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INDEX DATA	RPS INFORMATION
Scheme Title A10 : M25 to Hoddesdon improvement	Details Stage 2 Archaeological Assessment
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Contractor Hertfordshire Archaeological Trust	
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THE HERTFORDSHIRE ARCHAEOLOGICAL TRUST

A10: M25 TO HODDESDON IMPROVEMENT, HERTFORDSHIRE

STAGE 2 ARCHAEOLOGICAL ASSESSMENT

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MAY 1994

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7 CONCLUSION

7.1 The principal areas of archaeological interest which have been identified are (from south to north):

	Priority*
SMR 2959 (AAS 10) Medieval Moated Site in Theobalds Park	1
The Area of Theobalds Roundabout	1
SMR No.0089 (AAS 14) Remains of Theobalds Palace	1
The Area South of SMR No.4274	1
SMR No.4274 Section of Theobalds Park Wall	1
SMR No.0012 (AAS 12) Medieval Settlement of Cheshunt	2
SMR No.4660 Course of Roman Road	2
SMR Nos.4654 & 1356 Course of Roman Road & Possible site of Roman camp	1
SMR No.1120 Roman Coins	2
SMR No.0180 Iron Age Pottery	
SMR No.2972 Bronze Age Finds	
SMR Nos. 1768, 6413 and 6414 Mesolithic and Neolithic Flint Implements Bronze Age and Early Iron Age Pottery	
SMR No. 6484 Late Bronze Age/Early Iron Age Site	
SMR No.2091 Palaeolithic Flint Core	1
SMR No.6816 Bronze Age/Iron Age site with Mesolithic & Roman finds & SMR No.2227 (AAS 13) Medieval Double Moated Site. Hell Wood moated site & Ring Ditches	

* The method of prioritising the archaeology is set out in 5.1.3 (above)

FIGURES

KEY TO FIGURES 1-2

Study Corridor

4274 Hertfordshire County Council Sites & Monuments Record Number

13 Areas of Archaeological Significance Number

Areas of Archaeological Potential

KEY TO FIGURES 3-4

Study Corridor

6 Land Use Reference Numbers (Described in Section 2.4 of this report)

Cheshunt Link Road is shown, but it is not the subject of this report

A10: M25 TO HODDESDON IMPROVEMENT, HERTFORDSHIRE
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

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A10: M25 TO HODDESDON IMPROVEMENT, HERTFORDSHIRE STAGE 2 ARCHAEOLOGICAL ASSESSMENT

1 INTRODUCTION

1.1 Aims and Objectives

1.1.1 In April, 1994, the Hertfordshire Archaeologial Trust carried out a Stage 2 archaeological assessment of the road corridor of the A10, between the M25 (Junction 25) and Turnford Interchange. The investigation was in response to proposals by the Department of Transport to improve the A10 between the two junctions.

1.1.2 The A10, between the M25 and Turnford, has areas of known archaeology adjacent to it. In addition, the proposed widening scheme will necessitate the use of large tracts of land, of which approximately half are 'green field'. Locally, and elsewhere, these 'green field sites' have produced evidence of previously unknown archaeological remains, and the likelihood of buried remains being affected by the scheme is high. Similarly, the built-up areas that comprise part of the scheme may produce evidence of earlier settlement.

1.1.3 The Stage 2 assessment was undertaken according to the guidance of the Design Manual for Roads and Bridges, Volume 11.

1.1.4 The following tasks were undertaken:

i) an update of the Hertfordshire County Sites and Monuments Records (SMR) data;
ii) a detailed desk-top assessment; and
iii) a preliminary walkover survey.

1.1.5 The main purpose was to identify areas of archaeological potential, and to prepare a project design for a field survey (Stage 3 assessment), if appropriate.

1.1.6 The Brief requires the production of a Stage 2 Report which is set out in Appendix 1

1.2 Description of the Route

1.2.1 The entire length of the proposed widening scheme, and the immediate vicinity of the road corridor delineate the area of the archaeological assessment. The scheme is an 'on-line' scheme. The proposed route would start on the north side of the M25 Junction 25/A10 Interchange, continuing northwards through the open grassland and agricultural land of the former Theobalds Park, and passing through the built-up area of Cheshunt, finally traversing a further stretch of agricultural land to terminate at the Turnford Interchange (total distance 5 km).

1.2.2 The route passes entirely within the parish of Cheshunt. It was historically within the administrative Hundred of Hertford and is situated in the present Borough of Broxbourne.

1.2.3 In general terms, the most obvious and known areas of archaeological interest, in the immediate vicinity of the A10, are Theobalds Palace (a Scheduled Ancient Monument), Theobalds Moated Site, Hell Wood Moated Site (a Scheduled Ancient Monument), and the medieval settlement of Cheshunt. In addition there are a high number of moated sites in the area. The course of Roman Ermine Street lies close by, to the west of the study corridor. The course of two other Roman roads are also believed to cross the line of the present A10. Prehistoric remains have also been discovered locally.

1.3 Background and Previous Work

1.3.1 The principal elements of the Stage 1 Archaeological Assessment comprised:

i) a listing of all Scheduled Ancient Monuments and designated sites; and

ii) a listing of data contained within the Hertfordshire County Sites and Monuments Record (SMR).

1.4 Method of Work

1.4.1 The archaeological assessment was conducted as described in the Hertfordshire Archaeological Trust's (HAT) Specification (Appendix 1), and the Landscape Design Associates Archaeology Briefing Document (Appendix 2).

1.5 Desk-Top Study Update

1.5.1 The list of Scheduled Ancient Monuments, designated sites and SMR data was updated to April 1994.

1.6 Detailed Desk-Top Assessment

1.6.1 The assessment was designed to locate, record and assess the nature, significance and extent of archaeology within the proposed road corridor.

1.6.2 Reference was made to the Institute of Field Archaeologists' Standard and Guidance for Archaeological Desk-Top Assessments (incorporated in HAT's Specification, Appendix 1).

1.6.3 The following material was studied:

i) Archaeological Data Bases

All readily available sources were examined and are listed (Appendix 3).

ii) Cartographic and Documentary Research

The research was undertaken as described in HAT's Specification. An area approximately 500 m either side of the centreline of the existing carriageway was examined. The majority of the information was obtained from the Hertfordshire County Council Records Office, housed at County Hall, Hertford. All readily available sources were examined, and the sources consulted are listed (Appendix 4).

iii) Aerial Survey

Aerial photographs of the study area were examined as described in HAT's Specification, and the photographs which were examined are listed (Appendix 5).

iv) Geotechnical Information

A description of the solid and superficial geology was compiled in order to appreciate the likelihood of the presence and condition of any archaeological remains.

All readily available sources were consulted.

v) Secondary and Statutory Sources

The above named sources were used to provide an overview and further information on specific features and developments in the study area.

The majority of information was obtained from the Hertfordshire County Council Local Studies Library, County Hall, Hertford.

1.7 Preliminary Walkover Survey

1.7.1 A physical walkover of the route was undertaken as described in the Specification i.e.

i) to examine the areas of archaeological potential identified during the desk-top assessment, in particular, with a view to gauging the likely survival or condition of any archaeological remains; and

ii) to undertake a general site survey noting the land use and ground conditions, with a view to the appropriate deployment of field survey techniques, if required.

2 BASELINE CONDITIONS

2.1 The Archaeological Evidence
Part 1: The General Archaeological and Historical Background of the Study Area

2.1.1 There is a long history of settlement in the Cheshunt area. The valley of the River Lea has produced important evidence of early occupation, from the Mesolithic (c.5-8000 BC) period onwards.

2.1.2 Bronze Age spearheads and swords have been found in Waltham Marsh, and Bronze Age occupation is represented at Halfhide Lane, Turnford, where evidence of late Bronze Age and Iron Age metalworking has been discovered. Canada Field, Turnford, has also produced comparable evidence from this period. There is also the likelihood of an Iron Age valley-floor settlement at Fishers Green, to the east of Cheshunt, where post holes, discovered in 1954, have been suggested as providing evidence of a lake village (Edwards, 1974).

2.1.3 Evidence for a settlement at Fishers Green is further reinforced by the termination of the reputed courses of two Roman roads at this location, leading westwards to Dunstable and Verulamium. Roman Ermine Street runs parallel, and to the west of, the present A10, following the line of Bulls Cross Ride and Dark Lane, to the west of Cheshunt. The discovery of many Roman coins and pottery sherds in the area points to the likelihood of undiscovered remains of Roman occupation. A square or oblong earthwork, now beneath Cheshunt South Reservoir, was regarded locally as a Roman camp, though never excavated. Finds of Roman material at the southern end of Cheshunt Park potentially point to the location of further Roman occupation.

