SMR

M2/18

LINDSEY ARCHAEOLOGICAL SERVICES

Doughty's Mill, Melville Street, Lincoln

NGR: SK97809 71046

Site Code: LDMA 02

LCNCC Museum Accn No. 2002.5

Planning Application: 99/089/F

Archaeological Watching Brief

Report Prepared

for

Lindum Group Ltd

LAS Report No. 599

July 2002

25 WEST PARADE · LINCOLN · LN1 1NW

TELEPHONE 01522 544554 · FACSIMILE 01522 522211 · EMAIL las@lasarchaeology.fsnet.co.uk

F.N.FIELD B.A. (Hons), MIFA

Event LI3197
Source LI7918
LI7919
Mon LIE3057
70260

Contents

List of Figures

List of Plates

Doughty's Mill, Melville St, Lincoln

Archaeological Watching Brief

Site Code: LDMA 02
LCNCC Museum Accn No: 2002.5
NGR: SK97809 71046
Planning Application: 99/089/F

Summary

The watching brief has established that the site has undergone extensive disturbance as a result of building during the 19th-20th century. However, the remains of an earlier building, possibly associated with the 'Old Hospital' shown on Marrat's 1848 map, do survive. This structure might mark the beginnings of occupation on the site as deposits seen in the base of the piling trenches (6.27mO.D.) and within the borehole survey appear to be partially waterlogged and may be associated with a phase of land reclamation prior to occupation.

Introduction

A watching brief for Lindum Group Ltd, in accordance with the general requirements of the Department of Planning Lincoln City Council dated January 21st 2002, as set out in the *Lincolnshire Archaeological Handbook* (1998), was carried out on 4 - 8th February 2002.

Site Description

The development site (Figs. 1 and 2) is located on the east side of Melville Street either side of the offices of Longhurst Housing Association (Pls. 1 and 13). The land was open prior to development.

Planning Background

The site lies within Conservation Area 1 *Cathedral and City Centre.* Planning permission was granted in April 1999 for the erection of a three-storey building to contain ground floor offices with 8 two-bedroom flats on the first and second floors. Permission was granted subject to conditions including Condition 3 which states that

No development, geotechnical investigation, site clearance or other enabling work shall take place on the site until details of the measures to be taken to evaluate, preserve and/or record the archaeological content of the site, which shall include a timescale for the investigation, have been submitted to and approved by the local Planning Authority. All archaeological work shall thereafter proceed in accordance with the approved programme.

Archaeological Background

This area of the city was part of the suburb of Thorngate which developed from the 11th century and was closely associated with activities along the river. It may have been located on an island south of the present river course. Thorngate Castle is thought to have been in the vicinity, but its location and that of the island have yet to be found.

Excavations in 1997, on the site of Doughty's Mill to the north-east, along Waterside South revealed evidence of dumping, up to 2m deep, representing 13th century land reclamation. Part of a stone building, possibly a merchant's house was also recorded.

A hospital is marked on this site on Marrat's 19th century map of the city. Doughty's Oil mill to the east was built in the 1840s and Melville Street was constructed at about the same time to provide a route from the city to Canwick.

The Longhurst Housing Association occupies a building built in the1890s by Doughty Son and Richardson as the mill offices. The mill itself was converted to apartments in 1997-1999.

Evaluation of the southern area of the development site in January 2002 established that there has been extensive disturbance as a result of building and service trenches during the 19th – 20th centuries.

Aims and Objectives

In general terms the purpose of the watching brief was to record any archaeological deposits disturbed during the excavation of building foundations at the above site and to provide results for accession to the County SMR and the Lincoln UAD

Watching Brief Method

An experienced archaeologist was on site during the clearing of the ground for the preparation of piling. All exposed trenches were recorded. Sections were either drawn at 1:20 or sketched, if safety did not allow access into the trenches. Finds located in features were identified accordingly and a context numbering system for archaeological remains was used. A full photographic record was made during the progress of the watching brief to cover each feature together with general site views.

An auger survey was also monitored by an environmental archaeologist. The results of this monitoring can be found in Appendix 2.

Results

A total of 22 trenches were to be opened in the area north of the Longhurst building (Fig. 3) with an additional 11 to the south (Fig. 4). Unfortunately the easternmost 12 trenches (Trenches A – L) in the northern area and the 4 in the southern area (Trenches HH – KK) were excavated and backfilled before archaeological monitoring.

Monitored Area To The North of The Longhurst Building (Figs.5 - 9)

Modern Deposits

A thick layer of recently deposited material, **200** (Pl. 1), up to 0.60m thick, levelling the ground after the backfilling of cellars, was the most recent deposit on the site. Beneath **200** was a layer of cream coloured hardcore, **201** (Pls. 6 and 8 –12), which infilled modern service trenches. This deposit was seen in Trenches M - Q. Laminates, **210**, were below **200** at the north end of the watching brief area. A water pipe, which was left *in situ*, was noted in Trench X (Pl.12). A black silt sand containing demolition debris, **209** was sandwiched between two deposits of mortar, **202**, 0.16m thick and **238**, within Trench W (Pl. 11). Laminates, **220**, 0.40m deep, were recorded in Trenches P and X (Pl. 12). Other modern deposits were:- **239**, 0.20m thick, a grey silt with brick and mortar fragments, a thin band of black hardcore, **240**, and a green mortar with brick fragments, **222**, 0.13m deep. A layer of black silt containing concrete, **212** (Pl. 12), sealed the brick structures **211**, in Trenches V and X.

Brick Structures

The modern brick cellars (Pl. 9), found in Trenches N, O, S and T -W, were filled with limestone rubble occasionally mixed with brick fragments, **204** and **242**, which was often capped with concrete rubble, **203**. Brick rubble, **207**, was recorded in Trench W. Brick wall **211** was north - south aligned, was 0.55m high and could have been associated with the cellars, as could east – west orientated wall in Trench W. Floor tiles, **233**, 0.08m deep, below **204**, were noted in Trench T (Pl. 8). In Trench N a service drain and brick structure was noted (Pl. 7). A brick well was noted in Trench M, but was backfilled for safety reasons, before it could be recorded.

Stone Walls

An east – west aligned stone wall, **234** (Pls. 2 and 3), comprising stones up to 0.62m x 0.24m x 0.26m, was seen in the east facing section of Trench M. Backfilling of the well had severely damaged the wall, but it appeared to have at least four courses of stonework and had a depth of at least 0.80m.

Within Trench M was a north – south orientated stone wall, **237** (Pl. 6). Only one, 0.30m deep, course survived, 0.66m below the present ground surface. An east – west aligned wall, **235**, seen in the west facing section of Trench M, was recorded 2.7m east of **237**. Possibly an eastern return to **237** which, prior to its destruction during the backfilling of the well, was noted to turn northwards, becoming **236**. Wall **236** was located 1m west of wall **234**. The wall was 0.90m wide at **236**, whilst at **235** (Pl. 5) it was 0.52m. This suggests **235** may have been an internal wall whilst **236** was external. The north facing section of Trench M also contained a c.1.50m long, ten course stone wall, **241**, which was utilised as part of a cellar wall and used for foundations for the Longhurst building, **243**. Stone size for **241** was difficult to determine but seemed, on average, to be 0.30m x 0.13m x 0.13m.

A stone wall, **213**, very damaged due to machining was noted in Trench T (Pl.8). Seen in elevation, it was 0.30m high and consisted of one course of stones.

Earlier Deposits

The limestone walls cut through a layer of grey silt, sometimes with a slight clay content, **210**. In Trench S limestone wall **213** cut a purple ash silt, **206**, (Pl. 11).

A similar deposit to **210**, lacking any limestone inclusions, **205**, was noted in Trenches T – X (Pls. 8 – 12). A mid green grey clay silt, **208**, containing small stones, charcoal flecks and fragments of mortar, lay beneath **205**. A black silt, **216** (Pl. 6), was noted below **208**. Wood fragments were noted in this layer.

Monitored Area To The South Of Longhurst Building (Figs. 9- 13)

In Trenches BB, CC and EE a light brown silt, up to 0.40m deep, with brick and limestone fragments, **215** (Pl. 16), lay below **200**. A cream coloured mortar deposit, **221**, 0.85m deep was recorded in Trench EE. These were the only modern deposits below the level of the backfilled cellars.

Brick Structures

Backfilled cellars were noted in Trenches FF (Pl. 17) and GG. In Trench FF the backfill, **204**, was over 2m deep.

Stone Wall (Pls. 14 and 15)

Beneath the Longhurst building, exposed in the south facing section of Trench BB was an east - west aligned wall **223**. The wall, 1.14m high, comprised five courses of limestone blocks (maximum size 0.90m x 0.26m), bonded in places with light blue clay, **213**. The footings, **229**, for the wall were one course deep. The footing limestone block was 0.60m x 0.20m. To the east was a layer of limestone brash, **229**, 0.15m thick, above a band of dark grey silt, **230**, sealing a 0.04m deep brown sand, **231**, which was the primary fill of the construction trench, **214**. Construction trench **214** appeared to cut a deposit similar to **208**. The wall continued for another 2.7m to the west and into Trench GG, where 4 courses were exposed, to the east.

A possible blocked entrance was also noted. Limestone blocks, **224** were above a row of bricks one course deep (0.07m), **225**, which were set in mortar, **226**, placed over a thin spread of dark grey silt, **227**. In all the entrance had a height of 0.80m, only the eastern side was visible, bonded to **223**.

Earlier Deposits

Stratigraphy in the southern monitored area was similar to that in the north with the exception of **217** and **219** (Pl. 16). **217**, 0.20m deep, was in Trench BB, which had the same matrix as **210** but contained mortar and charcoal flecks. **219** was noted in Trench AA, it contained limestone fragments. It lay below **218**, which had a sandier content and above **208** (Pl. 15), which had a thickness of 0.20m. **208** was noted as **114** in the 2002 evaluation trench.

Discussion

Modern service trenches and cellars have destroyed most of the earlier deposits within the upper 1.60m of the site. The deposits that do survive below this depth have generally yielded little pottery to date them. **208** may at one point have been waterlogged and may be part of a land reclamation exercise prior to occupation in the 19th century. This view is also supported by the borehole survey data.

Conclusion

The watching brief has established that the site has undergone extensive disturbance as a result of building during the 19th-20th century. However, the remains of an earlier stone building, possibly associated with the hospital shown on Marrat's 1848 map, does survive and may mark the beginning of occupation on the site, the earlier deposits being dumps to raise the ground level for future occupation (fitting in with the expansion of Lincoln in the 19th century, beyond the medieval extent of the city).

Acknowledgements

Thanks to Mr Staley of Lindum Group Ltd and the site crew for there help. All fieldwork was carried out by the author and Naomi Field. This report was edited by Naomi Field and produced and collated by Jane Frost.

Mick McDaid

July 2002

References

McDaid, M; 2002 *Doughty's Mill Phase 4, Melville Street, Lincoln. Archaeological Evaluation.* LAS developer report no. 566.

Wright, N.R; 1982 *Lincolnshire Towns and Industry 1700-1914.* History of Lincolnshire XI.

