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A PRELIMINARY ARCHAEOLOGICAL ASSESSMENT OF THE A23/M23 LINK, HOOLEY, SURREY

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A PRELIMINARY ARCHAEOLOGICAL ASSESSMENT OF THE A23/M23 LINK, HOOLEY, SURREY

1. Planning Background

Consideration is being given to road improvements relating to the A23/M23 link at Hooley (fig 1), and Surrey County Council's Principal Archaeologist has indicated that he would wish to ensure that the potential archaeological interest of the site is assessed and safeguarded as necessary.

An appropriate scheme of investigation in order to achieve this will consist of up to four stages with the character of successive stages dependent on the results of the previous stage. The four distinct stages of archaeological involvement may be defined as follows. The first stage, a Stage I assessment as defined in Volume II, Section 3, Part 2, Chapter 8 of the Design Manual for Roads and Bridges has already been completed, and as as a result it was recommended that further work was undertaken to provide a Stage 2 assessment as defined in the same manual. This forms the present report and has involved an examination of early cartographic sources (including, for example, the Tithe map of *c* 1840); a rapid review of readily available secondary historical sources (such as the Victoria County History volumes); appraisal of geological, topographic and soils information already compiled; examination of relevant aerial photographs; collation of Sites and Monuments Record information; consultation with local archaeologists as appropriate; a very careful walkover survey of the site; and the production of a report summarising the above information and identifying the nature and location of Stage 3 work in the light of the development proposals and any other identified constraints (eg services or safety considerations). It may also be appropriate to rank different proposals according to their likely archaeological impact.

The third stage of work will be **Survey and Evaluation** of those areas which are to be the subject of significant ground disturbance. There are various options for such work depending on the archaeological potential of the site as defined by the preliminary assessment. Possible approaches include a watching brief or geophysical survey, but the most common method is the excavation of machine-cut trial trenches, followed up by excavation of the archaeological features which are revealed within them, and further assessment by geophysical survey as

appropriate. This will enable the existence, extent and importance of archaeological remains (if any) in these areas to be defined in appropriate written reports.

The fourth stage of work will be Preservation Strategy, based on the findings at Stage 2. It does, of course, only become applicable if archaeological remains are discovered. The fundamental principle behind the archaeological policy of Surrey County Council is that *Preservation in situ* is always the most desirable approach: should that prove impossible then *Preservation by Record* is essential.

2. Geology

The proposed junction improvement covers an area of approximately 0.7 Ha, and is underlain on its southern third by Middle Chalk and on its northern two-thirds by Upper Chalk.

3. Sites and Monuments Record (fig 1)

The Sites and Monuments Record of Surrey County Council was checked to see what sites of archaeological interest were known from the area of the proposed development.

3745 *Surrey Iron Railway Earthworks.* The line served the chalk pits of the Merstham Greystone Limeworks, which were developed in the 19th century by Jolliffe and Banks, promoters of the railway. The cutting runs north, from the east side of the A23 opposite Harps Oak Lane to the motorway junction and then continues as shallow depressions in front gardens. This site is also a Scheduled Ancient Monument, no 123.

1067 *Possible Barrow Site.* Field name 'Dragberry' on 1840 Tithe Award. Drakebergh, 1388 Court Roll; Dragburrough in 1522; all meaning Dragon's mound, alluding to the ancient folklore of the dragon in the barrow and, perhaps, to some ancient discovery.

1025 *2 Hourglass Perforated Maceheads.* Axe-head found in Autumn 1928 'in a black deposit' below a top layer of flints in the grounds of a house, 'North Point', Church Hill, Merstham .... The implement is of reddish quartzose

sandstone not found locally, and brought possibly from Wales or the west of England. It is assigned by Mr Reginald Smith to the Late Neolithic period, about 2,000 BC. The surface is partly polished; the hole is countersunk in 'hour-glass' fashion; extensive signs of wear appear at both ends, and a large flake has been broken off at the butt end leaving a scar. Close by, he found a semi-finished 'mace-head' of similar appearance which was only partly bored. The second implement was subsequently lost.

3620 *Iron Railway Rails.* About 12 cast-iron rails from the Surrey Iron Railway are preserved east of the A23, south of the B2031. They are angle section c. 76cm long, slightly higher in the centre than the ends, and are laid on stone sleepers.

3782 *Roman Coin : As or Dupondius.* A 1st or 2nd century As or Dupondius, which is in a worn condition. It was found north of Marlin Glen Wood, by Brian Lambert, using a metal detector.

4. Maps

These can be a very useful source of information when looking for archaeological features as it is possible to trace the development of a landscape over several hundred years or more, and features recorded on early maps, which often disappear on later ones, can be identified.