2.1.4 Little evidence of Anglo-Saxon occupation has been forthcoming for the area. An earthwork, now largely levelled by ploughing, called Boundary Bank, runs roughly north/south from Theobalds Park, through Goffs Lane to Beaumonts Park and Thunderfield Grove. This has been referred to as a possible boundary between Anglo-Saxon Essex and Mercia (VCH, RCHM(E)) and until recently was associated with the unusual land tenure purposes, 'above and below' the bank: primogeniture inheritance was recognised to the west of the bank, but inheritance by the youngest son was the norm to the east.

2.1.5 The name 'Cheshunt' is derived from the Old English 'ceaster' (from the Latin 'castra') which means 'camp', and the Old English 'funta', meaning spring (Mawer and Stenton, 1938). The Victoria County History (VCH) cites references to 'Cestrehunt' in the 11th, 12th and 13th centuries, and 'Chesthunt' from the 14th to the 16th centuries.

2.1.6 By the time of Domesday (1066) Cheshunt was well-settled. The VCH notes that the medieval settlement of Cheshunt was located around St. Mary's Church, Churchgate, and that any settlement around the line of Ermine Street had been superseded before the Conquest. This area of Cheshunt forms part of the present-day Conservation Area. The church itself dates from the 15th century and was rebuilt on the site of an earlier church between 1414-48. Pevsner (1977) states that modern Cheshunt is largely a 17th-century ribbon development along the Great North Road, though, even at the time of Domesday, the entry refers to 'ten merchants', likely based towards the main North Road. Cheshunt was granted a weekly market and annual fair in 1244, further switching emphasis to 'passing trade' of a main route.

2.1.7 The Manor of Cheshunt was held by Eddeva the Fair prior to the Conquest, and granted to Count Alan of Brittany after 1066. The Domesday entry records: 20 rated hides of land, 33 plough lands, 10 lands in demesne, 23 meadows, woodland to feed 1200 hogs and one mill. It refers to 41 villeins (including a priest), 12 bordars, 8 cottagers, 6 servants, and the 10 merchants.

2.1.8 A phenomenon of medieval Cheshunt is the large number of moated sites in the area. A catalyst in the creation of these earthworks was the climatic change to cooler and wetter conditions in the late 13th and early 14th centuries. Water tables rose, this was especially significant in relatively low-lying areas such as the Lea Valley. Amongst other things, moated sites came about because of the need for drainage, and the use of upcast spoil mounds for a firm foundation base. Moated manorial sites occur, for example, at Theobalds Park Farm, at Cheshunt (Hell Wood and Perriors), in the school playing fields to the west of St. Mary's Church (Half-Mote and possibly the later Manor Farm), and the now invisible site of Darcies (or Cressebroke) manor is situated to the north of the junction of Crossbrook Street and Russells Ride, still visible on the Crawter map of 1800.

2.1.9 The most famous manor, however, became the magnificent royal palace of Theobalds, built by William Cecil, Lord Burghley c.1564, and later exchanged with James I for Hatfield House. Demolished after the Civil War, the site, now Cedars Park, lies adjacent to the southbound carriageway of the A10. The huge deer park, enlarged by the king, can still be traced westwards following the line of field boundaries and forming a narrow, elongated 'D'.

2.1.10 During the post-medieval period, transportation became a dominant factor in shaping the development of the A10 corridor. Acts to improve the River Lea in 1571 culminated in the Lea Navigation Act of 1739. The New River, an ambitious scheme to supply water for London, and today a unique monument of its type, was construc-

ted by Hugh Myddelton, between 1608 and 1613, and shadows the A10 corridor in this area. Attempts to improve the poor state of the roads were common; in 1631, the Privy Council ordered local Justices of the Peace to scour all the ditches on the road between Theobalds and Royston, and to dig new ones if necessary. The first section of the Great North Road to be turn piked was between Wadesmill and Stilton (Hunt.) in 1663. The section between Enfield and Ware was turnpiked by 1724. Roads began to degenerate, once more, in the late 18th and early 19th centuries, and it was largely the responsibility of the Post Office and Board of Agriculture to deal with the problem. At a third Committee set up in 1810, J.L. McAdam put forward his proposals of using a clean, dry, subsoil base, coupled with a smooth, elastic surface, differing from the more expensive Telford method of utilising built-up stone foundations. McAdam lived at Hoddesdon between 1825 and 1836, and was responsible for surveying many of the county roads. The coming of the railways during the 19th century further opened up trade routes, as well as promoting personal mobility and providing access to the countryside for urban dwellers.

2.1.11 In the 20th century, the area became more densely populated with housing estates drawing people from London. Market gardening, horticulture and glass house industries became widespread, flourishing on the silty brick earth soils of the area. In addition service and light manufacturing industries were established. Today, the A10 corridor supports a linear urban area, stretching from the Metropolitan area of the Lea Valley, south of the M25, northwards to Hoddesdon.

2.2 The Archaeological Evidence
Part 2: A List of the Known Sites and the Findings of the Desk-Top Assessment

2.2.1 This section includes:

i) the known archaeological sites;
ii) the findings of the desk-top assessment update;
iii) the findings of the detailed desk-top assessment; and
iv) the findings of the physical walkover.

2.2.2 The archaeological evidence is described site-by-site, commencing at the south end of the study corridor (M25 Interchange) and progressing to the north end (Turnford Interchange). The likely character and extent of the archaeology is described. The majority of the entries are listed using Hertfordshire County Council Sites and Monuments Record Numbers (SMR Nos.). The findings of this assessment have been assigned SMR numbers.

2.2.3 **SMR 2959 Fig.1**
Medieval Moated Site
Earthwork remains of a manorial site. The site is Broxbourne Borough Council Area of Archaeological Significance No.10. The western arm of the moat is infilled, and small dry portions of the northern and southern arms survive. The water-filled eastern arm is well-preserved. It is believed to be the site of the manor of Cullings, and was absorbed into the Theobalds estate in the 17th century.

Summerson suggests that this may have been the original manor house that Cecil occupied whilst supervising the construction of the Palace. It is suggested that it was here that Cecil entertained Elizabeth I on the 27th July, 1564. A plan, possibly of this house, exists in the Hatfield collection (Hatfield MSS. Vol.143, 24) and is depicted with a very small courtyard entirely surrounded by buildings, including, at the SW corner, a great parlour and stair, 'more precisely drawn than the rest', perhaps representing an addition by Cecil.

RCHM(E), 1910, 77.
Summerson, J., Archaeologia, xcvii (1959), 107-8.

2.2.4 **SMR No.6265 Fig.1**
Roman Pottery Sherds
Two small Roman sherds found by B. Warren, in 1978, whilst fieldwalking in association with the construction of the M25.

2.2.5 **SMR No.6266 Fig.1**
Medieval Pottery Sherds
Two medieval sherds found by B. Warren, in 1978, whilst fieldwalking in association with the construction of the M25.

2.2.6 **SMR No.0089 Fig.1**
Remains of Theobalds Palace
Scheduled Ancient Monument No.77. Broxbourne Area of Archaeological Significance No.14. The site of the Palace of Theobalds, built in c.1564 by William Cecil, Lord Burghley. Enlarged and remodelled in the 1570s to create a magnificent building with royal apartments and extensive formal gardens. It was situated at the eastern end of a large, D-shaped, deer park, which extended some 3 miles to the west of the house. The park was 1 mile wide and is still traceable by field boundaries today. James I exchanged the house for Hatfield House in 1607 and extended the palace and grounds. The Palace was demolished c.1651, by order of Parliament, the rich fittings and masonry being re-used elsewhere. Four houses (Theobalds Square) were subsequently built on the site (1765-70) and likely used the remains of the palace. The last house to survive was destroyed in 1968. Few remains of the gardens are visible today, above the surface, however, the dried-up bed of the Elizabethan boating lake survives adjacent to the southbound carriageway of the A10. In addition, south of the lake bed, the remains of an avenue of trees (suggested by the Parliamentary Survey of 1650) (Andrews, 1992) are likely to be affected by the road proposal.

Andrews, M., Journal of Garden History, 1992, 130-49.
Pevsner, N., 1977, 360-61.
Summerson, J., Archaeologia, xcvii (1959), 107-26.

2.2.7 **SMR No.4274 Fig.1**
Section of Theobalds Park Wall
The SMR notes an extant section of the (c.9.5 miles) brick wall surrounding Theobalds Park, commenced by James I in 1621, replacing earlier timber railings. The wall fell into disrepair after the death of the king in 1625. Andrews (1992) states that this section of the wall was pulled down in the early 1990's, because it was proving a potential hazard to schoolchildren using the adjacent Riversmead School playing fields. A date-stone '1621' was removed from the wall and re-erected in Cedars Park within surviving palace masonry by Dove House yard.

Immediately north of Albury Farm, an extant section of wall, believed to be the original Theobalds Park wall, is present adjacent to the road, though in disrepair.

Andrews, 1992, 148.
Phillips, M., Trans. East Hertfordshire Archaeological Society, v (1912-14), 248-62.

