

SOURCE  
EX 61199

Barn at Wood Hall  
Main Road  
Wormingford

Building recording

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## 1.0 Introduction

Wood Hall, Wormingford consists of a moated farmhouse with several ancillary farm buildings all sited between the moat and the road. There is a timber framed barn, a 19th century granary, a 19th century long brick stable and fragmentary remains of several timber buildings decaying in the undergrowth.

The barn at Wood Hall Wormingford is being recorded as part of the planning consent for conversion into a house.

The List description of the barn is: Medieval barn C15 or earlier; black weatherboards on north wall, midstrete facing south. Roof ridged and gabled, clad with corrugated asbestos. Of 5 bays, with very heavy oak framing, main posts without jowls.

This List description is correct. In this report I give more detail of the barn's construction and materials.

## 2.0 Site Location

Wood Hall is on the main road through Wormingford. The moated house is set back from the road with the farm buildings between the house and the road. The barn is aligned east-west beside the main road. The location plan shows the relationship of the various buildings on the site.

## 3.0 Cartographic and documentary study

The manor of Wood hall is not mentioned by name in the Domesday book but is thought to be the wooded land held by the Godbolds under the Barony of Raleigh. The Godbolds held land in Horkesley and adopted Horkesleigh as their family name. In 1639 a man called Symonds known as Baron Donyland was the owner of Wood Hall. In the 18th century Wood Hall farm was part of the Bradfield estates of Viscount Grimston. The tithe map of 1838 records Robert Dobson as the owner of Wood Hall.

Philip Morant in his History and Antiquities of the County of Essex, Vol II (1763) gives a brief history of the Manor of Wood Hall down to 1763.

The earliest map showing Wood Hall is Chapman and Andre of 1777. This shows the moated house and alongside the road a building slightly to the west of the present barn. The tithe map of 1838 and a sketch map in a deed between the Trustees of the Will of William Dobson and Thomas Hallum, dated 23 May 1841, both show the barn in its present position. The midstrete can be clearly seen so presumably the lean-to cow byre and the pig sties had not been built. Sheet XVIII of the six inches to the mile Ordnance Survey map, dated 1878, shows the barn in its present position but with a large extension which corresponds with the cow byre.

An undated sale catalogue of the 19th century names the following buildings:-

"Brick, Plaster, and Tiled Dwelling house, Timber and Tiled Outhouses:

Timber-and-thatched Cow House and Corn Barn, Bullock Yard with brick-and-Slated Root and Meal houses and Open Shed, Brick and tiled Range of Piggeries, Timber-and-thatched Second Corn Barn, Open Brick-and-slated Bullock Shed with large Yard, Brick-timber-and slated Cart Lodge and Drill Shed with Granary over, Brick-and-slated shed with Lose Box and Horse Yard, Brick-and-tiled Riding Stable, Coach House and Cart Stable, standing for 8 horses, Detached Brick-and-tiled Wagon Lodge with 4 bays."

The Royal Commission on the Historic monuments: Essex, Vol III (1922) mentions a house with a 16th century crosswing at the east end but does not mention the barn.

#### Sources

Beaumont, Winifred and Taylor, Ann: Wormingford an English Village (1983).

Morant, Philip: History and Antiquities of the County of Essex, Volume II (1768).

Royal Commission on the Historic Monuments: Essex, Volume III (1922).

Sale catalogue of Wood Hall Estate (19th century).

Deed from William Hobson and others, Trustees of the Will of William Hobson Esq deceased to Thomas Hallum Esq, 23 May 1841 E.R.O. D/Del T 338

Wood Hall manor and farm 1706 deeds enrolled Grimston and Lurkin E.R.O. D/DA T274

Survey of Bradfield estate including Wood Hall c1775  
It lists all the fields on Wood Hall farm. E.R.O. D/DHI A92

#### 4.0 Plan form

The barn has five bays and a midstrey. To the west of the midstrey on the south side are four lean-to pig sties. To the east of the midstrey on the south side is a lean-to cow byre.

#### 5.0 Description

The five bay barn with midstrey is made up of the following elements: six main trusses (posts and tie beams), studs between trusses, top plates, roof, midstrey and weatherboarding. I shall discuss each element in turn. I shall then describe the cow byre and pig sties.

## The main trusses

The main trusses are the oldest part of the building and are probably 15th century. Each truss seems always to have been together. The mortices for the missing braces on each tie beam seem to match brace mortices on the adjoining posts.

Truss (1) at the west end was a gable end. There are mortices on top of the tie beam to indicate this. The two corner posts had tension braces to the end wall and to the side walls. All four braces still exist but they no longer reach the studs into which they were originally pegged. The south west post has a door rebate for a door in the southern wall. There is no further evidence for this door in the adjoining studs so presumably this small access door existed only in the early phases of the barn.

Truss (2) has jowled posts whereas all the other trusses except the end trusses have had their jowls cut away to allow the later knees to fit better. The posts and tie beam seem to be a set as the mortices for the former braces appear to correspond. The post on the south side has a carpenter's mark "1" on it.

Truss (3) adjoins the midstrey and on the south side of the southern post the pegged mortice for the previous midstrey may be seen. Where the braces for this truss are cut away they have been replaced with iron brackets, but there may have been wooden knees here before.

Truss (4) adjoins the midstrey but the southern post has been replaced with a large reused timber with pegged mortices in it. This truss has iron brackets like those on truss (3).

Truss (5): As with the other trusses the braces have been cut out and replaced with knees. This truss is however different from the others in that it has a rafter couple sitting on top of it and pegged into it. This rafter couple have joints in them, high up, for an earlier collar.

Truss (6) (east end): This end truss has tension bracing along the end and side walls. In the north-east corner there is evidence for another corner tie. The mortice in the end tie beam can clearly be seen but there is no matching joint on the adjacent wall plate, showing that this plate is a later replacement. In the south east post, part of the jowl and brace have broken away. The tie beam has housings for rafter feet on the top face, showing that originally the barn was hipped at this end.

## Studs

Nearly all the studs appear to be reused as most of them have empty brace trenches in them. The studs are all fairly substantial.

## Top plates

Some of the top plates are old having the studs pegged into them. The plate in the south west corner with the corner tie joint could be as old as the posts. The plate between trusses 2 and 3 on the south side is clearly reused as it has pegged mortices from an earlier use. Several of the top plates on both sides are unpegged and are clearly later. The top plate between trusses 3 and 4 is door jamb of a large building reused, it may have been put in place this century.

## Roof

The barn was originally gabled at the west end and hipped at the east end, as can be seen by looking at the top faces of the end tie beams. This early roof was either a rafter couple roof or a side purlin roof. It was probably thatched or tiled.

The present roof probably dates to the 18th or early 19th century. It is a side purlin roof with windbraces in the end bays and by the midstrey. The rafters are mostly oak but some appear to be elm. Many of these rafters are reused and have collar joints in them which are not required for the present roof. Most of the rafters are about 4½ inches square. Sometime this century some of the old rafters have been replaced by small 4x2 inch rafters, particularly in the midstrey area. The roof is covered by modern sheeting.

## Midstrey

The original barn had a midstrey as can be seen by the mortice on the south face of post on truss 3. In the 18th or 19th century the present midstrey was put up. It is taller than the original midstrey to accommodate taller loaded waggons at harvest time. The top plate of the barn was cut through at this time to allow for the taller waggons. The tie beam at the north end of the midstrey has come adrift from its dovetail joint on the east side. To rectify this problem an extra tie beam has been put in place and the rafters of the barn now rest on this. At the south end of the midstrey was a tall barn doorway. The original doorposts have been replaced by modern timbers, but on the underside of the tie beam you can see where the posts were pegged in. The empty mortices on the inner faces of the cornerposts suggest that the doorposts were braced to the corner posts in some way. At harvest time it was usual for loaded waggons to enter a barn via the midstrey and leave via a lower doorway in the opposite wall after being unloaded. In the north wall of this barn opposite the midstrey is a small modern door and some light modern framing, suggesting to me that there could have been a low door here for waggons.



## Weatherboarding

All the weatherboarding is modern except that on the south side where it is protected by the lean-to cow byre and pig sties. These lean-tos are 19th century but the weatherboarding could date back to the 18th century.

## Cow byre

It can be seen from map evidence that the cow byre was probably put up between 1841 and 1878. At the east end, by the entrance to the farm, the cow byre is supported on a curving brick wall. At the west end the byre is tied into the midstrey. On the south side is one large oak post and several small modern posts. Two curved tie beams fastened to studs in the barn support the roof. The rafters are rectangular and of small scantling. The byre is covered by corrugated iron sheeting.

## Pig sties

The range of four pig sties were probably built in the late 19th century. The south elevation is a 9 inch brick wall. The opening to each pig sty had a wooden frame but these have almost entirely rotted away. The partitions between the sties are made of small scantling timbers covered in boarding. The pig sty at the west end has a small window in end brick wall. The roof is supported by curved tie beams morticed into the studs of the barn. The rafters are rectangular small scantling timbers. The roof is of red pantiles.