4.1 The Rocque Map of 1768 (fig 2)

This later 18th century map is one of the earliest maps to show the village of Hooley and the landscape underlying the route of the proposed junction improvement. The route follows a similar line to the road leading from Merstham to a village called 'Wolley' (this is, in fact, Hooley) northwards, starting from the end of a field, north of Merstham church (written as Meestham on the map), leading up to, and just beyond, Deane Farm. At the southern end of the route there is a marked difference in the line of the Merstham - Hooley road to that of the modern road in that the High Street runs on the west side of the Church rather than the east side, as today, and it leads directly up to Harps Oak via Marting Pit, rather than curving to the east as it does at present. There are two small settlements marked along what will be the line of the road but neither of them would appear to be directly affected by the proposed route. The general

character of the landscape that the route will cross is one of fields with occasional plots of woodland.

4.2 The Tithe Map of 1840 (fig 3)

The Tithe map and award for Merstham was consulted for information similar to that above and for any interesting field- or place-names that might provide evidence for the existence of former archaeological features. The area of the present junction covers fields :

84 Part of Great Home Field
96 Part of Foxfield
97 Shaw in front Home Field
102 Part of Rowen's Field
103 Part of Old Ham
104 Shaw Pit
105 Dragberry
108 Part of Dragberry

Fields 102, 103, 104, and 105 are situated in the area of the proposed junction alterations and none of them have names of any particular significance except 105 - Dragberry, which, as referred to in section 3 (SMR no 1067), may possibly have connections with a barrow site though of unknown date. Another interesting point is that a railway track is clearly shown running parallel with the old Hooley Lane (north-south road) and this must represent the industrial railway (SMR nos 3745 and 3620) which still exists today in a fragmentary nature. The fields affected by the proposed junction alterations are nearly all arable with some woodland (104).

4.3 The Ordnance Survey 1st Edition 6 inch Map of 1871 (fig 4)

The OS first edition 6 inch map represents the first attempt at a systematic, large scale, 'objective' cartographic survey of the whole country. The extract shows Hooley Lane (the modern London Road North) leaving Merstham to go north to Hooley; the line of this road has been altered from the 1840 Tithe Map and now leads not into the north of Merstham but comes in from the east side. The area of the proposed junction alteration is covered by a large field with the remains of

field boundaries at the north and south ends, which were originally shown on the Tithe map. Running down the centre of the field is a feint division which may represent a former field boundary not shown on the Tithe map.

5. Printed Sources

Various written sources were checked for information regarding the history of the general area and the site itself. These included the local records of the Surrey Record Office, the Victoria County History of Surrey, and the English Place-Names Society volumes for Surrey; of these only the last two sources produced any information of direct relevance.

5.1 The Place-Names of Surrey (English Place-Names Society vol XI, 1934)

The EPNS volume gives the meaning and origin of local place-names of interest, and there are several names of interest for this survey :

Alderstead Farm this is first recorded as Aldested(e) in 1225, Alstede in 1327, and Aldersted in 1522. The meaning is probably 'alder place'.

Dean Farm this is first recorded as la Dene in 1225, atte Dene in 1390, and lez Deane in 1522. The meaning probably comes from *denu* meaning 'valley'.

Harpsoak Cottage this is recorded as 'the Harp, two crofts called Harps' in 1522. No meaning is given.

Hooley this first recorded as Holeg(h) in 1235, Holee in 1301, and Hooley in 1789. This is probably a compound of Old English *holh* and *leah*, hence 'woodland or clearing in the hollow'.

Merstham this is first recorded as Mestham in 947, Merstan in 1086, Mesthan in 1202, and Merysham in 1505. The suggested meaning of the name Merstham is 'homestead by the horse enclosure', or, as Rumble (Rumble A R, 1976 Place-names and their context with special regard to the Croydon survey region, *Proc Croydon Natur Hist Sci Soc*, **15.8**, 161-84) put it, 'the horse enclosure'; *Mearsaet* means 'horse paddock'. Rumble noted the existence of specialist units such as this, and others such as Gatton - 'the goat farm', in the immediate vicinity, and suggested that they formed an important part of a multiple estate (essentially self-sufficient), a type of

landholding which developed probably due to the absence of money and a greater emphasis on self-sufficiency in the early Saxon years. Whitehall Farm was earlier recorded as White Hill but no date is given in the *EPNS* for this.

5.2 The Victoria County History of Surrey vol 3, 1911

'In 1807 the high road to Croydon was improved so it avoided the steep hill into Reigate and the steeper portion of Merstham Hill, passing by the depression near the west end of the church. Before this road was made, a railroad, worked by horse traction and following the same depression in the chalk, had been laid down, connecting Merstham with Croydon.

