# Esso Petroleum Limited Proposed MSA Development Junction 8 M20 Hollingbourne

Input by Oxford Archaeological Unit

Section 5: Archaeology and Cultural Heritage

Report as sent 19/1/95

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Non-Technical Summary

The site of the proposed Motorway Service Area lies to the north-east of an area of multi-period archaeology. Observations during the construction of the Maidstone By-pass in the 1950's and the results of a surface collection survey conducted along the line of the Channel Tunnel Rail Link in 1990 seem to indicate that the development site may contain part of an Iron Age and/or Roman settlement site probably of county or regional importance. There is also the possibility of earlier prehistoric activity. Construction of the MSA is likely to result in a potentially significant effect for archaeology but this can be mitigated through a programme of archaeological investigation.

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## Section 5: Archaeology and Cultural Heritage

#### 5.1 Introduction and Scope

Introduction

- 5.1.1 The Oxford Archaeological Unit was asked by Epcad Consultants Ltd, on behalf of Esso Petroleum, to undertake a desktop assessment of the archaeological potential of the site of the proposed Motorway Service Area at Junction 8 of the M20 at Hollingbourne (NGR TQ 8255). In the following report the documentary and archaeological sources relating to the area are examined in order to determine the likely extent and importance of the archaeological remains on the site. A variety of published and unpublished sources of information were consulted (see Appendix B). These included the National Archaeological Record held by the Royal Commission for Historic Monuments of England (which forms the basis of the Kent Sites and Monuments Record (SMR): the SMR officer was consulted to determine whether the Kent SMR held any additional sites for the Study area), lists of Scheduled Ancient Monuments held by English Heritage, copies of Historic Maps held by the OAU and the Bodleian Library Oxford. In addition, consideration has been given to the published results of the historic and cultural study for the environmental assessment of the Channel Tunnel Rail Link undertaken by the Oxford Archaeological Unit for Union Railways Ltd. This included a field collection survey of much of the development site.
- 5.1.2 There are no Listed or Historic Buildings within the development area. The Conservation Area at Eyhorne Street, which contains numerous listed and other historic buildings lies c. 500m to the east of the site, with slightly higher ground and existing vegetation intervening.

Policy Background

5.1.3 The assessment has taken into account relevant national and local legislation and policy, including:

Town and Country Planning (Assessment of Effects) Regulations 1988
Ancient Monuments and Archaeological Areas Act 1979
Planning (Listed Buildings and Conservation Areas Act 1990
Burials Act 1857
DoE Planning Policy Guidance Note 16, Archaeology and Planning 1990
DoE Planning Policy Guidance Note 15, Planning and the Historic

Environment 1994 Kent County Council Structure Plan, policies CC6, BE3-4 Maidstone Borough Local Plan, policies ENV 3-4, ENV 8, ENV 17-18.

General Approach and Methodology

- 5.1.4 Cultural heritage resources can be considered to fall into three main groups:
  - Historic character of the landscape
  - Historic buildings
  - Archaeological sites (including palaeoenvironmental deposits)
- 5.1.5 The approach adopted in this assessment has been to:
  - clarify the survival and extent of features of value for the cultural heritage potentially affected by the proposals;
  - provide an evaluation of their importance;
  - assess the likely scale of impacts arising from the proposals;
  - indicate the likely significance of adverse effects, taking into account the importance and the severity of impact on cultural heritage resources;
  - to outline suitable mitigation measures to avoid, reduce or remedy adverse impacts;
- 5.1.6 Identified features within the study area are mapped on Figure 5.1, with summary details given in a gazetteer, and more detailed descriptions given in text form.

Sources of data

5.1.7 The following sources of data have been used or checked as relevant:

Archaeology: Scheduled Ancient Monuments from HBMC County lists and their updates; National Monuments Record and Kent County Sites and Monuments Record; background information and recent work from published sources; aerial photographs from RCHME Swindon, County Council collections.

Historic Buildings: Statutory lists; Conservation Areas; Historic Maps

Historic Landscape: English Heritage Register of Historic Parks and Gardens; English Heritage Draft Register of Battlefields; information from historic maps (county and local published maps; OS 1", 6" and 25" maps; tithe or enclosure and estate maps; other historic map sources as relevant based on County Record Office Collection.