## 6.0 Materials and construction

The posts, studs and top plates are of oak. Some elm has been used in the later phases, for example in the knees and some of the rafters. The plinths of the barn are brick, but very modern looking brick. Earlier brick plinths may have decayed and been replaced or the original plinths may have been of flint rubble. The oak sill beam at the west end still survives but elsewhere has completely disappeared. The original infill between the studs was wattle and daub as can be seen by the wattle notches on the posts and studs. In the late 1950's the lower parts of the studs were encased in concrete to help stabilise the barn. The midstrey probably did not have any infill but was lath and plastered on the outside. The present roof material is asbestos-cement sheet but the original roof materials were probably thatch or clay tiles. The cow byre has brick wall and a roof of corrugated iron but is otherwise of timber. The pig sties are timber with brick front walls and a pantiled roof.

## Methods of construction

The original barn is timber framed with outside tension braces. The midstrey has primary bracing. The original roof was probably rafter couples or a side purlin roof, gabled at one end and hipped at the other. The present side purlin roof is gabled at both ends.

### 7.0 Internal layout and organisation of space.

The main purpose of the barn was the storing and processing of crops. The stooks of wheat, barley or other crops would have been stored in the barn at harvest time. They would have been piled right up to the tie beams. The braces on the main trusses were probably replaced by knees to increase the storage capacity. The small door by the south west post in the original barn suggests a need to get into the barn without opening the main doors.

There was probably another door opposite the midstrey in which case the space between the doors could have been used for threshing with flails. In the 19th century some form of mechanised threshing was probably introduced. The barn may have been used to store crops until the coming of the combine harvester.

The lean-tos are just an economical way of adding animal accommodation in the 19th century.

### 8.0 Phasing

Phase 1: (probably 15th Century) The main trusses date from this phase. The roof built for this phase was gabled at the west end and hipped at the east end.

Phase 2: the barn was rebuilt several times re-using the same trusses and perhaps some of the studs.

Phase 3: in the 18th Century or the early 19th Century the present side-purlin roof was put on.

Phase 4: (which may be the same as phase 3) Total rebuilding of the midstrey to admit waggons with taller loads to the barn. Also, the top plate at the midstrey position on the south side was cut away to clear the high loads.

Phase 5: Building of the lean-to cow byre and pigsties.

Phase 6: North wall opposite the midstrey, probably originally a cart doorway, was replaced by framing of small scantling with a modern narrow door. The roof was replaced using corrugated asbestos-cement sheets. The lower parts of the studs all round the building were cased in concrete to compensate for decay.



Plate 1    General view of house within moat

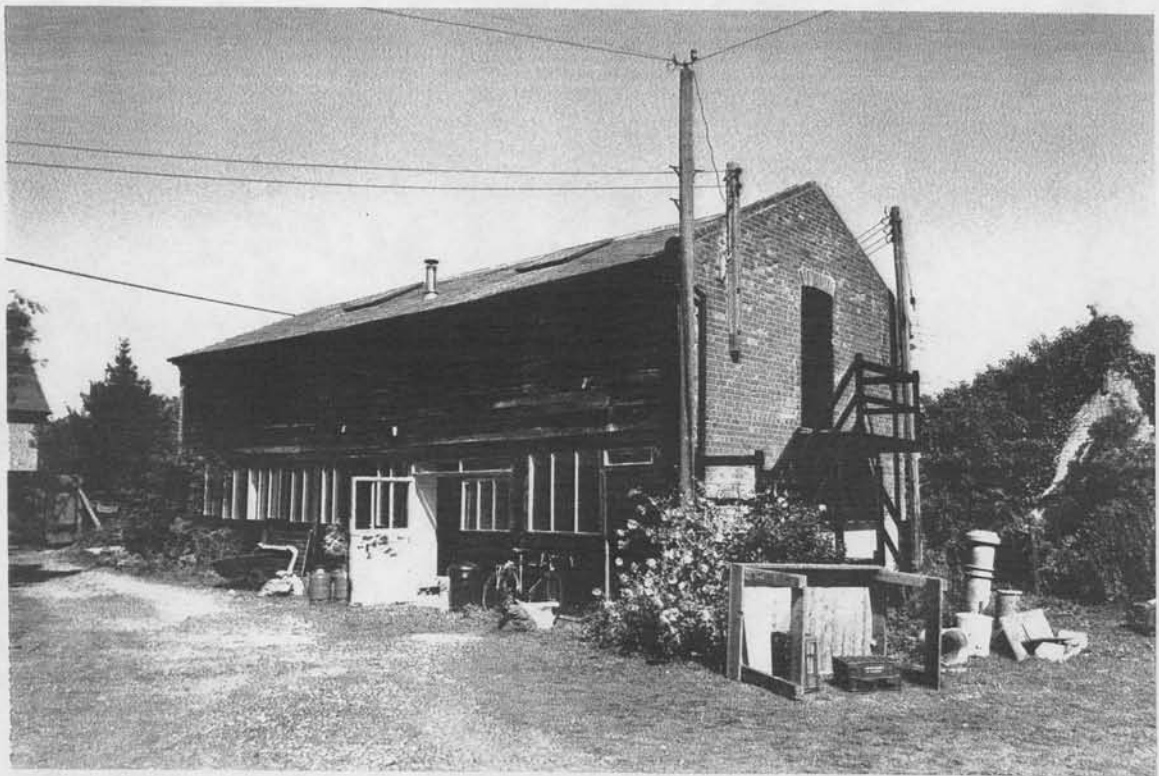


Plate 2    General view of Granary



Plate 3    General view of brick stables



Plate 4    General view of barn from south



Plate 5    General view of barn from north

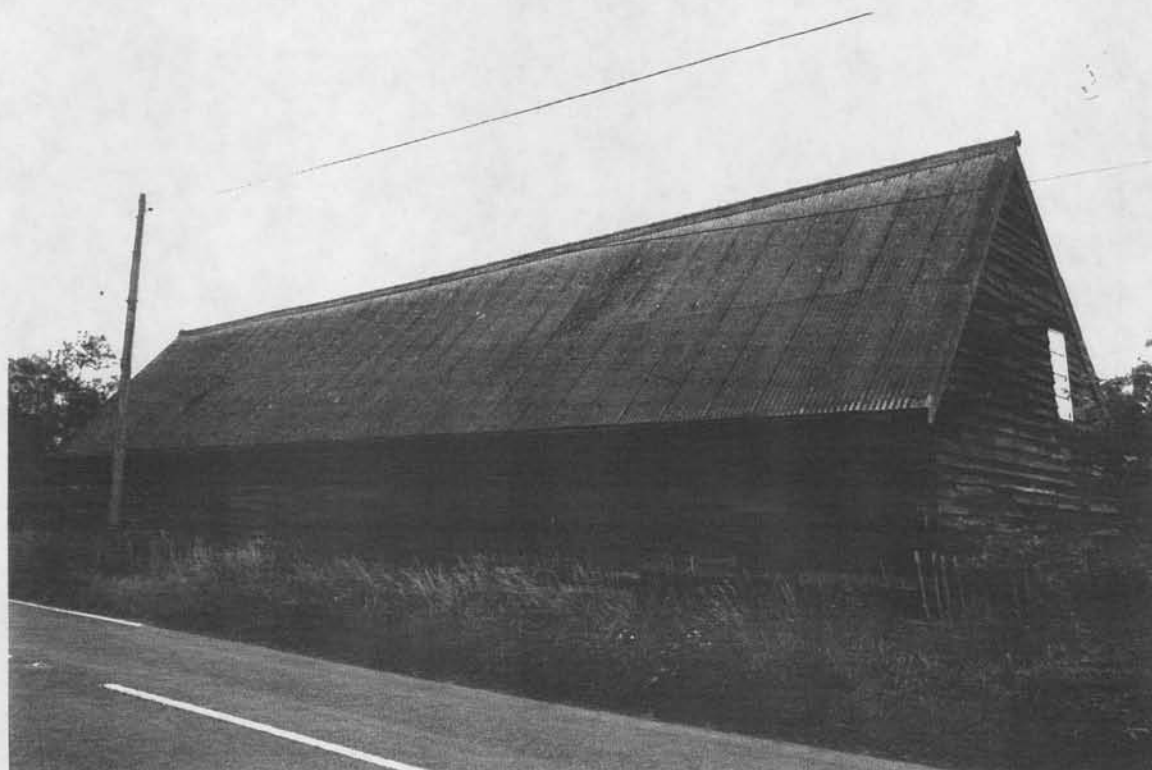


Plate 6    General view of barn from north





Plate 7 Small door in north wall of barn from outside



Plate 8 Truss 1 (end truss)



Plate 9 Truss 1 (end truss): view including side purlin roof



Plate 10 Truss 1: detail of door rebate in south post



Plate 11 Truss 2: detail of knee and jowl



Plate 12 Truss 4: detail of iron bracket





Plate 13 Truss 6 (end truss)



Plate 14 Truss 1: view showing joints for angle tie



Plate 15 Truss 6: view showing mortice for angle tie on tie beam, also showing adjoining piece of top plate (replacement as there is no joint for angle tie on top face).