Archive List

Sketch Plans

Sketch Section

Levels

Correspondence

Photographs

LAS Film No. 02/14/12 – 25 and 02/15/1 – 17

THE APPENDICES

APPENDIX 1

Melville Street, Lincoln (LDMA 02)
Watching Brief Context List

Context	Description	Trench
200	Modern levelling	All
201	Cream hardcore	M, O, N, Q, T, U, W and X
202	Mortar	V, W and X
203	Concrete	T
204	Infilled cellars	O, N, S, T, W, FF and GG
205	Grey black clay silt with wood	T, U, V and W
206	Purple brown silt	T
207	Mortar	V
208	Dark grey clay silt	U, V, W, AA, BB, CC,DD and GG
209	Brown silt and rubble	V, W
210	Laminated hardcore and sand	R, S, U
211	Brick walls	R, V
212	Black silt and rubble	P, U, V and X
213	Stone wall	T
214	Costruction trench	AA
215	Brown silt and tile	BB,CC and EE
216	Black silt	M,N, Q, P and S
217	Dark grey sand silt	BB
218	Dark grey sand silt with brick fragments	BB,CC and DD
219	Limestone fragments	BB
220	Laminated sands and mortar	P
221	Mortar	EE
222	Green Mortar	P and X
223	Stone wall	AA
224	Stone wall	AA
225	Brick surface	AA
226	Mortar	AA
227	Dark grey silt	AA
228	Foundation stones	AA
229	Limestone brash	AA
230	Dark grey silt	AA
231	Brown sand	AA
232	Grey brown silt	AA
233	Tile floor	T
234	Stone wall	M
235	Stone wall	M
236	Stone wall	M
237	Stone wall	M
238	Mortar	W
239	Grey silt	M
240	Black hardcore	M
241	Wall	M
242	Rubble	M
243	Bricks	M
244	Grey clay	M and R

APPENDIX 2

The Auger Survey

Introduction

During the programme of archaeological evaluation at the housing association development on the east side of Melville Street the City Archaeologist required an auger survey along the length of the development plot. It was proposed that a series of boreholes would be placed at 5m intervals along the rear of the two plots at right angles to the River Witham and sunk to the glacial sands or gravels (Fig. 1). The post-glacial and archaeological deposits encountered would be recorded and described and a profile of the deposits reconstructed and interpreted.

A Unimog hydraulic auger mounted on a Mercedes truck was used with a 75mm diameter window sampler with tubes to take intact cores in plastic sleeves if required. The location of the boreholes is marked on Fig. 1. The southern part, phase 4C of the development, was not available/accessible on the agreed day for the work and only one borehole could be conducted in the southern area of the site. The results from this core (BH6) were very similar to those from the most southern core in the phase 4B area (BH5 – see Figs 1 and 2) and it was decided not to pursue the remaining two or three cores because of access problems and the probability that they would be similar to BH6. BH4 was aborted and moved two metres further south because it hit a large brick wall foundation. BH6 was aborted when it struck an underground electricity cable and was moved three metres south after all power had been turned off.

Results

The results from the six boreholes are presented in a summary diagrammatic section in Fig. 2 and the on-site descriptions are appended to this report.

The first borehole was sunk 15m from the present revetted south bank of the River Witham. Fig. 2 clearly shows that the ancient bank of the river underlies the phase 4B development plot. The underlying grey sands rise up over two metres across the five metres between BH1 and BH2, a further half metre over the next five metres, and 1.25 metres over the next twelve metres. After BH5 the underlying grey sands level off and in fact drop slightly southwards to BH6.

The upper levels of all six boreholes comprised recent and post-medieval fill. The deposits contained brick, coal, cinder, glass and other debris in a sandy and sandy silt matrix. The only structural evidence was encountered at the first location for BH4 where the auger was obstructed and a large brick foundation was exposed by machine and the borehole location moved two metres south. Beneath this overburden all the sequences were naturally formed sediments although with occasional inclusions of archaeological debris such as brick/tile, mussel shell fragments and coal. This lower stratigraphy could not confidently be linked between boreholes. The deposits can be classified within three main groups, sandy silts and silty sands, often with organic lenses or patches of organic rich material; organic silts, often with freshwater shell fragments and occasional visible fragments of wood and twigs; and peats and silty peats. The deposits grade between these with occasional sand lenses, and in BH4 a horizon of grey sands separated from the glacial sands below by a thin deposit of organic silt may be downslope slippage of the bank to the south.

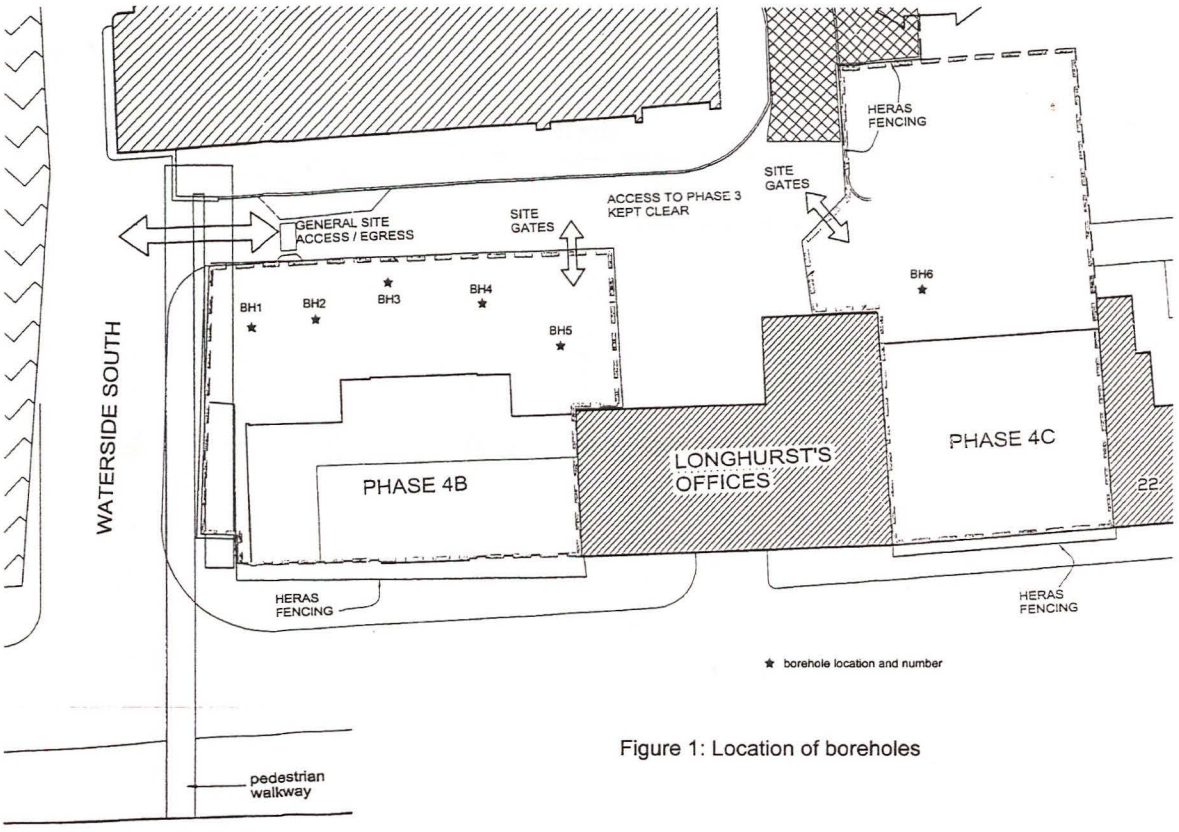


Figure 1: Location of boreholes

The greatest depth of organic rich sediments was found in BH1 and the occurrence of occasional brick/tile fragments at a depth of over four metres (see appendix) perhaps indicates deposits that might have been laid down in the Roman period. These occur stratigraphically above a thick peat bed. Mussel shells and brick/tile fragments at 300-350 cm in BH2 and 165-200 cm in BH3 respectively, both indicate the influx of archaeological debris but at what date is not known.

The sandy and sandier sediments in the sequence are indicative of deposits forming in an aquatic environment under current flow conditions, presumably reflecting riverine deposition. The organic silts with freshwater snails are more indicative of river margin environments, while the peaty silts and peats suggest riverside marsh and fen environments. The absence of any significant woody peats suggests that the river's edge was probably a fen carr rather than woodland carr habitat. The variations in the deposits in any one borehole reflect the changing riverine environment at that location, but the tendency for the upper deposits in boreholes 2-5 to be peats and organic silts, rather than sandy sediments reflects the developing marginal characteristics of this area during the later periods of sediment formation. Only the upper fills of BH1, closest to the river, continue to suggest some current flow.

Since much of this sequence occurs above 3.5m OD, a level well above dated Roman and early medieval deposits in the Brayford Pool (Rackham 1999), it seems probable that it represents medieval and later sedimentation and that the area was largely un-occupied or un-occupiable until the post-medieval period. The fill deposits excavated during the evaluation

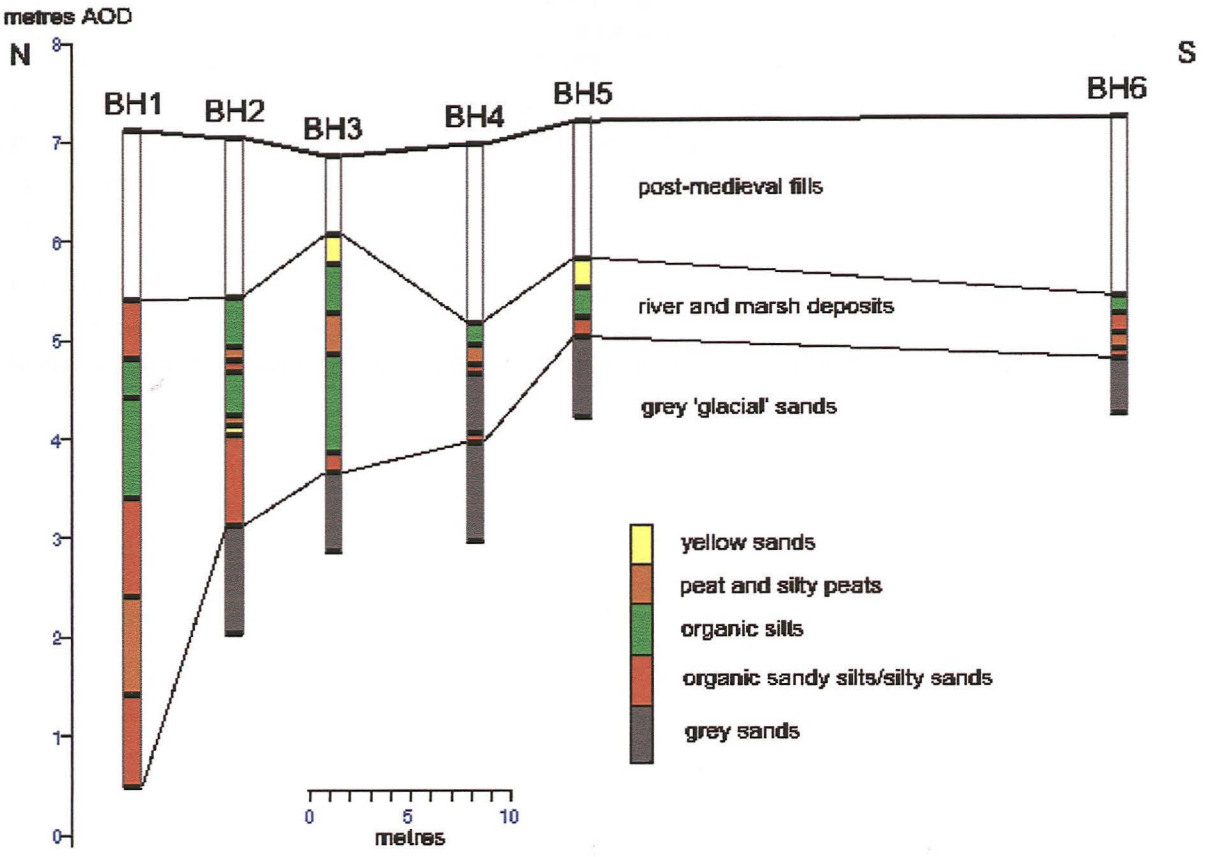


Figure 2. Simplified profile of the borehole data

found no structural evidence pre-dating the 19th century and no finds earlier than this (McDaid pers. comm.) and it seems probable that the fills represent dumping on the site to raise it above the marsh for development in the 18th or 19th century. The surviving deposits beneath these fills, even on the higher ground, clearly reflect conditions unsuitable for habitation although riverside activities, mooring, etc may have been possible, particularly if the river was tidal. A complete absence of alluvial clays in the sequence in any of the boreholes seems to reflect that the area was permanently within the river system and not part of a floodplain subject to intermittent flooding.