Background information on geology etc: Relevant geological maps of area and details of geology and soils supplied by project including any geotechnical borehole logs.

Previous assessment of the area: Published specialist historic and cultural assessment of the Channel Tunnel Rail Link

5.1.8 It is likely that at least some of the following impacts could arise from the proposals, and it will be necessary to decide in the light of an initial appraisal of constraints and the nature of the development which will be relevant to the assessment and whether any others would be likely to arise.

Permanent and temporary landtake for the scheme, including associated structures, line-side disposal of spoil and mitigation measures, and the construction of these. This may result in damage to or loss of archaeological remains and deposits and the physical coherence of areas of historic landscape interest or specific features of value (physical loss could also affect the setting of buildings and monuments, but none is sufficiently close to be affected). Assessment of the likely impacts is based on plans of the development and the associated ground level remodelling and landscaping proposals.

Ground consolidation due to construction activities or the weight of permanent embankments may cause damage to buried archaeological remains, especially in soft geological deposits. Consideration of whether this type of impact might arise is very preliminary and is based on a general appraisal of likely construction activities and potential mitigation by preservation of deposits in situ.

Hydrological changes in ground or surface water levels result from construction activities and changes in drainage and ground levels can affect the preservation of organic archaeological remains. Consideration of whether this type of impact might arise is based on preliminary indications of ground conditions provided by geotechnical borehole logs prepared by Soil Mechanics.

Visual and noise intrusion can affect the setting of buildings and monuments of historic, archaeological or architectural interest. Consideration of this has been based on a combination of the results of the noise and visual studies, and consideration of the development proposals and topography.

Potential positive impacts could occur where the proposals would result in more benign land use than that currently carried out in areas of archaeological interest. This has been considered in the light of the proposals for the development.

Types of Mitigation Considered

- 5.1.9 Mitigation measures which might be required include both general strategies and site-specific measures designed to avoid, reduce or remedy adverse effects. Some or all of the following options may need to be considered in the development of the design of the proposals:
  - minimising land-take in areas of known or potential archaeological or historic interest, either by restricting the area of land to be disturbed or by avoiding operations such as topsoil stripping likely to cause disturbance;
  - investigation of threatened archaeological sites by general prospection surveys, detailed field assessment, various levels of prior excavation and watching

- briefs and monitoring during construction;
- the analysis and reporting of results from archaeological investigations.

## Spatial and Temporal Scope of the Study

- 5.1.10 Taking into account the archaeological and historic resources and potential impacts as set out above, the spatial and temporal scope of the study has been defined as follows.
- An area larger than the actual area of land-take has been considered to provide information about the context of features physically affected (including the possibility of unrecognised subsoil archaeology being present), and to consider whether the amenity of archaeological and historical features would be affected by noise or visual intrusion.
- The effects of the development are considered with reference both to temporary construction activity and the permanent design of the proposals. It is anticipated that the effects will mainly be permanent and will have occurred on completion of the proposals occur to the overall time frame of the Environmental Assessment, covering temporary, short term, long term and permanent effects.

# 5.2 Topography and Geology

5.2.1 The site lies at the scarp foot of the Downs between the villages of Hollingbourne, Eyhorne Street and Bearsted. The development area lies between the M20 motorway and proposed Channel Tunnel Rail Link route which form the southern boundary of the site, and the Maidstone-Ashford Railway to the north, beyond which lies Snarkhurst Wood. The site slopes up gently west to east, rising about 10m, with the ground continuing to rise slightly to the east before dropping into a slight valley which separates it from the village of Eyhorne Street 500m to the east of the proposed MSA. The Geology maps consulted and the results of ten boreholes indicate that the site lies mainly on the Gault Clay with the Folkestone Sand beds surfacing to the south west of the site.

