MOOR LANE, STAMFORD BRIDGE

SE 7182 5533

AN ARCHAEOLOGICAL EVALUATION

FOR

BARRATT YORK

BY

MIKE GRIFFITHS AND ASSOCIATES

April 1997

Moor Lane, Stamford Bridge
An Archaeological Evaluation

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1. INTRODUCTION AND SUMMARY

1.1 Scope of the Evaluation

1.1.1 The site proposed for housing development was identified by the former Humberside Archaeological Unit as one of 'potential archaeological significance'[1]. In September 1996 Barratt York commissioned Mike Griffiths and Associates, Consulting Archaeologists, to undertake a preliminary archaeological study of the site. This identified the need to undertake a geophysical survey[2] with a possible further requirement to undertake ground investigation.

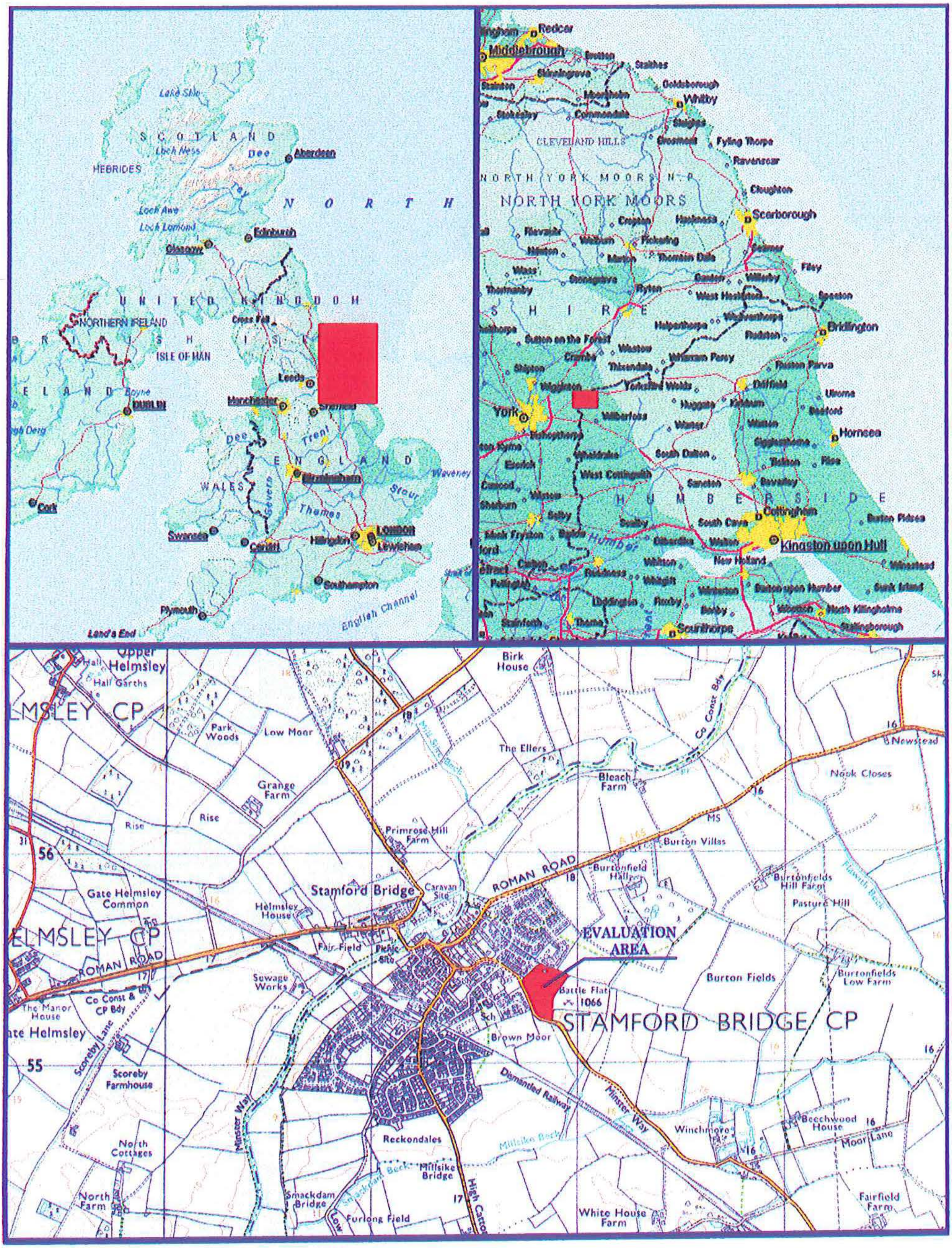
1.1.2 The site lies on the south east fringe of the post war housing development on the south side of Stamford Bridge - see Plan 1. It is bounded to the north by housing, Plate 1, to the west by Moor Lane and further modern housing, to the north east and east by a series of arable fields known as Burton Fields and Battle Flats, and to the south by further areas of arable stretching away towards High Catton, Plate 2. The field extends over an area of approximately 3.6 hectares and has been 'set-aside' for a number of years. Prior to this it was under arable cultivation.

1.1.3 The field boundaries are composed of rather neglected and discontinuous hedges with slight traces of external ditches. These probably relate to a period of enclosure and land improvement started in the 18th century. The hedge alongside Moor Lane has been planted with oak trees in the recent past. At the northern end of the site there is a field pond, still containing water, which is marked on the 1st edition OS map.

1.1.4 Comparison of the features recorded on the earliest OS map with those present today shows the majority of the visible boundaries to have been established since at least the mid 19th century. The major landscape change which has occurred, other than the housing development, has been the filling of a number of ponds and the culverting of several streams.

1.1.5 The geophysical survey failed to identify any of the features recorded on the sites and Monuments Record. It was recognised, however, that this might be a reflection of the masking effect of overburden rather than a lack of archaeological deposits. The results of the study and geophysical survey were provided to, and

[1] Letter dated 8 February 1995 to East Yorkshire Borough Council.
[2] Undertaken by Field Archaeology Specialists - October 1996. Attached as Appendix 1



SCOTLAND
HEBRIDES
NORTH
UNITED KINGDOM
NORTHERN IRELAND
ISLE OF MAN
Aberdeen
Edinburgh
Glasgow
Leeds
Manchester
DUBLIN
Cork
ENGLAND
WALES
Birmingham
Swansea
Cardiff
LONDON
Lewisham
Southampton
Plymouth
Land's End
English Channel
Thames
Trent
Severn
Waveney
Stour
Redcar
Middlesbrough
Whitby
CLEVELAND HILLS
NORTH YORK MOORS N.P.
NORTH YORK MOORS
Scarborough
Pickering
Filey
Bridlington
York
Hornsea
Beverley
Cottingham
Kingston upon Hull
HUMBERSIDE
Humber
Selby
Scunthorpe
Upper Helmsley
Hall Garths
Park Woods
Low Moor
Birk House
The Ellers
Bleach Farm
Grange Farm
Rise
Primrose Hill Farm
Burton Villas
Nook Closes
Newstead
ROMAN ROAD
Burtonfield Hall
Burtonfields Hill Farm
Pasture Hill
Stamford Bridge
Caravan Site
Gate Helmsley Common
Helmsley House
ELMSLEY CP
Fair Field
Picnic Site
EVALUATION AREA
Battle Flat 1066
Burton Fields
Burtonfields Low Farm
Sewage Works
The Manor House
Co Const & CP Bdy
ate Helmsley
STAMFORD BRIDGE CP
Brown Moor
Scoreby Lane
Scoreby Farmhouse
Dismantled Railway
Minster Way
Millsike Beck
Winchmore
Beechwood House
Moor Lane
Reckondales
North Cottages
Millsike Bridge
Smackdam Bridge
North Farm
Furlong Field
White House Farm
Fairfield Farm

Plan 1

discussed with, the Humber Archaeology Partnership in their role as advisers to the local planning authority.

1.1.6 The Humberside Archaeology Partnership indicated that further field investigation was needed to allow them to come to a reasonable judgement on the archaeological implications of the proposed development. They requested that three trenches should be opened, to examine three main areas identified in the Sites and Monuments Record as being of potential archaeological significance, and to detect possible evidence for the Battle of Stamford Bridge. They further requested that these trenches should be extended and others opened up if the nature of the archaeological deposits merited it[3].

1.2 The Site Investigation

1.2.1 The investigation was undertaken between early November and mid December 1996. Additional areas and trenches were opened during the course of the work to ensure that the range of archaeological features encountered was properly sampled and their character established.

1.2.2 The site proved to contain evidence of a system of Roman ditches, medieval cultivation and post medieval land improvement. There was no evidence to suggest the presence of an Iron Age cemetery, Roman road, or enclosures as recorded in the Sites and Monuments Record. There was also no evidence which might be associated, even indirectly, with the Battle of Stamford Bridge.