The chronology for the sediments is in part conjectural but the following sequence can be suggested. The basal deposits in BH1 may be of prehistoric date but peats were forming in the Brayford Pool at (or above allowing for compression) 2.6m OD in the Roman period (Rackham 2001b), 2.2m OD during the Saxon period (Rackham 2001a) and 2.7m in the medieval period (Rackham 2001b) and the peat deposit in BH1 at 1.5-2.5m OD may be contemporary with any of these. The brick/tile fragments in the sediments immediately above at approximately 4.5m depth indicates that these deposits must at least be Roman or later. The bulk of the organic silts and sandy silts are therefore likely to be of Saxon and medieval date with the upper organic sediments possibly still forming into the post-medieval period. The earliest occupation of the site may not have been until the 18th or 19th century.

The well-preserved organic material in much of this sedimentary sequence indicates that the deposits immediately south of the River Witham in this area probably contain a good palaeoenvironmental record for the last 1500 years, or from the Roman to post-medieval period. The development is unlikely to have done significant damage to these deposits but it should be considered for future projects in the area that these sequences have a high potential for the general research into the palaeoenvironment of Lincoln and its hinterland based upon the organic sediments around the Brayford Pool, the River Witham and the Witham Fens.

Acknowledgements
The boreholes were sunk by Site Investigation Services, Gainsborough and recorded on site by the author. I should like to thank Mr Clifford Marshall of Lindum Construction for his considerable assistance on site and the levelling of the six auger locations. I should like to thank Mick McDaid for information on the archaeological evaluation.

References

Rackham, D.J. 1999 Brayford Wharf East 1998: Follow up investigation of the commercial borehole samples. Unpublished report for the CLAU.

Rackham, D.J. 2001a Brayford North, Lincoln – LBN00: Evaluation of the sedimentary sequence.

Rackham, D.J. 2001b University of Lincolnshire, Brayford South, Lincoln. University Phase V Sports Facility: Assessment of the borehole investigations.

Appendix - Borehole logs

BH1: ground surface – 7.11 m AOD

0-170 cm	make-up and fill, dark grey sandy silt with mussel shells, small brick/tile fragments and occasional limestone fragments
170-180	slightly organic sandy silt with fragments of wood, patches of organic matter and occasional brick fragments
180-190	organic rich peat patches in a dark grey sandy silt
190-230	slightly sandy silty peat – boggy environment
230-240	becoming siltier with depth – river edge deposits?
240-270	dark grey organic silt
270-370	soft silty organic mud with freshwater shell fragments and twigs
370-450	dark grey organic silts with occasional brick/tile fragments (Roman?)
450-470	grey organic sand - flowing water conditions
470-570	peat
570-580	grey sand
580-600	dark grey organic silt with freshwater shells
600-625	sand
625-640	organic silt
640-655	slightly sandy peat with wood fragments
655-670	grey sand, laminated with thin peaty lenses.

BH2: ground surface – 7.03m AOD

0-160 cm	recent fill with glass, brick/tile, etc
160-180	mixed organic sands with peat and silt
180-210	lenses of peat and sands
210-225	compressed humified peat
225-226	sand lens
226-235	compressed organic silt
235-250	very dark grey peaty silt with freshwater shell fragments
250-280	very organic silts
280-290	silty peat
290-300	sand lens
300-350	shell rich sandy organic silt with mussel shell fragments
350-390	sandy organic silt with freshwater shell fragments
390-392	peat lens
392-400	dark grey sands
400-500	wet grey sands

BH3: ground surface – 6.86m AOD

0-80 cm	sandy fill with brick, limestone, etc
80-110	clean wet sand
110-160	very dark brown organic silt with visible sand grains, mussel shell fragments, and coal at 120 cm. Becoming peaty towards base
160-165	sand lens
165-200	compressed humified peat with occasional wood – brick/tile fragment at 195
200-300	compressed organic mud with very dark brown to red brown peaty silt with wood fragments
300-320	lensed grey sand and peat
320-400	grey sands

BH4: ground surface – 6.96m AOD

0-180 cm	fill
180-200	very dark brown organic silt
200-220	dark brown silty peat
220-230	sand and peat
230-290	grey sand
290-300	dark grey organic silt
300-400	grey sands

BH5: ground surface – 7.22m AOD

0-140 cm	fill
140-170	wet sands
170-200	dark grey organic silts with peaty silts at base
200-220	organic sandy silts
220-300	grey sands

BH6: ground surface – 7.26m AOD

0-180 cm	fill and sands
180-200	dark brown organic sandy silt
200-220	organic sandy silts
220-235	peaty silts
235-245	sands and peaty silts
245-300	grey sands

THE FIGURES

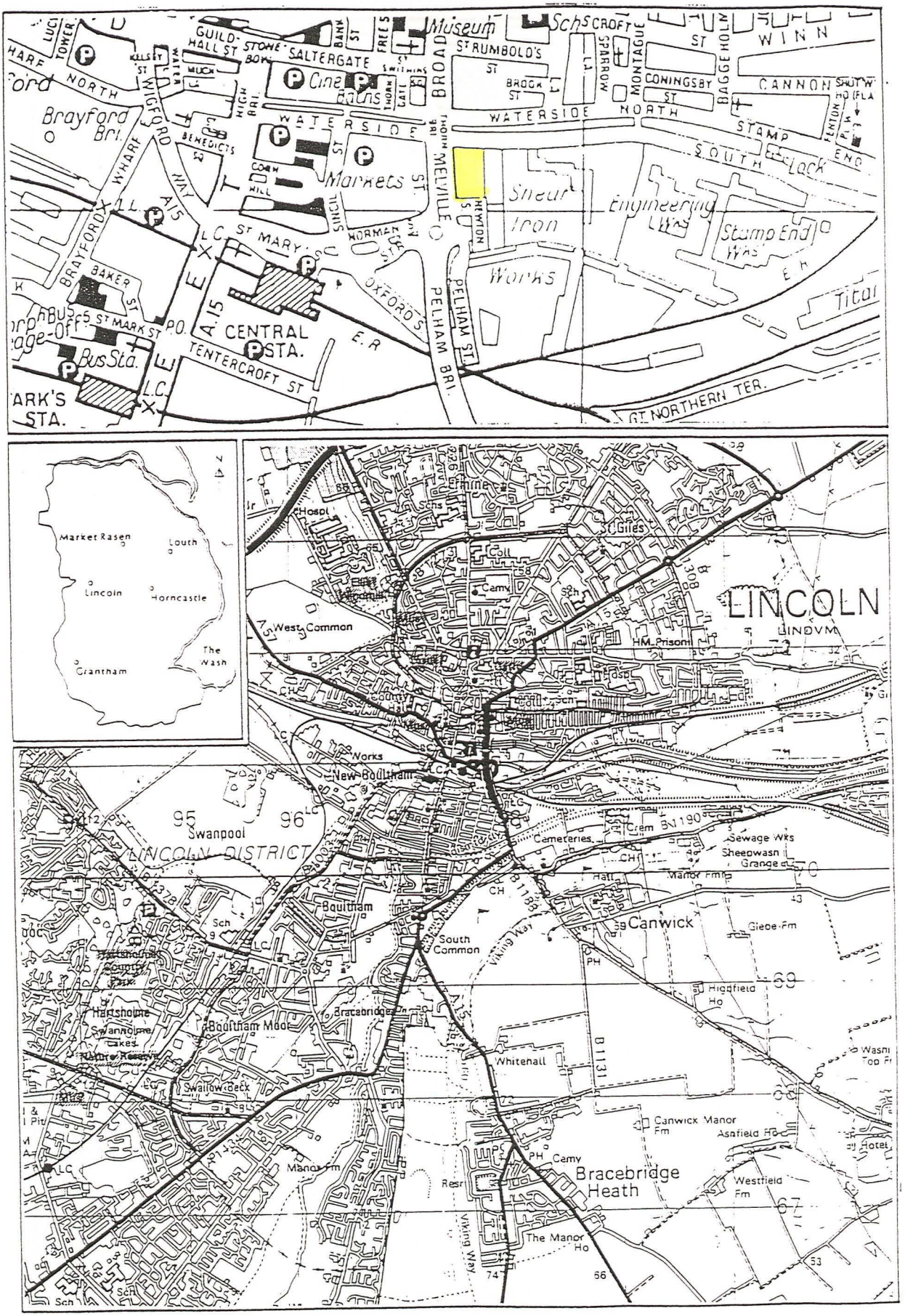


Fig. 1 Lincoln site location. (Insert C based on the Ordnance Survey 1:25,000 map. © Crown copyright. Reproduced with the permission of the Controller of HMSO, LAS licence number AL 100002165).