## 5.3 Archaeological and Historical Background

- 5.3.1 Little is known about the archaeological settlement of the Gault clays, although this may be partly due to the difficulty in recognising such sites, but both the sands to the south and the chalk uplands to the north are characterised by archaeological remains ranging from Mesolithic to the post-medieval.
- 5.3.2 The immediate vicinity of the development site reflects this point quite well. The National Archaeological Record records a number of archaeological sites and finds within the general area of the development site. Most of these are located in the sandy area to the south of the motorway and include the findspot of Mesolithic flint flakes, cores and pottery (OAU 14), the site of two Late Bronze Age Barrows with secondary

early Saxon cremations (OAU no 5), the findspot of a Roman coin hoard (OAU 6), the findspot of a Romano-British burial group, consisting of three urns containing burnt bone (OAU no 1) and the possible site of a Saxon Inhumation cemetery, which lies just outside the study area at TQ 827538. In addition Roman pottery has been found at Eyhorne Street (OAU 9) and a Saxon coin has been found at Eyhorne Green (OAU 7).

- 5.3.3 Further evidence of Iron Age and Roman activity has been found close to the development site. The construction of the section of the Maidstone By-pass (now the M20) to the west of Musket Lane (area centred around 8227 5500) in the 1950's uncovered the probable site of an Iron Age and/or Roman settlement (OAU 4). To the north of the road, and therefore conceivably within the development site although the exact location of the finds is unclear, a ditch, containing Late Iron Age pottery, and a series of Iron Age burial urns were uncovered. To the south of the new bypass, excavations revealed the foundations of a small ragstone building, accompanied by 1st and early 2nd century Roman Pottery, and a late Iron Age kiln.
- 5.3.4 The medieval settlement pattern of the area is primarily represented by the series of longitudinal north-south orientated parishes which cut across the underlying geology of the area dividing the landscape into blocks, each containing a cross section of the soil and resources of the area. As is the case here, with the parish of Hollingbourne, such blocks would typically include areas of chalk downland, gault clay and associated woodland (here represented by Snarkhurst Wood: OAU no 12) and sandy heathland. A variety of ancient tracks and roads linked these resources with local settlements, while long distance communication routes ran along the foot of the Downs (the Pilgrims Way) and along the sand to the south (approximately the line of the A20). Typically these parishes would contain a principal village on the lower chalk slopes on the springline where the chalk overlies the Gault clay, with a secondary settlement situated to the south on the sand of the Folkestone Beds. This settlement pattern is reflected here by the villages of Hollingbourne, on the chalk, with Eyhorne Street as its secondary settlement on the sands. The development site therefore lies on the boundary between two differing areas of likely medieval activity. There is however no evidence of medieval activity in the immediate area of the development site, but it is crossed by the line of a potentially ancient track.
- 5.3.5 The placename 'Hollingbourne' was first mentioned in c.975 and Eyhorne Street in Domesday Book 1086. The siting of two early Anglo-Saxon cemeteries to the southwest may further indicate that these settlements have earlier roots. Both Hollingbourne and Eyhorne Street contain medieval buildings: the Church of All Saints at Hollingbourne is 14th century with later additions while Hollingbourne Manor, although the main building is late 16th century, contains 13th century elements. Eyhorne Street contains at least two, possibly three, 15th century hall houses, and numerous post-medieval houses of historic interest, many of which (26 in all) are listed. Approximately 1.5km to north of the development area, close to Howe Court Farm, lie the remains of a medieval moated site, possibly a Manor House, at Ripple Manor.

