate for the five or six working horses that a farm of 142 acres would have required at the usual ratio of one animal per 20-30 acres.

Evidence of a 16th or 17th Century Stable

The stable lies beneath the same roof structure as the barn, sharing the same roof-plates, ground sills and brick plinths, but its wall framing is entirely different. Instead of the jumbled re-used timbers in the barn, its southern and northern elevations comprise complete wall structures of the late-16th or early-17th century that retain their original roof-plates and internal

trenched braces. These walls were provided with new ground sills in the mid-19th century and raised on new brick plinths by approximately a metre above their original height; as this proved insufficient to match the height of the new barn, they were further raised by inserting short studs of varying length (but averaging some 23 cm or 9 ins) between the old roof-plates and the new. The arrangement of the original stable can be reconstructed in some detail accordingly, as shown in figures 6 and 7. The rear, southern elevation appears to have contained uninterrupted studs with internally trenched braces rising from the corner posts to the roof-plate, without doors or windows. A hay rack and manger may be presumed to have abutted this wall, although secondary rebates suggest three doors were inserted before the 19th century reconstruction. These doors do not interrupt the present brick plinth. Both gables have been rebuilt, but a re-used tie-beam between bays A and B is apparently an original feature which contains an unbroken sequence of stud and brace mortises. Clear evidence of weathering to the timbers of the eastern gable which now adjoins the barn demonstrates that it was indeed a free standing structure as shown on the tithe map; the corner posts of the barn and stable are now tenoned to the same ground sills just 23 cm (8 ins) apart. The storey posts contain evidence of an original ceiling 45 cm (18 ins) below the roof-plates that would have been 3.5 m (11.5 ft) above the present ground level had it not been lowered when the walls were raised. The posts in both elevations between bays A and B are massive, at 33 cm in width by 15 in depth (13 ins by 6), and contain neatly shaped corbel blocks beneath the empty mortises of an equally massive binding joist that spanned the width of the building. The hay loft of the original stable was evidently much lower in height than its 19th century successor. The storey posts between bay C and the narrow central bay (B) contain only square mortises for the clamps or rails which supported the ends of common joists, and clearly adjoined a solid wall. The corner posts contain similar clamp mortises, and the original stable was divided into two unequal compartments as shown in the drawings. The stable width cannot be adduced with absolute certainty as the re-used tie beam may not derive from the same structure (although it appears to). The larger, western compartment was lit by a north-facing window with three diamond mullions of which the lintel still survives in bay A, and a similar lintel remains in bay C alongside a doorway which retains its original lintel. The empty mortise of an identical lintel is visible in the opposite side of the same post, and the northern elevation can be reconstructed as shown. Each door frame was exactly 91 cm (36 ins) wide, but the apertures may have been reduced by separate jambs against the dividing post. Both wall braces survive intact.

Historic Significance

The edge-halved-and-bridled scarf joints found in both the front and rear roof-plates of the original stable were quickly superseded by face-halved scarfs in the first quarter of the 17th century, and building is unlikely to post-date *circa* 1620. A date in the final years of the 16th century or the first two decades of the 17th is probable. Timber-framed stables of this period are notoriously rare, particularly at the vernacular level, and this example remains of great historic interest despite its alterations in the 19th and 21st centuries. Despite this interest, the extent of the changes are probably too great to merit listing in its own right.

Note to Figure 7 below:

The level of the ceiling is indicated by a dotted line, as is the outline of the 19th century central door and brick plinth. The present sill beam is a 19th century replacement and the original walls may have been slightly taller. The corner post of the barn is shown to the right with part of the 19th century roof-plate