Plate 16 General view of midstrey



Plate 17 View of west side of midstrey

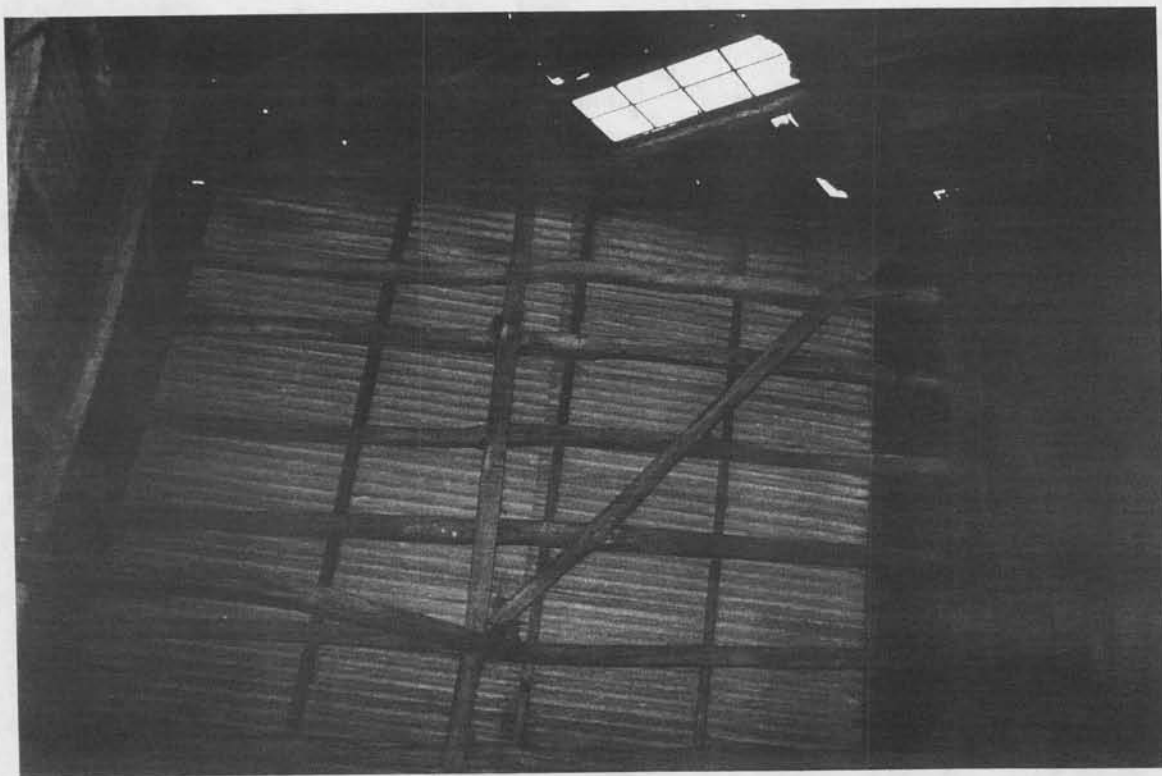


Plate 18 View of roof showing side purlin, collar and wind brace



Plate 19 Interior of cow byre



Plate 20 Cattle trough in cow byre





Plate 21 Weatherboarding of barn seen from inside cow byre



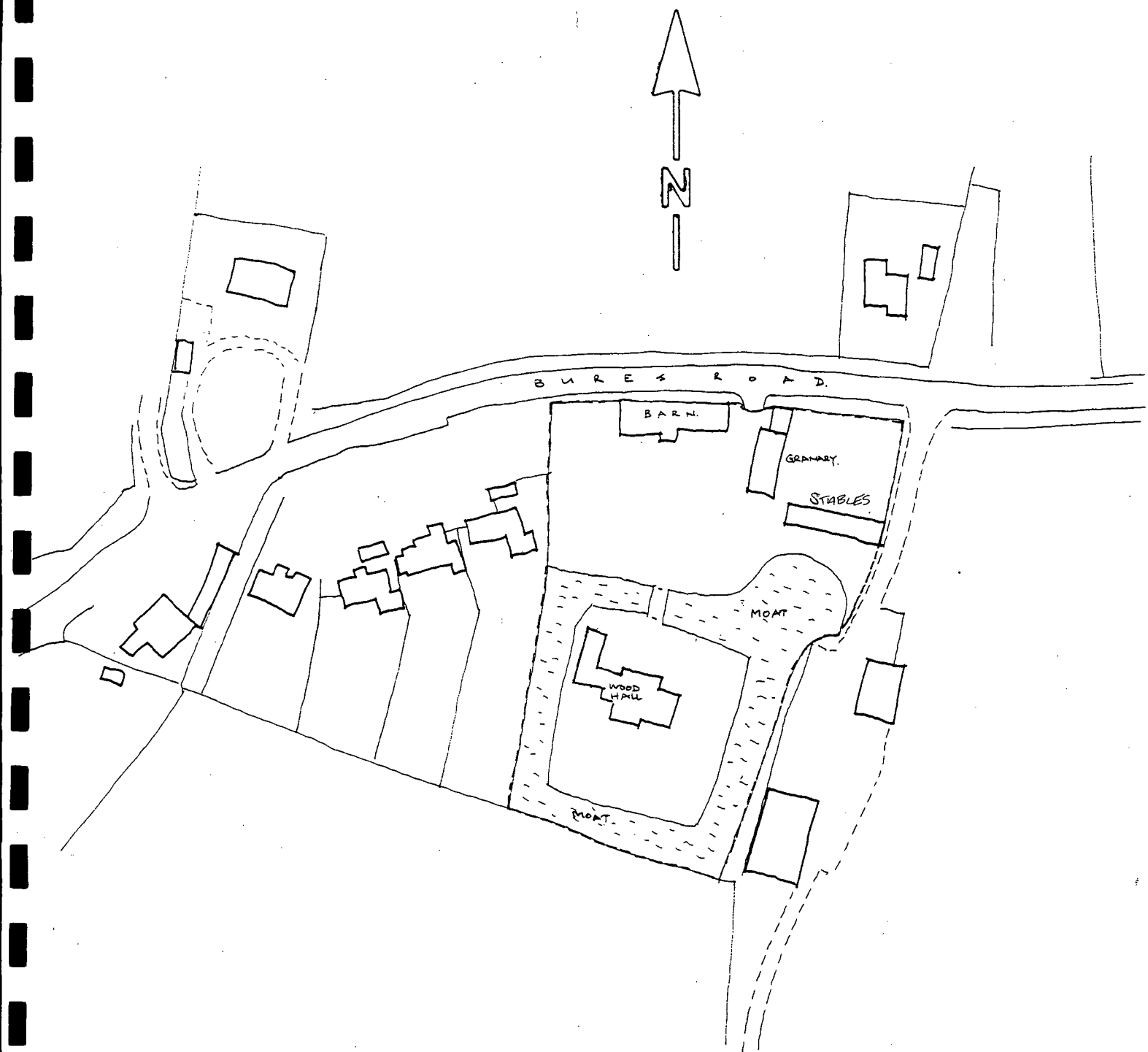