- 5.4 Archaeological Potential and Historic Landscape Features of the Development Area
- 5.4.1 Recent work on the route of the Channel Tunnel Rail Link, undertaken by the Oxford Archaeological Unit on behalf of Union Railways Ltd, included a surface collection survey, conducted in 1990, covering the whole of the MSA site except the easternmost field. This survey produced a scatter of late Iron Age and 1st to 2nd-century Roman pottery and prehistoric worked flint including a flint knife from the field to the west of the footpath within the area of the proposed development. The same survey also located scatters of prehistoric worked flint, including a polished axe fragment in the field located at the intersection of the Motorway and Railway. It is possible that these scatters (and any associated subsoil remains) continue, or other unknown remains might exist, in the field to the east of the footpath which was not covered by the survey. Most of the Roman material came from the line of the CTRL but the prehistoric flintwork was more generally scattered over the area, and the prehistoric pottery scatter also included some material from within the main part of the MSA site (Oxford Archaeological Unit, 1991, 1994).
- 5.4.2 Although further evaluation, including probably a trial excavation would be necessary to determine the exact significance of these scatters, their presence probably indicates the site of an Iron Age and/or Roman settlement, cremations and possible earlier prehistoric activity. The Iron Age and Roman activity previously located is probably related to the site of this period discovered close to the development site during the construction of the Motorway (see above) and it is possible that the proposed development would encounter further remains associated with the Iron Age and Roman settlement and possibly further burials.
- 5.4.3 The Iron Age and Roman remains are likely to be of County/Regional importance though this would need to be confirmed by detailed evaluation; the earlier prehistoric material is of uncertain significance, depending much on whether any undisturbed subsoil features exist.
- 5.4.4 The proposed development area is crossed by a footpath which runs along the boundary between the two fields. This path is connected to Musket Lane, a sunken Green Lane and is marked as a track on the earliest map of the area, the 1801 Ordnance Survey Surveyors' Drawings (the basis for the published 1815 1st edition 1" maps) and the 1869 1st edition 6" map. It leads from Eyhorne Street to Snarkhurst Wood and may have continued from here to the Pilgrims Way, a medieval and probably prehistoric ridgeway. Possibly the footpath represents one of a number of such tracks leading from the chalk, through the Gault clay woodlands to the sandy heathlands thus linking the variety of natural resources on which the agricultural regimen of the medieval and later settlement of the area was based. This feature is of local interest.

# 5.5 Predicted Impacts of the Development

Archaeology

- 5.5.1 From the point of view of the potential impact on archaeology the design of the MSA, as shown on drawings T1249/25 and T1249/38 involves five broad categories of feature:
  - buildings and structures (Amenity Building and Lodge, Petrol Station including subsoil fuel storage tanks).
  - services
  - vehicle parks
  - retention pond
  - landscape planting and mounding
- 5.5.2 Since archaeological material is visible on the ground surface, it can probably be assumed that any undisturbed archaeological deposits will lie immediately beneath the ploughsoil.
- 5.5.3 Construction activity for the MSA would involve ground levelling and stripping topsoil from the entire area, lowering the ground level by about 3m at the eastern end of the site, to grade out level with the existing ground surface at the western end. Deep disturbance would destroy the types of archaeological deposits likely to be encountered over the whole of the area of the facilities and vehicle parking. Significant damage to archaeological deposits would also be likely to result from stripping of topsoil for superficial works at the western end of the site, and for mounding along the southern edge of the site as a result of disturbance or truncation of deposits, and compaction, distortion or rutting resulting from the passage of earthmoving machinery.
- 5.5.4 An area at the western tip of the site is not currently being proposed for development but is to be reserved as space for possible future expansion of provision for vehicle parking. This area would be planted with trees and might also be subject to disturbance from temporary construction activity during the main construction works. The construction of the retention pond in this area west of the HGV Park would also intrude upon an area (OAU 2) which produced a scatter of prehistoric worked flint, including a polished axe fragment, during the 1990 surface collection survey.
- 5.5.5 Borehole logs record that groundwater was not encountered, and no dewatering effects are anticipated.
- 5.5.6 The full extent and character of the archaeological impacts of the scheme could only be determined by more detailed evaluation of the archaeology. The distribution of material recovered during the surface collection survey for the Channel Tunnel Rail Link, together with the record of finds from the M20 suggest that the main area of prehistoric and Roman settlement may have been concentrated on the sand immediately to the south of the MSA site, partly on the line of the Rail Link and partly beneath the M20. If this is so it is possible that only peripheral features of this site would be affected, though the more extensive scatters of earlier prehistoric

flintwork might indicate other subsoil remains which could be affected.

Historic Buildings

- 5.5.7 The development lies c. 500m west of the Conservation Area at Eyhorne Street. There will be no appreciable affect on its setting because of a combination of features of the design of the scheme and the local topography. The slight rise in the ground and existing vegetation help to screen the development site from the village, and this effect will be assisted by the lowering of the ground level over the eastern end of the site and additional planting. Lighting for the MSA will be from relatively low (6m) lighting columns. In addition, there is already a small modern residential development on the western side of the Conservation Area and the main concentration of historic buildings. This combination of factors means that there would be no significant intrusion on the setting of the Conservation Area and listed buildings at Eyhorne Street.
- 5.5.8 No other historic buildings would be affected by the proposals.