Though the Merstham stone and lime works were intended primarily to benefit by the line, it took goods of any ownership or description.

The line was taken over by the London and Brighton and South Eastern companies, whose joint line runs upon part of it. The railway is still visible in an inclined cutting.'

6. A Walkover Survey of the 17th February 1995

The whole of the area outlined on fig 1 was carefully walked over on 17th February 1995. This work did not reveal any new information of direct archaeological interest, but it did provide valuable information on recent land use and the suitability of different areas for any further archaeological fieldwork. The distinct areas are marked by letter codes on fig 1 : some residual pieces of land, of narrow extent and/or obviously badly disturbed by recent landscaping are separately indicated as unsuitable for any further archaeological investigation by reason of these facts. The lettered parcels of land are as follows :

A Site of SMR no 3745. As described above, a well defined cutting but note that there are many small (*c*3-7m high) trees growing within it. On the eastern side, spoil from the motorway construction spills over the sides of the cutting.

B This is scrub land, with occasional small trees, open and accessible for further fieldwork.

C Area covered with closely spaced, small (*c*1.5m high) fruit trees. Fieldwork would be impossible with this ground cover, but the trees would be easily

removed by machine if archaeological investigation was required.

D A small grass-covered, area, sloping steeply to the south. It seems probable that this has been heavily landscaped, and is useless for further archaeological investigation.

E This is a grass field, but it has evidently been much disturbed in the recent past (was it a compound during motorway construction ?). Topsoil has been removed and piled in low mounds, and there is much surface standing water, and evidence of the passage of heavy vehicles. At F rubbish tipping has been taking place. Despite all this, it would be unwise to assume that archaeological remains (if such exist) have been damaged or destroyed beyond recovery of useful information. This is especially so on the higher ground towards the south (Δ on fig 1), which seems the most likely location for a barrow (SMR 1067) and is also apparently less disturbed than elsewhere.

F See above under E.

G This is a sizeable area of fairly level ground. It is covered with small (c5m high) trees at 7-10m intervals, and there is evidence of many similar trees in between having been cut at ground level in the past 1-2 years. Removal of the trees and stumps would almost certainly destroy any archaeological evidence present. Fieldwork (trial trenching) would just about be practical in its present condition, but the stumps may be a problem.

H Large quantities of dumped soil here would render fieldwork impossible. Even if removed it seems likely that the area below has been badly disturbed.

I Grassland with a few trees, not apparently previously disturbed, suitable for fieldwork.

J, K These are pasture fields, both of which slope gently to the south-east or east. Suitable for fieldwork.

7. The Constraints and their Significance

The further background research undertaken for this stage 2 assessment has not in fact significantly added to or altered the conclusion in this regard arrived at following the Stage I assessment. These are, therefore, quoted unchanged from that report.

A number of archaeological sites have been identified within or in the

immediate area of the proposed A23/M23 improvements at Hooley. The Neolithic maceheads (SMR no 1025) were found about 250m distant from the area. One of them was unfinished which suggests that they derive from a nearby settlement : there is, presently, no reason to suppose that this lay north, in the direction of the study area, but the possibility needs further assessment. A Neolithic settlement would be of very high importance.

The possible barrow (SMR no 1067) lies in an area that may be affected by the proposals. Such a monument might, in principle, be of Bronze Age or Anglo-Saxon date, and would in either case be a significant discovery in local and national terms.

The Roman coin (SMR no 3782) is an isolated find and, it would seem most probable, represents a casual loss rather than being an indicator of nearby settlement.

The remains of the Surrey Iron Railway (SMR nos 3620 and 3745) are earthworks upon which a very high value must be placed because of their significance to industrial history.

8. Recommendations

It may be suggested that there are, essentially three archaeological issues which arise with regard to these proposals. These are discussed in turn below, but it is important to note, at this stage, that there are a number of possible options (not all of them seen by us) for the improvement, and they are expressed in terms of principles which can be applied to each of the options.

1. SMR no 3745 is a Scheduled Ancient Monument. There is a strong presumption against any works which will directly affect its integrity. Such work would require Scheduled Monument Consent. In principle SMC may also be required for work affecting the setting of an Ancient Monument, as will be the case here. Because of its present location, adjacent to the M23 embankment, it seems unlikely that the proposed works could be regarded as having a significantly adverse effect on the setting. SMC is issued by the Department of National Heritage, having regard to the advice of English Heritage. Whether or not the monument is to be directly affected by works, it is recommended that the issue is discussed on site with English Heritage at the earliest opportunity in order to obtain their point of view.

2. SMR no 1067 refers to a sizeable field, most of which falls within the improvement area, but which has already been damaged or disturbed to some degree. Nevertheless, the field should be subject to field evaluation, preferably before a final decision on options is taken. This is to allow the possibility of preservation *in situ* in the (perhaps unlikely) event that suitable archaeological features are identified. Such evaluation should consist of geophysical survey followed by trial trenching.