Plate 22 Exterior of pig sties



Plate 23 Exterior of pig sties: detail

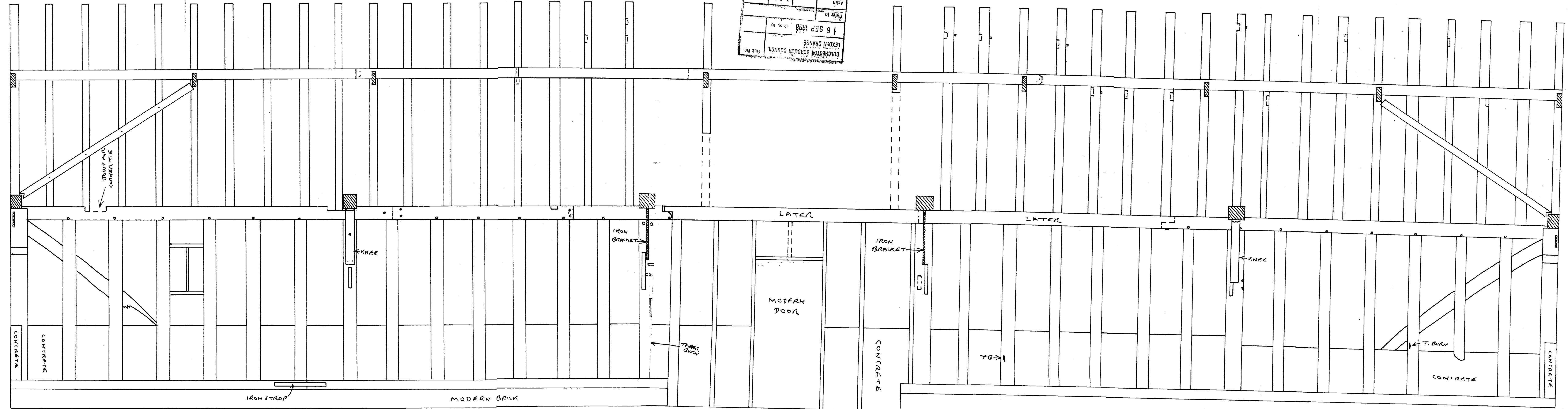


Plate 24 Interior of pig sties



Location Plan

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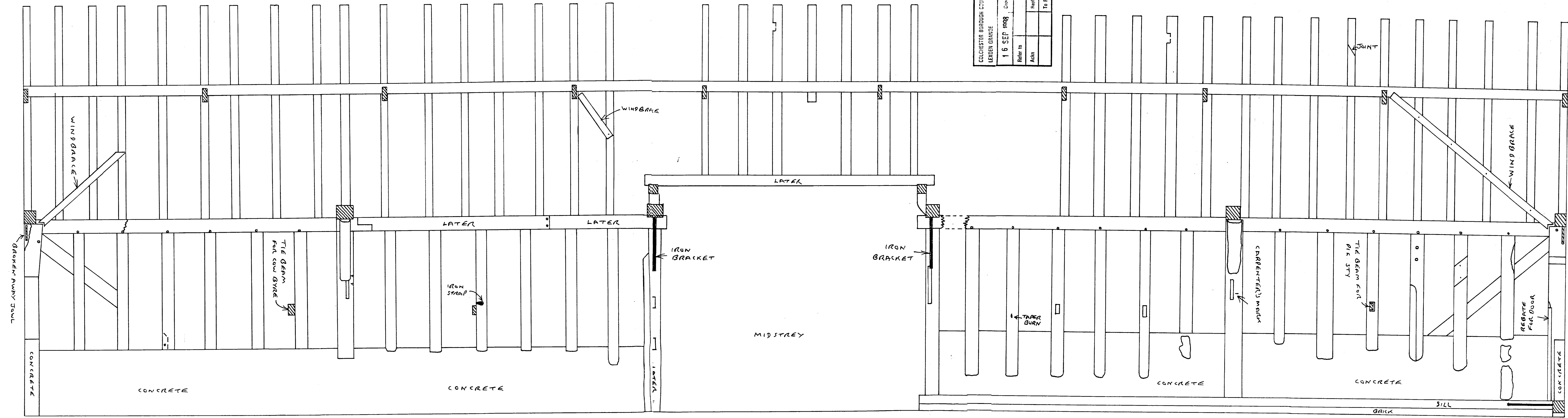
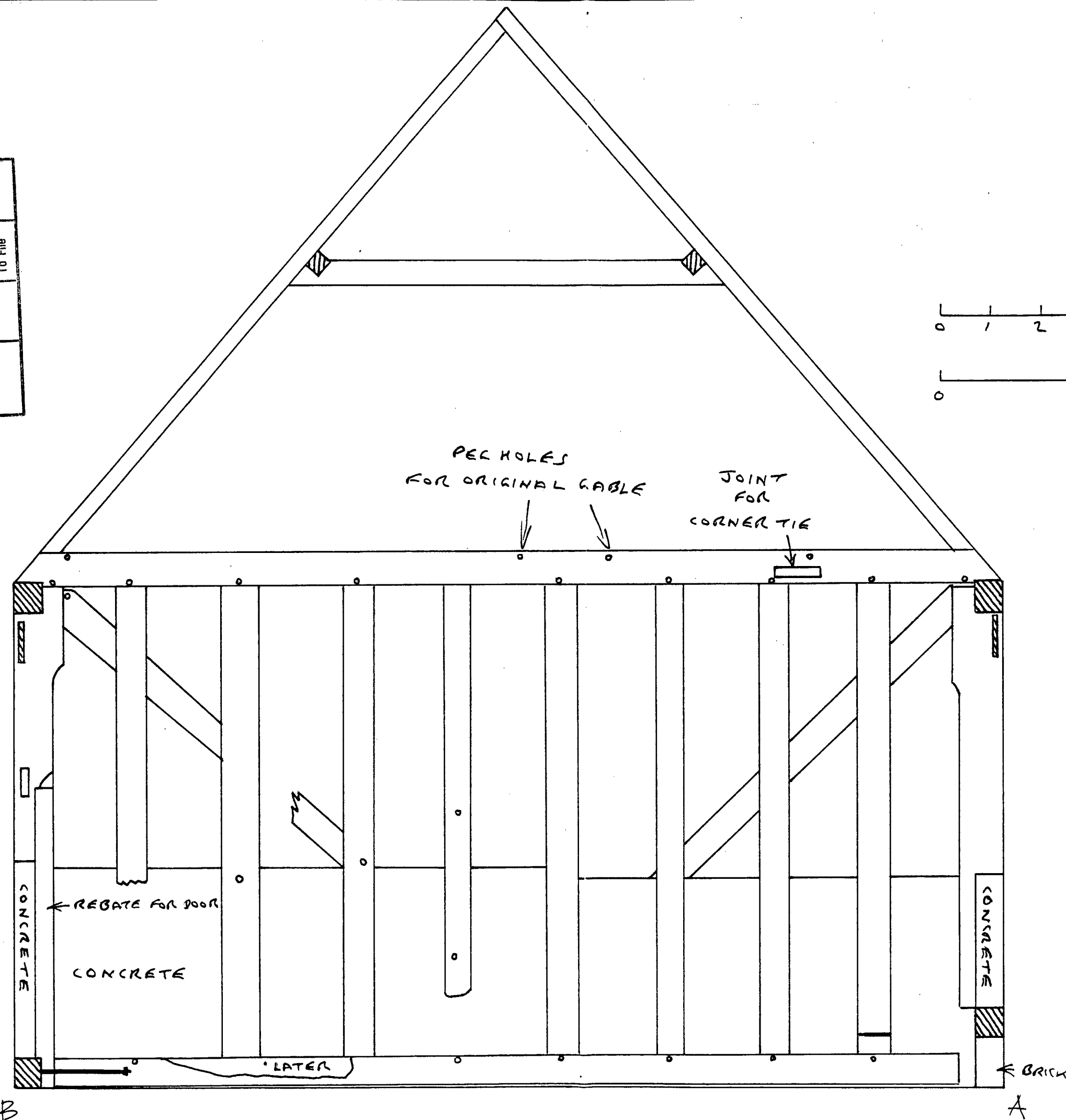
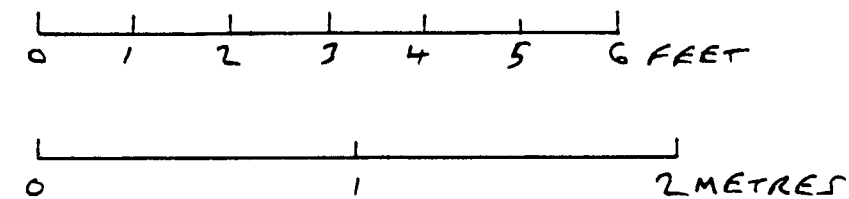