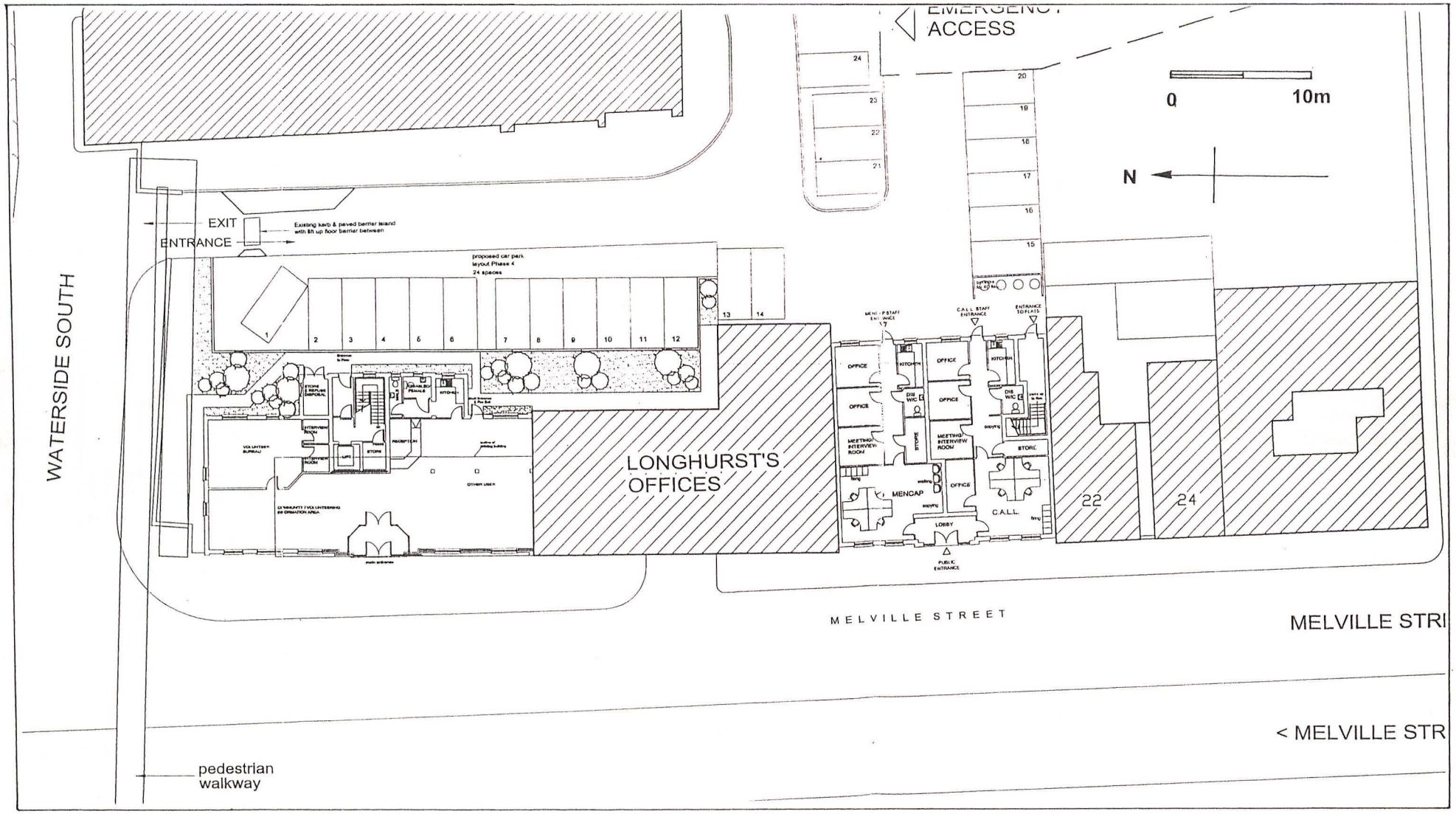


Fig. 2 Location of 16, 18 and 20 Melville Street. From a plan provided by the Lindum Group Ltd. Drawing No.LD97-44/36.

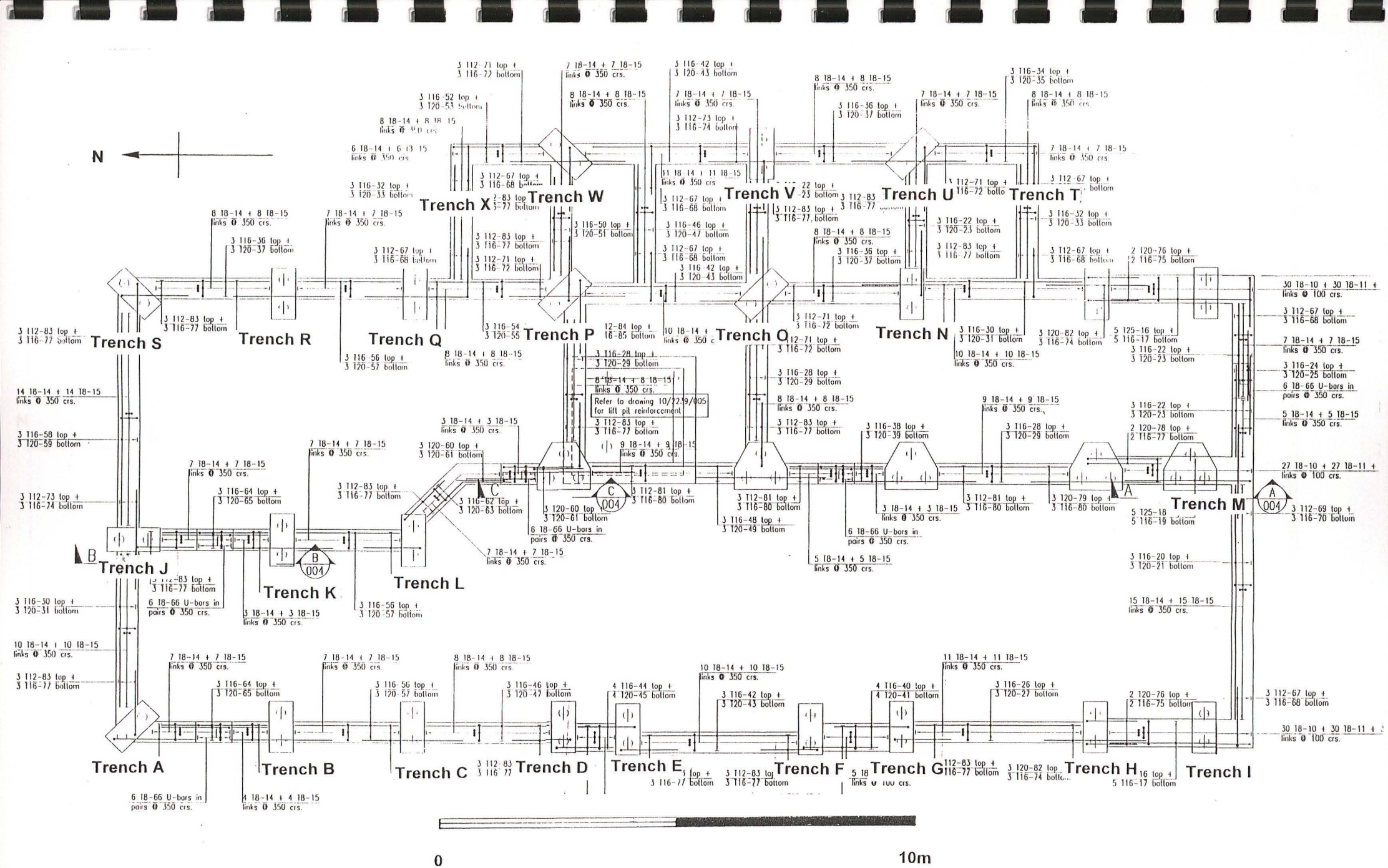


Fig.3 Trench positions for the northern monitored area (from a plan provided by the Lindum Group Ltd. Drawing No.10/2239/014 revision B).

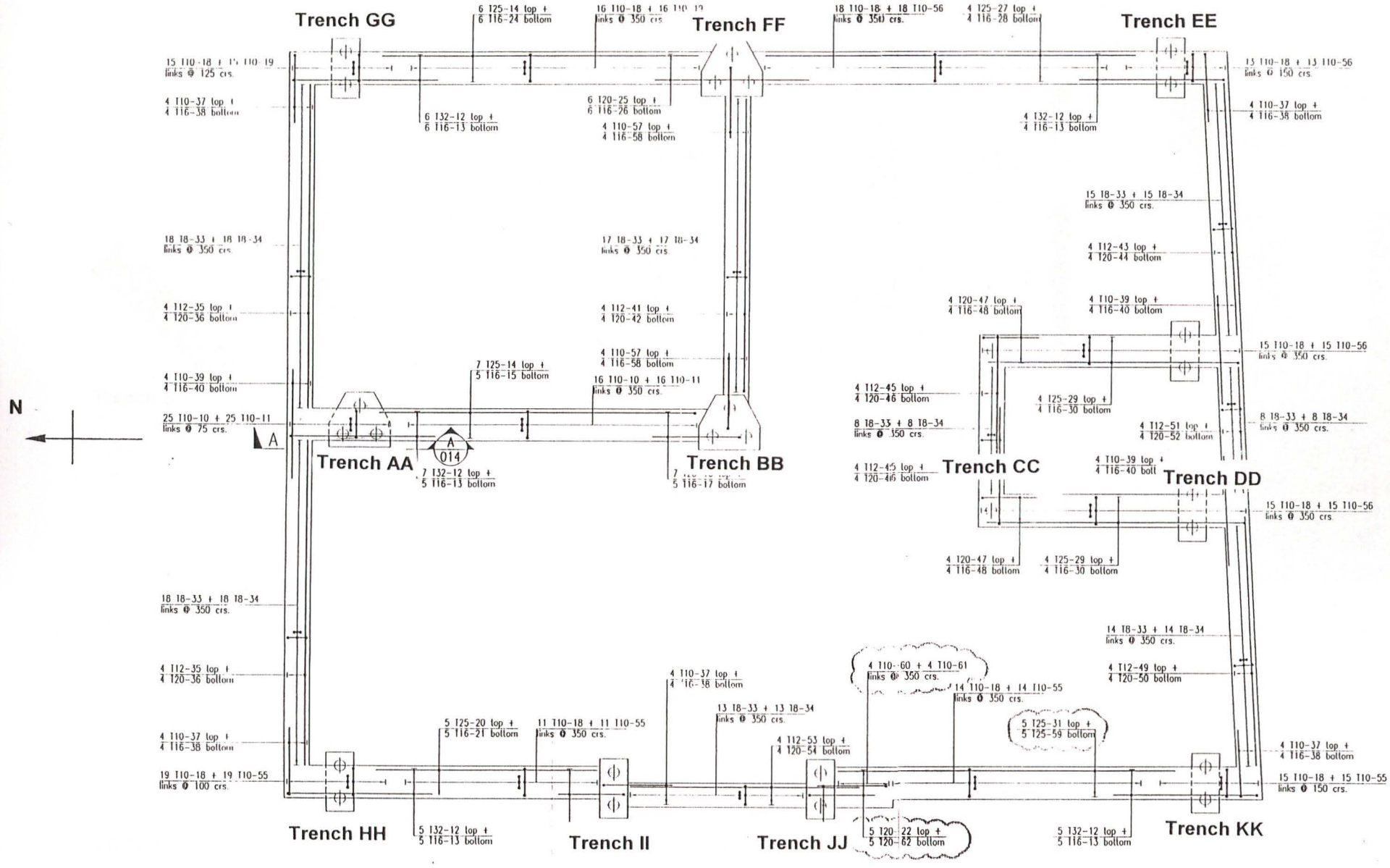


Fig. 4 Trench positions for the southern monitored area (from a plan provided by the Lindum Group Ltd. Drawing No.10/2239/010 revision G).