3. The remaining areas affected by the improvements, excluding those identified in section 6 as useless for further archaeological work, have some, although not a high, archaeological potential for the reasons indicated in section 7. In essence this means areas I, J and K (fig 1) and these should be subject to trial trench evaluation where affected by the proposals. Areas B, C and G are marginal for this purpose (because of their limited extent and/or current condition)and may be appropriately covered by a watching brief.

In the case of 2 and 3 the evaluation could be limited, in the first instance to areas affected by the preferred option. If these show little or no archaeological evidence, or only material that can be dealt with by Preservation by Record, then further evaluation will be unnecessary. If, however, material requiring Preservation *in situ* is identified then clearly the areas of alternative route options will need to be evaluated.

There is little or no further archaeological work that will need to be done with regard to 1. The issue is simply one of establishing, in consultation with English Heritage, what works, and under what conditions, are likely to gain Scheduled Monument Consent.

9. The Methodology of Further Archaeological Work

9.1 General Considerations

9.1.1 The further evaluation should aim to gather sufficient information to establish the presence/absence, extent, character, quality and date of any threatened deposits within the site in order to allow definition of an appropriate mitigation strategy.

9.1.2 The methodologies for further work outlined below have been formulated

after careful consideration of all the relevant factors, including cost. They are believed to be the most appropriate in the circumstances of the site and its perceived potential.

9.1.3 Where a detailed specification is not given below it is to be assumed that all work should be carried out within high professional standards, with the scope and level of different aspects of the work defined by reference to the advice and practice of English Heritage and the Institute of Field Archaeologists.

9.1.4 The specification below is for the *strategy* to be adopted in further archaeological work. The *tactics* (eg precise location and length of each trial trench) of that work are for determination by those working in the field.

9.2 Fieldwalking

Careful and systematic walking of freshly ploughed fields is a powerful aid to the identification of archaeological sites by the location of significant artefact scatters. It is particularly effective as a method for locating lithic (flintwork) scatters. Unfortunately all the relevant fields are pasture, although a careful examination of the disturbed topsoil in area E (fig 1) should be carried out.

9.3 Machine Trial Trenching

This is probably the most commonly used field evaluation technique; it has much to commend it since it provides rapid, cost-effective answers to presence/absence and extent, and enables manual excavation to establish character, date and quality of deposits. In all cases work should be carried out using a toothless grading bucket, 1.8m wide. In the present instance it should be used in order to provide a balanced sample of the areas defined for this purpose in section 8.

The quantity of work implied by the above is in need of definition. There are two parts to this. The number and length of trenches opened by machine should be sufficient to provide a balanced sample and minimise the risk of important sites lying in the gaps between trenches. A practical approach, producing a sample level at about 2%, is to define the work in terms of the number of days use of a machine. Experience has shown that on most sites two days machining of trial trenches produces adequate coverage of 3-4 Ha; in the case of Area E its defined archaeological high potential means that a greater sample,

at about 4%, would be appropriate.

The second part of the work would be hand-excavation following on from machine opening of trenches. It will be obvious that this is an unknown quantity at this stage.

9.4 Geophysical Survey

Geophysical Survey as an aid to archaeological work, can, in principle, be used either at the 'search and locate' or the 'site definition' stage. In the present case it is believed that trial trenching provides the most cost-effective technique for 'search and locate'. If trial trenching reveals sites that are represented by sub-surface features then an adequate definition of the full extent of the site is important to the formulation of a preservation strategy. Geophysical survey methods have the potential to do this rapidly and effectively. The particular methods adopted will depend on the nature of the sites identified. Area E, the possible site of barrows is in a slightly different position and may appropriately be subject to a fluxgate magnetometer survey prior to trial trenching.

9.5 Watching Brief

This should consist of observation of soil stripping in progress and examination of cleared surfaces. Where features of interest are defined the areas should be kept free of machine movement until an adequate record has been made and/or until the area is re-covered.

9.6 Recording and Processing

Recording should be undertaken as follows :

a) All structures, deposits and finds are to be recorded according to accepted professional standards.

b) Plans indicating the location of the excavated trenches and of areas subject to watching brief and the location of all archaeological features are to be drawn at an appropriate scale. Plans at an appropriate scale should be related to the National Grid. All plans and sections are to be drawn on polyester based drafting film and clearly labelled.

c) All archaeological contexts are to be recorded individually on record context sheets. A further more general record of the work comprising a description and discussion of the archaeology is to be maintained as appropriate.

d) A full black and white and colour (35mm transparency) photographic record of the work is to be kept. The photographic record is to be regarded as part of the site archive.

e) All artefacts recovered during the excavations on the site are to be suitably bagged, boxed and marked in accordance with the United Kingdom Institute for Conservation, Conservation Guidelines No 2.

