



INDEX DATA	RPS INFORMATION
Scheme Title A54 kelsall By-pass	Details Archaeological Assessment
Road Number A54	Date 1991
Contractor RPS	
County Cheshire	
OS Reference NJ 56	
Single sided ✓ Double sided A3 1 Colour 1	

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**A54 IMPROVEMENT
KELSALL BYPASS TO A556**

ARCHAEOLOGY

SEPTEMBER 1991

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AJA083/v2/1762

**ENVIRONMENTAL PLANNERS
AND SCIENTISTS
LANDSCAPE ARCHITECTS
ARCHITECTS**

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- 1. SMR SITES AND ROUTE CORRIDOR**

INTRODUCTION

- 1.1 The brief is to examine the corridor of the proposed improvement of the A54 east of Kelsall to the junction with the A556. This study relates to the archaeological impact of the proposal, so far as can be assessed at this stage of the scheme, which has identified a corridor for study (see RPS Drawing 1).
- 1.2 Details of the design of the proposed improvement are not known at this stage, but the topography of the corridor is such that embankments or cuttings will be required to achieve suitable gradients, etc. and these can be assumed to entail earthmoving activities of a potentially destructive nature.
- 1.3 The extent of the potential disturbance caused by the proposals is assumed to be contained within the corridor, and all parts of it have been assessed within the limits of available knowledge. It is not expected that there would be any archaeological impact as a result of the proposals on areas outside the route corridor.
- 1.4 To enable a clearer assessment of the archaeological potential of the area, however, a wider zone of approximately a kilometre on either side of the corridor has been briefly appraised.

2 DESCRIPTION OF EXISTING CONDITIONS

- 2.1 The geology of the area is Keuper Sandstone, which outcrops as a north-south ridge through west Cheshire from Frodsham to Malpas. It is known as the Central Ridge. It has produced pronounced relief rising to 227m at Rawhead, with much of the ridge over 150m. It forms the watershed between the Weaver and Gowy drainage systems to the east and west respectively.
- 2.2 The Study Area occupies a minor east-west gap in this ridge, between Pale Heights rising to over 175m to the north, and Primrose Hill and Kelsborrow rising to 160m to the south. The highest point of the present road in the route corridor is 116m. The rise from the east is fairly gentle, but the natural gradient to the west is sharper, descending from a high point west of the route corridor at c. 140m to 80m in 800m. The modern road requires cuttings and embankments to cope with this slope.
- 2.3 The modern road is terraced into the north side of the gap at its highest point in the Route Corridor, with a drop into the valley bottom on its south side. This is quite precipitate at NGR SJ 540687, and remains pronounced to the west. The land continues to rise to the north in a series of steps to the top of Pale Heights.

3 ARCHAEOLOGICAL BACKGROUND

- 3.1 The assessment of the archaeological potential of the route corridor must be judged against an understanding of the general development of this area of Cheshire through time. This section very briefly attempts to establish the archaeological character of the area.
- 3.2 **Prehistory.** The Central Ridge, together with the fans of gravels and sands stretching to the east has formed a well drained upland zone of light soils, in contrast to the heavy clays in the Weaver and Gowy valleys. The post-glacial hunter-gatherers of the mesolithic (10,000 BC-4,000 BC) would have hunted in the woodlands, and possibly utilised the rock overhangs at Helsby and elsewhere as temporary shelters. Scatters of their flint artefacts have been found, but no occupation sites. The first farmers of the neolithic (4,000 BC-2,000 BC) would have found the light soils easy to clear and cultivate and again their artefacts have been found on the Central Ridge, but no settlement, or major ritual monuments. The Central Ridge would undoubtedly have formed an important route from the Irish Sea to central England and Wales. In the bronze age (2,000 BC-600 BC) there is more substantial evidence in the form of burial mounds and field systems on the Central Ridge, indicating settlement nearby. In the iron age (600 BC-AD 50) two major fortresses were constructed near the Study Area, at Eddisbury and Kelsborrow, part of a system extending from Helsby to Bickerton. The Central Ridge appears to have remained a major north-south route, and the defenses along it may suggest that it was already a frontier zone too.
- 3.3 **Roman.** In the Roman period Cheshire was a permanent frontier between the civilising Roman influences from the south and east, and the mountain tribes of Wales. Chester (Deva) was a Roman garrison town, and the military authorities probably controlled or commissioned most significant productive enterprises in the vicinity. Roads were driven across the Cheshire Plain to