1.3 The Archaeological Importance of the Site

1.3.1 Despite prolonged and intensive agricultural activity on the site in the post Roman period, not least from the 18th century onwards, the complex system of Roman ditches has survived remarkably well in the eastern half of the site. This is in part due to the presence of at least one natural hollow in this area and the accumulation of deeper deposits of ploughsoil. This has resulted in the preservation of the Roman ploughsoil horizon and detailed evidence of the processes of ditch cutting and refurbishment. These are features which have usually been removed by later ploughing on rural sites. The degree of preservation is therefore both high and uncommon.

1.3.2 Aerial photographic evidence shows that the system of ditches stretched away to the north and east of the site, under the modern housing. With the possible exception of a small area of cobbles and gravel, none of the features examined on

[3] A copy of the Method Statement is attached as Appendix 2

the site or visible in the aerial photographs, are more than part of a system of agricultural boundaries and drainage attached to a romanised farm, a villa[4]. The dating evidence recovered suggests that the period of most intensive activity occurred in the 2nd and 3rd centuries.

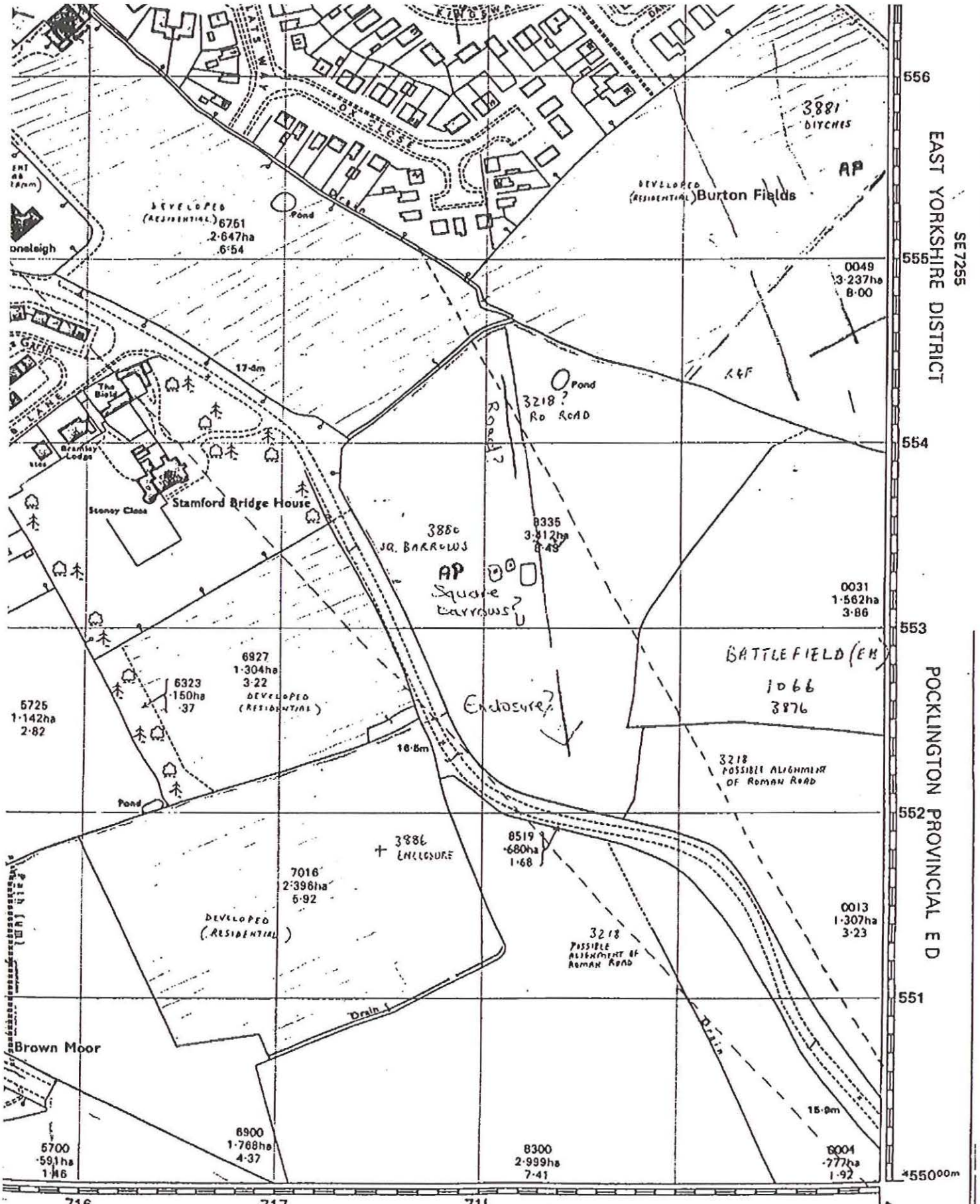
1.3.3 The archaeological features found on the site are certainly one of the most common recorded from the Roman period and are well documented from aerial photographic sources over large tracts of the Yorkshire Wolds and Vale of Pickering. Their archaeological significance in terms of the criteria adopted by English Heritage in defining sites would place them firmly in the rating of no more than local significance.

1.3.4 The local value of the deposits should be stressed, however, since so much else in the area has clearly been lost previously without any form of record. The complex plan of the ditches, their structural evolution, detailed information on methods of construction, combined with relatively large volumes of waste material deposited on the field in the Roman period could provide a valuable insight into one aspect of the long history of the village of Stamford Bridge. It could also release valuable evidence on some aspects of Roman farming practice and management.

1.3.5 PPG 16, the national planning policy on archaeology, recommends that where a site of national importance is threatened by development the site should normally be preserved in situ. For regional sites it recommends either preservation in situ or by record. For sites of only local importance, as at Moor Lane, it makes no specific recommendations.

1.3.6 At Moor Lane in situ preservation is possible, but would be of little archaeological value since it would lock up a mass of evidence which is only significant in terms of its potential to provide a better understanding of the local history. Accordingly an outline scheme of archaeological investigative work is offered in support of the planning application in anticipation of the archaeological concerns of the local planning authority being met by the imposition of a suitable condition.

[4] The villa may be located at the east end of Main Street. The remains of an earthwork has been identified as a possible Roman fort but could equally represent an enclosure around a villa. Other examples of defended villas are known from the northern Vale of York.



Plan 2

Extract from Humberside SMR

Scale 1:2500

2. SOURCES OF INFORMATION

2.1 Documentary Sources and Geophysical Survey

2.1.1 The main source of information on the archaeological potential of the site was the former Humberside Sites and Monuments Record - see Plan 2. This suggested that the site was crossed by the projected line of at least one Roman road, a series of possible Iron Age square barrows and a series of undated enclosures. In addition the field adjacent to the site is called Battle Flats and has long been recorded as the site of the Battle of Stamford Bridge fought on 25 September 1066.

2.1.2 When the evidence was examined in detail it showed that the identification of the various archaeological elements depended upon a single aerial photograph taken in 1967 by the Ordnance Survey.[5] On examination this proved to have been taken late in the summer when the crops on the field had ripened and were being harvested. It would be most unusual for cropmarks to be still visible under these circumstances. Combined with the negative evidence from the geophysical survey, it suggested that the archaeological potential of the site might be less significant than previously thought.