2.2.8 **SMR No.1122 Fig.1**
Roman hoard
Found in Cheshunt (exact location unknown), during the digging of gravel for the road in 1904. Some 280 coins within an urn were discovered. Coins of Hadrian (AD117-138), Gothicus (AD268-270), and Constantine (AD 306-337). The urn and 24 coins were deposited in Hertford Museum, but were stolen.

V.C.H., iv (1914), 152-53.

2.2.9 **SMR No.2967 Fig.1**
Medieval Hospital of Erasmus and St. Mary Magdalene
Site of a small hospital, the exact location is unknown. Recorded in document form only, mentioned in the Prior Hertford's Accounts of 1497-98. Very small, the Proctor, Thomas Glasedale, stated in 1527 that it had 'neither Foundation, Incorporation nor Bills of Priviledges'.

The excellent 1785 Richardson Map shows a 'Pest House', to the east of, and half way down, Blindman's Lane.

V.C.H., iv (1914), 460.
H.C.R.O. D/ECr.125/2

2.2.10 **SMR No.2969 Fig.1**
Palaeolithic Implements
Implements were found (before 1892) at Cheshunt (the exact location is unknown) by W.G. Smith.

Archaeologia, xiii (1892), 246-55.

2.2.11 **SMR No.0012 Fig.1**
Medieval Settlement of Cheshunt
Area of the medieval Cheshunt. Conservation area and Broxbourne Area of Archaeological Significance No.12. Centred around the Church (see The General Archaeological and Historical Background of the Study Area, above).

2.2.12 **SMR No.4660 Fig.1**
Course of Roman Road
Line of Roman road (No.212 Viatores) from Verulamium to Cheshunt, noted by Salmon in 1728. Starts at the old Lea crossing at Fishers Green. Crosses the line of the present A10 to the south of Cheshunt South Reservoir, at the angle of Churchfield and the A10.

Viatores, Roman Roads in the South East Midlands, 1964.

2.2.13 **SMR No.4654 Fig.1**
Course of Roman Road
Line of Roman road (No.213 Viatores) from Fishers Green to Skimpot Farm, Dunstable. Crosses the A10 c.60 m to the south of Pine Close.

Viatores, Roman Roads in the South East Midlands, 1964.

2.2.14 **SMR No.1356 Fig.1**
Possible Site of Roman Camp
Square or oblong camp with a high bank and a deep ditch, in Kilsmore Field. Never excavated, and destroyed when Cheshunt South Reservoir was created.

Salmon, 1728 (ref. in V.C.H.)
V.C.H., iv (1914), 152-53.

2.2.15 **SMR No.1120 Fig.2**
Roman Coins
Five 'copper' coins of Hadrian were found during 'excavation work'. Given to Cheshunt Museum, subsequently sold and lost. Found on Cheshunt High Street.

Archer, P.C., Historic Cheshunt, 1923, 190.

2.2.16 **SMR No.5999 Fig.2**
The New River
Built by Hugh Myddelton, between 1608 and 1613, to supply water for London. The source is a spring at Chadwell, between Hertford and Ware, also supplied by a spring at Great Amwell. Now ends at Manor House, Finsbury Park. Originally 40 miles long and ending at Clerkenwell, where a reservoir, the new River Head, was built.

Branch-Johnson, 1970, 97-101.

2.2.17 **SMR No.2972 Fig.2**
Bronze Age Finds
Bronze Age flint cores, flakes, and large quantities of pottery found at Turnford (exact location unknown). Found in a deposit of rain wash, up to 6' from the surface. Contemporary finds.

Proceedings of the Prehistoric Society, (1918), 103.

2.2.18 **SMR No.0180 Fig.2**
Iron Age Pottery
Iron Age 'A' rim sherd from 'Late Hallstatt' site at Turnford. The exact location was not established but the sherd is likely derived from Canada Fields/Halfhide Lane (SMR No.6816, below). Dates from 700-250 BC, and found by S.H. Warren of Loughton, Essex, and now in his collection.

Antiquaries Journal, xiv (1934), 387-88.

2.2.19 **SMR Nos. 1768, 6413 and 6414 Fig.2**
Mesolithic and Neolithic Flint Implements
Bronze Age and Early Iron Age Pottery
Finds from Turnford Brickyard. Part of the Warren Collection in the British Museum. Finds include several Mesolithic axes with tranchet edge, gravers, small scrapers and a large number of fluted cores and flakes. Also a Neolithic triangular (?transverse) arrowhead and several flake arrowheads. Bronze Age pottery and 'a fine series of Iron Age 'A' pottery'. Likely to be associated with the Canada Lane/Halfhide Lane sites (SMR No.6816, below).

Transactions of the Hertfordshire Natural History Society, xxii Part 5 (1947), 254.

2.2.20 **SMR No. 6484 Fig.2**
Late Bronze Age/Early Iron Age Site
Halfhide Lane/Broomfield Avenue site. Late Bronze Age/early Iron Age (6th-8th century BC). Finds include pottery, flint, baked clay loom weights and sling shots. Excavated by the Hertford Archaeology Unit in 1983.

H.A.U. Newsletter, Autumn, 1985.

2.2.21 **SMR No.2091 Fig.2**
Palaeolithic Flint Core
Flint 'Levallois' core, found in Turnford Brickyard.

Transactions of the Hertfordshire Natural History Society, xxii Part 5 (1947), 254.

2.2.22 **SMR No.6816 Fig.2**
Bronze Age/Iron Age site with Mesolithic and Roman finds
The site was partially excavated by the Hertfordshire Archaeological Trust in 1989-90. Evidence of archaeological features, truncated by modern ploughing, were revealed and were recorded as being on the periphery of the main Bronze Age/Iron Age settlement at Turnford. A few blades and possibly scrapers of probable Mesolithic date were found. Late Bronze Age/Iron Age ditches, pits and post holes, containing low-fired, coarse-gritted pottery, were recorded. A building was also identified. A Roman ditch and post holes containing abraded Roman pottery sherds, including Samian, were excavated.

The site was located at Canada Field Turnford, between the A10 and the Great Cambridge Road. The features and finds petered out towards the western edge of the site (the A10).

Cooper-Reade, H., Canada Field Interim Excavation Report, H.A.T., 1990.

2.2.23 **SMR No.2227 Fig.2**
Medieval Double Moated Site
Hell Wood moated site, Scheduled Ancient Monument No.20610. Broxbourne Area of Archaeological Significance No.13. Situated some 300 m from the edge of the northbound carriageway of the A10, adjacent to the St. Albans Sand and Gravel Company quarry. A moat complex consisting of a rectangular moat (up to 4 m deep) with associated pond-bays and overflow channels. Unusually large and well-preserved site, the SMR record notes that the earthworks are almost of 'castle' quality, and that the site may well be 'unfinished'. During topsoil stripping for a quarry haul road in 1991, the Hertfordshire County Council Archaeology Section and H.A.T. recorded a number of features to the S and SW of the monument. These included a 110 m stretch of a curvilinear ditch, which appeared to enclose an area to the south. The features could not be dated conclusively, but possibly pre-date the moated site.

An area to the south of the monument was subject to an initial archaeological evaluation by H.A.T., in August 1993, because it was earmarked for gravel extraction. The area to the SE of the monument was not examined.

The evaluation revealed a sparse number of archaeological features, that were of probable prehistoric date, which indicated the presence of a site in the area.

R.C.H.M., 1910, 17.
Murray, J., Evaluation Report, H.A.T., 1993.

2.2.24 **SMR No.4122 Fig.2**
Iron Age Coin
Quarter gold stater discovered at Wormley (exact location unknown). Dates from the Iron Age, and is of the British Lx North Thames Group (Mack 76, Evans type C13 L7). Held by A.J. Clarke, Slough.

Problems of the Iron Age in Southern Britain, 1958, 187.

2.2.25 **SMR No.2954 Fig.2**
Site of a Priory Cell for Augustinian Canons at Wormley
Exact location unknown. Founded between 1260-80, possibly earlier. Ceased to exist c.1510.

Knowles and Hadcock, 1953, 160.

2.2.26 **SMR Nos.6090, 6110 Fig.2**
Conduit and Holy Springs, Supplying Waltham Abbey
Conduit (SMR No.6090) built in 1220 to transport water to the Abbey and town of Waltham, from springs at Wormley. A large part of wooden conduit was unearthed in 1907, possibly below Springs House (TL 365 051).

The three holy wells or springs (SMR No.6110) that fed the conduit, possibly at Springs House or Small Wells (TL 365 045).

Transactions of the East Hertfordshire Archaeological Society, viii (1930-31) 176-86.
Hertfordshire Archaeology, iii (1973) 124-25.

2.2.27 **Ring Ditches Fig.2**

The National Mapping Programme (RCHM(E)) report has identified two possible ring ditches which may date from the ?early mediaeval period, on aerial photographs, some 400 m NW of the Turnford Interchange.