Historic Landscape Features

5.5.9 The scheme would result in the removal of a section of a footpath (OAU no 8) possibly marking an old track which forms part of the local historic network of paths and tracks. However Musket Lane has already been severed by the M20 to the south and would be further affected by the Channel Tunnel Rail Link. The footpath would be reinstated on a line just east of the development.

## 5.6 Significance of Effects and Possible Mitigation

- 5.6.1 The Archaeological potential of the proposed development area is quite high. The scatter of Late Iron Age and Roman pottery discovered during the OAU field collection survey, coupled with the discovery of late Iron Age ditches, burial urns and a kiln, and of an early Roman building, during the construction of the Maidstone bypass indicates the likely presence of the remains of significant Iron Age and Roman activity or settlement. While, at least some of this site may have been destroyed by the M20, and much of the remaining area of clear potential lies within the area affected by the Channel Tunnel Rail Link proposals, the prehistoric pottery scatters and earlier prehistoric flintwork appear to extend into at least the southern edge of the MSA site. The impact of the MSA on this site could be a significant effect, especially if the site extends further than the superficial indications suggest.
- 5.6.2 It is also possible that the significance of the effect on archaeological remains could be increased if there are earlier prehistoric subsoil features related to the flint scatter in the area, or if subsoil remains exist of other periods or in the area not surveyed.
- 5.6.3 Overall there is no indication at this stage that any of the remains likely to exist on the site are likely to be of national importance or otherwise of a character likely to seriously constrain or preclude the development as a whole or the development of specific areas within the site. However, it is quite likely that archaeological deposits

of county or regional significance will be encountered in at least some parts of the MSA site, the loss of which could potentially be a significant effect in terms of relevant planning policies if it went unrecorded. This could be adequately mitigated in line with national and local policies through a programme of detailed archaeological evaluation followed, if the findings warrant it, by further detailed investigation, analysis and reporting areas of significant archaeology.

- 5.6.4 Detailed design of construction methods to avoid or reduce the impact in areas may provide an alternative form of mitigation, but only in limited areas where ground levelling and topsoil stripping could be avoided. This might apply to the 40m wide area of mounding proposed alongside the Channel Tunnel Rail Link, and possibly at the western end of the site reserved for future expansion. Whether limiting disturbance in these areas would be justified, or preferable to archaeological excavation, would depend both on the significance of any archaeology, the detailed requirements for construction and relative costs. The more general lowering of ground levels is needed to keep the intrusiveness of the development to a minimum, and there is nothing to suggest that the archaeological implications would justify changing this.
- 5.6.5 The impact of the development on the local historic network of tracks and paths would not be a significant effect.
- 5.6.6 Because of the local topography and mitigation incorporated in the design of the proposals, there would be no significant effect on the setting of listed and other historic buildings and the Conservation Area of Eyhorne Street. There are no listed or historic buildings whose fabric or curtilage would be affected.

#### 5.7 Conclusion

5.7.1 It is possible that the proposed MSA could have a significant effect on archaeology, but this could readily be mitigated through archaeological evaluation coupled, if warranted, with more detailed excavation and reporting of results, or possibly by selective retention of deposits *in situ* in limited areas. No other significant effects for the cultural heritage are anticipated, and with appropriate mitigation of the possible archaeological impacts in line with national and local policy as outlined above, there would be no significant residual effects for the cultural heritage. There could be some useful gains to knowledge from any investigations undertaken.