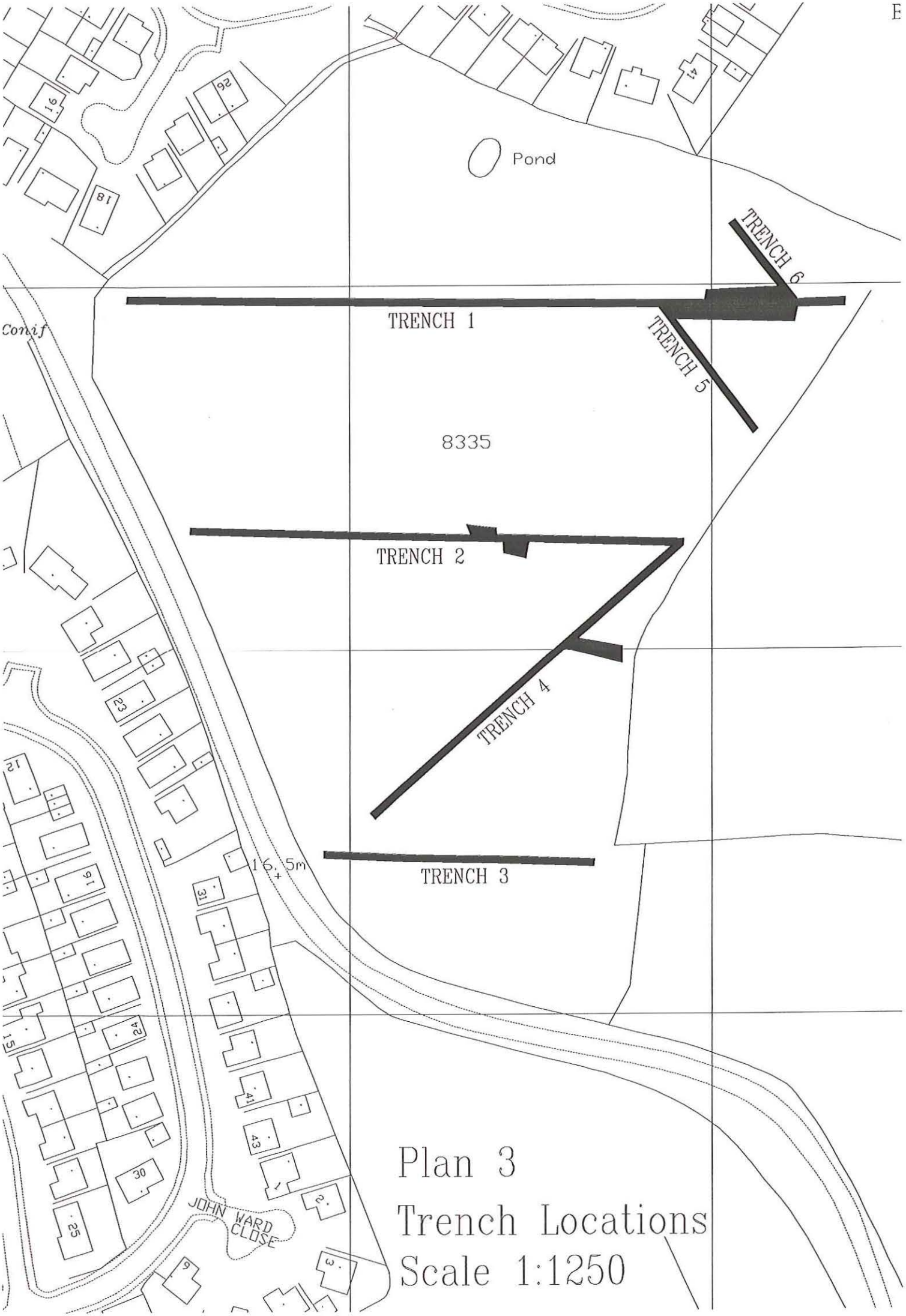
2.1.3 It was considered, however, that the negative evidence required additional checking since the possibility existed that the nature of the soils combined with their depth in certain areas[6] might be masking archaeological features.

2.2 The Ground Investigation

2.2.1 The ground investigation was undertaken between early November and mid December 1996. Initially a machine was used to remove the modern ploughsoil from three trenches, Trench 1, 2 and 3 on Plan 3. The location of the trenches had been previously agreed with the Humberside Archaeology Partnership. The modern ploughsoil was found to vary in depth across the site from the deepest in the east and north to shallowest to the east and south.

2.2.2 In the western half of the site the modern ploughsoil overlay a natural sand into which a number of linear features had been cut. They included a small number of narrow, shallow ditches of probable Roman date, the base of a number of medieval furrows which had damaged or destroyed these earlier features, and two

[5] OS/67339/294 now held by the National Monument Record at Swindon.
[6] Soils report.


Pond
TRENCH 6
TRENCH 1
TRENCH 5
Conif
8335
TRENCH 2
TRENCH 4
TRENCH 3
16.5m
JOHN WARD CLOSE
Plan 3
Trench Locations
Scale 1:1250

phases of drainage. The earliest of these piped drains may relate to agricultural improvement of the area which is recorded as starting in the 18th century[7].

2.2.3 In the eastern half of the field the depth of modern topsoil remained fairly constant but proved to overly two earlier ploughsoils. It was decided to discontinue use of the machine at this point and examine a sample of the deposits by hand. The material recovered from them indicated that they were medieval and Roman in date.

2.2.4 The preservation of the medieval ploughsoil sealing a Roman ploughsoil, an uncommon event on rural sites, suggested that there was a very high potential of identifying an horizon broadly relating to the period of the Battle of Stamford Bridge. Despite hand excavation of some 300 sq. metres of these deposits no single item was recovered which was broadly contemporary with the battle.

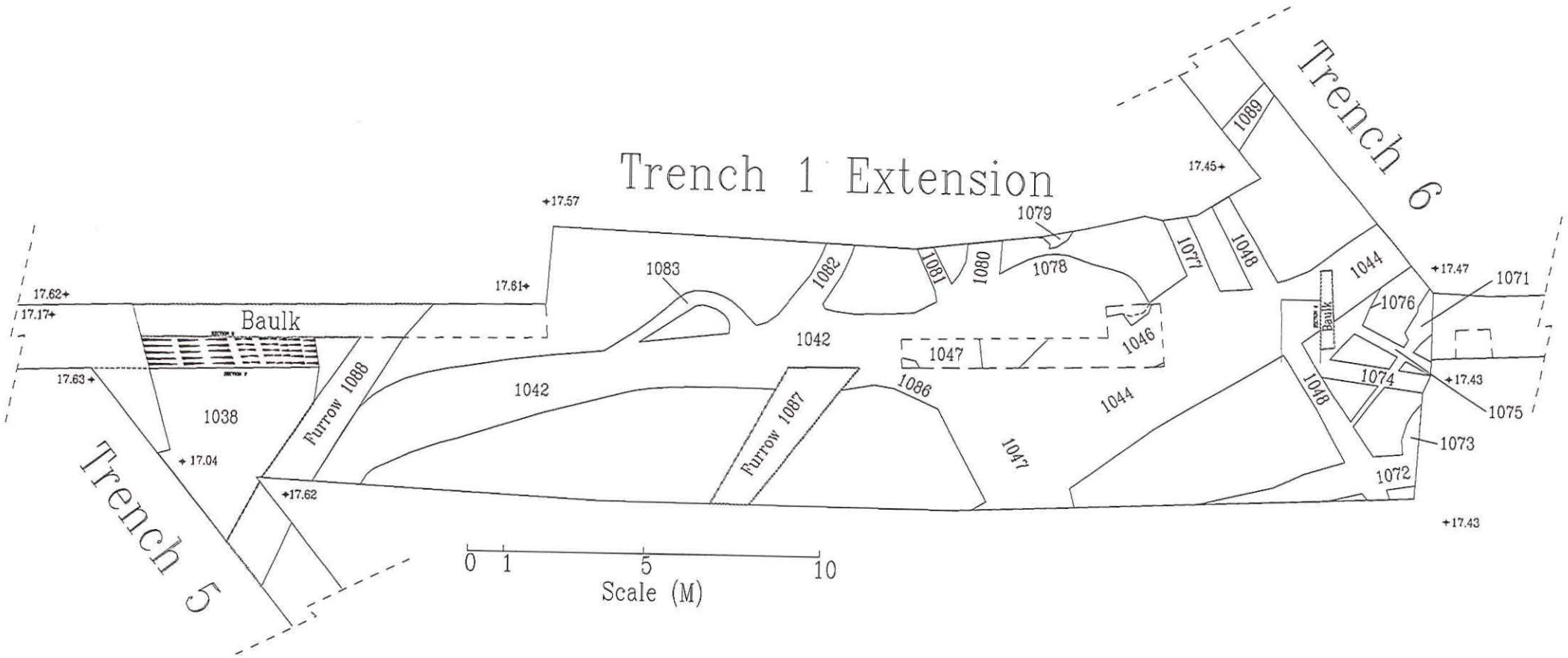
2.2.5 Over the eastern half of the site the two ploughsoils proved to overlie a complex of ditches. The main concentration of these was at the east ends of Trench 1 and Trench 2 - see Plan 4. As exposed in the initial Trench 1 it was obvious that there was a series of inter-cutting ditches, potentially of different periods. It was not possible to separate them out within the confines of the original trench and it was decided to expand an area of Trench 1. This also increased the potential for recovering dating evidence.

2.2.6 After further discussions with Humberside Archaeology Partnership additional trenches, 4, 5 and 6, were also opened in an attempt to establish if the apparent concentration of ditches, now shown to be primarily Roman in date, was restricted to the eastern and northern parts of the site.

2.2.7 The earliest feature on the site proved to be a depression, almost certainly natural in origin, located at the east end of Trench 1. The leached nature of the sand suggested that this area had been waterlogged for prolonged periods prior to the construction of the Roman ditches. In extent and character it may have been similar to the pond which still survives in the field some 60 metres to the north west of it.

2.2.8 The depression became the focus for a series of ditches, probably for drainage, dug during the Roman period. The broadest ditch ran roughly east to west and several smaller side ditches appeared to connect with it. Individual ditches had been re-cut on several occasions. The arrangement suggested that the complex of ditches may have drawn water from the surrounding area rather than just the

[7] Drake Eboracum.