2.3 Soils and Topography

2.3.1 The soils of Lea Valley, within the study area, are of the Hamble 2 association, situated on a geological base of aeolian silty drift. This is an argillic brown earth with deep stoneless, well-drained silty soils and similar soils affected by ground water. Locally situated over gravel, and usually on flat land. These brick earth soils are ideally suited to the glass house and horticultural industries that became widespread in this area (on the terraces above the valley floor) forming an excellent rooting medium.

2.3.2 The topography is generally flat and uniform along the A10 corridor, rising slightly from c.25 m O.D. at the M25 Interchange, to c.32 m O.D. at the Turnford Interchange. These river terraces represent favourable topographical conditions for prehistoric occupation. However, because soil cover is often shallow, topsoil stripping and root disturbance such as are associated with horticultural processes, will likely damage archaeological remains where they occur (for example at Canada Field, topsoil stripping and made ground had very much disturbed the southern end of the site (H. Cooper Reade, Interim Excavation Report).

2.3.3 Long sections of the existing A10 and detailed geological and soil maps of the area were examined (Maunsell Drawings 910407/19-20; 910407/32-33; and 910407/38-39). The maps indicate that the majority of the road scheme is situated on brick earth soils which overlie alluvium and terrace gravels. The exceptions are a small area of superficial gravel at Theobalds Lane and one area at Turnford Brook, where the superficial gravel is also associated with small-scale alluvial deposits.

These soils should not pose a problem for archaeological survey work, in particular geophysical surveying and field walking.

2.4 Land Use and Ground Conditions Figs.3-4

2.4.1 The walkover survey (conducted 28/4/94) recorded:
i) the current land use of the study area;
ii) ground conditions and evidence of modern disturbance; &
iii) the susceptibility of an area to field survey techniques.

2.4.2 Information about the condition of known archaeology and the presence of earthworks is incorporated in the description of the archaeology (above).

2.4.3 The results are listed south - north. The Numbers 1-9 refer to areas indicated on Figs.3-4.

2.4.4 **No.1, M25 Interchange to Theobalds Park Farm - West side**
Arable land under crop, but a strip adjacent to the A10 is ploughed. No earthworks were identified. Dependent on crop growth, ,this land is susceptible to field walking, geophysical survey and/or trial trenching.

2.4.5 **No.2, M25 Interchange to Theobalds Park Farm - East side**
Grass: playing field at the south end, the remainder comprises a grassy bank and track. This land is susceptible to field walking (if ploughed), geophysical survey and/or trial trenching.

2.4.6 **No.3, Theobalds Park Farm to Theobalds Lane - West side**
No earthworks were identified from the road. North of the farm, the field is arable (currently cropped), and north of the Flamstead End relief road, the field is grass. This land is susceptible to field walking (if ploughed), geophysical survey and/or trial trenching.

2.4.7 **No.4, Theobalds Park Farm to Theobalds Lane - East side**
North of the restaurant is a short stretch of allotment gardens. Geophysical surveying may be possible.

North of the allotments, the land is bisected by the corridor of the proposed Cheshunt Link Road. South of the corridor, the field is arable and set aside. This land is susceptible to field walking (if ploughed), geophysical survey and/or trial trenching. No earthwork features are apparent.

North of the line of the Link Road, the land is much disturbed by gravel extraction. A high bund is present along the side of the road, and gravel extraction is believed to have destroyed any archaeological remains immediately south of the Boating Lake/Fishpond (described below). The Elizabethan lake bed (dry) is situated in the angle of the A10 and Theobalds Lane, surrounded by mature woodland.

2.4.8 **No.5, Theobalds Lane to College Road - West side**

South of Albury Farm is arable (currently high crop). No earthworks were identified. North of the farm buildings little evidence of Theobalds Park wall exists: it has been demolished to the west of the A10, and the corridor skirts the Riversmead School playing field. These two land parcels are susceptible to field walking (if ploughed), geophysical survey and/or trial trenching.

2.4.9 **No.6, Theobalds Lane to College Road - East side**

Between Theobalds lane and Albury Farm, arable (currently low crop). No earthworks were identified. The land is susceptible to field walking (if ploughed), geophysical survey and/or trial trenching.

North of Albury Farm, up to the houses of Farm Close, is arable and the land is susceptible to field walking (if ploughed), geophysical survey and/or trial trenching. The ?park wall exists north of the farm.

2.4.10 **No.7, College Road to Halfhide Lane Underpass - West & East sides**

This section of the A10 passes through the built-up part of Cheshunt and any widening of the corridor will have a significant impact upon roadside housing. Much of the groundwork will encompass front garden areas, roadside verges and footpaths where buried archaeological remains, if they are present, will not necessarily already have been destroyed. Trial trenching may be the most appropriate survey technique.

2.4.11 **No.8, Halfhide Lane Underpass to Turnford Interchange - West side**

Allotments are present between Halfhide Lane and the New River crossing. No earthworks present. The land is susceptible to field walking (if ploughed), geophysical survey and/or trial trenching.

From the New River crossing to immediately north of the Turnford
Roundabout is grassland. No earthworks were identified from the A10. The land is susceptible to field walking (if ploughed), geophysical survey and/or trial trenching.

2.4.12 **No.9, Halfhide Lane Underpass to Turnford Interchange - East side**

Land between Halfhide Lane and the New River crossing is occupied by a hotel/office complex. Prior to development the site was excavated by HAT (Cooper-Reade, Canada Field Excavation Report, 1990). It is unlikely that archaeological remains are present adjacent to the southbound carriageway here.

From the New River crossing to immediately north of the Turnford Roundabout is grassland. The land is susceptible to field walking (if ploughed), geophysical survey

and/or trial trenching.

A water pipe was recently laid parallel and adjacent to the A10 (east side). No archaeology was observed during the pipe laying but the survey work was not large-scale.

3 ASSESSMENT OF IMPACTS

3.1 A Preliminary Assessment of the Effect of the Road Improvements on the Archaeology

3.1.1 At this stage it is not possible to comment on the effects of the road construction on the archaeology. More information is required about the individual archaeological sites (a Stage 3 assessment) and the method of road construction.

3.1.2 One can make the general comment that archaeological features are frequently located immediately below the topsoil or plough soil, and therefore have little natural protection against the effects of road construction.

4 MITIGATION

4.1 Recommendations for Possible Mitigation of the Effects of the Development on the Archaeology

4.1.1 Until the extent and condition of the archaeology is known it is inappropriate to suggest mitigation strategies.

4.1.2 From an archaeological view point one can indicate no preference for Route options A or B at this time.

5 AREAS OF ARCHAEOLOGICAL POTENTIAL

5.1 General Points

5.1.1 This report should be read in conjunction with the Listed Buildings survey.

5.1.2 Topographically no part of the road corridor is more (or less) likely to produce archaeological remains than another.

5.1.3 The areas of archaeological potential are prioritised (Priority 1 and 2). This prioritisation has been assigned according to a number of criteria:

i) the importance of the archaeology;

ii) the probability of archaeological features being present;

iii) the location of archaeology within areas which are most intact (e.g. Theobalds park land); and

iv) the location of archaeology within areas of proposed large scale ground disturbance (e.g. the interchanges and roundabouts).

5.1.4 References to Route Option A and B are derived from Maunsell drawings 910407/309-311. The areas are listed South - North;

5.2 Archaeological Sites and Areas of Archaeological Potential

5.2.1 The Cheshunt area is rich in 'chance' archaeological finds, many dating from the prehistoric and Roman periods. Many of the antiquarian finds dating from the 19th and early 20th centuries lack precise locations, and this is a problem for those trying to assess the archaeological potential of the area.

5.2.2 Roman pottery and coins, for example, have been found in Theobalds Park, Cheshunt Park and 'in Cheshunt'. Similarly prehistoric finds have been made. This evidence points to an early and prolonged occupation of the area, and suggests a good probability that additional finds will be made in advance of the large-scale ground disturbance generated by the A10 Widening.

5.2.3 **SMR 2959 (AAS 10) Fig.1**
Medieval Moated Site
Earthwork remains of a manorial site. The site lies some 55 m from the A10. It is cited by Summerson and Andrews as being the likely early residence of Cecil, prior to the construction of Theobalds. Any associated outbuildings or similar features are at risk from the proposed widening.

Priority: 1

5.2.4 **The Area of Theobalds Roundabout Fig.1**
No archaeological remains are known to be present, however, the area of proposed ground disturbance is large-scale, the landscape is generally intact, and the area is close by Theobalds Palace.

Priority: 1

5.2.5 **SMR No.0089 (AAS 14) Fig.1**
Remains of Theobalds Palace
Scheduled Ancient Monument. The principal potential features within the corridor of the proposed widening scheme are:

i) The bed of the Elizabethan boating lake/fishpond. It is adjacent to the southbound carriageway of the A10. It is now dried-up, probably due to gravel extraction to the immediate south. Other water features were present within the park in Cecil's day, though their exact whereabouts is not known.

ii) A western avenue of trees may be bisected by the A10 carriageway, south of the lake bed (Andrews).