Appendix 1

Gazetteer of Cultural Heritage features discussed

OAU No	Description	NAR No
1	Findspot of Romano-British Burials. Cremation group discovered at Crismill Farm during the making of a lawn in 1926. Finds consisted of three urns with cremated bones, a Samian saucer and other pottery fragments.	TQ 85 NW 6
2	Surface scatter of Prehistoric worked flint including a polished axe fragment found during surface collection survey conducted by the Oxford Archaeological Unit along the line of the Channel Tunnel Rail Link.  Principal concentration of finds is located at scatter a.	
3	Surface scatter of Prehistoric worked flint including a flint knife and Iron Age and Roman pottery found during surface collection survey conducted by the Oxford Archaeological Unit along the line of the Channel Tunnel Rail Link. Principal concentration of finds is located at scatter b.	
4	(Centred) site of Iron Age and Roman activity found during construction of M20 in the 1950's. Finds included the foundations of a ragstone building accompanied by 1st and 2nd century Roman Pottery, a Late Iron Age oven base and a series of Iron Age or Roman burial urns.	TQ 85 NW 11
5	Site of two barrows excavated in 1842. One of the barrows contained late Bronze Age and Saxon burial urns accompanied by saxon shield bosses and spearheads.	TQ 85 SW 5
6	Roman Coin hoard. Clay pot containing 5470 Roman coins, dating from between 218-282 AD, discovered in 1959.	TQ 85 SW 13
7	Findspot of a silver Anglo-Saxon coin ( <i>Sceatta</i> ) dating from before AD 587.	TQ 85 SW 10
8	Line of Footpath, possibly continuation of Musket Lane an ancient Green Lane.	
9	Findspot of a single Roman pot discovered in 1929 and subsequently lost without any further information being recorded about it.	TQ 85 Sw 9

OAU No	Description	NAR No
10	Undated lynchets recorded by the National Archaeological Record. Lynchets are generally defined as long terraced strips of soil accumulating on the downward side of prehistoric and medieval fields. They are generally caused by soil creep from continuous ploughing along the contours.	TQ 85 NW 35
11	Pilgrims Way. Medieval and probably Prehistoric ridgeway leading from London to Dover.	
12	Eyhorne Street Conservation Area. The village of Eyhorne Street is first mentioned in Domesday Book 1086 and contains numerous Historic Buildings, amnu of them Listed.	
13	Enclosure. Undated enclosure recorded by National Archaeological Record.	TQ 85 NW 39
14	Mesolithic flint finds. Surface industry of flint implements and potsherds found in rabbit holes in 1938. Occasional finds of flint flakes and cores of mesolithic type have been reported since 1938.	TQ 85 SW 6

#### Appendix 2

## Bibliography and List of Sources Consulted

#### Archive sources consulted

National Archaeological Record (NAR) held by the Royal Commission for Historic Monuments of England. The Kent Sites and Monuments Record (which uses this as its base) was verbally checked to ensure that it listed no additional sites.

Historic maps held by the OAU and the Bodleian Library (Oxford).

English Heritage List of Scheduled Ancient Monuments, Kent, dated 31-3-1992 (verbally checked with English Heritage that no additions have been made since 1992).

## Maps

Ordnance Survey Surveyors Drawings Sheet 117 (1801)

1-4.

Ordnance Survey 1st ed 1" (1816-19)