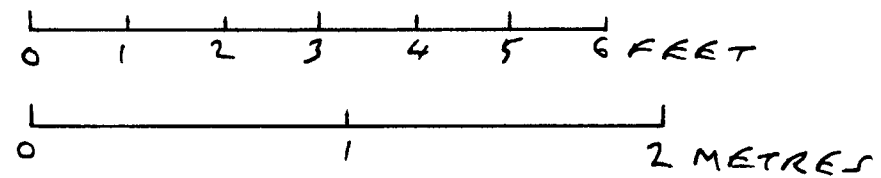
FIGURE ③

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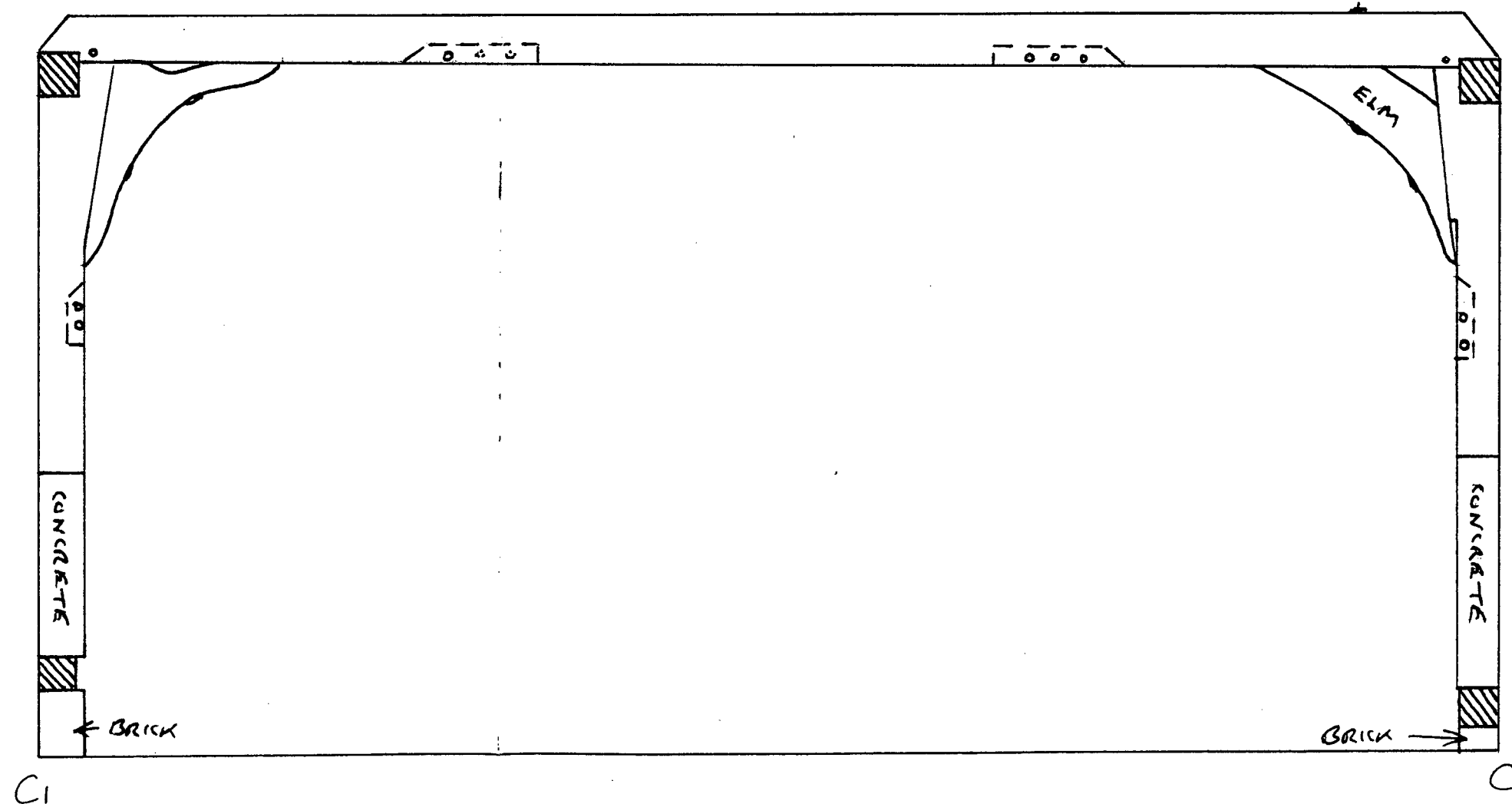
FIGURE ④  
TRUSS ①



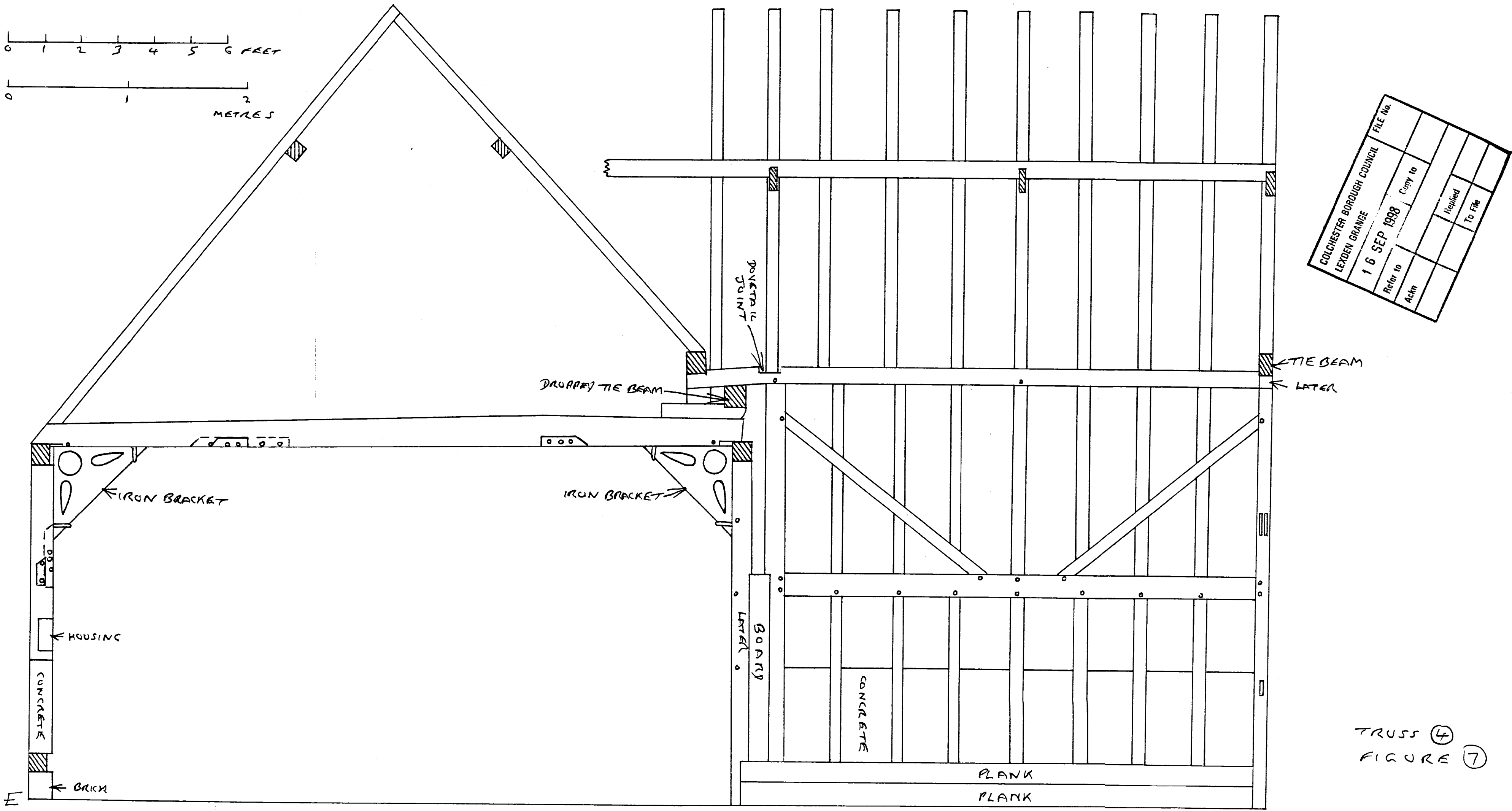
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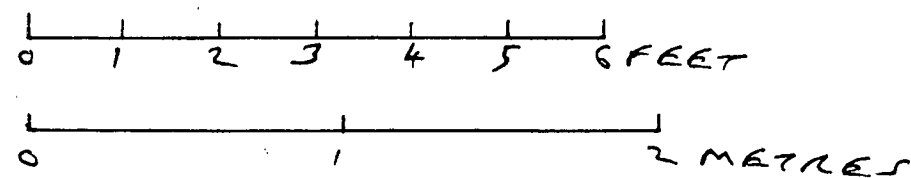
TRUSS (2)  
FIGURE (5)