Trench 1 Extension
Trench 6
Trench 5
Baulk
Furrow 1088
Furrow 1087
1038
1042
1042
1083
1082
1081
1080
1079
1078
1077
1089
1048
1044
1046
1047
1086
1047
1044
1048
1076
1074
1071
1075
1073
1072
17.62+
17.17+
17.61+
17.57
17.63+
17.04
17.62
17.45+
17.47
17.43
17.43
0 1 5 10
Scale (M)

Plan 4

depression. If the latter was a natural low point within in the Roman fields it would have been an appropriate focus for a local drainage system.

2.2.9 In the limited number of instances where the more substantial ditches were bottomed, water seeped into them soon after excavation. The fill of the ditches was mainly the light sandy natural soils and ploughsoil. Few produced any dating evidence, this came primarily from a layer of ploughsoil which sealed the ditches and the upcast from them. In the three primary contexts from which material evidence was recovered it proved to be Roman in date, 2/3 century 'grey ware' pottery.

2.2.10 The complex of ditches found at the eastern end of Trench 1 was bounded on the west by a broad ditch running approximately north to south. On excavation this proved to have been recut at least three times before it was filled by a layer of Roman ploughsoil and sealed by the medieval ploughsoil. The complex of drains to the east of it may well have fed into it. Unfortunately a medieval furrow obscured the relationship between the two elements.

2.2.11 The southern continuation of this north to south boundary ditch was found at the extreme eastern end of Trench 2. Here it appeared to be in the process of turning through an angle towards the east. the trench could not be extended in this area because of the presence of a farm track.

2.2.12 This broad ditch appeared to mark a definite change in the volume of domestic rubbish, mainly pottery and tile fragments, found in the Roman ploughsoil. Relatively large quantities were recovered to the east of the ditch whereas similar material was virtually absent from the remainder of the site. The waste material was probably brought to the area as part of the process of manuring the arable fields and the presence of tile and domestic pottery suggests that it probably originated from the villa. The transport of domestic and animal waste to manure fields was a common practice in the Roman period and material appears to have been transported relatively long distances.

2.2.13 The higher densities of pottery and tile fragments to the east of the boundary ditch combined with the complexity of the drainage system and greater volumes of topsoil suggests that this area was intensively cultivated. To the west the small quantities of waste material, the less well developed ploughsoil and infrequent, shallow ditches suggests that this area was less intensively farmed. It may even represent areas of pasture.

2.2.14 The arable area was apparently separated from the pasture by a zone approximately 22 metres wide. This was demarcated by three north to south ditches.

Two of these lay about 8.5 and 10.5 metres to the west of the north-south boundary ditch and ran parallel to it. A small area of cobbles and gravel was noted within the Roman ploughsoil close to the easternmost of the two ditches. It was particularly noticeable as it represented the only example of a stoney deposit in an otherwise virtually stone free site. It may represent the fragmentary remains of a track which bounded the arable area. This buffer zone between the arable and pasture, and the ditches which marked it, also appeared to mirror the suggested turn to the east of the boundary ditch.

2.2.15 The drainage ditches and main boundary ditch went out of use and were filled, apparently in a single stage in some cases, by the ploughsoil. They were then sealed by a ploughsoil which seems to have been formed in the later Roman period. The process may represent an expansion of the area under arable cultivation out into former pasture. The lack of ditches associated with this apparent expansion may also indicate that drainage was no longer a problem, possibly reflecting a period of less precipitation.

2.2.16 There was no indication in the archaeological information of the date when t he Roman fields were abandoned. There were small quantities of 4th century pottery in the ploughsoil but nothing to indicate that manuring continued on any substantial scale into that period.

2.2.17 During the medieval period the site was occupied by the conventional system of cultivation, ridge and furrow. The area presumably formed part of the open field system surrounding Stamford Bridge. This form of cultivation survived over most of the field as the base of the furrows, the ridges had been destroyed by modern ploughing. They were more pronounced in the western half of the field where they had cut relatively deep into the underlying natural and probably removed some elements of the earlier Roman field system. To the east, the greater accumulation of Roman ploughsoil had lessened the destructive impact of the medieval ploughing.

2.2.18 The ridge and furrow may have been turned over to pasture in the late medieval or Tudor period when the increasing demand for wool lead to former arable being put down to grass. An area of ridge and furrow survived as an earthwork to the south of the site until the post war period. Certainly the ridges and furrows were apparent in the 18th or 19th century when a system of horseshoe drains was laid out across the field. These were systematically laid in the bottom the furrows. By the 20th century the surface evidence had clearly disappeared as the modern drainage bears no obvious relationship to the former medieval system.

3. THE ARCHAEOLOGICAL IMPORTANCE OF THE SITE

3.1 The Evidence

3.1.1 The evaluation showed that the site has always formed part of the agricultural landscape of the area.

3.1.2 In the Roman period this may have been centred upon a villa which lay on the eastern edge of the medieval and later village.

3.1.3 If the battle of Stamford Bridge was fought on the site or swept over it, this momentous event has left no obvious evidence in the archaeological record.

3.1.4 In the medieval period it formed part of the system of open fields and in the 18th century the site underwent a process of improvement.

3.1.5 It is therefore a fairly typical example of the type of site that has been widely recorded in aerial photographs across the Wolds and on the southern fringes of the Vale of Pickering. Vast extents of ditched fields developed around Roman farms and villas have been recognised from the air. Few have been examined archaeologically, however. Archaeological interest has tended to concentrate on the farm buildings rather than the fields and infrastructure which supported them. Where parts of fields have been examined they normally prove to survive only as the ditches with their fills, the associated features having been truncated by modern cultivation.

3.1.6 Though there can be little doubt that the archaeological remains revealed in the evaluation are of little more than local significance they are remarkable in the fact that the Roman ploughsoil with its evidence for manuring has largely escaped the impact of both medieval and modern cultivation. The distribution of this material may reflect differing use of different parts of the site. The ploughsoil has also preserved small details of the cutting and re-cutting of the ditches, and the process of construction and decay. Contained within this evidence there may well be important information on some aspects of the techniques of Roman farming practice and management. These have not been studied to any degree nationally and certainly not on the local level. This evidence would certainly have more than local significance if recovered and scientifically analysed.

4. PLANNING POLICY

4.1 National Archaeological Policy

4.1.1 The primary national planning policy covering the archaeological resource in England is contained within PPG 16 - *Planning Policy Guidance: Archaeology and Planning* - which was issued in November 1990 by the Department of the Environment.

4.1.2 On the importance of archaeology the document declares that *'Archaeological remains should be seen as a finite, and non-renewable resource, in many cases highly fragile and vulnerable to damage and destruction.... They can contain irreplaceable information about our past and the potential for an increase in our future knowledge. They are part of our sense of national identity and are valuable both for their own sake and for their role in education, leisure and tourism.*[8]

4.1.3 It accepts that the needs of modern society to progress may produce a potential conflict of interest. The demand to progress and the reasonable need to preserve the physical remains of the past must be resolved. It therefore states that *'it is not always feasible to save all archaeological remains. The key question is where and how to strike the right balance.'*[9]

4.1.4 In the case of sites of national importance and their settings, whether scheduled or not, it considers that there should be a presumption in favour of their physical preservation if affected by proposed development. [10]

4.1.5 For sites of lesser importance it declares that the need for in situ preservation may *'not be always so clear cut and planning authorities will need to weigh the relative importance of archaeology against other factors'*. [11]

4.1.6 Wherever possible archaeological sites should be retained within a d evelopment and this can be achieved by 'preparing sympathetic designs using, for example, foundations which avoid disturbing the remains altogether or minimising damage

[8] PPG 16 Paragraph 6.
[9] Ibid. Paragraph 8.
[10] Ibid. Paragraph 8.
[11] Ibid. Paragraph 8.

by raising ground levels under a proposed new structure, or by the careful siting of landscaped or open areas.' [12]

4.1.7 Where physical preservation in situ is not feasible 'an archaeological excavation for the purposes of 'preservation by record' may be an acceptable alternative'. [13]

4.1.8 The document emphasises the role to be played by local planning authorities in striking the correct balance between the needs of progress and preservation. 'Development plans should reconcile the need for development with the interests of conservation including archaeology. Detailed development plans (i.e. local plans and unitary development plans) should include policies for the protection, enhancement and preservation of sites of archaeological interest and their settings. The proposal map should define the areas and sites to which the policies and proposals apply. These policies will provide an important part of the framework for the consideration of individual proposals for development which affect archaeological remains and they will help guide developers preparing planning applications.' [14]

4.1.9 The need for adequate evaluation and analysis of known sites and areas of potential prior to determination of a planning application is stressed.[15] The local planning authority can expect to be provided with enough information to make a reasonable decision.