ensure effective communications, two of which converge in the Study Area before proceeding westwards through the gap in the Central Ridge utilised by the present A54. The lifestyle of the Celtic tribe who occupied Cheshire - the Comovii - is hardly known, as no rural settlements have been identified as yet.

- 3.4 **Dark Ages.** Cheshire remained vulnerable to incursions after the collapse of the Roman administration, and before the 11th century it had absorbed Welsh, Saxon and Scandinavian elements. Eddisbury was refortified, indicating the strategic importance of the area. The landscape probably also remained heavily wooded for the most part, with denser settlement on the lighter soils; although by the end of the period the Cheshire Plain seems to have been well settled, with most of the present villages established. Chester developed into a major medieval town, and other specialised settlements grew up at Middlewich and Nantwich (salt making) and possibly at Warrington (river crossing?). The importance of the Central Ridge as a communication corridor diminished, as the rivers and the east-west routes to Chester became pre-eminent.
- 3.5 **Medieval.** William devastated Cheshire in 1071 in reprisals for the resistance of the area. Subsequently he established a powerful lordship in the area to maintain order and keep the Welsh at bay. The Central Ridge was guarded by Beeston Castle, and there were other major feudal castles at Frodsham and Halton. Earth and timber castles for local defence were established in the Dee Valley. Much land in Cheshire and the Wirral in this period came under forest law, with two main divisions - Delamere in the west and Mondrem to the east. This does not imply that the whole of the "forest" area was wooded, but the higher, less fertile, Central Ridge probably was woodland, with open areas within it.
- 3.6 **Post Medieval.** The dissolution of the monasteries was followed a century later by the Civil War, and both contributed to the secularisation of society.

Aspects of life previously managed by religious foundations were taken over, sometimes belatedly, by private or civil administrations, such as schools, road maintenance, mills, almshouses and land ownership. Smaller private parks took the place of the royal forest. The Pale north of the study area is a relic of one of these. In the 18th century canal building made cross-century transport economically feasible. The Shropshire Union Canal cut through the Central Ridge at Beeston. The City of Cheshire was a major port with access to the western seaways, and the overland routes from the east, from Northwich to Chester following the old Roman road remained a major communications corridor, utilising the gap at Kelsall. The field boundaries to the south of the present road were laid out by surveyors in the 18th century, probably carving new fields out of the woodland, or possibly the common.

- 3.7 **Modern.** The last century has witnessed the rise of the modern textile industry centred on Manchester, the chemical industry on the Mersey, and shipping at Liverpool. The communication network has progressively adapted to the requirements of these developments, firstly with canals, then railways and more recently motorways, and most recently air travel. The dramatic expansion of the Manchester - Liverpool conurbation led to the rise of "dormitory" accommodation in the villages in Cheshire, and the demand for leisure and recreational facilities in the countryside. The remnants of the medieval Delamere Forest comprise a major component in this recreational provision. Industrialisation, urbanisation and intensive farming have combined to obliterate many traces of earlier periods, although these same processes have also led to the discovery of much buried evidence. The loss of so much archaeology has led to policies for the protection of significant survivals, as well as increased public awareness of Cheshire's heritage, currently centred on Chester. This trend seems set to continue, and will embrace a wider appreciation of the early development of the county.