9.7 Report Preparation

9.7.1 An interim report should be prepared within a reasonable period to be agreed of the completion of work, and copies supplied to MMT, ECD and to the Principal Archaeological Officer, Surrey County Council. The report should include :

1) A copy of the trench location plan at an appropriate scale together with a plan of the main archaeological features together with more detailed plans as appropriate and relevant section drawings.

2) A plan or plans showing the results of other investigative techniques.

3) A descriptive summary and interpretation of the archaeology of the site.

4) A consideration of methodology used, including a confidence rating.

5) Brief recommendations for a preservation strategy.

9.7.2 A full report on the work, containing a level of detail appropriate to the importance of any discoveries made, must be made available for publication in a publicly available journal (normally the Surrey Archaeological Collections) within two years of completion of any fieldwork.

9.8 Finds and Archive Deposition

Finds will need to be retained by the archaeological contractor until an appropriate level of study has been completed, and it is anticipated that they will then be placed in the nearest suitable Public Museum. The complete archive, including all site records and drawings and all other relevant background materials should be deposited with, and at the same time as, the finds.

If the applicant (as legal owner of the finds) wishes to make alternative arrangements for the curation of all or part of the archive such arrangements (including details of storage arrangements) will be agreed in writing with the planning authority. Where the place of deposition is not a Public Museum, a

comprehensive record of all materials will need to be made for deposition in the nearest suitable Public Museum.