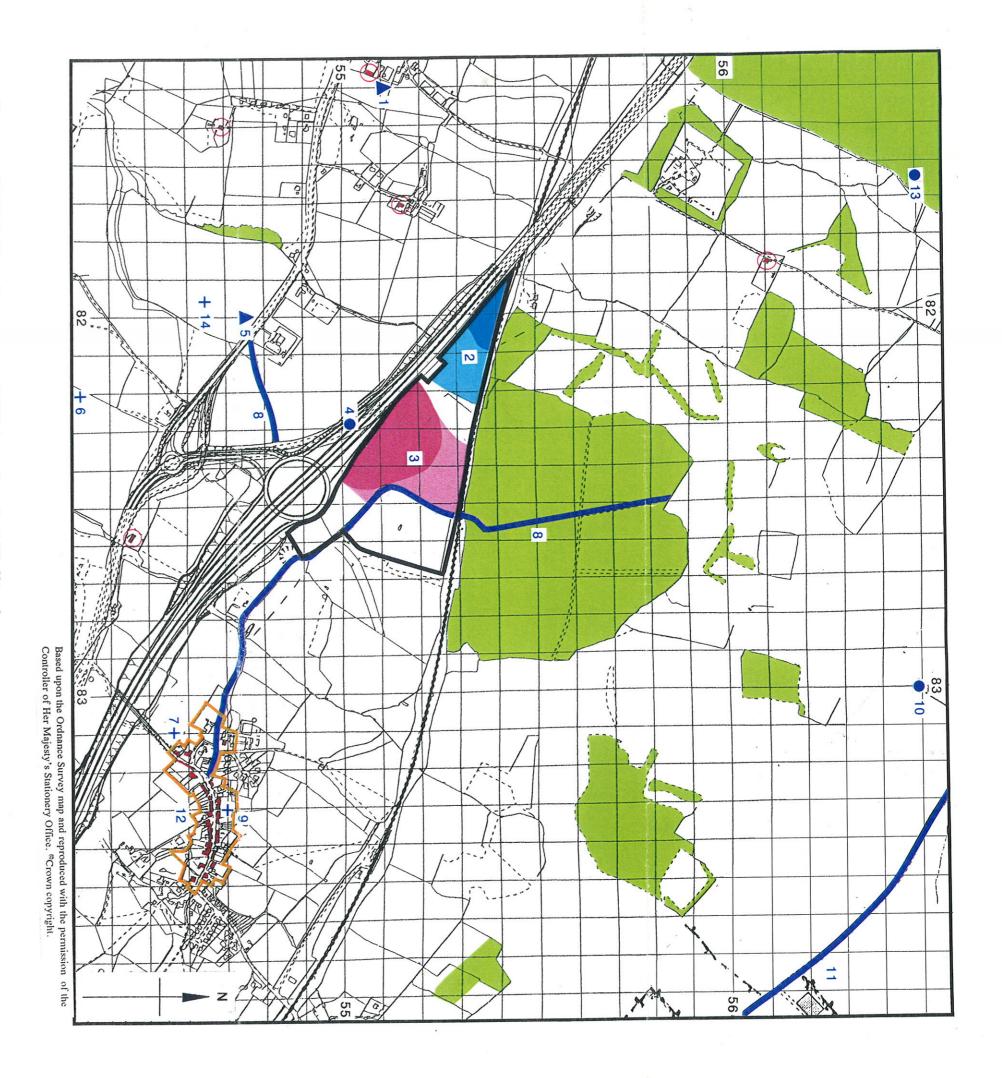
Ordnance Survey 1st ed 6" (1869)

Geological Survey of Great Britain (England and Wales). Solid and Drift. Sheet 288. (1976)

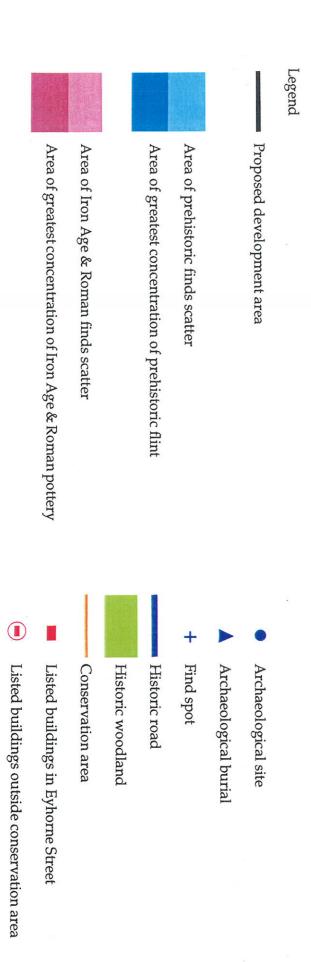
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Everrit A M (1986)	Continuity and colonisation: the evolution of Kentish settlement
Meaney A (1964)	A Gazetteer of Early Anglo-Saxon Burial Sites
OAU (1991)	British Railways Board Rail Link Project. Eastern Section Environmental Assessment. Specalist Study of Historic and Cultural Impacts. Oxford Archaeological Unit May 1991. Vols 1-3.
OAU (1994)	Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects. Oxford Archaeological Unit, November 1994. Vols

Wallenberg J K (1934) The Place-Names of Kent



Proposed MSA Development at M20 junction 8 at Hollingbourne Cultural Heritage Features



scale 1:10 000

figure 5.1