4 METHODOLOGY

4.1 The methodology for establishing the known sites in the Study Area has been:-

- i) research into the county Sites and Monuments Records for the area, to assess evidence for known archaeology and the potential for as yet undiscovered features;
- ii) consultations with Cheshire County Archaeologist to establish County Council policy and recommendations;
- iii) consultations with English Heritage to discover their intentions and attitude towards the scheduling of the Roman road junction, and their general policy;
- iv) research into Aerial Photographic evidence held at the RCHM Aerial Photographic Library, Swindon;
- v) brief research of published literature;
- vi) a site visit to assess current status of sites;

Evidence from all these sources was taken into account in arriving at the preliminary assessment set out in section 6.

4.2 The known sites are listed in the County Sites and Monuments record (SMR). The SMR entries are reproduced in Appendix 1. The SMR is not claimed to be necessarily an accurate nor an exhaustive listing, as it has been compiled from a variety of sources of differing degrees of reliability. The absence of sites in the SMR for any area is not to be taken as indicating a valid lack of archaeology.

- 4.3 Consultations with Adrian Tindale, the County Archaeological Officer (CAO), were held on 13.09.91 to discuss the adequacy of the SMR and the general policy of the County Council. He re-iterated the point made in 4.2 concerning the reliability of SMR information. He also drew attention to the problems of checking the archaeological potential of the area in advance of the work commencing. His attitude towards the timetable of any future work is outlined in paragraph 5.2.2 below.
- 4.4 Consultations with English Heritage. English Heritage is carrying out a 10 year national review of Scheduled Ancient Monuments (SAMs) called the Monuments Protection Programme (MPP) which is expected to increase the number of SAMs tenfold. Cheshire is currently carrying out this review, and the junction of the Roman roads (SMR 844/1/3) may be recommended for scheduling. If it is scheduled, it will have the statutory protection outlined in paragraph 5.1.1 below. The setting of the site will be relevant in the consideration of any nearby proposals. [Further information on this point awaits the return of two E.H. Inspectors currently on leave].
- 4.5 Aerial Photographs (APs). The area is not generally considered to be susceptible to aerial reconnaissance. Oblique APs held at the Royal Commission on Historic Monuments (England) National Library of APs at Swindon do not show any features. The Cambridge University Committee for Aerial Photography have no photos of this area. The other principal source of APs is the County Council Planning Department; these have not been consulted yet.
- 4.6 Published Literature. The published literature has been only briefly reviewed to gain an overall indication of priorities. Books consulted have included:

Victoria County History of Cheshire (vol II)

1964

Varley, W.J. Cheshire Before the Romans

1965	Thompson, F.H. <u>Roman Cheshire</u>
1972	Bu'lock, J.D. <u>Pre-Conquest Cheshire</u>
1973	Husain, B.M.C. <u>Cheshire Under the Norman Earls</u>
1971	Driver, J.T. <u>Cheshire in the Later Middle Ages</u>
1975	Bott, O. and Williams, R. <u>Man's Imprint on Cheshire</u>
1969	Beck, Joan <u>Tudor Cheshire</u>
1966	Sylvester and Nulty <u>Historical Atlas of Cheshire</u>

There is much detailed information on aspects of Cheshire archaeology and history in the journals of the Historic Society of Lancashire and Cheshire, the Lancashire and Cheshire Archaeological Society, and the Chester Archaeological Society. These will be consulted in the more detailed study.

- 4.7 Site visit. A site visit was made on Tuesday 10th September. The line of the Roman road was observed before it disappeared into the plantation. The dense undergrowth in the woodland made observations of any earthworks impossible. The site of the barrow (SMR 835) is incorporated in an intensively cultivated nursery and no trace was seen. The fields to the south of the existing road were under pasture, and no signs of any archaeology were seen, except a possible lynchet or pre-enclosure field boundary just outside the route corridor.
- 4.8 Summary of methodology. The SMR search has indicated that sites which are known in the Study Area, and a wider search showed no known features nearby which would have a bearing on the Route Corridor. The APs also showed no new sites, although the County verticals remain to be checked. The literature search was used to indicate the general archaeological potential of the area, but much detail remains to be researched at a later stage in local journals. A brief site walk-over confirmed the topography and present land use.