4.1.10 Where a local planning authority decides, on the evidence available to it, that a site does not merit preservation in situ it is reasonable for it to 'satisfy itself before granting planning permission, that the developer has made appropriate and satisfactory provision for the excavation and recording of the remains.' [16]

4.1.11 The local planning authority may require that any scheme of excavation and recording takes place before development commences and that the results of the excavation are published. This can be achieved by a Section 106 Agreement under the terms of the Town and Country Planning Act. [17]

4.1.12 Where a local planning authority chooses to impose an appropriate condition when a planning decision is made it should ensure that it is fair, reasonable and

[12] Ibid. Paragraph 12.
[13] Ibid. Paragraph 13.
[14] Ibid. Paragraph 15.
[15] Ibid. Paragraphs 19-22.
[16] Ibid. Paragraph 25.
[17] Ibid. Paragraphs 25-26.

practicable.[18] It offers a model condition requiring that a scheme of archaeological works is submitted to, and approved by the local planning authority, and implemented before development commences. [19]

4.1.13 PPG 16 recognises that, despite the most thorough pre-planning evaluation, archaeological remains may still come to light only after commencement of a development. If they are of national significance both the Secretary of State and the local planning authority have powers to protect the site by the act of scheduling or revoking a planning permission.[20] In both cases compensation would be payable. Where lesser sites are involved it is anticipated that a satisfactory compromise between the parties should be possible.

4.1.14 In relation to the national planning advice in PPG 16 we would draw attention to the following:

4.1.15 The current planning application site is not identified in any adopted or emerging Local Plan as a site or lying within an area of archaeological interest or adjacent to such a site or area.

4.1.16 The archaeological interest of the site is neither of national or regional significance. Accordingly, the appropriate means of dealing with a site of local significance is a matter to be determined locally between the Applicant and the Local Planning Authority.

4.1.17 Although PPG 16 supports the preservation in situ of significant archaeological sites in preference to excavation and preservation by record, there are occasions where preservation in situ, though possible, may not be the best archaeological option. This is discussed further in the following sections of the Appraisal.

[18] Ibid. Paragraph 29.
[19] '*No development shall take place within the area indicated until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the Planning Authority.*'
[20] PPG 16 Paragraph 31.

5. OPTIONS

5.1 Preservation In Situ or By Record

5.1.1 As stated earlier the archaeological remains revealed by the evaluation do not rank as more than of local significance and should not therefore prevent controlled development of the site. They may contain significant data on some aspects of Roman farming practice, however, which is of more than just local significance and the future of that evidence requires careful consideration.

5.1.2 If the site was not developed for housing and was not retained permanently as 'set aside' it would no doubt be brought back into intensive cultivation. The evaluation showed that heavy mineralisation of the soils, including the formation of large areas of iron pan, existed over extensive areas of the field. This might require some form of sub-soiling to break it up. There might also be a need to replace the current system of drains.

5.1.3 Whilst these processes would be unlikely to wipe out totally the surviving archaeological deposits they would be likely to have some significant impact upon them. If this involved disturbance of the Roman ploughsoil it would certainly remove any extra value that the deposits currently possess. Since this process of bringing the land back into agriculture would not be the subject of any form of planning control there would be no requirement for any form of compensatory archaeological record to be made. The significant evidence would simply be wiped out.

5.1.4 Assuming that the proposed housing development is permitted, the option exists to preserve the remains either in situ or by record. Both methods of preservation are deemed acceptable in terms of PPG 16.

5.1.5 The proposed site layout includes provision of an area of open space along the southern boundary of the present field. This will provide an area for interpretation both of the Battle of Stamford Bridge and the history of the village. The eastern half of this space will also include part of the area where the archaeological deposits are best preserved. The effect will be to preserve them in situ.

5.1.6 Within the body of the proposed development site the most significant deposits could be preserved in situ by a combination of raising the overall site levels by approximately 1 metre and using a raft system to construct the foundations. This would largely remove the direct threat to the deposits with the exception of

services such as surface water drainage that might need to cut into the deposits. Obviously in such instances it would be necessary to make suitable archaeological records of the deposits before they were destroyed.

5.1.7 The second option would be to preserve the site by undertaking a detailed archaeological examination of the most significant deposits on the site, particularly those which occupy the eastern half. Subject to a detailed scheme of recording and analysis a substantial volume of material would be recovered which would certainly be of local interest but potentially also have a wider significance by contributing to a better understanding of Roman farming practices.

5.1.8 Whilst in situ preservation is achievable it would make no contribution whatsoever to a better understanding of the history of Stamford Bridge. The value of the site is primarily in terms of the data it contains and this is most strictly relevant to the local history. Sealing it under a layer of imported material would sterilise the information and deny it to the local interests for the foreseeable future. Whereas in the case of sites of national or regional significance current archaeological policies recommend in situ preservation, where sites of local importance are concerned it is usual to realise the site's archaeological value and adopt a policy of preservation by record.

6. OUTLINE OF A PROPOSED SCHEME OF WORKS

6.1 Objectives

The primary objectives of the excavation will be:

6.1.1 to recover and record the plan and layout of the Roman system of ditches;

6.1.2 to define the sequence of their development;

6.1.3 to recover dating evidence to provide a chronology for the sequence of development;

6.1.4 to recover evidence which will assist in identifying any differences in land use that might have existed;

6.1.5 to identify and record any pre-Roman or post Roman activity

6.1.6 to report the results of the investigation in an appropriate academic journal and;

6.1.7 to explain and display the archaeological evidence from the site locally.

6.2 The Methodology

6.2.1 The eastern half of the site containing the better preserved and more significant archaeological deposits will be mechanically stripped of topsoil using a machine with a flat bladed bucket. This will take place in advance of development and under strict archaeological supervision. It will include the area of archaeological interest that falls within the open space. The topsoil will be removed down to the natural surface to reveal the plan of the archaeological features.

6.2.2 Four strips of medieval and Roman ploughsoil, each about ten metres wide, will be left unexcavated by the machine. These will be excavated in part by hand to permit a detailed analysis of the nature of the two ploughsoils and the material they contain. Particular emphasis will be placed on attempting to identify any features which may indicate the presence of hedges or other barriers, possible metalled tracks and the sequence of the ditch construction.

6.2.3 Bulk samples will be collected from the different ploughsoil horizons and processed to recover artefactual evidence associated with the possible manuring. This sampling strategy will be extended to the western half of the site.

6.2.4 All the features revealed by the topsoil stripping will be cleaned, photographed and recorded in plan before they are sampled. Linear features such as ditches will be at least 50% sampled and junctions, intersections and terminals will be 100% sampled.

6.2.5 A full written and graphical record will be made of all the features revealed and examined.

6.2.6 Provision will be made to recover and analyse environmental data from any waterlogged deposits.

6.2.7 On the western half of the site, where the preservation and complexity of the archaeological features is much less, the archaeological objectives will be achieved by investigation of the footprints of a series of house plots and the line of the service road.

6.2.8 The data collected will be processed and analysed to produce an interpretative record of the site. This will be published in an appropriate archaeological journal.

6.2.9 The material recovered from the excavation will be made available for local education, display and information in accordance with a scheme to be agreed with the Local planning Authority in conjunction with the Parish Council.

7. CONCLUSION

7.1 The evaluation of the site at Moor Lane, Stamford Bridge has shown that it does not contain archaeological deposits of either national or regional significance. There are, however, archaeological remains of local significance with the potential to contribute more important information on farming practices and management in the Roman period if the deposits are suitably excavated, recorded, analysed and reported.

7.2 The archaeological investigation will also greatly expand the information available on the history of Stamford Bridge and contribute to a better understanding of it.

7.3 These archaeological objectives can be achieved under the terms of both local and national policies by the imposition on the planning permission of a condition requiring that a detailed scheme of archaeological works is submitted, agreed and implemented in advance of site development.

8. ARCHAEOLOGICAL REFERENCES AND SOURCES CONSULTED

Humberside Sites and Monuments Record

OS 6in 1860 1st Edition

OS 6in 1890

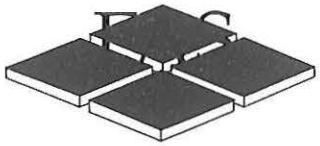
OS 6in 1928

Francis Drake 1736 Eboracum

Field Archaeology Specialists 1996 Moor Lane Geophysical Survey (unpub)

APPENDIX 1

Geophysical Survey



GEOPHYSICAL SURVEY
MOOR LANE STAMFORD BRIDGE
EAST YORKSHIRE

REPORT
September 1996

On behalf of: MIKE GRIFFITHS & ASSOCIATES
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1 INTRODUCTION

This document reports on a geophysical survey undertaken by Field Archaeology Specialists Ltd on behalf of Mike Griffiths and Associates. This survey forms part of a wider evaluation programme being carried out at Moor Lane, Stamford Bridge.