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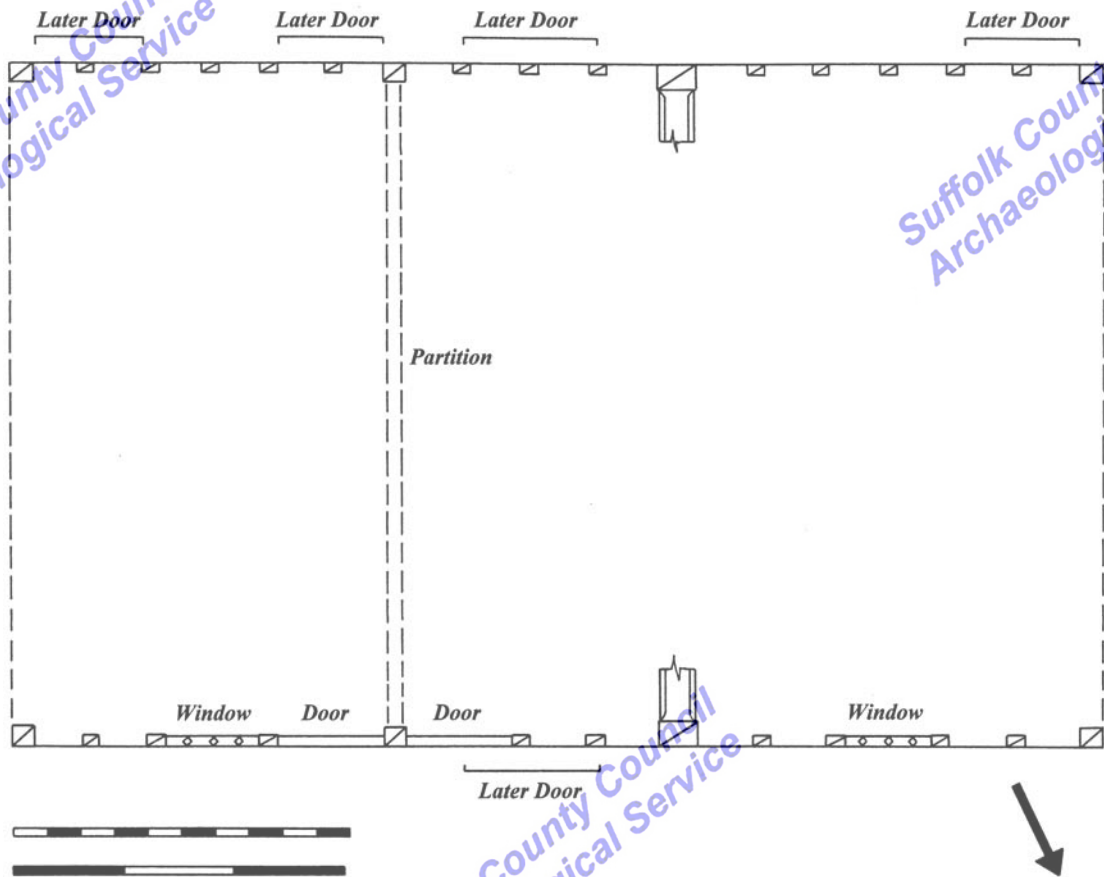


Figure 6
Ground Plan of Late-16th or Early-17th Century Stable (Scales in feet (top) & metres).
The width of the structure is not certain

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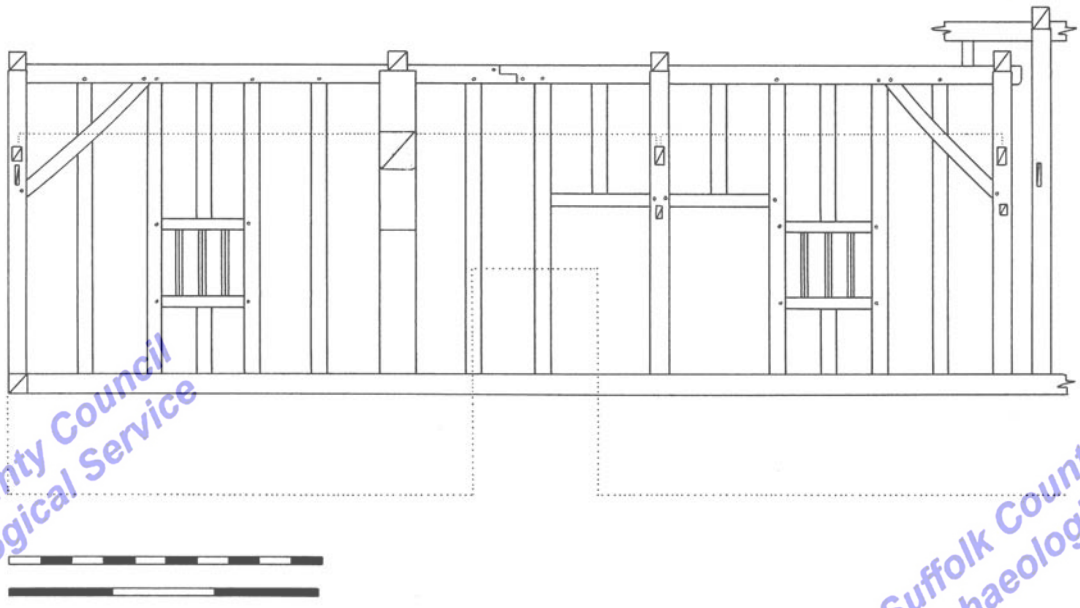