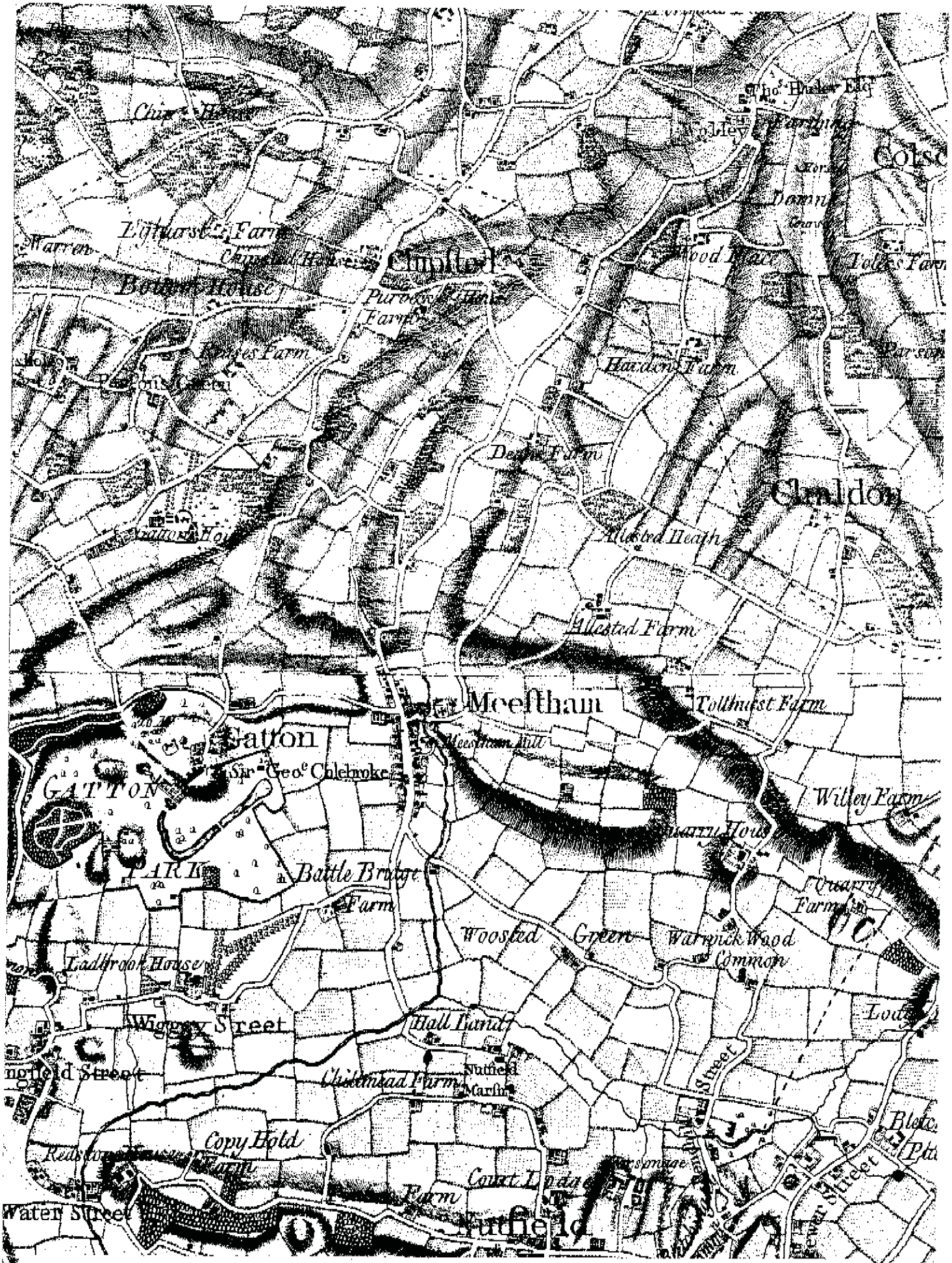


Fig 2 A23/M23 Hooley Junction : An extract from the Rocque map of 1768 with Hooley (marked Wolley) north-east of Chipstead. The area of the proposed junction improvement lies directly north of 'Meestham'.