The survey was carried out between the 13th and the 20th of September 1996.

1.1 AIMS AND OBJECTIVES

The aim of this survey was to map sub-surface magnetic anomalies within an area specified by Mike Griffiths and Associates (Fig.1) with a view to locate and characterise any archaeological remains present.

1.2 LOCATION AND LAND USE

The study area consisted of an irregular shaped field (3.4 hectares) situated on the eastern side of Stamford Bridge (NGR SE 7185 5535) and adjacent to Battle Flat, an area which is thought to be the site of the Battle of Stamford Bridge (25th September 1066).

The field was generally flat and covered with long grass and thistles. The field appeared to have no formal use, however, the uneven ground surface indicated that it had been subject to ploughing in recent years.

The sites of eighteen, geotechnical trial pits (Pro-Soil Surveys) were clearly visible. The backfill of these pits consisted of a mixture of silt-sand topsoil and clean sand (?subsoil). A large amount of recent animal disturbance was also evident.

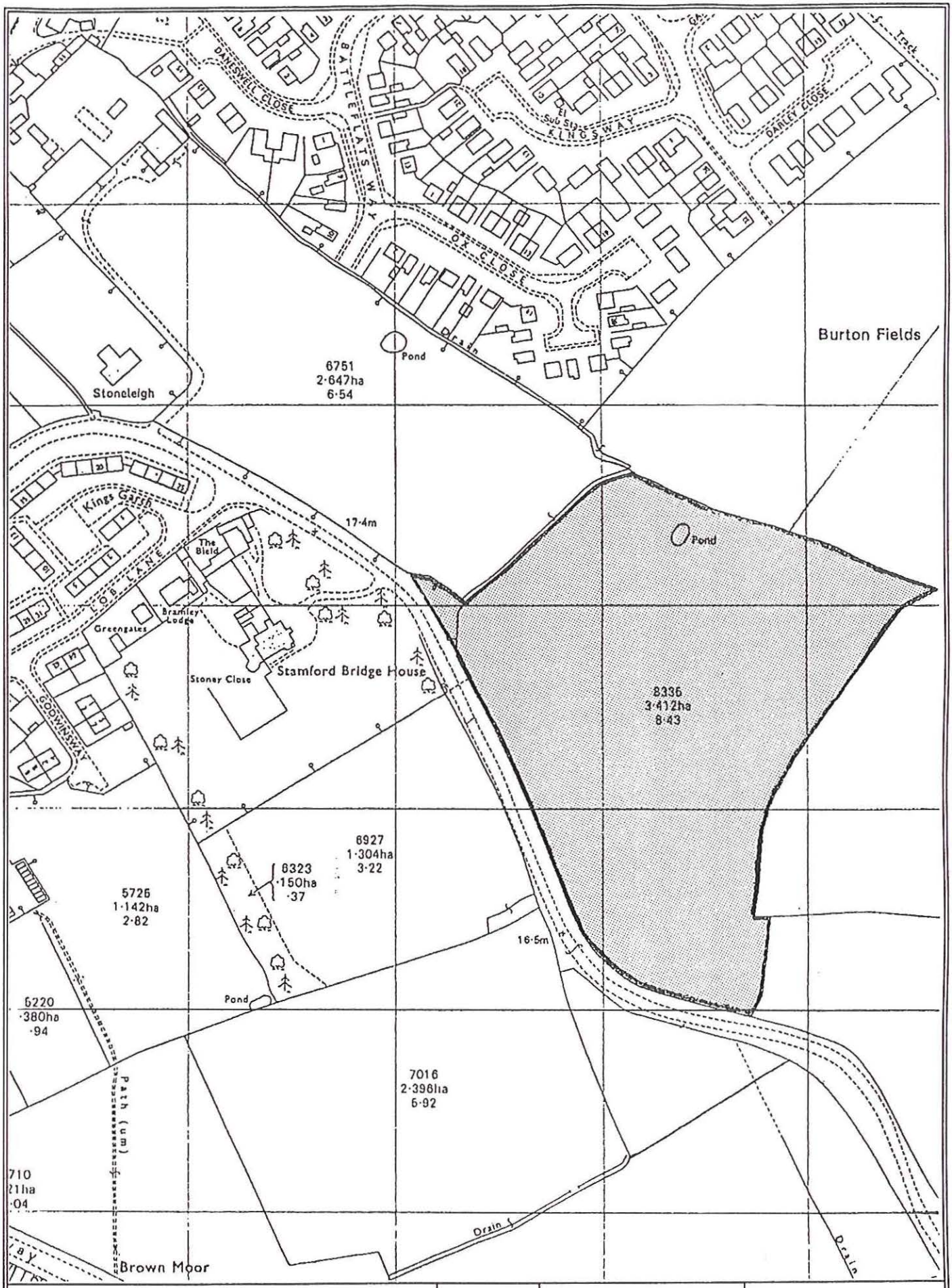
A pond was present at the north end of the site (Fig.1).

2 METHODOLOGY

2.1 GRID LOCATION (Fig.2)

Two survey stations aligned to magnetic north were installed to form the basis of the site grid. The boundaries of the field were then surveyed using a total station theodolite (Wild TC1010).

Grid points were set out at 40 metre intervals using the total station theodolite, to form the basis of the survey area. Intermediate points were positioned using tapes, to complete the grid of 20m x 20m squares. This procedure ensures an internal grid point accuracy of ±0.05m.

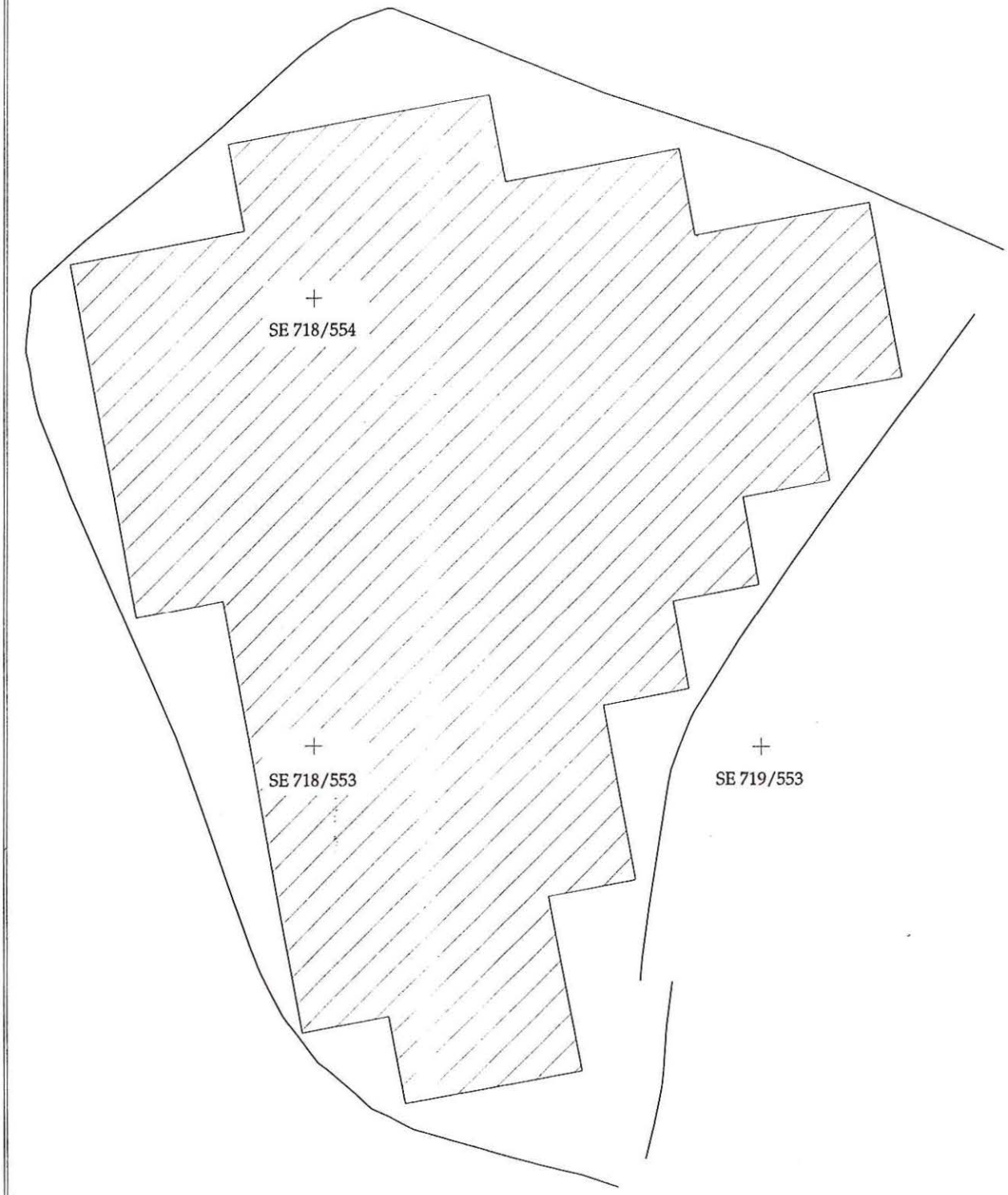


MOOR LANE STAMFORD BRIDGE
SURVEY LOCATION MAP

SCALE
1:2500

FIGURE 1

Field Archaeology Specialists Ltd, University of York, King's Manor, York, YO1 2EP License Number AL 50375A