TRUSS ④  
FIGURE ⑦

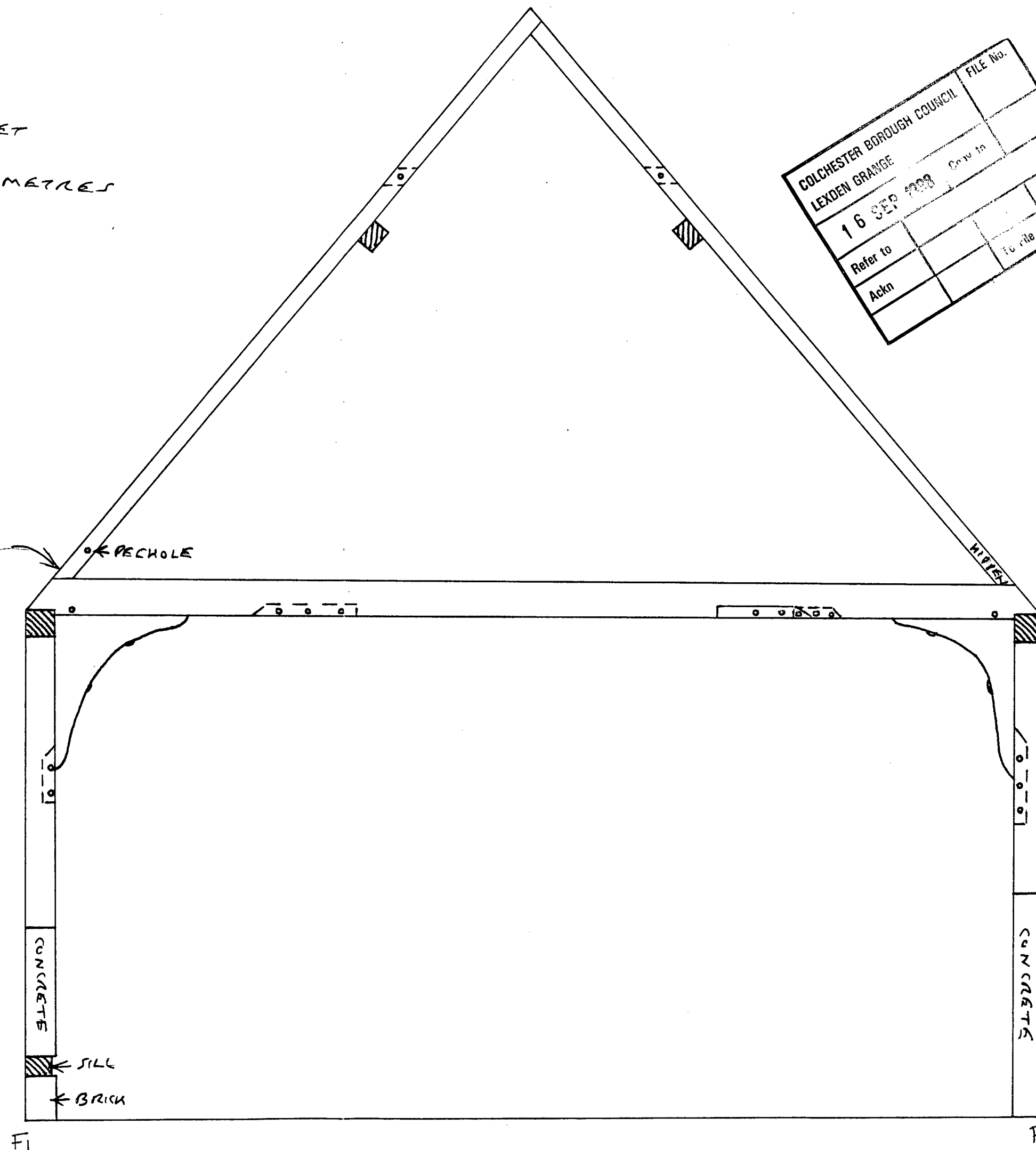


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RAFTER  
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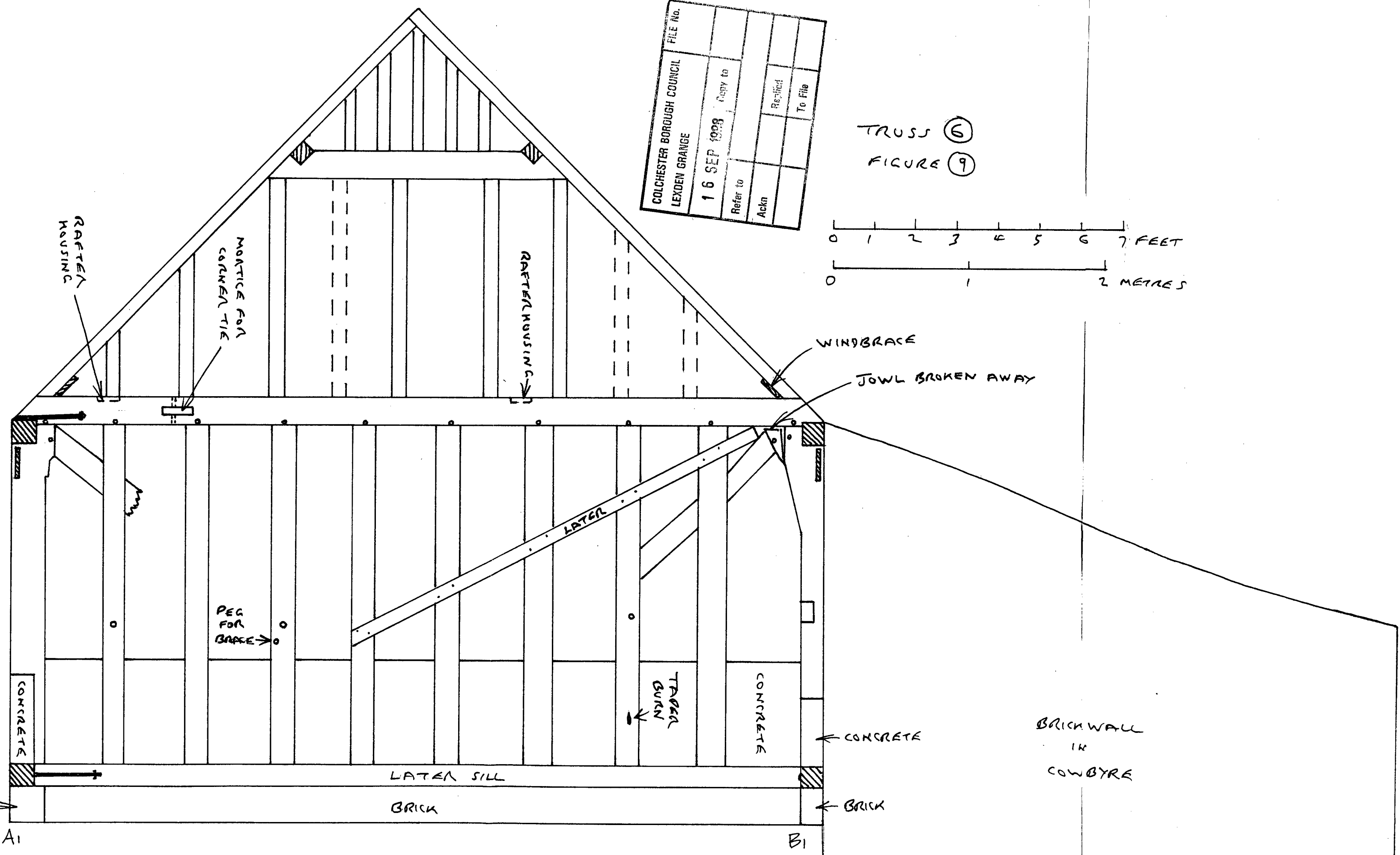
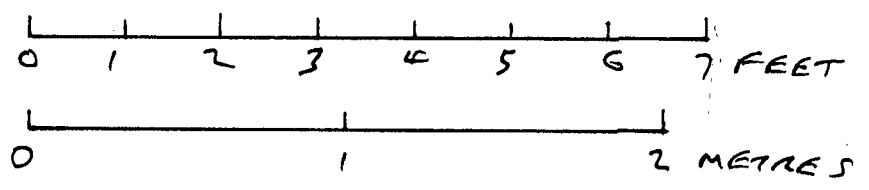
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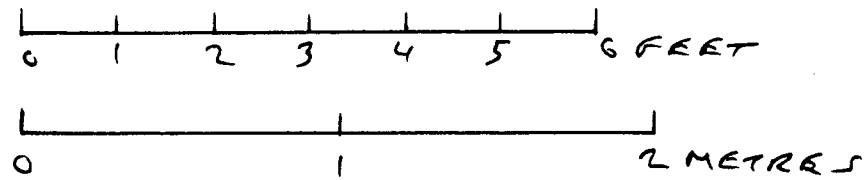
TRUSS ⑤  
FIGURE ⑧



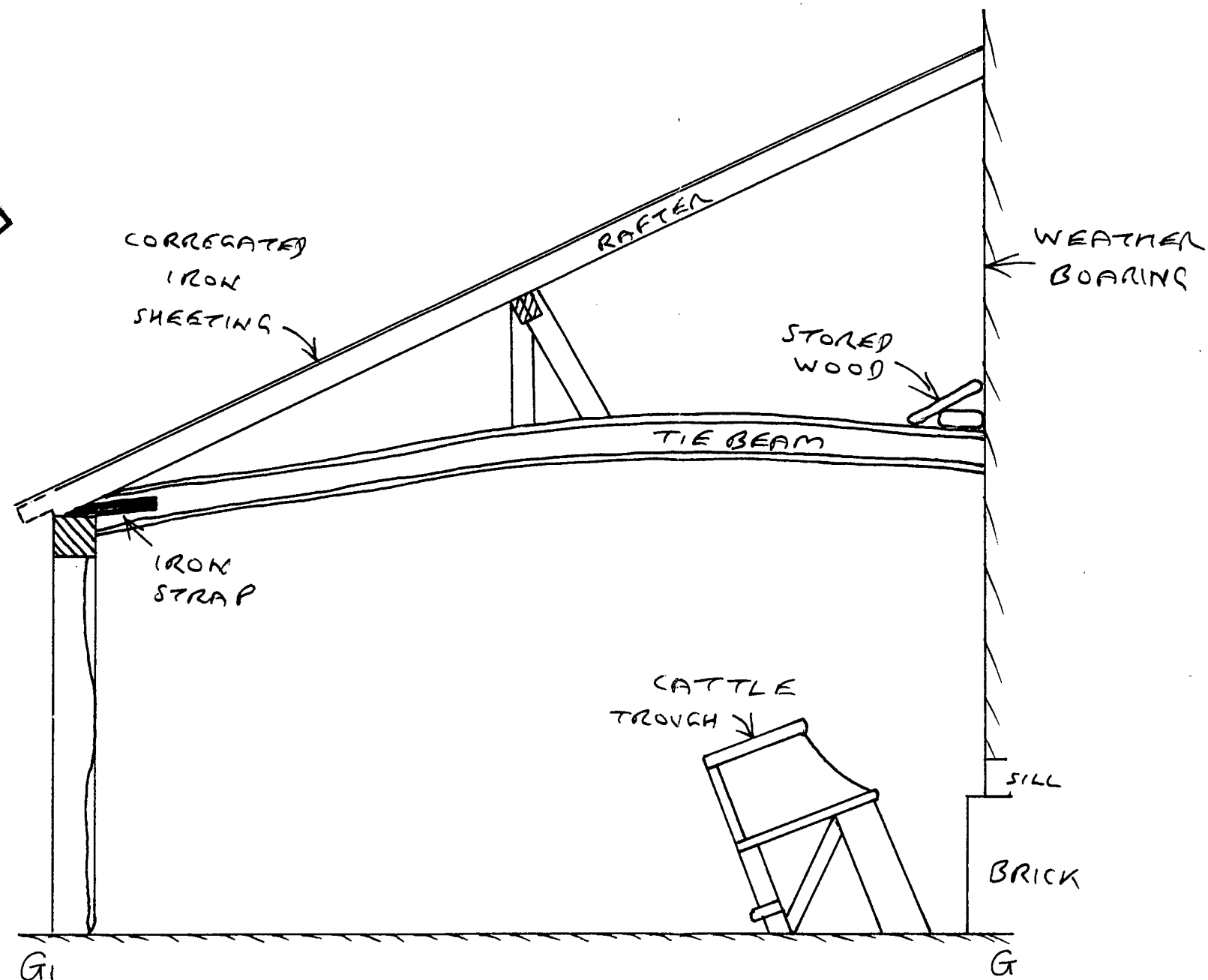
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TRUSS ⑥  
FIGURE ⑨