The most significant impact of the enlargement of Theobalds Roundabout is not on the individual features i) and ii) (which are scheduled) but the on the environs of the palace remains.

The remains of outbuildings or garden features may be present within the land take, however, examination of aerial photographs suggest that the area to the south of the lake bed, on the east side of the A10, is already destroyed by gravel working. The western side of the carriageway appears less disturbed and, consequently, has a greater archaeological potential.

Theobalds garden and park are of national significance. Very little is known about the original layout, other than conjectured plans from documentary evidence.

Priority: 1

5.2.6 **The Area South of SMR No.4274 Fig.1**
No archaeological remains are known to be present, however, the area of proposed ground disturbance is large-scale, the landscape is generally intact, and the area is within Theobalds park.

Priority: 1

5.2.7 **SMR No.4274 Fig.1**
Section of Theobalds Park Wall
The SMR records an extant stretch of park wall, though Andrews reports its demolition in recent years. Buried footings may exist adjacent to Albury Farm (W. side). A site visit revealed a section of wall, believed to be part of the original park wall, adjacent to the southbound carriageway, immediately north of Albury Farm.

Priority: 1

5.2.8 **SMR No.0012 (AAS 12) Fig.1**
Medieval Settlement of Cheshunt
Centred around the church. Conservation area. Route Options A and B impinge very slightly on the Conservation Area . The two schemes cannot be distinguished: both have the same probability of archaeological remains. The medieval settlement is thought to have been located near the church, but a shift of settlement towards the main Great North Road cannot be discounted.

The College Road and Church Lane Options both require large swathes of land which have not been subject to an archaeological evaluation.

Priority: 2

5.2.9 **SMR No.4660 Fig.1**
Course of Roman Road
The reputed course of this road bisects the A10 approximately 55 m to the south of Church Lane. Remains of metalling, roadside ditches or associated structures may be present.

Priority: 2

5.2.10 **SMR No.4654 Fig.1**
Course of Roman Road
The line of this road is believed to cross the A10 some 60 m to the south of Pine Close. The same potential exists as for SMR 4660 above, however, SMR No.4654 is close by the ?Roman camp and has therefore been assigned Priority 1.

Both roads, if surviving, would be equally affected by Options A and B. Their survival would be more likely in garden areas and back plots of the existing housing.

Priority: 1

5.2.11 **SMR No.1356 Fig.1**
Possible site of Roman camp
The remains of earthworks of a reputed Roman camp were destroyed by the construction of Cheshunt South Reservoir. Any ancillary remains, such as access roads, buildings or other features may still exist next to the west side of the A10, though potentially severely affected by housing developments.

Priority 1

5.2.12 **SMR No.1120 Fig.2**
Roman Coins
The discovery of Roman coins on Cheshunt High Street, situated some 200 m from the road, may indicate the presence of further Romano-British sites in the immediate vicinity. This is one of the few Antiquarian finds that has a reasonably traceable location.

Priority: 2

5.2.13 **SMR No.0180 Fig.2**
Iron Age Pottery

SMR No.2972
Bronze Age Finds

SMR Nos. 1768, 6413 and 6414
Mesolithic and Neolithic Flint Implements
Bronze Age and Early Iron Age Pottery

SMR No. 6484
Late Bronze Age/Early Iron Age Site

SMR No.2091
Palaeolithic Flint Core

SMR No.6816
Bronze Age/Iron Age site with Mesolithic & Roman finds

The SMR numbers above refer to the Halfhide Lane/Broomfield Avenue, Turnford Brickyard and Canada Fields sites. These likely represent a Bronze/Iron Age site, with evidence of earlier and later activity. This particular length of the road corridor has produced numerous archaeological finds.

Priority: 1

5.2.14 **SMR No.2227 (AAS 13) Fig.2**
Medieval Double Moated Site. Hell Wood moated site
Scheduled Ancient Monument. The substantial site of Hell Wood Moat lies some 340 m from the western boundary of the A10. Investigation, south of the monument, revealed features which may predate the moated site. The likelihood of additional archaeological features being present eastwards is quite high.

Priority: 1

5.2.15 **Ring Ditches Fig.2**
The National Mapping Programme (RCHM(E)) report has identified two possible ring ditches which may date from the Saxon period, on aerial photographs, some 400 m NW of the Turnford Interchange

Priority: 1

6 SUMMARY

6.1 In April, 1994, the Hertfordshire Archaeological Trust carried out a Stage 2 archaeological assessment of the road corridor of the A10, between the M25 (Junction 25) and Turnford Interchange. The investigation was in response to proposals by the Department of Transport to improve the A10 between the two junctions.

6.2 The Stage 2 assessment was undertaken according to the guidance of the Design Manual for Roads and Bridges, Volume 11.

6.3 The following tasks were undertaken:

i) an update of the Hertfordshire County Sites and Monuments Records (SMR) data;
ii) a detailed desk-top assessment; and
iii) a preliminary walkover survey.

6.4 The main purpose was to identify areas of archaeological interest.

STAGE 2, ARCHAEOLOGICAL ASSESSMENT IN ADVANCE OF THE A10: M25 HODDESDON IMPROVEMENT

SUMMARY

The study area is the corridor of the proposed A10: M25 Hoddesdon Improvement

A Stage 2 assessment, under the requirements of the Cultural Heritage Part of Volume II 'Environmental Assessment' of the Design Manual for Roads and Bridges, will be undertaken.

The following tasks will be carried out:
i) update SMR data,
ii) a detailed desk-top assessment, and
iii) a preliminary walkover survey.

The purpose is to

i) identify areas of archaeological potential, and
ii) prepare a project design for a field survey (Stage 3), if appropriate.

1 INTRODUCTION

1.1 The Site

The proposed route starts on the north side of the M25/A10 roundabout. The existing A10, as it passes through Cheshunt, is to be improved, and the improvements are to be undertaken as far as the Turnford Interchange (total distance $\leq$.5 km).

1.2 Archaeological Background

The principal, known archaeological sites in the vicinity of the route date from the medieval period and comprise:

Theobald's Moated Site;
Theobald's Palace (Scheduled Ancient Monument);
Hell Wood Moated Site (Scheduled Ancient Monument); and
Cheshunt Medieval Settlement.

A Roman road (Ermine Street) and prehistoric remains are also located close by.

1.3 Reasons for and Circumstances of the Project

The road construction is a Department of Transport Scheme, and the existing A10 will be improved.

2 METHODS STATEMENT, STAGE 2 ARCHAEOLOGICAL ASSESSMENT

A Stage 1 Archaeological Assessment has been completed. The principal elements comprise

i) listing of all Scheduled Ancient Monuments and designated sites; and
ii) listing of data contained within the Hertfordshire County Council Sites and Monuments Record.

2.1 Update

Update the list of Scheduled Ancient Monuments, designated sites and SMR data.

2.2 Further Work

Consider if further work is required. If further work is required a detailed desk-top assessment should be undertaken.

2.3 Detailed Desk-Top Assessment

The assessment is designed to locate, record and assess the nature, significance and extent of archaeology with the proposed road corridor.

The Department of Transport Manual does not set out the sources of archaeological information which are to be consulted during the Detailed Desk-Top Assessment, therefore, reference is made to the Institute of Field Archaeologists Standard and Guidance for Archaeological Desk-Top Assessments. The latter has received wide currency within the archaeological profession.

N.B. The Desk-Top Assessment will not duplicate work undertaken for the Stage 1 Assessment, and the sources listed below will only be consulted provided that they are readily available.

SOURCES OF ARCHAEOLOGICAL INFORMATION TO BE CONSULTED

2.3.1 Archaeological Databases

The archaeological databases represent the standard references to the known archaeology of an area.

N.B. The work of the Stage 1 Assessment will not be duplicated.

Source Type

Archaeological Excavation and Survey Records, National Monuments Records, National Buildings Records, Regional and Local Sites Monuments Records, Listed Buildings Lists, Scheduled Ancient Monuments Lists, Regional Inventories, Public and Private Collections of Artefacts and Ecofacts.

Source Location

National Heritage Bodies, Royal Commissions, Local Authorities, Museums, Archaeological Trusts ,and Units, Universities, Ordnance Survey, Local Archaeological and Historical Societies.

2.3.2 Historical Documents

The documentary research will provide an overview of the history of the area and its immediate environs, suggesting effects on land use and settlement patterns.

Source Type

Charters, Registers, Manuscript Collections (Secular and Ecclesiastical), Deeds, Wills, Estate Papers, Electoral Rolls, Contemporary Published Accounts (eg County and Agricultural Surveys), Industrial Investigations.

Source Location

Public Record Office, Parish Records, Estate Collections, Musuems, National and Local Libraries, County and District Archives, Study Centres, Press Libraries, Ordnance Survey, British Library.