5 POLICY CONTEXT

5.1 Ancient Monuments

- i) Statutory protection for archaeology is principally enshrined in the Ancient Monuments and Archaeological Areas Act of 1979, amended in 1983 by the National Heritage Act. Nationally important sites are listed in a Schedule of Ancient Monuments which is maintained by the Secretary of State for the Environment. Extensive areas of archaeological importance are designated as Archaeological Areas.
- ii) Proposals which will affect Scheduled Ancient Monuments (SAMs) or their settings must be approved by the Secretary of State prior to works commencing. English Heritage (The Historic Buildings and Monuments Commission for England) advises the Secretary of State on scheduling and other archaeological and historic building matters. There are currently some 13,000 SAMs, but the Monuments Protection Programme (MPP) will lead to a substantial increase - possibly 10 fold - in the number of SAMs.
- iii) The works which require the consent of the Secretary of State are any which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up the monument or its setting.
- iv) The junction of the two Roman roads is being considered under the MPP for scheduling. The area is not designated as an Archaeological Area.

5.2 English Heritage

- i) English Heritage (E.H.) is the official body incorporated by the National Heritage Act 1983 with responsibility

"so far as is practicable to secure the preservation of ancient monuments and historic buildings in England".

- ii) English Heritage advised the Secretary of State on SAM's, and may be called upon to advise on archaeological matters even if they do not affect SAMs. E.H. administers the MPP and monitors the working of the 1979 Act and PPG 16 (see para. 5.3). It would expect to be consulted on the impact of the present scheme in the light of the potential SAM.
- iii) English Heritage published Roads for Prosperity: The Archaeological Impact in September 1990, in response to the Government's White Papers Roads for Prosperity published in 1989 and Trunk Roads, England: Into the 1990's, published in February 1990.
- iv) Although it has no statutory or mandatory force Roads for Prosperity: the Archaeological Impact is a succinct statement of English Heritage thinking in relation to road construction. The conclusions of the study are summarised as follows:
 - a) based on existing knowledge, the trunk road scheme is likely to impact on over 800 known archaeological sites.
 - b) the full extent of impact is likely to be significantly greater, by a large factor, when the potential for further discoveries prior to and during development is taken into account.

- c) the potential costs for archaeological recording of such an impact would be in excess of £70 million at 1990 prices, and the true costs in the light of the potential for further discoveries would undoubtedly be much higher.
- d) these conclusions indicate that the environmental impact must be fully assessed in advance of route selection to allow for the consideration of the possibilities for mitigation of impact and the reduction of possible recording costs.
- e) it is, therefore, necessary to give greater weight to the archaeological implications of trunk road development and to integrate fully such considerations into the process of assessment required for all such Developments.
- v) The A54 Kelsall Bypass programme of archaeological study can claim to meet the conditions in (d) above.

5.3 DoE Planning Policy Guidance on Archaeology and Planning (PPG 16)

- i) The Planning Policy Guidance (PPG 16) published by the DoE in November 1990 consolidates advice to local authorities on the treatment of archaeology in the planning process. PPG 16 emphasises the importance of archaeology (paras 3-14) particularly in terms of the irreplaceability of the archaeological resource and its variety:
- ii) PPG 16 also outlines the interaction of central government, English Heritage and local authorities and the importance of the latter is reiterated. Development plans are identified as providing the policy framework for the protection, enhancement and preservation of sites of archaeological interest and their settings. The County Sites and

Monuments Record (SMR) is the primary source of data on such constraints. Applicants for planning permission are advised to consult the SMR and county archaeological officer at the earliest opportunity to make an assessment of the archaeological impact and put forward proposals for its mitigation prior to the determination of the application. This may require an evaluation of the site prior to determination to provide sufficient information to enable an informed decision to be made.