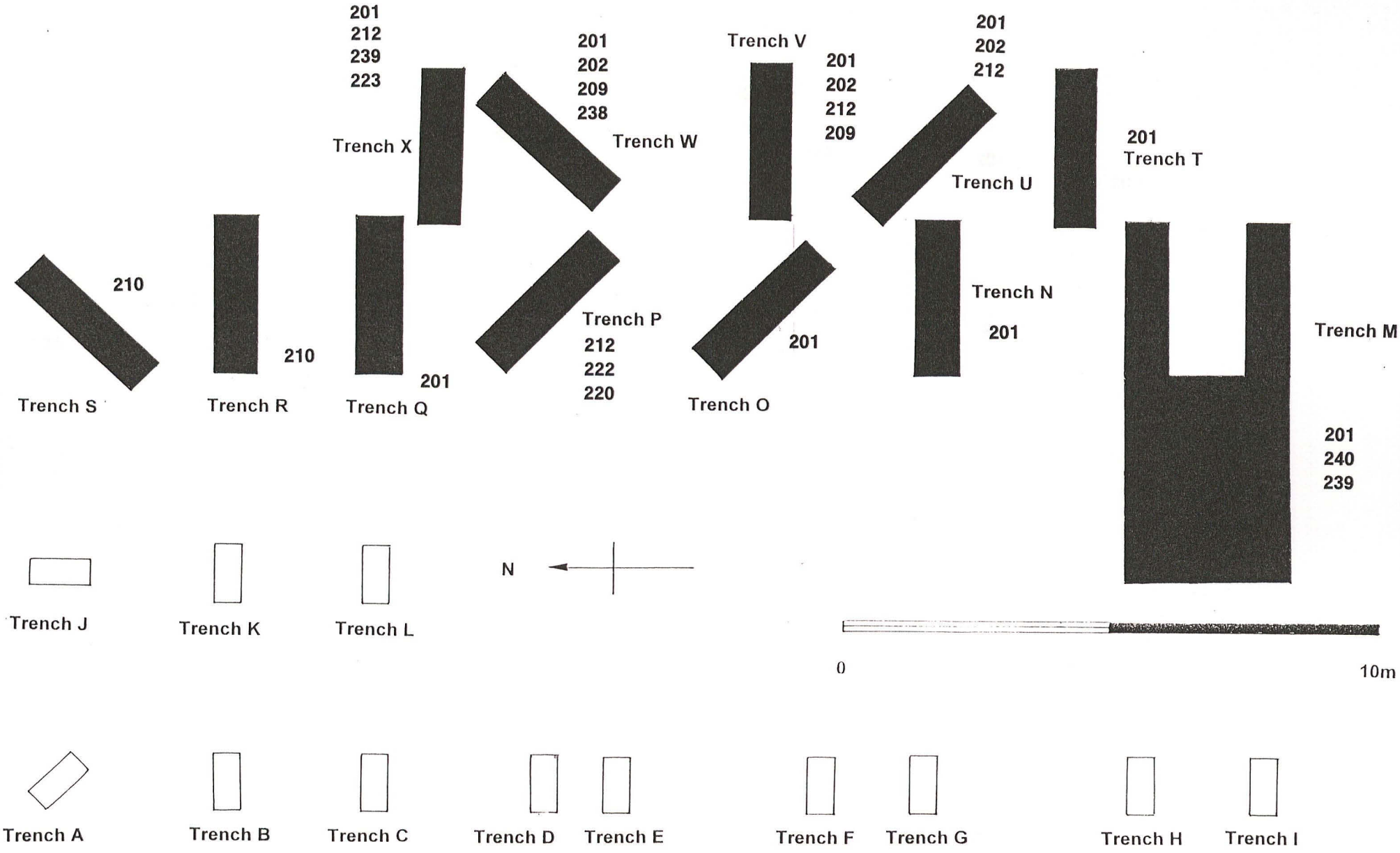


Fig. 5 Location of modern deposits seen in the northern monitored area.

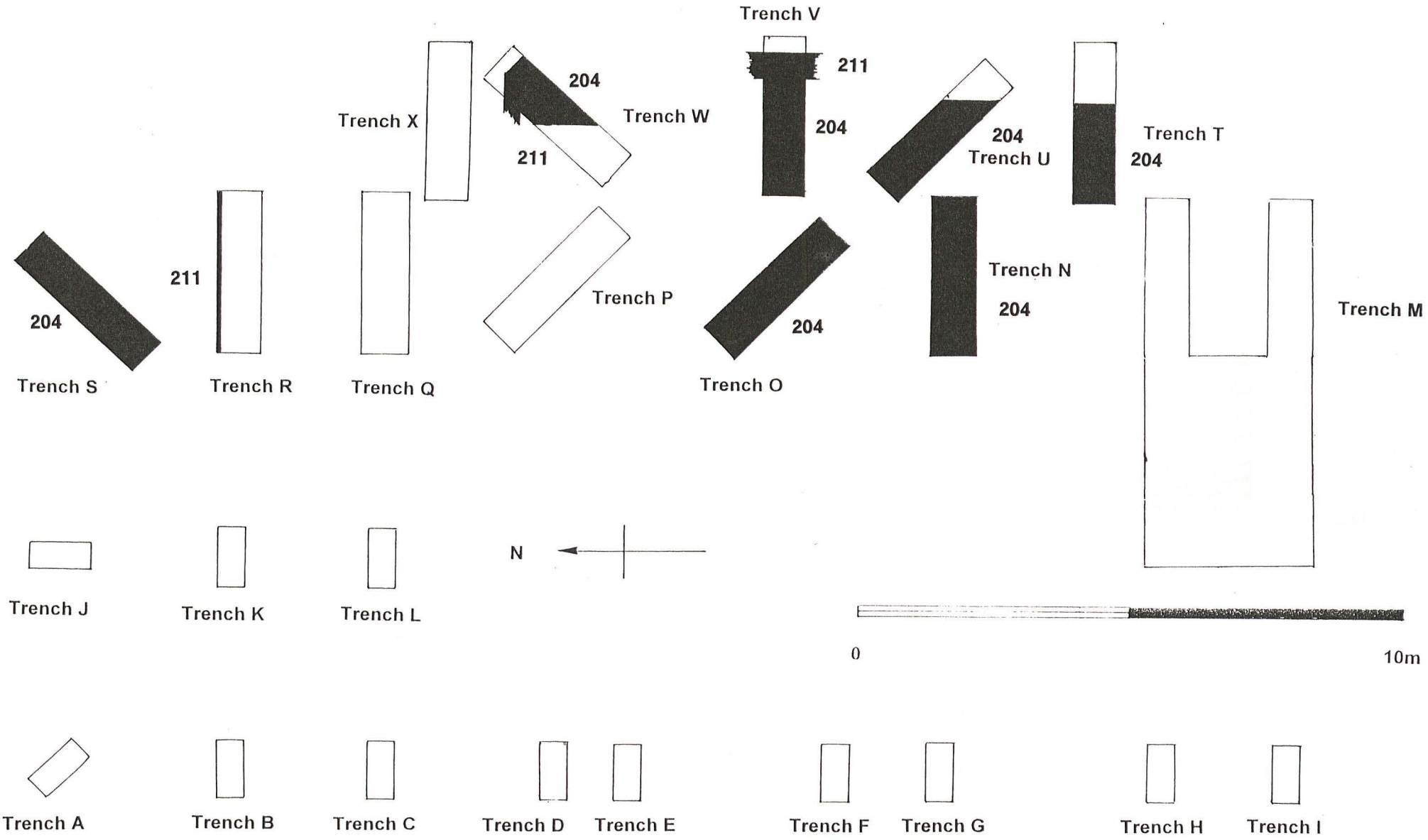


Fig. 6 Location of brick structures seen in the northern monitored area.

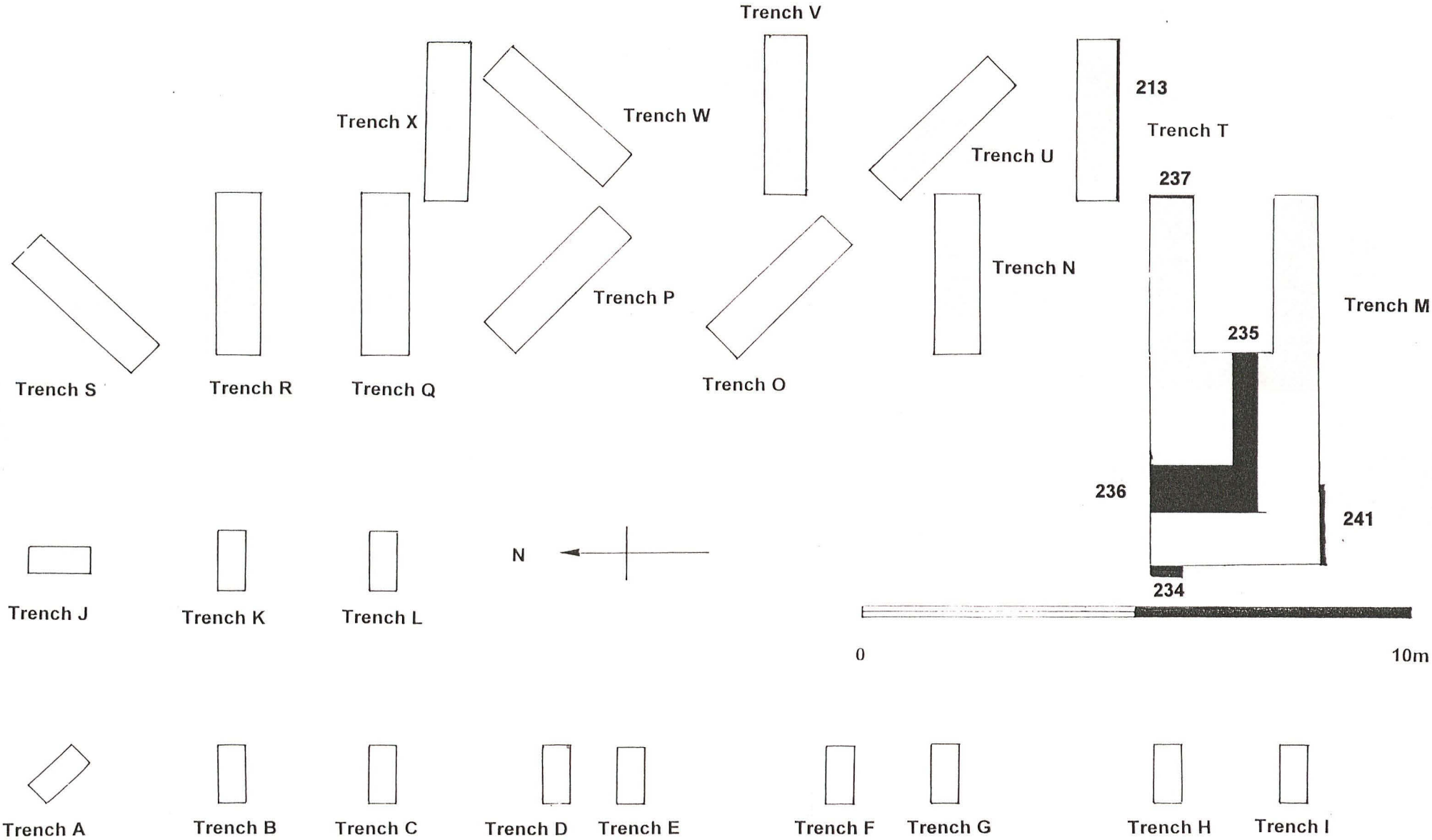


Fig. 7 Location of stone walls seen in the northern monitored area.