2.3.3 Cartographic and Pictorial Documents

Commonly a productive area of research, for example, field names can be useful indicators of areas of archaeological potential.

Source Type

Early Maps, Prints and Paintings, Tithe Maps, OS Maps, Estate Plans.

Source Location

Public Record Offices, Parish Records, Estate Collections, Museums, National and Local Libraries, County and District Archives, Ordnance Survey, Press Libraries, Private Collections, Local Archaeological and Historical Societies.

2.3.4 Aerial Photographs

An examination of aerial photographs relating to the road improvement will be made with a view to identifying earthworks and cropmarks indicative of archaeology.

Aerial photographs are perhaps the key source, of a desk-top assessment, for the identification of new archaeological sites.

Source Type

Aerial Photographs

Source Location

Collections of air photographs held by the Department of Transport, Hertfordshire County Council, the Local Planning Department, and the National Registers (including RAF and OS flights) will be viewed. The two main libraries of aerial photographs, the Royal Commission on Historical Monuments and the Committee for Aerial Photography, University of Cambridge should be examined. Museum Collections, National Heritage Bodies, Sites and Monuments Records, University Collections, Private Collections.

2.3.5 Geotechnical Information

A description of the solid and superficial geology, and topography of the study area will be compiled. The purpose will be to appreciate the likelihood of archaeological remains.

In addition, examination of the borehole and test pit logs with the purpose of identifying areas:

i) areas susceptible to field walking and geophysical survey techniques;

ii) areas of colluvium and alluvium;

iii) areas of peat or waterlogged deposits.

Source Type

Borehole and Test Pit Logs (information contained within the Department of Transport's Engineers Records), Site Surveys Geological Maps

Source Location

Client Engineers Records, Ordnance Survey, British Standards Institute, British Geological Survey Publications

2.3.6 Secondary and Statutory Sources

Source Type

Regional and Period Archaeological Studies, Landscape Studies, Local Knowledge, Dissertations, Policy Statements and Research Frameworks, Legislative Documents, European Directives, Local Development Plans, Unitary Development Plans, Constraint Maps.

Source Location

Libraries, Local Landowners, Local and National Museums, Universities, Academic Journals, Monographs and Other Publications, Local Archaeological and Historical Societies.

3 PRELIMINARY WALKOVER SURVEY

On conclusion of the desk-top assessment a physical walkover of the road corridor will be undertaken. It will have two main purposes:

i) To examine the areas of archaeological potential identified during the desk-based assessment, in particular, with a view to gauging the likely survival or condition of the archaeological remains; and

ii) To undertake a general site survey noting the land use and ground conditions with a view to the appropriate deployment of field survey techniques, if required.

4 STAGE 2 REPORT

A report will be submitted on completion of the desk-top assessment and physical walkover, and will contain the following sections:

i) An updated version of the map of the study area produced at Stage 1 showing all areas of archaeological potential (based on the Stage 1 Assessment, the update, the desk-top assessment and the physical walkover);

ii) (where the desk-top assessment indicated that there was no need for a physical walkover), a statement which describes the archaeological value of the study area including any constraints, and assesses the significance of the possible impact of the road improvement. The reasons why a walkover was not undertaken should be given, and the agreement, or otherwise, of English Heritage should be recorded;

iii) (where a walkover has been conducted). The findings of the desk-top assessment and physical walkover, indicating the areas of archaeological potential, will be described. The likely character, extent and importance of the archaeology will be described. The criteria used to define levels of significance will be set out. The survey techniques which were employed will be fully described. Areas of constraint will be indicated;

iv) An assessment of the effect of the development on the archaeology, if any archaeology is present, will be presented;

v) Recommendations for possible mitigation of the effects of the development on the archaeology; and

iv) Recommendations for further investigation of the archaeology (Stage 3, a Field Survey) where the archaeology is not sufficiently defined to permit a mitigation strategy or other response to be defined.

A10 : M25 to HODDESDON IMPROVEMENT
ENVIRONMENTAL ASSESSMENT

ARCHAEOLOGY
BRIEFING DOCUMENT

1. Introduction

This document provides a brief for a specialist subconsultant to carry out work in connection with the Stage 2 assessment under the requirements of Volume 11 "Environmental Assessment of the Design Manual for Roads and Bridges", Part 2, Chapter 8, "Stages of Archaeological Assessment".

2. General Information

2.1 The lead consultant is

G. Maunsell & Partners
Newlands House
The Newlands
Witham
Essex CM8 2UW

Project Engineer : I.R. Newman

tel: 0376 513531
fax: 0376 520585

2.2 The environmental subconsultant is

Landscape Design Associates
17 Minster Precincts
Peterborough PE1 1XX

Project Landscape Architect : D Thompson

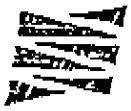
tel: 0733 310471
fax: 0733 53661

2.3 The specialist subconsultant shall be responsible for the work through the use of their own staff or by the appointment, following prior approval by Landscape Design Associates, of specialist staff. A copy of current Professional Indemnity Insurance Certificate shall be provided prior to commencement of work.

2.4 The specialist subconsultant shall report through Landscape Design Associates to the lead consultant's project engineer.

3. Project Requirements

3.1 The work shall be carried out under the general guidelines set out in the "Design Manual for Roads and Bridges" Volume II, unless otherwise agreed in writing with Landscape Design Associates



3.2 The objective at this stage is to undertake sufficient assessment to identify the archaeological factors, and the effects upon them, to be taken into account by the Design Organisation in developing and refining route options, in agreement with the lead consultants' project engineer.

3.3 The steps to be taken are:-

3.3.1 check with the County Archaeologist that, since the Stage 1 assessment, there have been no additions to the number of designated sites or areas, or recorded remains on the SMR.

Detailed Desk Top Assessment

3.3.2 Identify and evaluate all remains within the study area recorded on the county SMR, or in other published sources and to assess the likely impacts of route options. This assessment will be based on the information produced at Stage 1, but will be more detailed and will focus on the route options. It should include an assessment of aerial photographs, where available. The study should also consider the evidence gathered in the light of past/current land use in order to provide and assessment of the documented information. This will involve a consideration of possibly significant gaps in the documentary evidence.

Preliminary Walkover Survey

3.3.3 A preliminary walkover survey of the relevant area(s) shall be undertaken. It is important to note that surveys at this stage should be conducted to meet the objective of assessment at Stage 2, and are likely to be less detailed than those undertaken after the selection of a preferred route.

3.3.4 EH should be consulted on the scope of the survey brief which should be agreed with the Overseeing Department's Project Manager before being finalised. It is also important to bear in mind the need not to cause undue public anxiety and property blight.

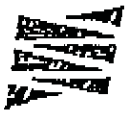
3.3.5 Prepare a statement which sets out the findings of the detailed desk top study and the preliminary walkover survey and assesses the probable impacts of the route options on archaeological remains.

3.3.6 Obtain EH's 'in confidence' views on the impacts of route options on archaeological remains.

Result

3.4 The result of the archaeological assessment at this Stage, to be described in the Stage 2 Report, should consist of:

3.4.1 an updated version of the map of the study area produced at Stage 1 showing the route options, all designated sites and areas, and all other areas where there might be potentially important remains (based on a study of the SMR, other documentary material and the preliminary walkover survey).



3.4.2 a statement which describes the archaeological value of the study area, and assesses the significance of the possible impacts of route options, taking account of agreed mitigation measures. The statement should set out criteria used to define levels of significance, and should describe the archaeological survey techniques employed, and the results of the survey, as well as the results of the desk study. The statement should indicate clearly any areas or sites within the study area which should be regarded as a constraint. The Overseeing Department's Project Manager should be informed it if would be valuable to send a copy of the survey results to the local SMR.

3.4.3 a separate statement of the 'in confidence' views of EH, on the implications of route options for archaeological remains.

4. Programme

4.1 Final draft text and drawings should be submitted by 29 April 1994. Interim draft text and drawings should be submitted by 22 April 1994.

5. Word Processing

5.1 Numbering of headings and paragraphs

Example

2. EXISTING CONDITIONS

2.1 Introduction

Paragraphs then number as follows; paragraph one under 2.1 Introduction, would be 2.1.1

Subheadings should not be numbered.

5.2 Standard Headings for Assessment Report.

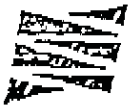
The report will be subdivided as follows:

TITLE OF SECTION
INTRODUCTION
BASELINE CONDITIONS
ASSESSMENT OF IMPACTS
MITIGATION
RESIDUAL IMPACTS
SUMMARY
CONCLUSIONS

5.3 Word Processing

Draft text for the Assessment report should be submitted on a 3½" disk in the following format:

(i) WordPerfect 5.1



(ii) Line spacing at 1.5
(iii) Left and Right Margins 1"
(iv) Top Margin 1"
(v) Bottom Margin 0.5"
(vi) First main tab set at 2.25"
(vii) Universal 12 (style of print)
(viii) Fully Justified for printing.