- iii) Conditions may be attached to the consent which require the applicant to "preserve by record" (excavate) sites which are not to be preserved in situ. These conditions should be fair, reasonable and practicable (DoE Circular 1/85).
- iv) The discovery of unsuspected archaeological remains in the course of development is considered to be a matter for informal agreement between the developers and archaeologists and attention is drawn to the British Archaeologists' and Developers' Liaison Group and English Heritage as possible sources of advice.
- v) A recent Parliamentary Written Answer by the Minister of State, Department of Transport implied that the Department accepts the precepts of PPG 16 in that

"The effect on archaeological sites is assessed before decisions on routes are taken"

(Hansard, 18th December, 1990; WA48).

- vi) The procedures adopted for the A54 Kelsall Bypass road scheme are in accordance with the advice in PPG 16 and with the Minister's

written answer. The proximity of major archaeological features will probably prompt the County Archaeological Officer to request an evaluation prior to a decision on routes. This would take the form of a desk-top study of programme of field-walking and trial trenching (see para. 7 of this report).

5.4 Department of Transport

- i) The Government's policies for trunk roads were set out in Trunk Roads, England: into the 1990's published in February 1990. Paragraph 1.8 emphasises that

"the requirement for road travel are met in as environmentally friendly a way as possible".

- ii) The paper goes on to point out that a

"great deal of effort already goes into assessing the environmental impact of potential schemes and designing them to fit as sympathetically as possible into the road programme the Government intends to do even more".

- iii) Paragraph 4.6 notes that it has been standard practice to undertake an environmental assessment of trunk road schemes since the Leitch report in 1977.
- iv) Paragraph 5.7 reports that new initiatives are to be taken on the funding of archaeological investigations in advance of works and paragraph 5.9 announces an increase in the amount the DTp pays to English Heritage to fund archaeological survey and excavation work in advance of schemes from £100,000 to £500,000 annually. In August 1991 the

Minister announced that the Department would fund archaeological surveys carried out in advance of road schemes.

- v) The Department of Transport Manual of Environmental Appraisal (1983) includes a section (B6) on Heritage and Conservation Areas. This summarises the statutory protection given to SAMs and Listed Buildings and also accepts that other archaeological features, while not necessarily rare examples, are nonetheless part of the Nation's heritage, and that schemes should avoid them where practicable (paragraph 6.2.5).

- vi) The Manual advises that a summary of the heritage information (archaeology and buildings) should be included in the Consultation Framework. If further information is forthcoming at the public consultation stage, then it should be followed up

"since it is preferable, for instance, to have a building or archaeological site added to the schedule at an early stage rather than to risk delaying a scheme in the final stages"
(6.5.5)

It is also suggested that the preferred line be resurveyed before the public enquiry to ensure that all heritage sites have been identified (6.5.7). This would now, post-PPG 16, imply a field evaluation.

- vii) In the Department's Preliminary Report following the public consultation, the presence of heritage sites and the proposed response in the form of rescue archaeology, etc. should be noted. The Public Enquiry framework will have a more detailed summary of sites and the impact and mitigation proposed (6.7.3). This would include the results of the survey (field evaluation) carried out before the Public Inquiry.

- viii) In the light of PPG 16 (see paragraph 5.3), Trunk Roads, England: into the 1990's and English Heritage's Roads to Prosperity, the archaeological Impact the survey, identification, impact assessment and mitigation proposals are now envisaged as taking place at an earlier stage and in more depth than previously. The Department of Transport's Manual of Environmental Appraisal is presently undergoing revision.

5.5 Summary of National Policies

- i) The Department of Transport has a long history of concern for statutory protected heritage sites, with ES's being required, and archaeological and listed building surveys being carried out on proposed new road lines since 1977.
- ii) English Heritage has expressed concern over the financial provision for the archaeological survey and rescue work involved in the proposed national trunk road programme.
- iii) The DoE in PPG 16 advises that an applicant for planning permission should furnish sufficient archaeological information before determination to enable a decision to be made. This may require an evaluation of a site where information is lacking. The Minister of State, Department of Transport, stated in a written answer on 18th December 1990, that

"the effect on archaeological sites is assessed before decisions on routes are taken. The procedures are set out in the Department's Manual of Environmental Appraisal; the manual is being revised and English Heritage are being

consulted".