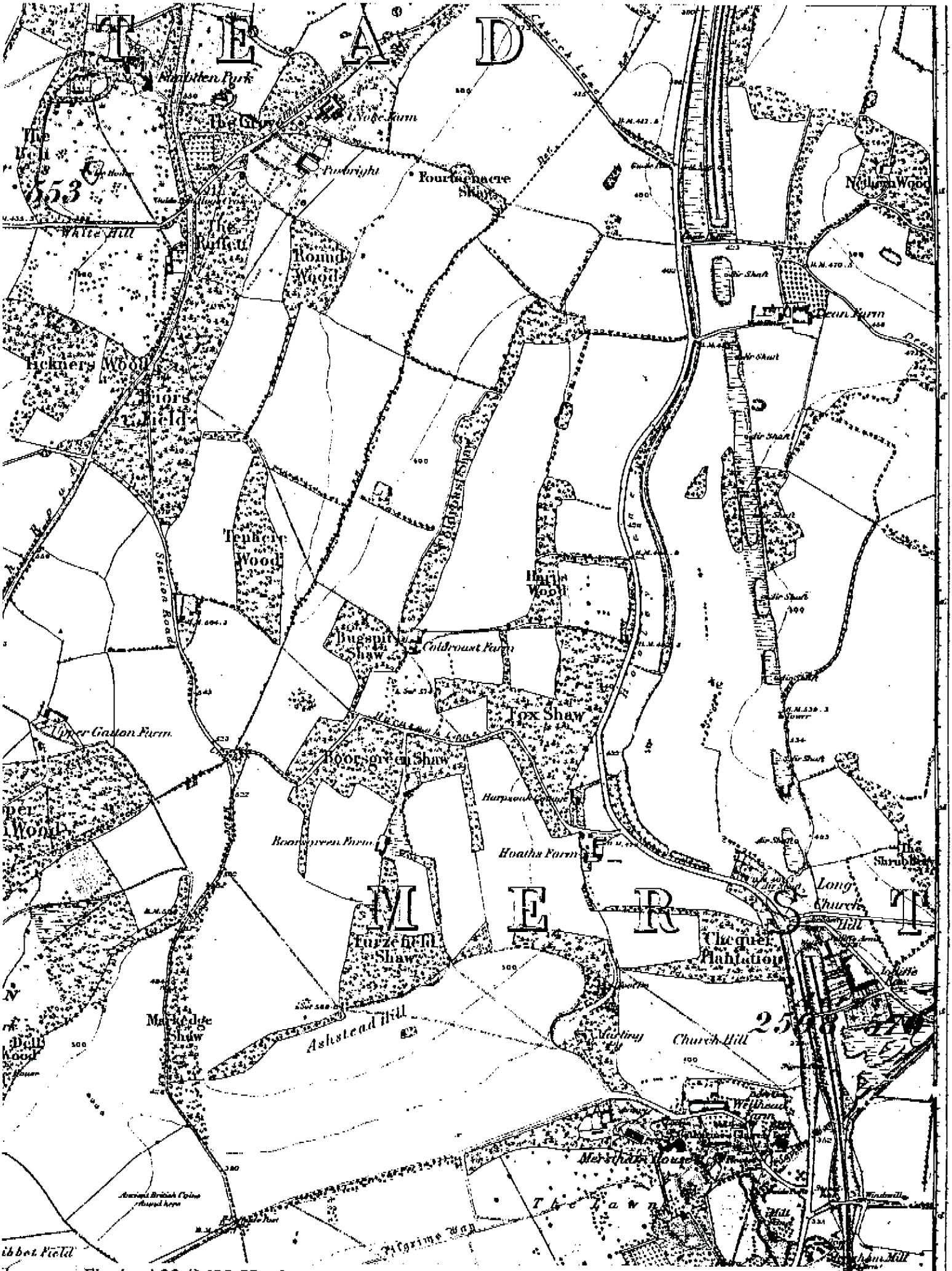
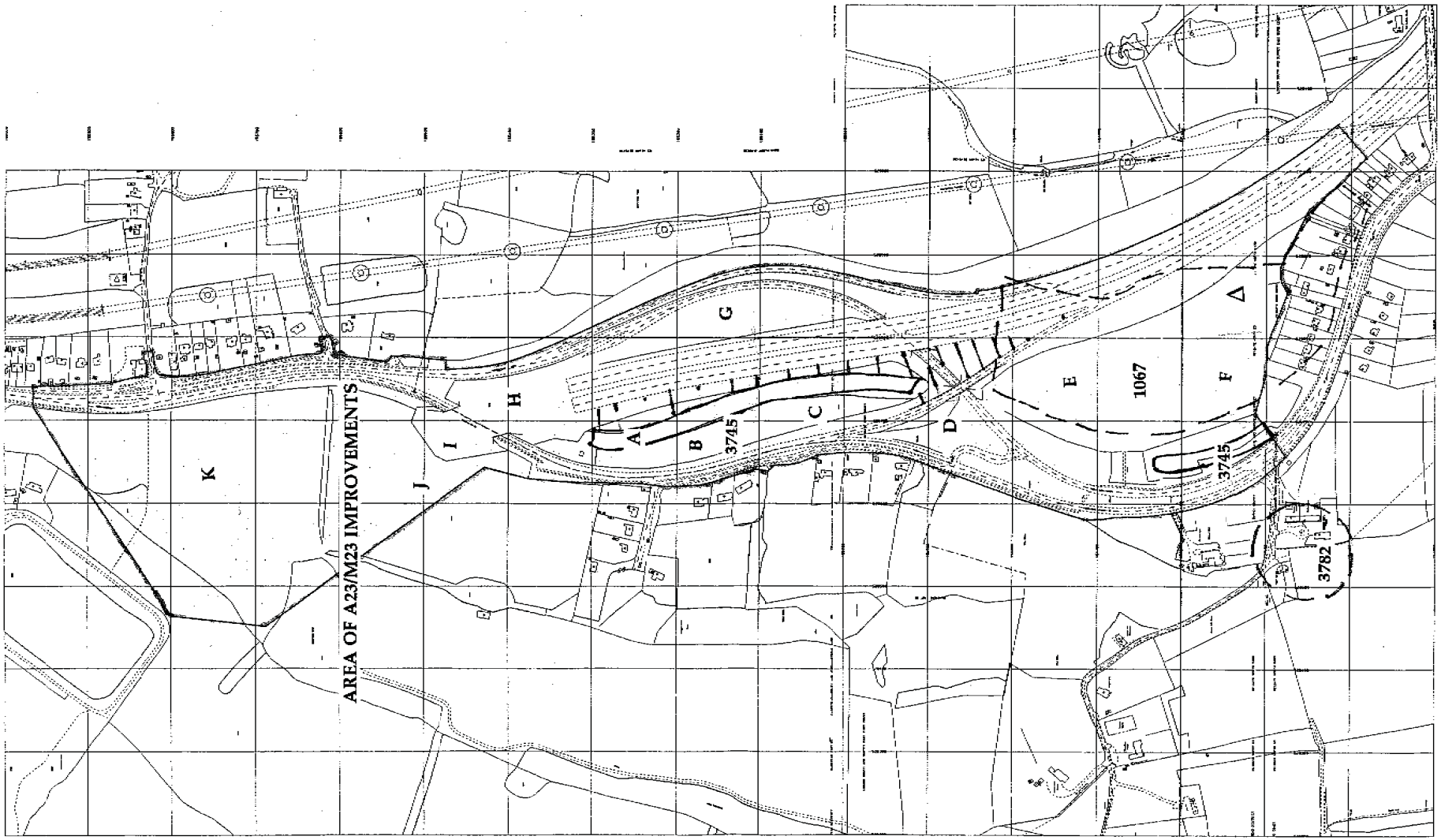


Fig 4 A23/M23 Hooley Junction : An extract from the 1st edition Ordnance Survey 6 inch map of 1871 with the area of the proposed junction improvement to the right of centre.



—— Wholly unsuitable for further archaeological work

—— Area of Sites and Monuments Record feature

Extent of the proposed junction improvement

Fig 1 A23/M23 Hooley Junction : Location of the proposed junction improvements with the Sites and Monuments Record information added, and the land use classification as described in section 6, the walkover survey (scale 1:5,000).