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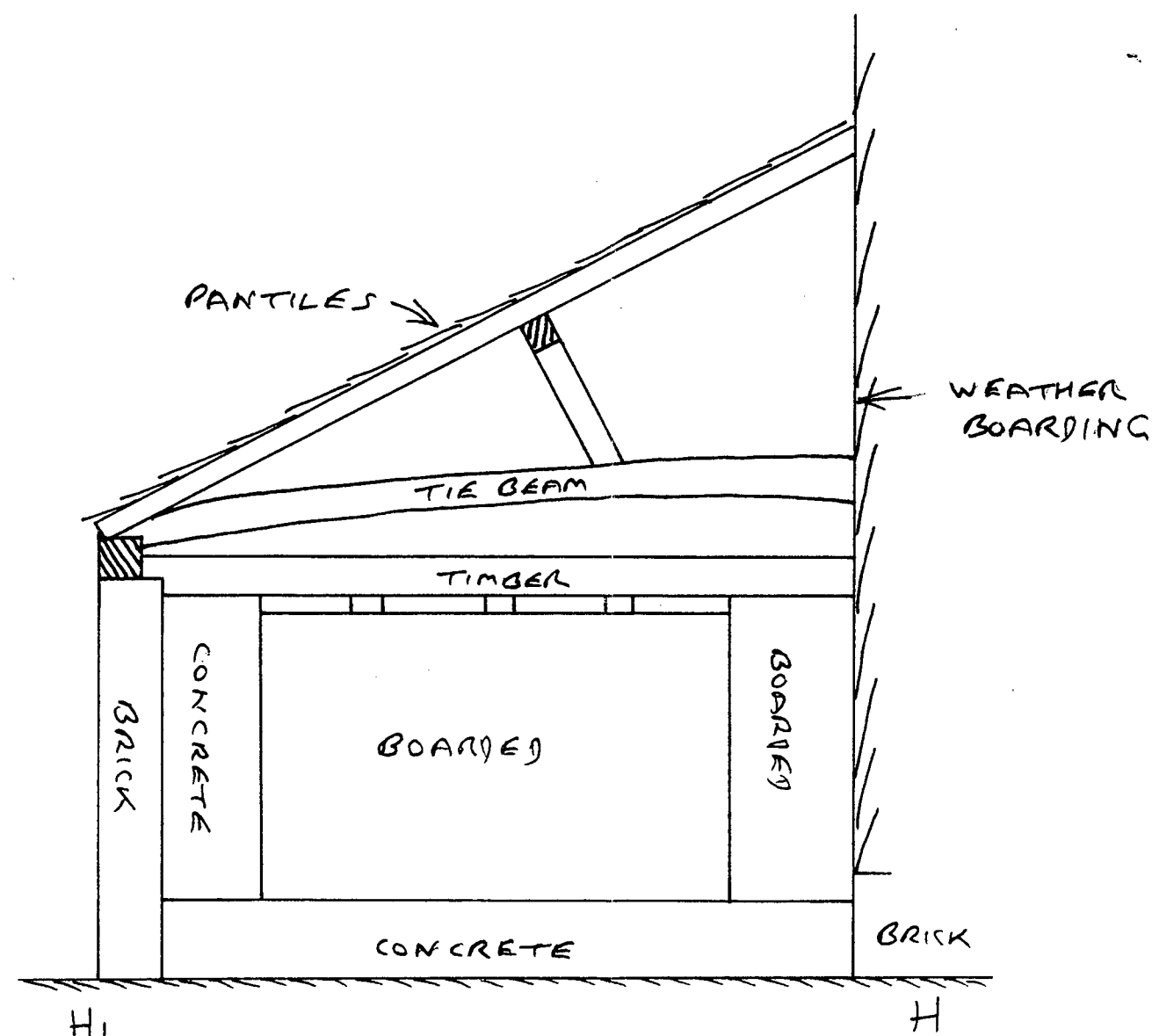
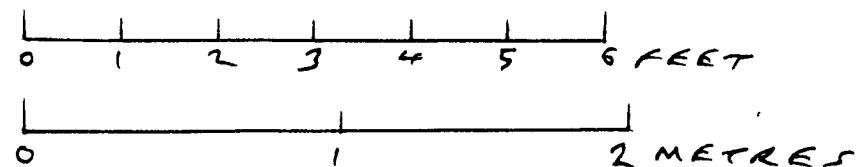


SECTION THROUGH  
COW BYRE

FIGURE 10

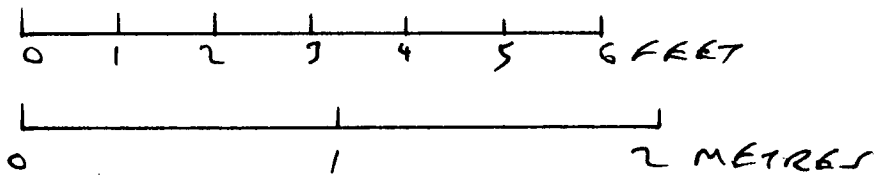


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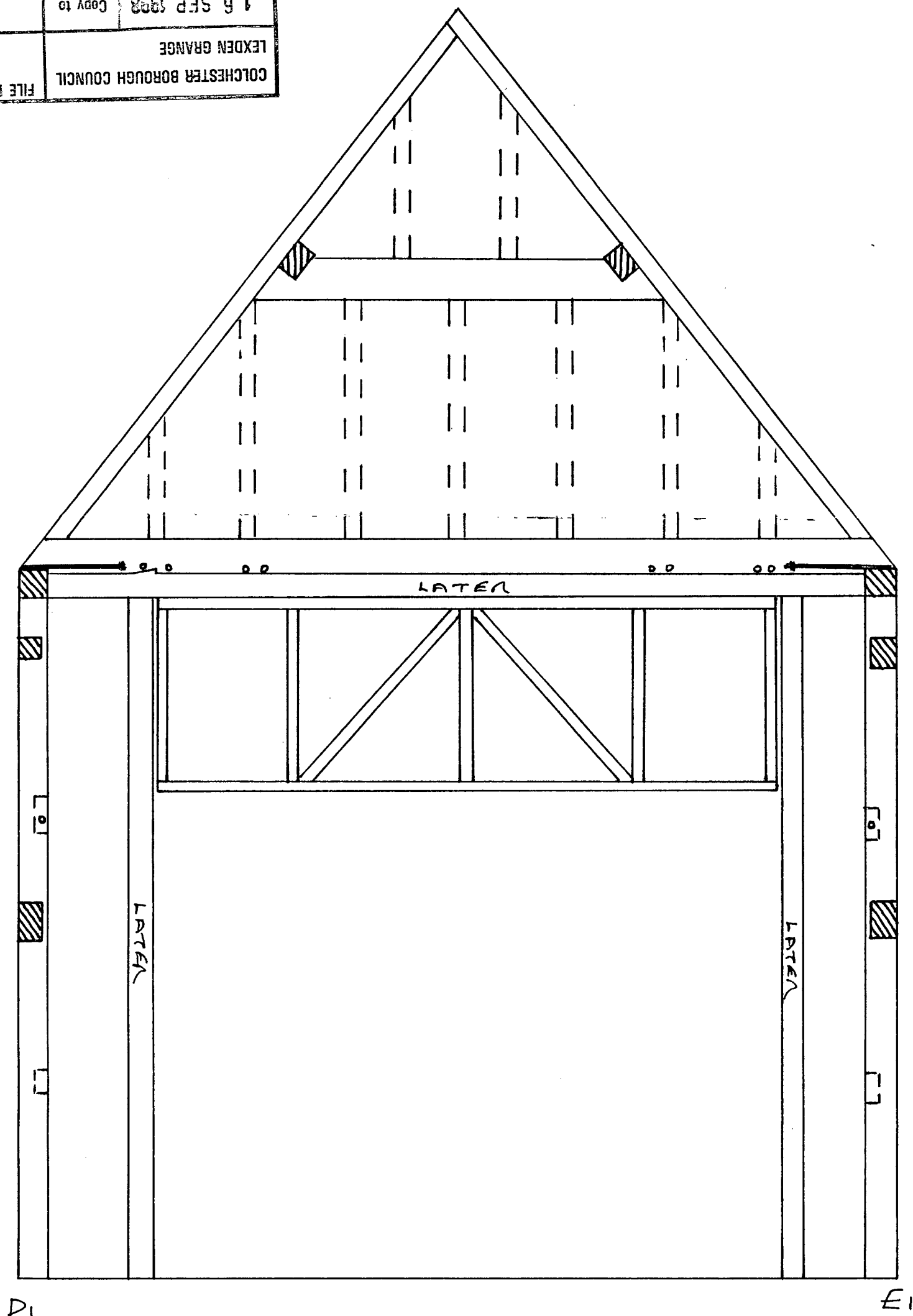