Area of Magnetometer Survey, Moor Lane, Stamford Bridge

0 50m

figure 2

2.2 GEOPHYSICAL SURVEY

This survey was carried out using a fluxgate gradiometer with digital storage and data transfer facilities (FM18 with ST1 sample trigger - manufactured by Geoscan Research). Each 20m x 20m survey grid was undertaken using the parallel traverse method (unidirectionally) to ensure the capture of good quality raw data. Instrument readings were logged at 1.0m x 0.5m intervals (standard resolution). On the completion of every four survey grids the data was transferred from the FM18 to a portable computer where it was checked for survey defects.

The raw data was processed using Geoplot version 2.02. This involved the adjustment of any differences in the average background reading between individual survey grids as well as inconsistencies caused by instrument drift, which were removed to facilitate clear presentation of the data set.

The processed data was transferred to Surfer version 6.02 in which it was prepared for presentation. The resulting grey-scale and mesh plot images were then output on a high definition laser printer.

3.0 RESULTS

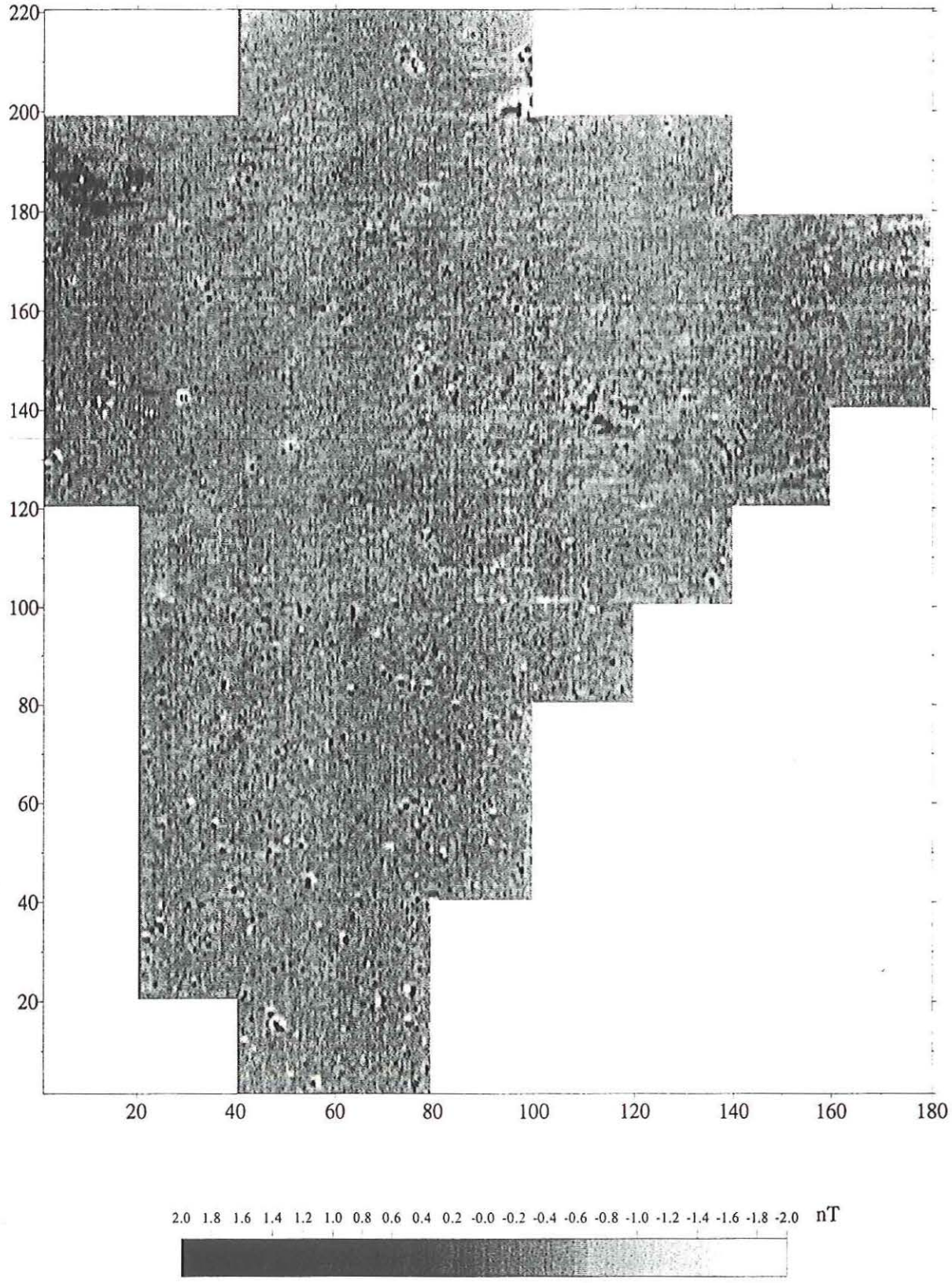
Figure 3 shows the results of the survey as a two-dimensional grey-scale plot. It should be noted that the data has been tightly 'clipped' (± 2 nT) to emphasise weak magnetic anomalies. Figure 3 is a perspective mesh plot of the 'unclipped' data-set which shows the relative strength of positive anomalies.

Frequent small, high and low reading, anomalies are present throughout the area. These anomalies are most apparent as 'spikes' in Figure 4, and are characteristic of ferrous debris. The most noticeable concentration of these readings is situated on the northern edge of the area and coincides with the western edge of the pond.

A series of very weak (± 1 nT) linear features, orientated NE-SW can be seen throughout the survey area. These ephemeral features run parallel to each other at intervals of 5-10m. This series of anomalies most likely represents the remains of ridge and furrow ploughing.

The most obvious feature detected by the survey was a large (approximately 20m x 6m) sub-rectangular, weakly magnetic (+ 2-3 nT) anomaly, located in the north-west corner of the survey area. Situated at the southern end of this feature is a discontinuous, NE-SW orientated, linear anomaly which shares the same orientation and spacing as the ridge and furrow type features.