Date	Chkd	Sig.	Date	Appr	Sig.	Date

North Point

ECD ENGINEERING CONSULTANCY DIVISION

Scale 1:5000 | Drawn P.J.S. 16/9/03 | Checked R.G.P 16/9/03 | Approved G.B.R 16/11/03

Project: A23 TRUNK ROAD HOOLEY
A23/M23 JUNCTION IMPROVEMENT

Drawing: ARCHAEOLOGICAL INFORMATION

SHEET 1 OF 1

SURREY COUNTY COUNCIL
Highways & Transportation Department

Project No. 92114 | Contract No. | Sheet No. | Rev.

Drawing No. 92114/003

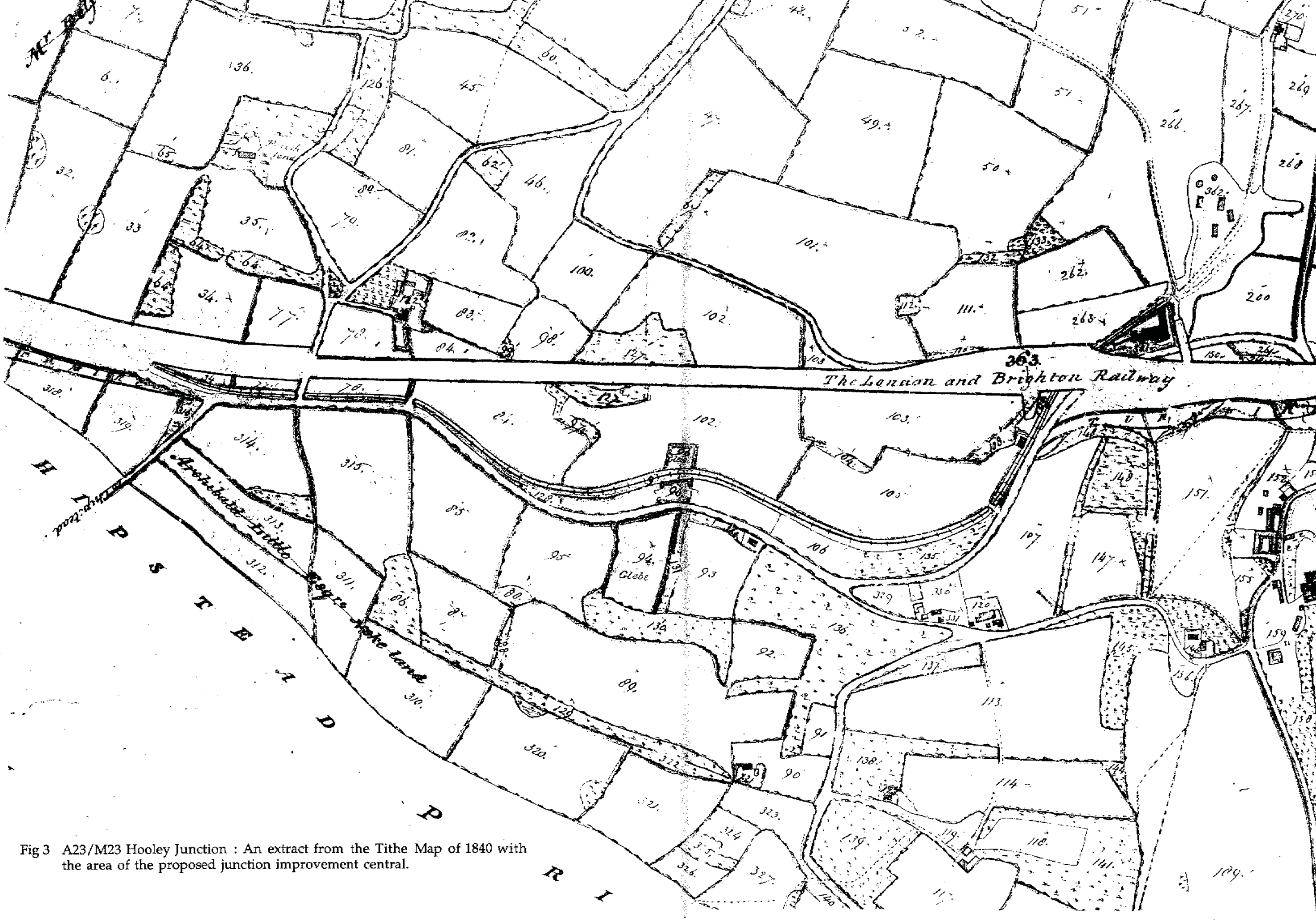


Fig 3 A23/M23 Hooley Junction : An extract from the Tithe Map of 1840 with the area of the proposed junction improvement central.