SECTION THROUGH  
PIC STY

FIGURE (11)

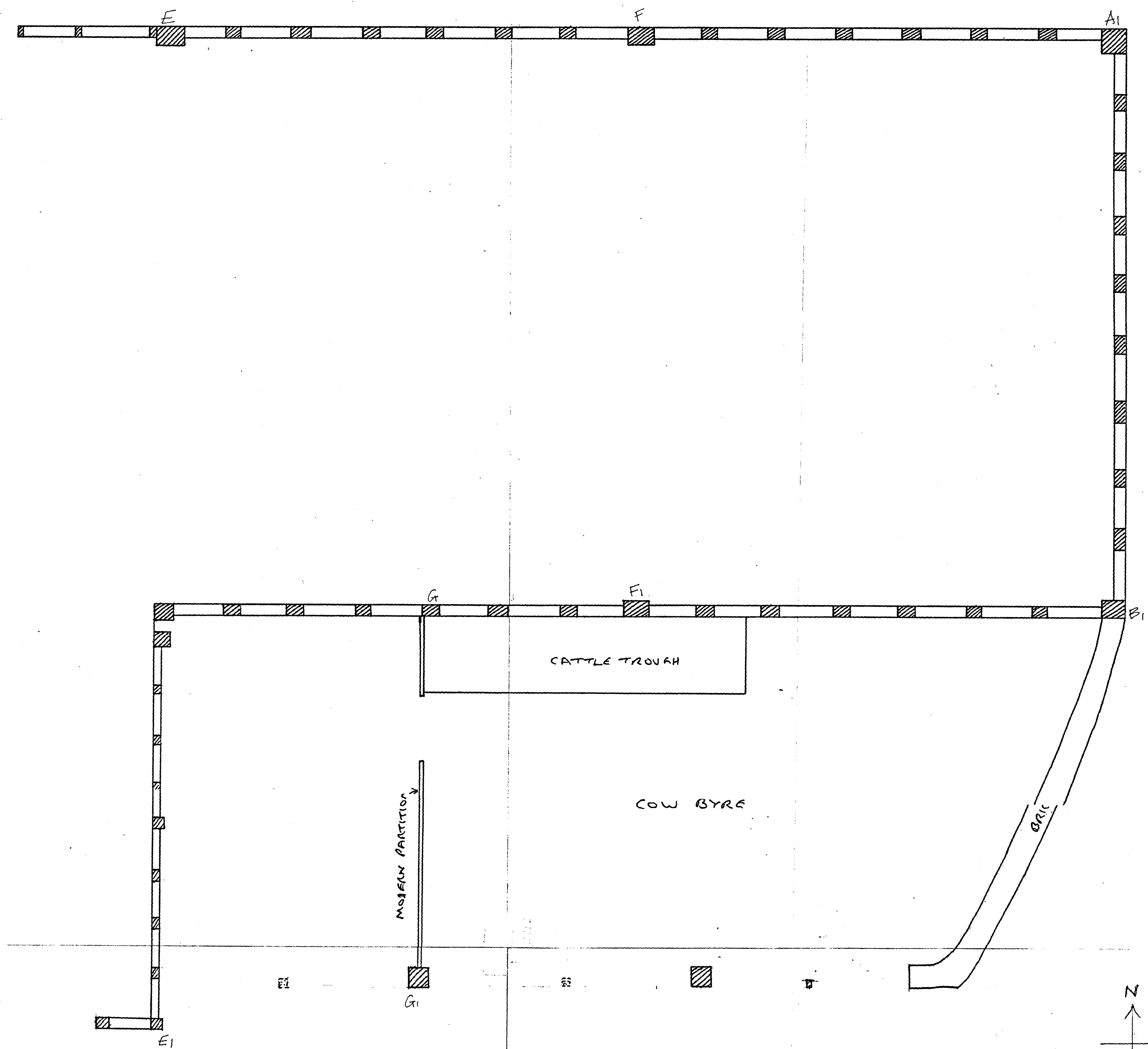
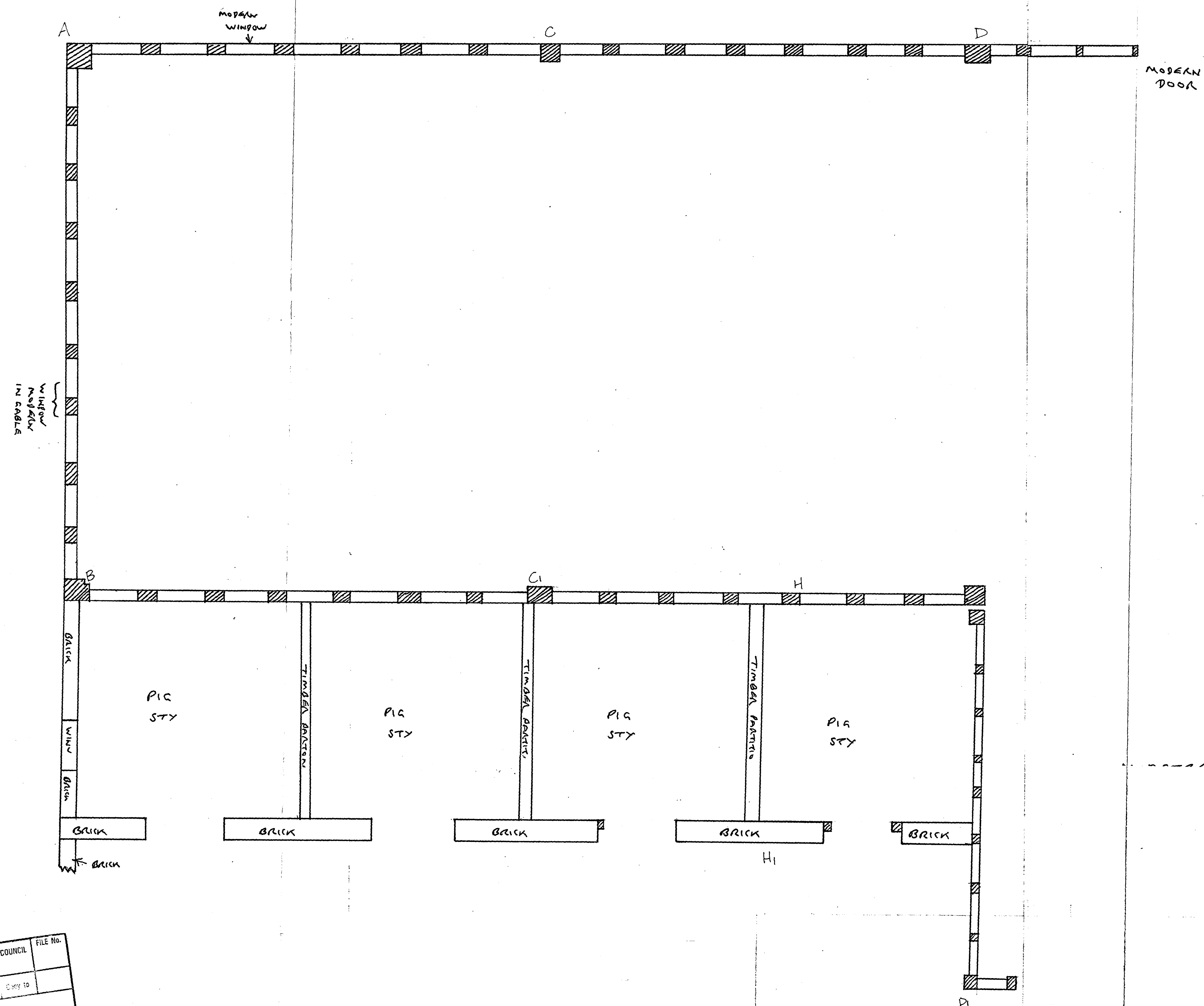


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MIDSTREY

FIGURE 12



0 1 2 3 4 5 6 FEET

0 1 2 METRES

BARN, WOOD HALL, WORMINGFORD

FIGURE 1



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