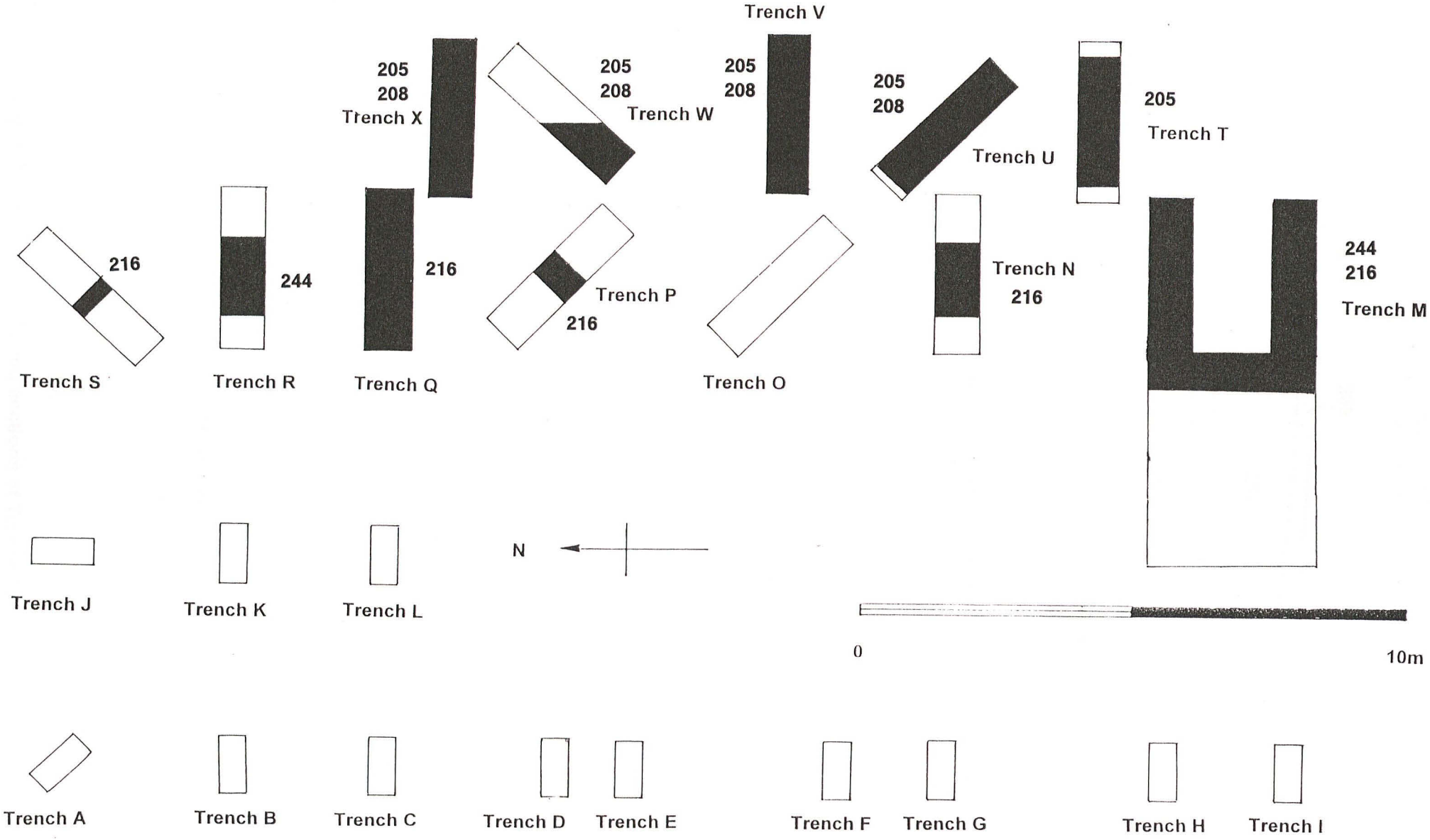


Fig. 8 Location of earlier deposits seen in the northern monitored area.

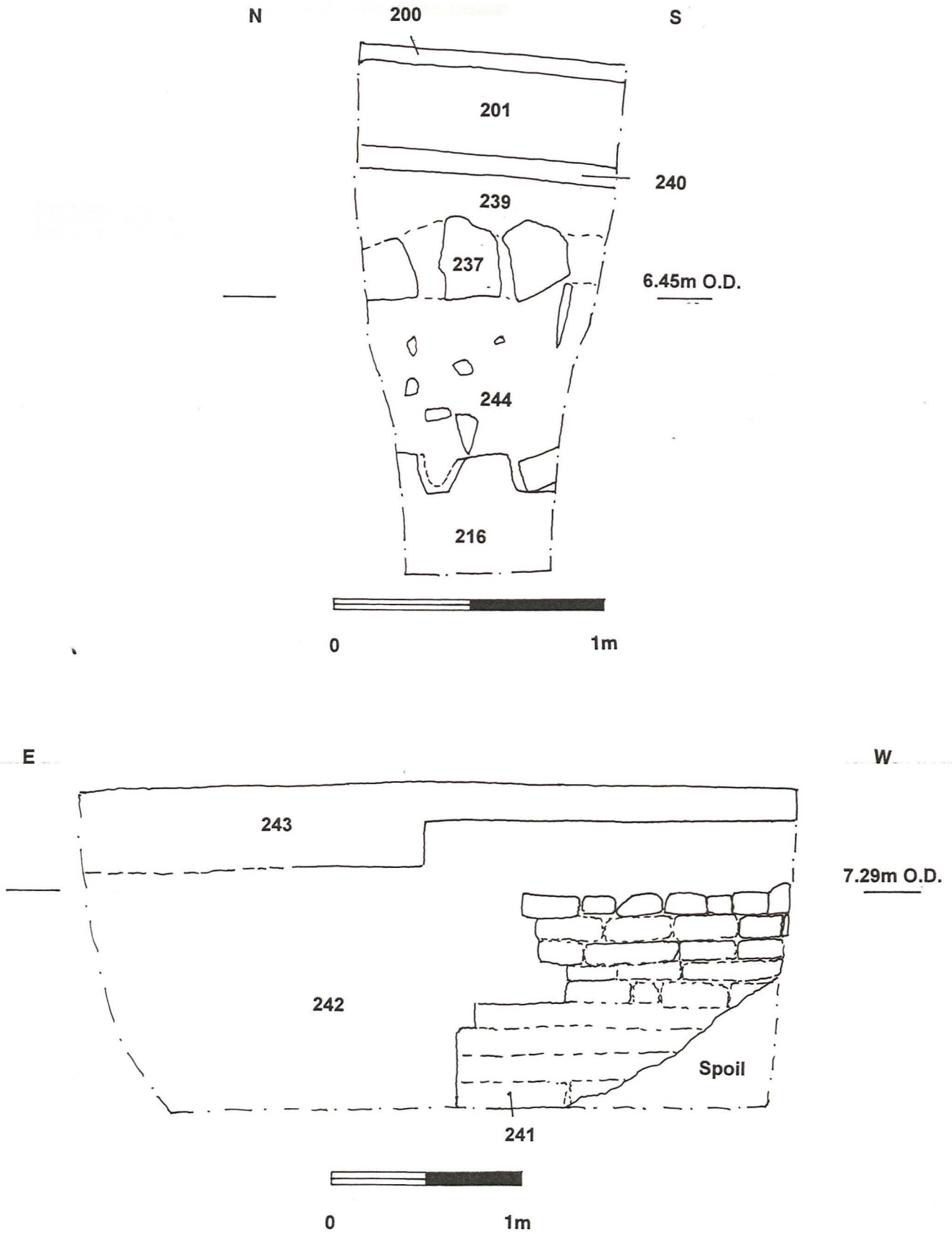


Fig. 9 West and north facing sections of Trench M.

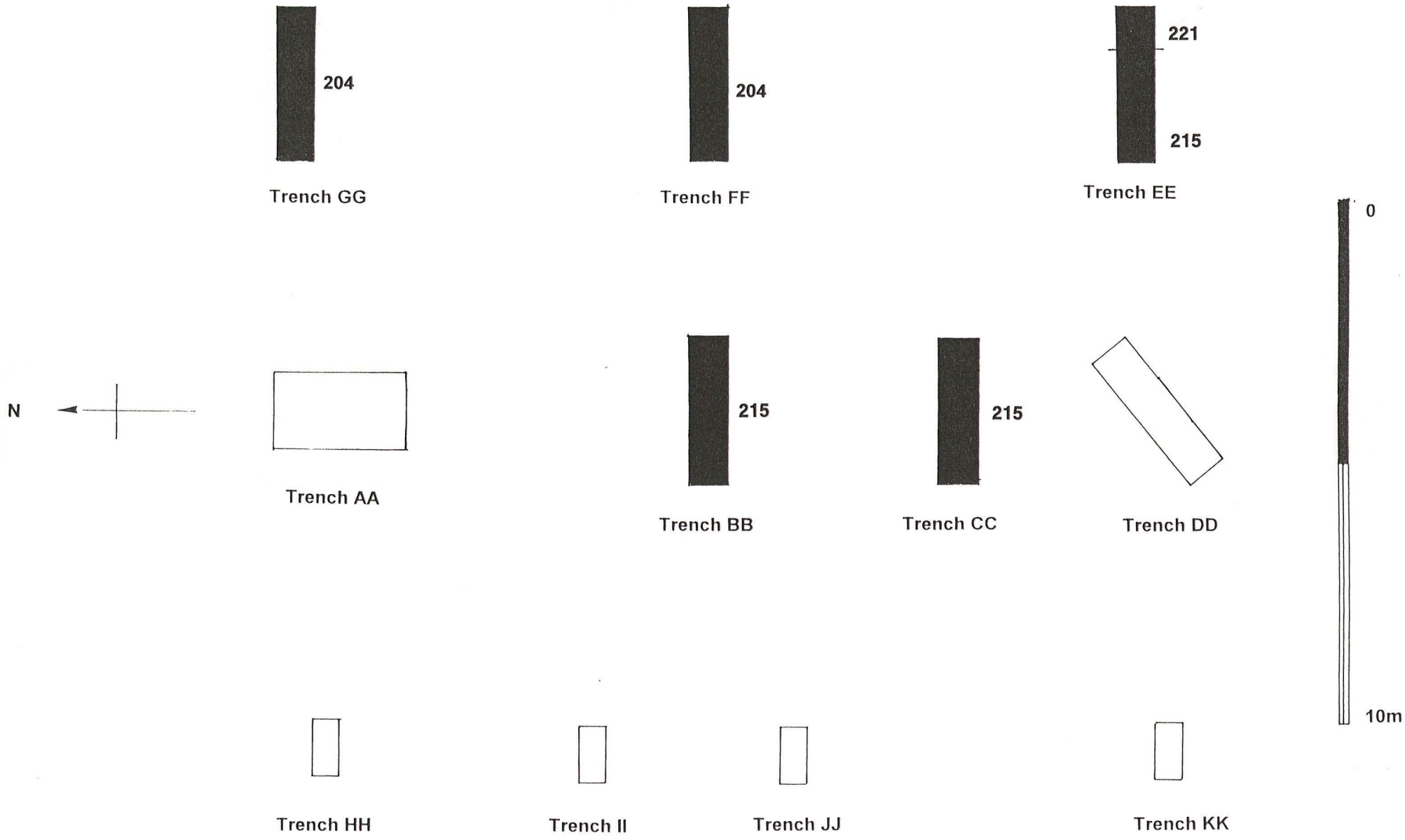


Fig.10 Location of modern deposits and brick structures seen in the southern monitored area.