Each disk sent to Landscape Design Associates should be accompanied by one printed hard copy.

APPENDIX 3 BIBLIOGRAPHY

List of sources consulted

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APPENDIX 4 CARTOGRAPHIC RESEARCH

A list of the maps consulted

All the codes are derived from the Hertfordshire County Record Office (HCRO).

1782-85	Estate Map of Cheshunt, Northaw, Enfield etc. Drawn by E. Richardson. D/Ecr.125/2
1782-85	Cheshunt Estate Map D/Ex 667 pl
1782-85	Booklet for above D/ECr.109/1
c.1800	Cheshunt Parish Drawn by H. Crawter D/ECr.125/4
1802	Cheshunt Parish Drawn by H. Crawter D/ECr.125/3
1826	Plan of Land in Church Field Drawn by T. Crawter D/ECr.30
1841	Tithe Map of Cheshunt DSA 4/30 1-2
1841	Booklet for above DSA 86/2
Early 19th C.	Enclosure Map D/Eb 1767 pl

APPENDIX 5 A LIST OF THE AERIAL PHOTOGRAPHS CONSULTED

Photographs held by the Hertfordshire County Council Archaeology Section

Aerial Photomaps held by the Hertfordshire County Council Planning Department and Archaeology Section (1971 and 1990)

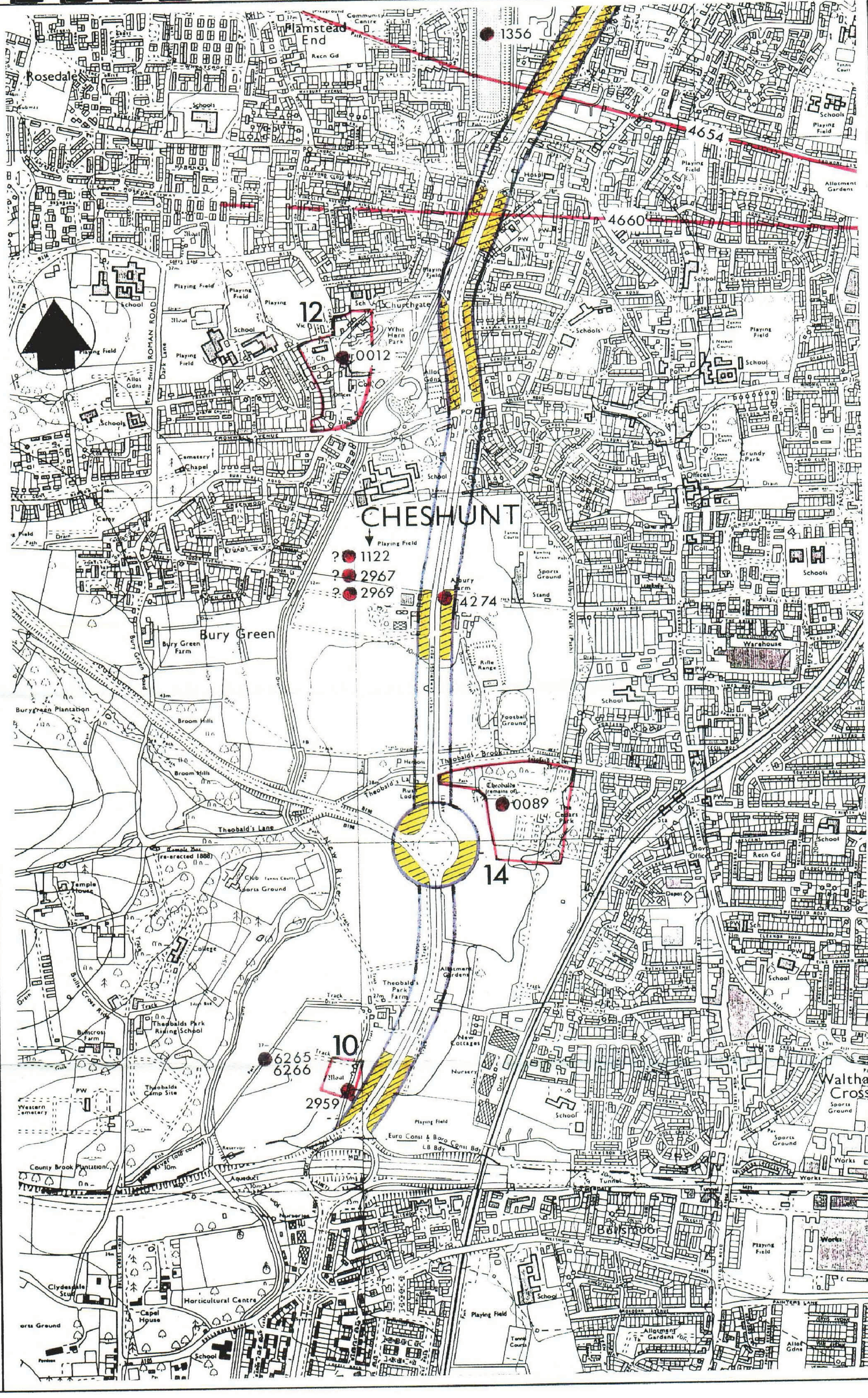
Aerial photographs held by the RCHM(E) National Library of Air Photographs

N.B. All good quality vertical coverage of the study area was consulted. Due to constraints of time, the oblique coverage was not consulted, however, this material has recently been incorporated into the 1992 RCHM(E) National Mapping Programme Report on Crop marks in Hertfordshire. This report was consulted and contains little evidence of crop marks within the study corridor.

A substantial list of all the vertical and oblique aerial photographs held by the National Library of Air Photographs, dating from the 1940s onwards, can be supplied on request. There is coverage of the entire corridor.

All available aerial photographs and plots of aerial photography were examined. The HCC 1990 Aerial Photomaps were particularly good, because they were taken during a hot, dry summer when crop marks would be at their most visible. No new archaeological sites, within the study area, were identified. This should be interpreted as a good, but not an absolute, indicator of the lack of buried archaeology.

The University of Cambridge Committee for Aerial Photography has no coverage of the study area.



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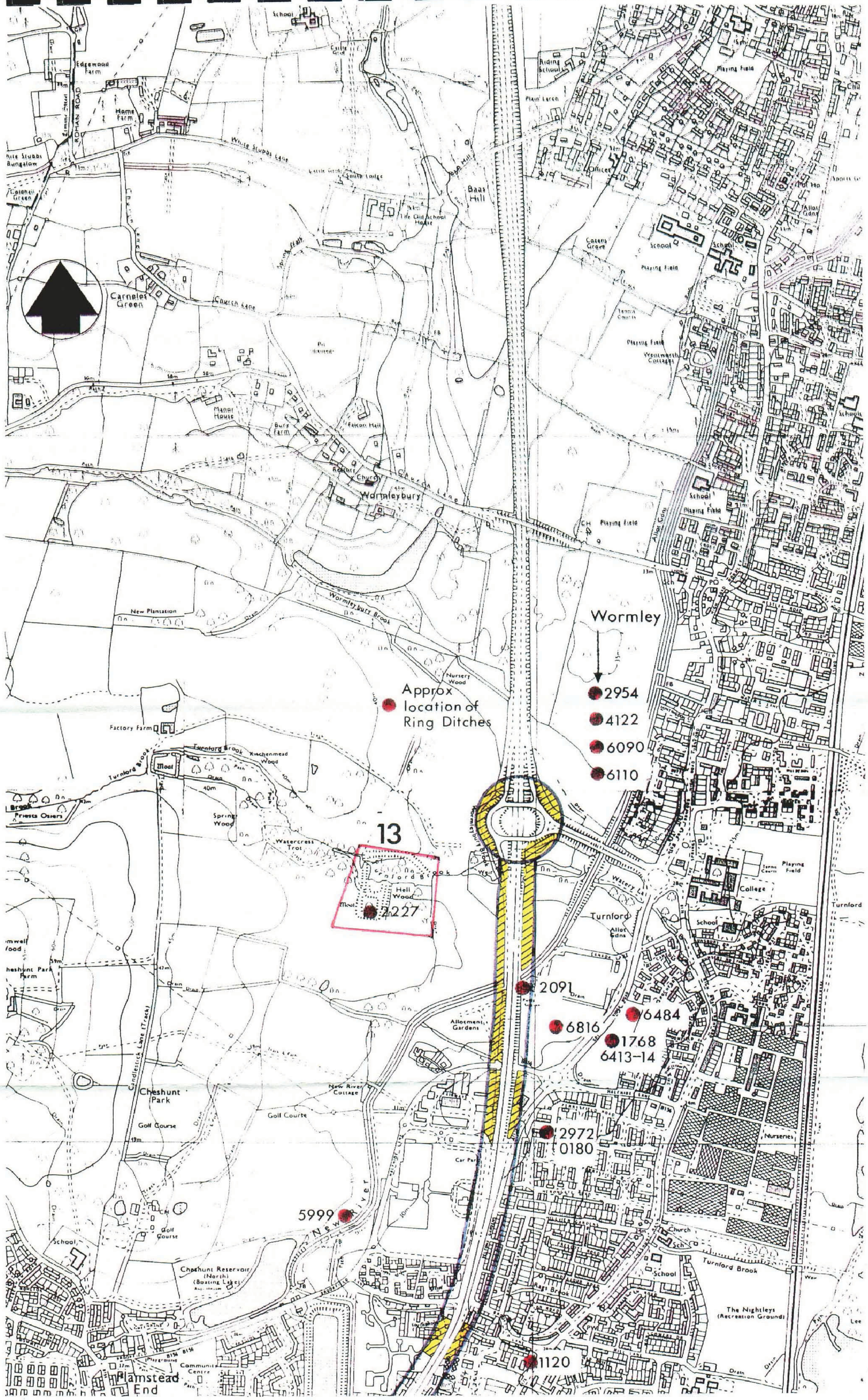