Part of this revision is presumably intended to take PPG 16 into account, and the Minister's reply indicates that the Department intends to take note of its advice.

5.6 County Policies

5.6.1 The Cheshire Replacement Structure Plan E.I.P. Report of Panel, February 1991, has the following policy:

ENV 8 Development proposals which would adversely affect scheduled ancient monuments and other nationally important sites and monuments or their settings will normally be refused.

Developments which would adversely affect other known sites and monuments of archaeological significance will generally be refused, although permission may be granted if it can be demonstrated that particular sites and monuments will be satisfactorily preserved either in situ or by record.

5.6.2 In discussion the CAO elaborated on the County Council policy and the timetable of work in relation to road schemes. It was stated that an appraisal of the route corridor would be expected, in order to identify any known archaeological sites at the earliest stage. This report would satisfy this preliminary stage of the study. When the Preferred Route Option is announced then a more thorough desk-top study would be expected, followed up with field evaluation of potential archaeological features. Any further work prior to construction would be dependent

upon the results of the evaluation. During construction a watching brief would be expected when the topsoil was removed. In view of the difficulties of identifying sites south of the present road it was suggested that ploughing the road line in advance of construction to make it suitable for field walking would be the most efficient way of fulfilling the requirements of PPG 16.

5.6.3 District Policies. The Vale Royal District Council Local Plan (1986-1996) Written Statement Draft 1986 follows the County Council in its policies:

3.11 There will be a presumption against development proposals, which in the opinion of the local planning authority, will involve significant archaeological losses (including industrial archaeological sites). However, where development is permitted, the local planning authority will seek to programme development so that archaeological sites can be investigated before development takes place.

The local planning authority will encourage and, where possible, assist in the investigation and conservation of the District's archaeological heritage, (including industrial archaeological sites)

Policy 3.29 is also relevant in that it identifies the Study Areas as part of an Area of Special Value. This particular ASV is described as containing the sites of two iron age hillforts (Eddisbury and Kelsborrow Castle).

3.29 Areas of special value are areas of high landscape quality which have been identified in order to protect them from

development which would be detrimental to their value. They are defined on the proposals map and are described as:

- Frodsham, Helsby and Lordship Marshes;
- Lower Weaver Valley;
- Frodsham and Helsby Hills, and the sandstone
- Delamere Forest.

Within these areas there will be a strong presumption against new development. Exceptions to this policy may be made where the development:

- i) Satisfies the needs of agriculture and forestry; or
- ii) Enhances the environment, ensures its conservation or facilitates its enjoyment; or
- iii) Meets the essential needs of local people.

Where appropriate the local planning authority will encourage and assist positive action to protect and enhance the special character and enhance the special character of these areas.

6 PRELIMINARY IMPACT ASSESSMENT

6.1 Impact Assessment at this preliminary appraisal stage is subject to two caveats:

- a) there is the possibility that there are sites not so far recorded in the Study Area;
- b) the final line and the engineering details of the route are not known.

Impact assessment can therefore only be provisional, making certain assumptions which may need to be tested. The following discussion takes three hypothetical route options, and attempts to assess the impact of each on the known archaeology, the need for further work to enhance the information, and the mitigation procedures which would be required. The route options discussed are: north of the A54, south of the A54 and on-line widening.

6.2 North of the A54. This part of the route corridor contains all the known archaeological sites - The Northwich to Chester Roman road, the Winsford to Chester Roman road, their junction, and the site of the bronze age burial. There is a high potential for there to be evidence of other bronze age activity in the vicinity of the known burial (cf. Seven Lows cemetery 4km to the east). The continuation of the Roman roads west of their junction is not recorded, but it is likely to be encountered by a northern route option. The impact of any northern route is likely to be high, as it is almost certain to be in a cutting in the rising ground to the north of the A54.

If the Roman road junction is scheduled in the MPP then there will be additional statutory constraints.