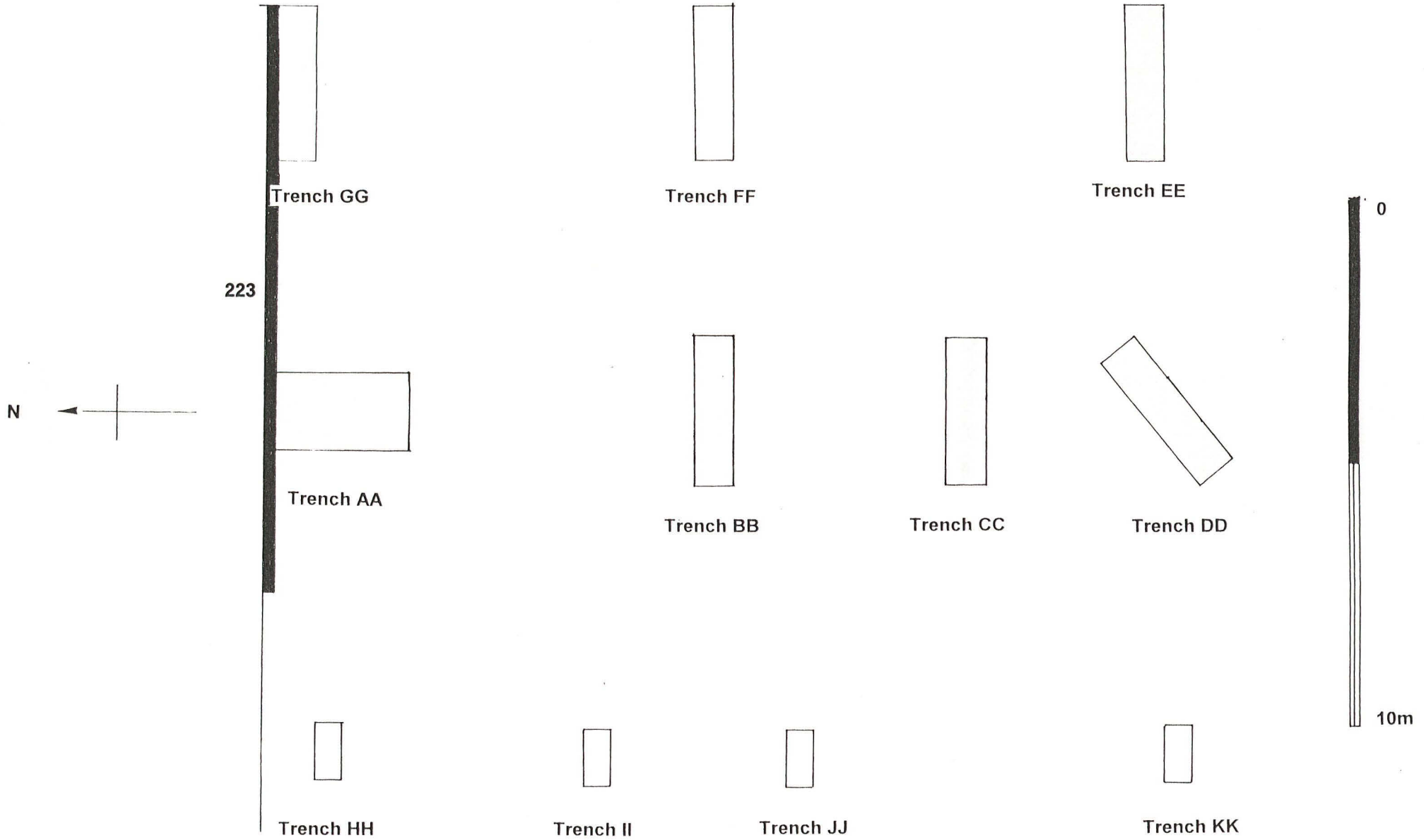


Fig.11 Location of stone wall seen in the southern monitored area.

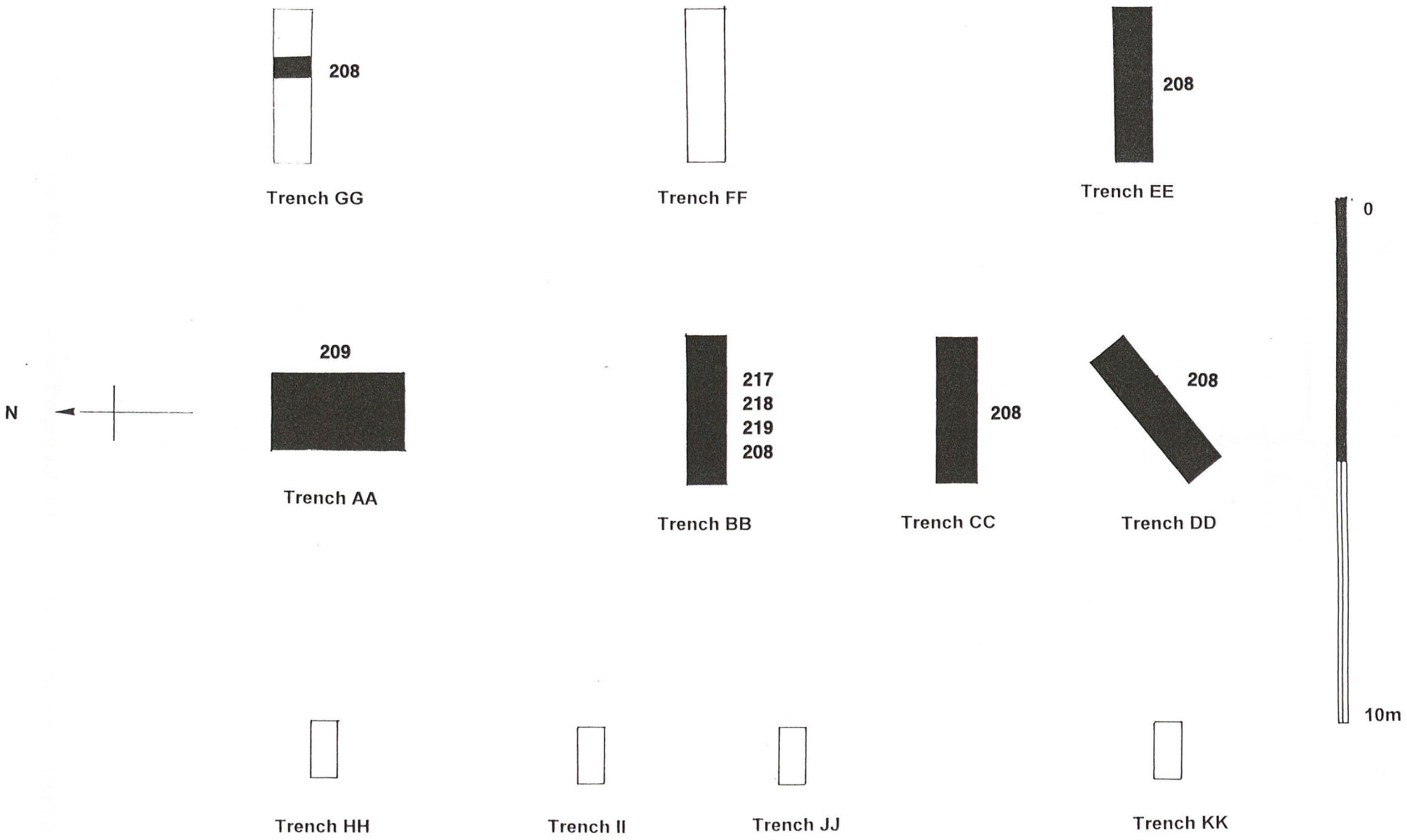


Fig.12 Location of earlier deposits seen in the southern monitored area.

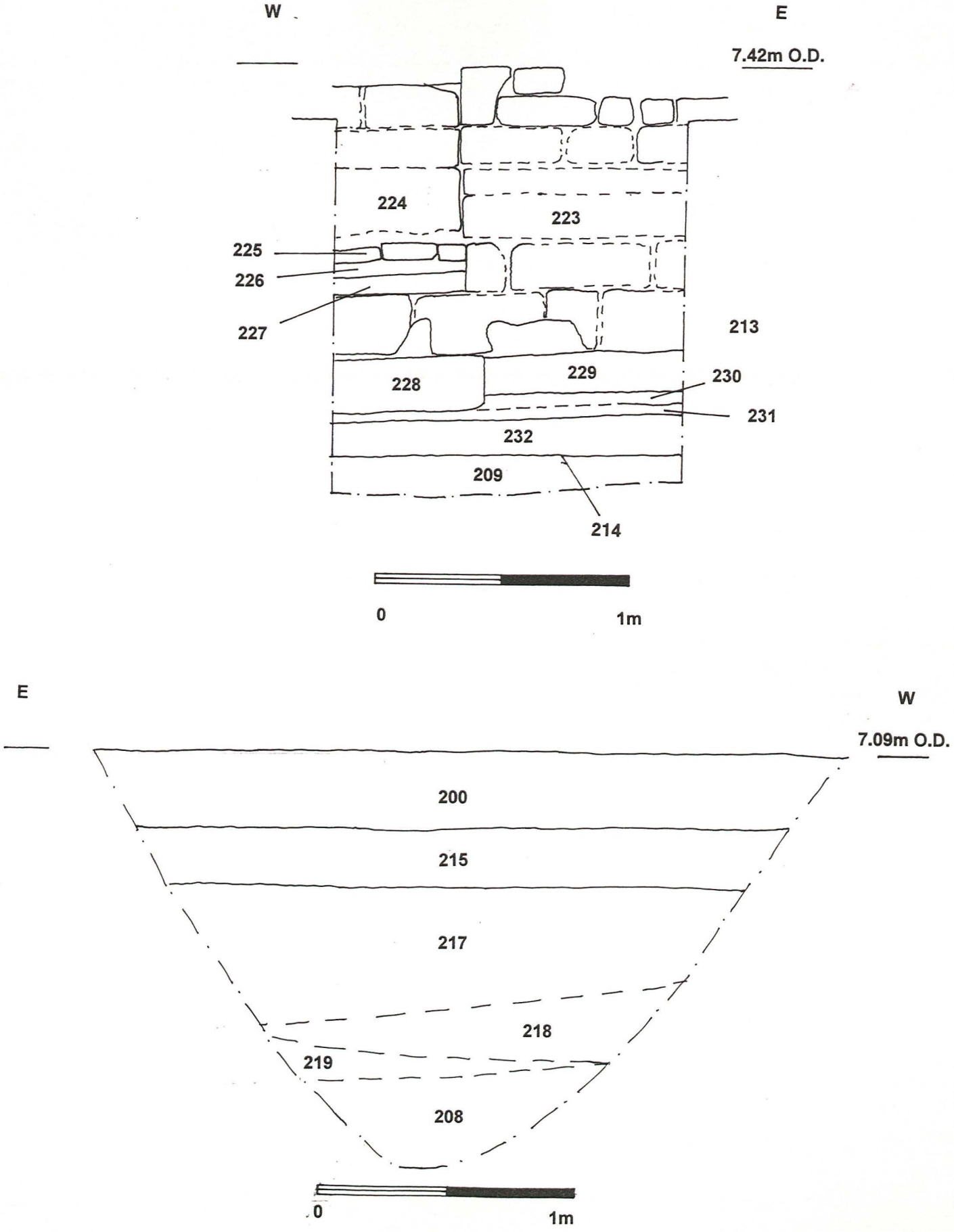


Fig.13 South facing section of Trench AA and north facing section of Trench BB.