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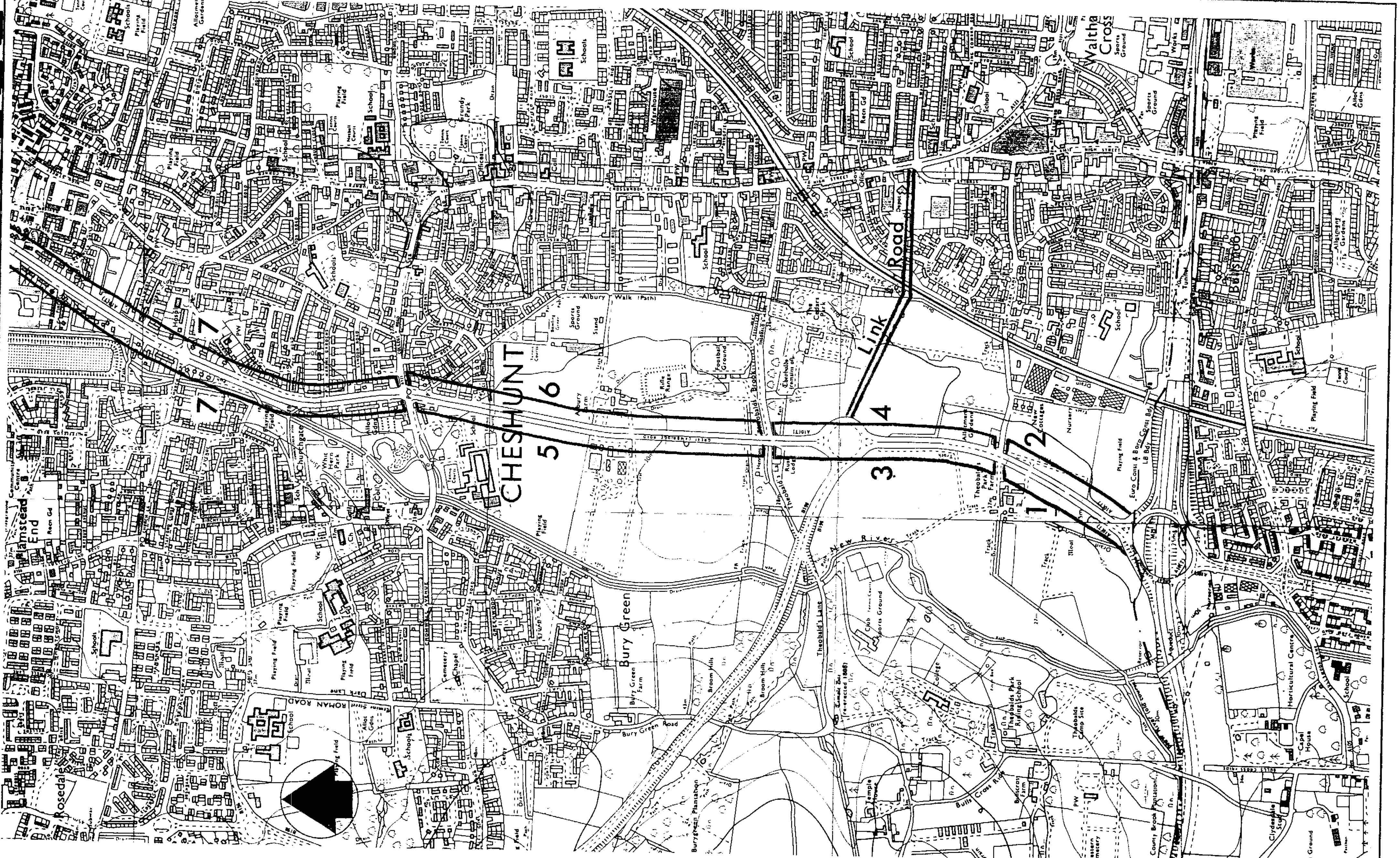

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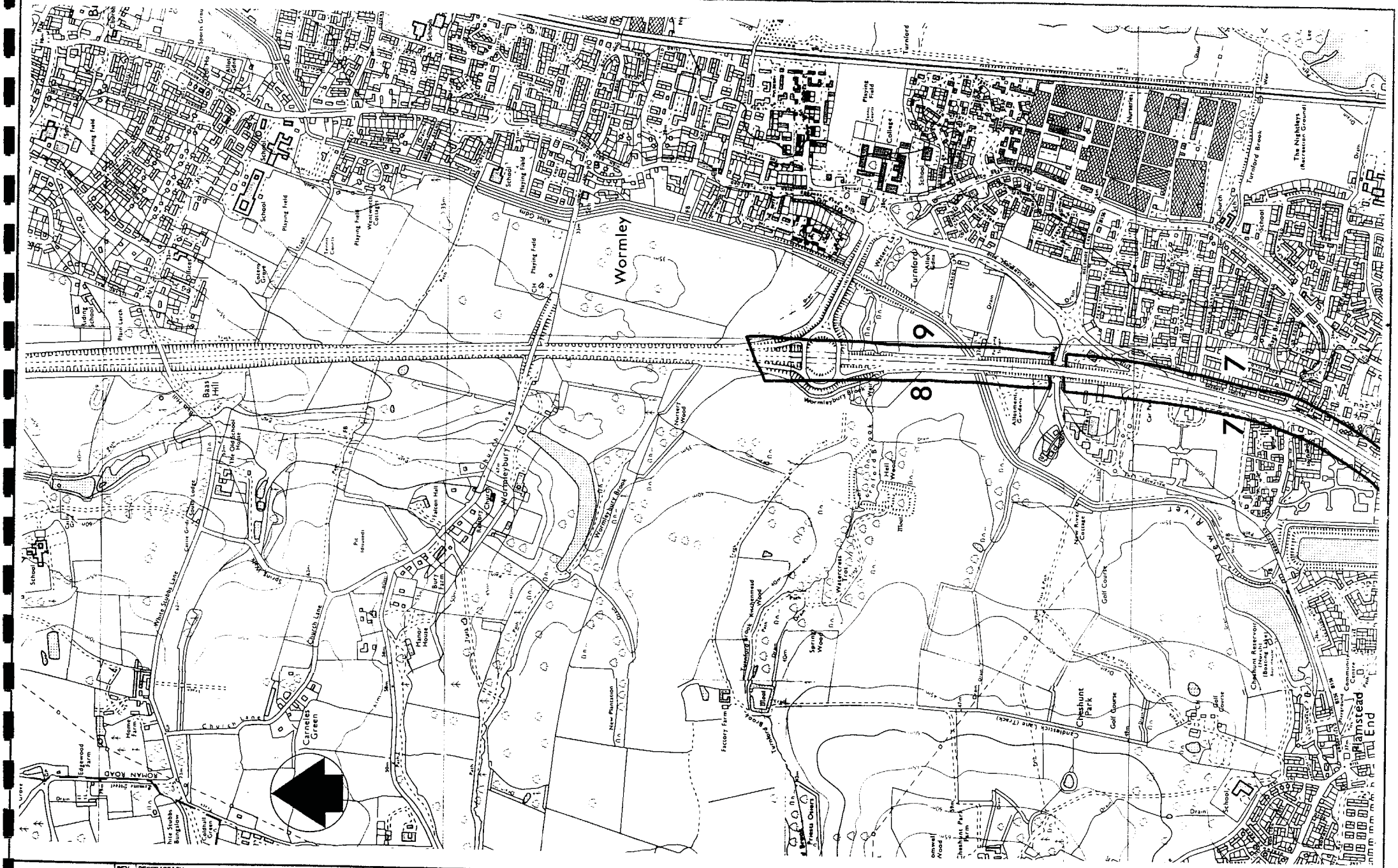

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Fig.4 Land Use Reference Numbers, North

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