6.3 South of the A54 Option. There are no known sites in this part of the corridor. Field evaluation would be required to clarify the potential of the

area. There are stray prehistoric stone tools known from the high ground and Kelsborrow Castle lies about 1500m to the south. There is little likelihood of there being evidence for medieval activity in the area, as it was probably wooded. Depending upon the precise line of the option south of the A54 it is likely to have less impact than a northern route on any archaeological remains because for much of its route, it will be embanked, which buries, but need not destroy, archaeological sites.

- 6.4 On-line Options. The impact of an on-line option would depend on which side the present A54 was extended. A north-side option would risk effecting the Roman roads and potential bronze age features with a cutting. A South Side Option would probably be embanked through its whole length. It would effect no known archaeological features except possibly part of the Winsford to Chester Roman road.
- 6.5 A South of the A54 Option has the least impact on the archaeology as far as it is known. However, it affects about a kilometre of ground, which when evaluated may reveal prehistoric sites.

7 OUTLINE OF POSSIBLE MITIGATION PROCEDURES

- 7.1 There is a range of mitigation procedures which may be employed when archaeological features are threatened by developments. They are described below.
- 7.2 All the policies, advice and professional codes of practice advocate the preservation of significant archaeological remains in situ. The exercise of this option in practice is often a matter of balance, with the importance of the archaeology being weighed against the benefits of the development, but the presumption is in favour of preservation. This may mean designing a route which avoids any major features, or if this is not feasible, then carefully burying the archaeology under an embankment. This latter option is not always an effective method of preservation in cases where the deposits or features might be damaged by crushing - burials or pottery for instance.
- 7.3 In cases where the archaeology cannot be preserved in situ then a less desirable option, but one which is preferable to total loss, is to record the archaeology before it is destroyed. The scale and costs of this recording will vary widely, but should always be carried out by professional archaeologists with adequate funding for the excavation which such recording will usually entail, and for the subsequent analysis and report and curating the archive.
- 7.4 Where the significance of the archaeology is not such that it merits a full scale recording excavation, a salvage recording exercise may be recommended, where a professional archaeologist records the archaeology revealed in the course of the construction. This will usually require agreements to safeguard the interests of the contractor while ensuring the efficient recording of any remains.

- 7.5 The level of mitigation appropriate to the archaeology in the A54 Kelsall Bypass will depend upon further study, especially field evaluation, and the engineering design of the proposals.

8 CONCLUSIONS

- 8.1 The present level of information is sufficient to enable a preferred route option to be identified.
- 8.2 Using present knowledge a route to the south of the A54 would have least impact, regardless of whether this was an on-line widening or a separate carriageway further south.
- 8.3 Prior to the detailed design stage, but following preferred route choice, field evaluations should take place. If a northern route were chosen this would be designed to establish the survival and extent of the known features and the possibility of previously unknown archaeological sites within the woodland and nursery areas. To the south, field evaluation would be greatly facilitated by ploughing the roadline where possible, to enable the artefact content of the soil to be examined.

APPENDIX

CHESHIRE COUNTY SITES AND MONUMENTS ENTRIES

CHESHIRE COUNTY COUNCIL
SITES AND MONUMENTS RECORD

Record number: 844 / 1 / 8

Site name: Roman Road - Chester to Manchester (Route 7a)
 Parish : Delamere
 District : Vale Royal
 Ngr type: L
 Map: SJ56NW
 Ngr: SJ 5390 6884

Form	: Site of	Form	:
Period	: Romano-British	Period	:
Feature	: Agger	Feature	: Ditch
Function	: Road-major	Function	:
Element	: Road route	Element	:
Site type	: Communications		:

Related Rn:	/ /	Treasure ref:	
Event:		Worker:	Year:
:		:	:
:		:	:
Condition:	Survival:	Area:	
Site status:	:	Area status:	:
Owner type :			
Owner :			
Occupier :			

Comments: Section of Roman road in Nettleford Wood recorded by Dr Robson in 1850. The road is 'more-or-less clearly marked for half a mile, running a little south of west. It is nine or ten yards across, becoming a well-marked crown with shallow ditches on each side ... Gravel is spread over the surface and is said by the Foresters to be 18 inches deep' (1).