THE PLATES

Pl. 1 General view of northern monitored area. Looking south east.

Pl. 2 Trench M after the backfilling of a well. East facing section shows wall 234. Looking west. Scale 0.50m.

Pl. 3 Wall 234. Looking west. Scales 0.50m.

Pl. 4 North facing section of Trench M. Vertical scales 0.50m, horizontal scale 0.30m.

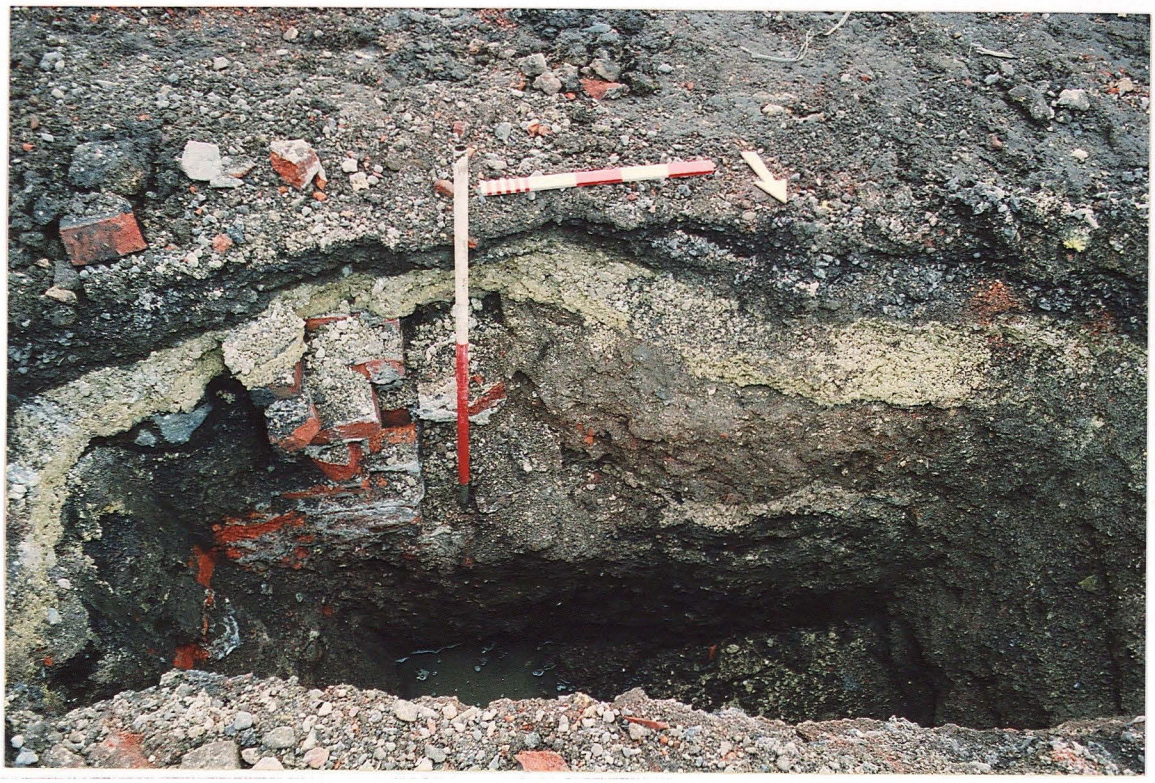
Pl. 5 Wall 235. Looking east. Scales 0.50m. Vertical scales 0.50m, horizontal scale 0.30m.

Pl. 6 Stratigraphy in west facing section of Trench M. Note wall 237. Vertical scales 0.50m, horizontal scale 0.30m.

Pl. 7 Trench R, south facing section. Scale 0.50m.

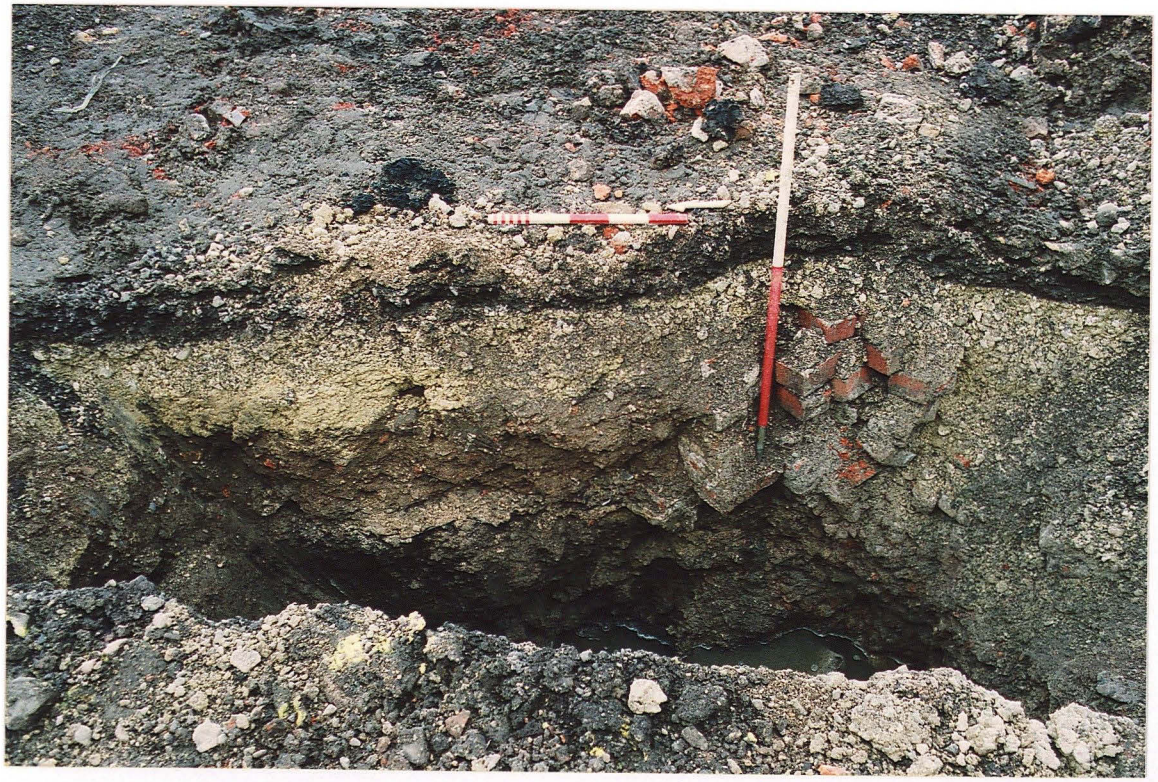
Pl. 8 Trench T, north facing section. Vertical scales 1m, horizontal scale 0.50m.

Pl. 9 Trench U, north facing section. Vertical scales 1m, horizontal scale 0.50m.



Pl.10 Trench V, north facing section. Vertical scales 1m, horizontal scale 0.50m.

Pl.11 Trench W, south west facing section. Vertical scales 1m, horizontal scale 0.50m.

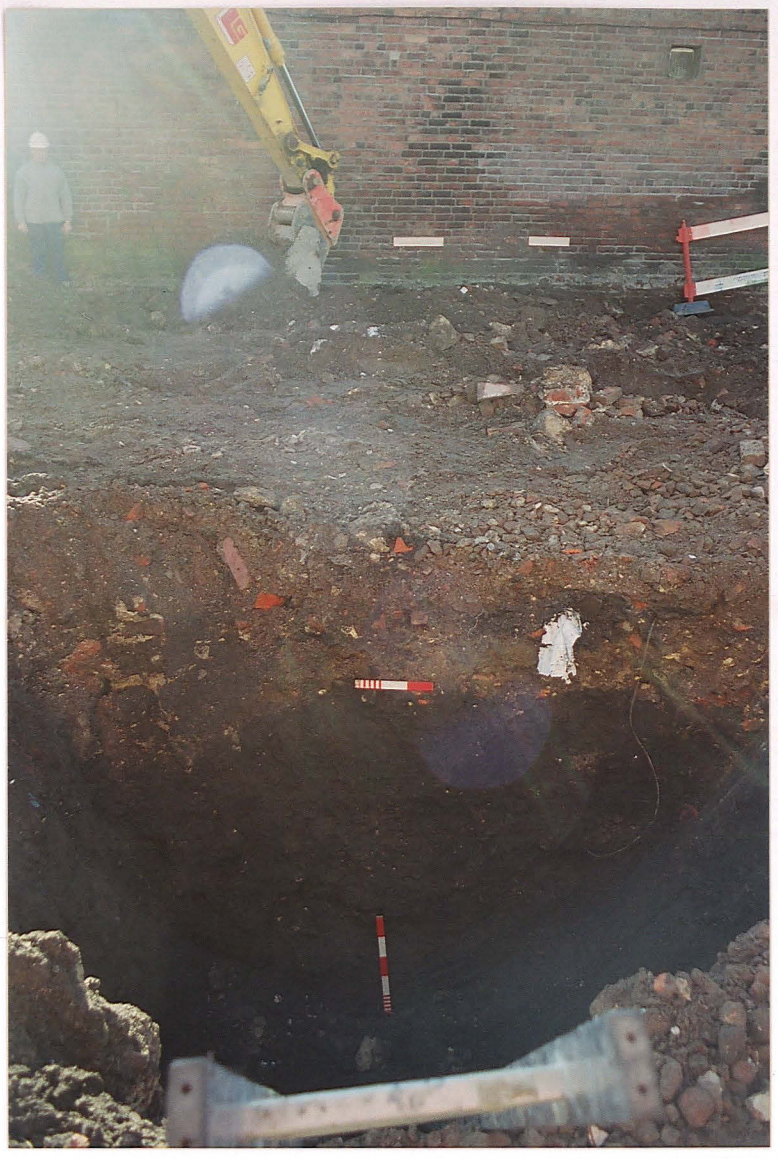


Pl.12 Trench X, north facing section. Vertical scales 1m, horizontal scale 0.50m.

Pl.13 General view of southern monitored area. Looking south west.

Pl.14 Western extent of wall 223. Looking west north west. Scale 0.50m.

Pl.15 Trench AA, south facing section. Vertical scales 0.50m, horizontal scale 0.30m.



Pl.16 Trench BB, north facing section. Vertical scales 0.50m, horizontal scale 0.30m.

Pl.17 Trench FF, south facing section. Scale 0.50m.