Figure 7
Original Internal Front (Northern) Elevation of Late-16th or Early-17th Century Stable.
Bays A-C as marked in figure 5. (Scales in feet (top) & metres)

Appendix 1 (on accompanying CD): Full Photographic Record

Description of Photographs in Appendix 1

Photograph no.

1. General view of site from B1118 Road to south-east.
2. General view of site from new estate to south-west.
3. General view from south showing barn to left and White House farmhouse to right.
4. Facade of White House farmhouse from barn to south showing new boundary wall (included for context).
5. Exterior from north-west showing new housing development to right.
6. Exterior of western gable showing double doors with hay loft hatch above.
7. Exterior from south-west showing roof scar of demolished southern shed to left.
8. Southern exterior of bay A showing roof scar of demolished shed & blocked door to bay B right.
9. Southern exterior of bay B showing blocked central stable door to left.
10. External detail of brick plinth to southern elevation.
11. Exterior of porch from south-west showing recently rebuilt brick plinth.
12. Exterior from south-east showing porch to left and lean-to brick shed (I) in angle to right.
13. Exterior of eastern gable showing lean-to shed (I) to left.
14. Exterior of lean-to shed (I) from south showing porch to left.
15. Exterior of lean-to shed (I) from south showing detail of rat-trap bond.
16. Interior of lean-to shed (I) showing south-western corner.
17. Interior of lean-to shed (I) showing north-western corner with barn bay G to right.
18. Northern external elevation from north-west.
19. Western half of northern external elevation showing whitewashed boarding.
20. Northern exterior of bay D showing scar of demolished shed (recently renewed boarding to left).
21. Northern exterior of bay B showing central door to stable and scarf joint in roof-plate.

22. Detail of stable door in northern exterior of bay B.
23. Detail of stable door hinges in northern exterior of bay B with principal storey post to right.
24. Eastern half of northern elevation showing entrance in bay F & recently renewed weatherboarding.
25. General view of barn interior from east.
26. General view of barn interior from east showing butt-purlin roof structure.
27. General view of barn interior from east showing porch to left.
28. General view of barn interior from west showing entrance in bay F to left.
29. Detail of re-used arch-braces flanking northern elevation of bay F from east.
30. Detail of re-used arch-braces flanking southern elevation of bay F from east.
31. Detail of roof structure showing re-used timber from clasped-purlin roof with wind-braces.
32. Detail of roof structure showing empty mortises for clasped and butt-purlins with wind-braces.
33. Interior of eastern gable showing primary bracing.
34. Southern elevation of bay G showing recently inserted window.
35. Detail of re-used timber in southern elevation of bay G.
36. Southern elevation of bay F showing entrance to porch.
37. Southern elevation of bay F showing porch junction without mortises in roof-plate.
38. Internal eastern elevation of porch (H) showing barn to left.
39. Detail of pegged primary bracing & re-used timber in western internal elevation of porch.
40. Internal western elevation of porch (H) showing barn to right.
41. Interior of porch gable showing recently renewed timber.
42. Detail of clasped-purlin roof structure in porch (H) showing southern gable to left.
43. Internal southern elevation of bay E showing recently inserted windows.
44. Internal southern elevation of bay D showing partition to stable to right.