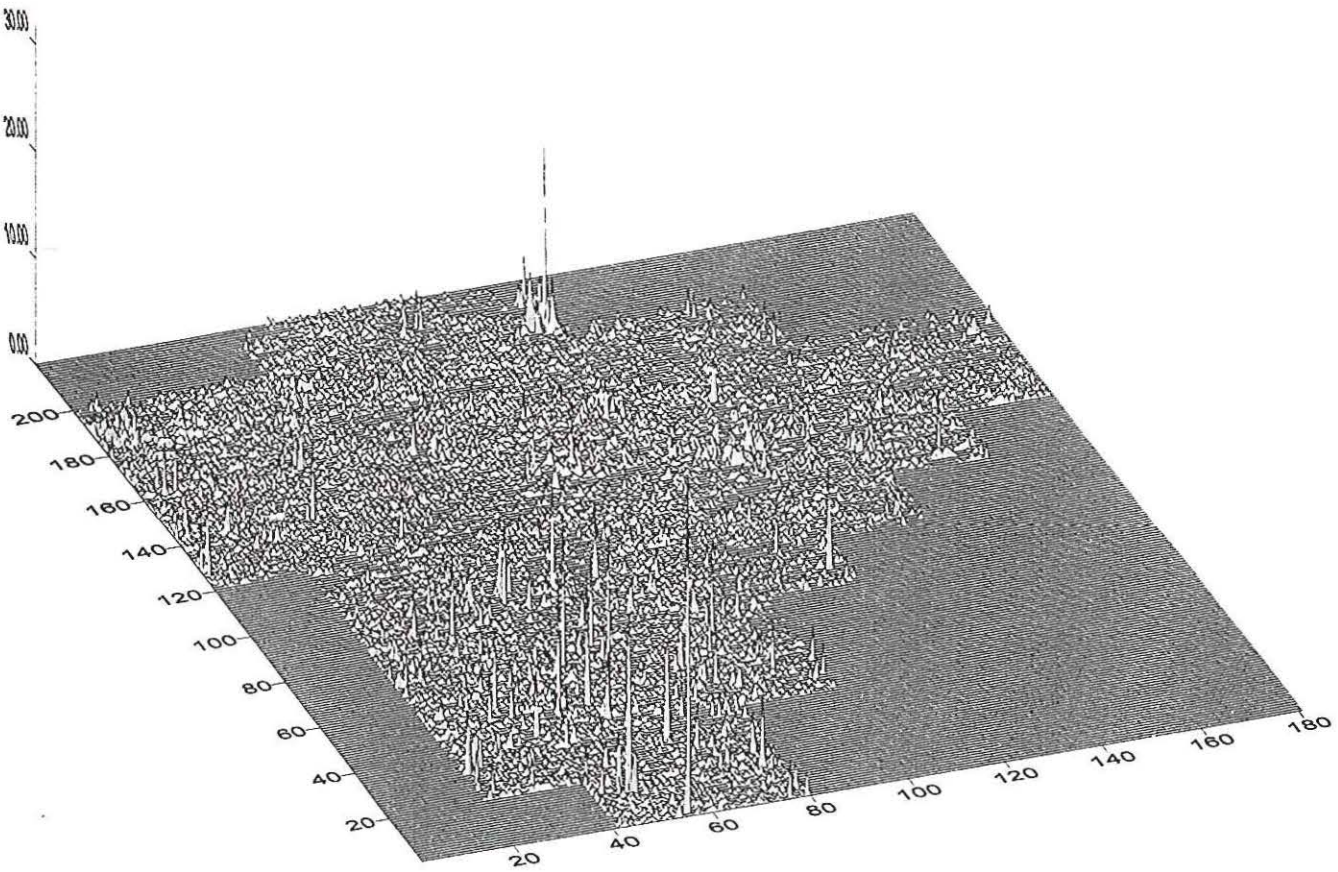
The north-western part of the survey area contains several possible curvilinear features including a circular feature (15m in diameter). The strength of these anomalies varies little from the average background reading for the site.



MOOR LANE STAMFORD BRIDGE
GRADIOMETER PLOT

Scale
0 20 40
in metres

FIGURE 3



MOOR LANE STAMFORD BRIDGE
GRADIOMETER MESH PLOT

FIGURE 4

4.0 CONCLUSIONS

With the exception of ferrous debris, the site was found to have little magnetic variation. The effectiveness of the magnetometer in detecting many types of archaeological feature is dependent upon a difference in the magnetic strength of the topsoil and the subsoil. The fact that the geotechnical trial pits (the backfills of which consisted of mixed topsoil and subsoil) were not detected by the survey strongly suggests that there is little or no topsoil/subsoil magnetic variation on this site. The level of confidence in the results of this survey, therefore, cannot be considered to be high.

The rectangular anomaly in the north-west corner of the survey area may represent archaeological remains (?structure), possibly damaged by ridge and furrow ploughing, as is suggested by the discontinuous line of higher readings on its southern end which share the same orientation as the ploughing.

It is possible that the ephemeral curvilinear features in the north-western part of the survey area represent archaeological remains, although they could equally be the result of recent superficial activity or geological anomalies. However, given the low topsoil/subsoil magnetic variation, the former possibility should not be disregarded.

APPENDIX 2

Method Statement

Moor Lane, Stamford Bridge
Method Statement for Barratts of York

1.0 INTRODUCTION

1.1 The site falls within the area defined as the site of the Battle of Stamford Bridge. It is proposed for housing development.

1.2 The objectives of the evaluation are to establish the presence or absence of archaeological deposits; if they are present to determine their extent, character and chronology; and provide information to assist in the development of an appropriate archaeological mitigation strategy.

1.3 The site proposed for the evaluation is currently in agricultural use.

2.0 SITE DESCRIPTION

2.1 The site covers an area slightly less than 3.5 ha. It is a former arable field, cultivated from at least the beginning of the 18th century, which has been set-aside for at least one year. The vegetation cover is coarse grass and weeds. Access is from the S corner via a farm gate. A previous soil survey suggests that the topsoil/ploughsoil cover varies between about 30 and 75 cm over a natural sand subsoil. No services are known to cross the site and there are no overhead power-lines or telegraph wires. It is located to the south of the settlement of Stamford Bridge .

3.0 SUMMARY ARCHAEOLOGICAL DESCRIPTION

3.1 The site has been the subject of an archaeological desk top study and a geophysical survey.

3.2 The site of the evaluation has not been the subject of any previous intrusive archaeological ground investigation.

4.0 THE DEPOSIT MODEL

4.1 The lack of previous work on the site prevents the construction of a deposit model. The evidence from an earlier soil survey suggests that the topsoil varies across the site from the north to the south, between 75 cm down to 35 cm. Archaeological features might be expected to survive as features cut into the underlying natural sandy subsoil.

5.0 THE EVALUATION PROGRAMME AND METHODOLOGY

5.1 **3 trenches** will be opened up under professional archaeological supervision using mechanical means to carefully remove any topsoil or overburden. The machine will utilise a broad toothless ditching bucket. **T1** will be approximately 200 metres long by 2 metres wide, **T2** will be approximately 120 metres long by 2 metres wide, and **T3** will be approximately 70 metres long by 2 metres wide. **Additional trenches**

may be required if major archaeological deposits are identified and there is a proven need to determine their extent.

5.2 **T1** has been positioned to cross the line of a supposed Roman road and an area of higher readings noted in the geophysical survey. **T2** has been positioned to provide a transect across an area of supposed square barrows and the line of the Roman road. **T3** has been located to examine a possible enclosure and the line of the supposed Roman road.

5.3 After machine cleaning the surface will be cleaned by hand and any archaeological deposits and features will be sampled by hand excavation to determine their character, degree of preservation, potential and chronology. In the case of deeply cut features such as major ditches or pits, sections may be cut to their full depth, subject to all appropriate safety measures being adopted. Wherever possible, however, the intrusive impact on in-situ deposits will be kept to the minimum required to determine the objectives set out above.

5.4 Excavation will be carried out to professional standards. All appropriate records will be made and kept. Provision will be made to ensure a safe, secure working environment at all times.

5.5 All archaeological contexts will be sampled for environmental purposes where appropriate. Bulk samples will be taken, between 10 and 30 litres, to permit flotation for carbonized remains. Smaller samples, 5 litres, may be taken to permit sieving of deposits to establish volumes of smaller artefact/ecofact assemblages. If waterlogged deposits are identified bulk samples may be taken to determine the nature of macroscopic plant and organic remains. Specialist advice will be sought where necessary.

5.6 All records will be indexed, ordered, quantified and checked for consistency.

5.7 All artefacts and ecofacts recovered and retained from the evaluation will be packed and stored in the appropriate materials and conditions to ensure that minimal deterioration takes place and that all their associated records are complete.

5.8 In addition to this basic work to complete records to Level 2, any relevant environmental samples will be processed and assessed.

5.9 The rest of the material archive will be assessed for its potential to contribute to artefactual research.

5.10 The stratigraphic sequence will be assessed.

5.11 The details and processes outlined in 5.4 to 5.10 above will produce the following output as a concise report:

5.11.1 a plan of the site showing the position of the trenches, location of survey points and TBM, and the whole tied in to the OS National Grid. This will be in both a paper and digital form, with the latter either in AutoCad DRG format or as a DXF file.

5.11.2 A portfolio of drawn sections, trench plans and, where appropriate, drawings of artefacts. If any of these are digitised a copy of the electronic record will also be provided in either of the formats mentioned above in 5.11.1.

5.11.3 An interpretation of any structural sequence.

5.11.4 An assessment of the archaeological significance of the deposits examined and their research potential across the remainder of the site.

5.11.5 Subject to the approval of the landowner, all the original material and the paper and electronic archive will be prepared for deposition with an approved museum; this will normally be Hull Museum. Copies of the assessment report will be deposited with Sites and Monuments Record within eight weeks after the end of work on site subject to confirmation that they will be treated as strictly confidential commercial information which cannot be divulged to any other party without prior written approval.

5.12 A computer-based recording and retrieval system will be used.

6.0 REINSTATEMENT

6.1. Spoil from the excavation will be stored close to the areas of investigation. Topsoil will be kept separate from other material and returned in due order on completion.

7.0 TIMETABLE FOR ARCHAEOLOGICAL WORKS

7.1 The excavations will commence at the earliest possible date after the contract has been awarded and completed within a maximum of twenty working days subject to review if additional areas are deemed to require investigation.

7.2 A site meeting to assess the results of the evaluation will be held on the final day of the site excavation.

7.3 An initial brief summary account of the results of the archaeological site evaluation works will be submitted by Mike Griffiths and Associates by a date no later than five working days after the completion of the site works.