45. Western end of barn roof showing bolted knee braces to tie-beam & secondary roof braces.
46. Western end of barn showing door to stable (left) with door to former hay loft above.
47. Detail of Baltic timber mark to pine roof-plate in southern elevation of barn.
48. Detail of junction between barn corner post (right) and stable corner post in northern elevation.
49. Northern internal elevation of bay D showing stable partition to left.
50. Detail of Baltic timber mark to pine northern roof-plate in bay D.
51. Northern elevation of bay E showing original bolted knee brace to left & re-used arch-brace right.
52. Detail of northern roof-plate in bay E showing face-halved scarf joint above recent window.
53. Northern internal elevation of bay F showing original entrance doorway.
54. Northern internal elevation of bay F showing re-used arch braces and original door framing.
55. Northern internal elevation of bay G from south-west.
56. General view of stable interior from west showing remains of removed ceiling.
57. General view of stable interior from east looking to doors in western gable.
58. Eastern gable of stable showing partition and door to barn.
59. Eastern roof gable of stable showing door to former hay loft.
60. South-eastern corner of stable showing barn frame to left and raised stable frame to right.
61. Detail of south-eastern corner of stable showing detail of frame junction.
62. Internal southern elevation of bay C showing secondary door rebate in post to left.
63. Detail of southern roof-plate in bay C showing detail of raised roof-plate.
64. Internal southern elevation of bay B showing short edge-halved scarf joint & blocked central door.
65. Internal southern elevation of bay A showing western gable to right.
66. Detail of harness hooks in south-western corner of stable (bay A).
67. Internal western elevation of stable showing bentwood harness hook to left.

68. Internal elevation of western stable showing hay loft door & re-used tie-beam at top.
69. Northern interior of bay A showing diamond mullion window lintel to left.
70. Detail of diamond mullion window lintel in bay A with original wall brace top-left.
71. Detail of three empty diamond mullion mortises in window lintel of bay A.
72. Northern roof structure above bays A (left) & B showing stud & brace mortises in re-used tie-beam.
73. Northern interior of bay B showing 19th century central door.
74. Detail of ladder & northern jowled storey post between bays A (left) & D.
75. Detail of differing scarf joints in roof-plates to north of bay A & joist mortise in jowled post.
76. Detail of storey post and remains of 19th century ceiling in northern wall of stable from west.
77. Northern internal elevation of bay C showing junction with barn to right.
78. Detail of northern bolted knee-brace from bay B showing 17th century door lintel mortise in post.
79. Northern interior of bay C showing original door lintel in situ.
80. Detail of diamond mullioned window lintel in bay C with rail of later ceiling.
81. Northern internal elevation of stable (bays A-C left to right).
82. Detail of northern internal junction between stable (left) & barn showing two storey posts.
83. Detail of northern interior of bay C showing window lintel & waney exteriors of studs.
84. Detail of door jamb in brick partition between stable (left) & barn (right).
85. Detail of southern junction between barn (left) showing later door rebate in stable post.

Appendix 2 (pp. 14-18): Selected Printed Photographs



A2.1 General view of site from B1118 Road to south-east, showing entrance to new estate ('Ash Plough') to left, barn in centre and White House to right



A2.2 Exterior from south-west showing roof scar of demolished southern shed to left

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A2.3 Northern external elevation from north-west showing old whitewashed weatherboarding to right (formerly enclosed by a recently demolished shed) with recently renewed stained boarding to left



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A2.4 General view of barn interior from east showing re-used tie-beam arch-braces flanking bay F with porch to left and brick and boarded partition to stable in rear.

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A2.5 Detail of 19th century butt-purlin roof structure showing re-used 17th century principal rafter with empty mortises for an upper tier of clasped purlins with wind-braces and a lower tier of butt-purlins

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A2.6 One of several Baltic timber marks on the 19th century pine roof-plates in both elevations

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A2.7 General view of stable interior from west showing remains of removed ceiling with partition to barn in rear

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A2.8 Northern internal elevation of stable from south-east, showing bays A-C from left to right. The entire structure raised on a brick plinth and provided with a new, higher roof-plate

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A2. 9 Lintel of 17th century stable window lintel with empty mortises for three diamond mullions in bay A with original internal wall brace top-left (the empty sill mortises are visible above the present secondary sill)

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A2. 10 Detail of jowled northern storey post between bays A (left) & B showing 19th century roof-plate with edge-halved scarf joint and mortise for original ceiling joist