---References---

1 : TLCHS					CCL
Robson J	: 1850	: 3/70	: Discussion	: Yes	
2 : TLCAS					CCL
Kirk E	: 1885	: 3/111-133	: Discussion	: Yes	
3 : Roman Cheshire					CCCRL
Watkin W T	: 1886	: /36-39	: Discussion	: Yes	
:	:	:	:	:	:
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---Finds---

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CHESHIRE COUNTY COUNCIL
SITES AND MONUMENTS RECORD

Record number: 844 / 1 / 3

Site name: Roman road - Chester to Manchester (Route 7a) - Nettleford Wood
Parish : Delamere
District : Vale Royal
Ngr type: 8fig Ngr: SJ 5379 6884
Map: SJ57NW

Form	: Site of	Form	:		
Period	: Romano-British	Period	:		
Feature	: Agger	Feature	: Ditch		: 4
Function	: Road-major	Function	:		: 0
Element	: Road route	Element	:		:
Site type	: Communications				:

Related Rn: / /
Event: Minor excavation
Worker: Waddelove A&E Year: 0 1982 - 0
Treasure ref:

Condition:
Site status:
Owner type:
Owner:
Occupier:
Survival:
Area:
Area status:

Comments: Junction of Roman roads, Chester to Manchester & Chester to Middlewich. Excavation in Nettleford Wood at the convergence of 2 cuttings revealed that the sandstone bedrock had been levelled & its natural fissures filled with rubble in the construction. The carriageways measured 6.7m & 7.2m wide respectively, between the drainage gulleys found at all 4 edges. The inner 2 of these were joined to form a regularly shaped channel 0.38m wide & 0.20m deep to take the water under the actual junction. The 2 roads were obviously contemporary & of equal importance (1).

---References---

1 : Britannia									SMR
Waddelove A C & E	: 1982	: 13/353		: Int.report	:	Yes			
2 : CAB									SMR
Waddelove A C & E	: 1983	: 9/63-66		: Int.report	:	Yes			
3 : Roman Cheshire									CCCRL
Jatkin W T	: 1974	: /32-34		: Description	:	Yes			
4 : TLCAS									CCL
Mirk E	: 1885	: 3/124-125		: Discussion	:	Yes			
5 : TLCAS									SMR
Waddelove A C & E	: 1985	: 83/171-173		: Discussion	:	Yes			

---Finds---

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CHESHIRE COUNTY COUNCIL
SITES AND MONUMENTS RECORD

Record number: 844 / 1 / 2

Site name: Roman road - Chester to Manchester (Route 7a)
Parish : Delamere
District : Vale Royal
Map: SJ56NW
Ngr type: 8fig Ngr: SJ 5375 6884

Form : Site of
Period : Romano-British
Feature : Agger
Function : Road-major
Element : Road route
Site type: Communications

Related Rn: / /
Event: Minor excavation
Condition: Survival:
Site status:
Owner type:
Owner:
Occupier:

Treasure ref:
Worker: Waddelove A&E Year: pre 1982 - 0
Area:
Area status:

Comments: Roman road, Chester to Manchester. A section on the edge of Morrey's Nursery and Nettleford Wood, E of Kelsall, revealed that the gradient of the natural sandstone ridge was eased by cut & fill construction. A band of gravel can be seen across Morrey's Nursery & a map of 1627 shows a road along the same course from near the A54/Yeld lane cross-roads to the rise into Nettleford Wood. At the W edge of the wood the surface consisted of a layer of marl 175-250mm thick, with a surface of sandstone rubble in the N half & cobbles in the S. A wide rut had developed in S half of the surface. A 1.2m wide complex of ditches was cut into the bedrock on the road's S edge. A berm lay between the road & the ditches - poss a cavalry bridle path. Road surface later covered with brown sand, grey podsolised sand & humus, before a layer of rubble was laid over with & a double line of sandstone kerbstones on the S. This was poss the road in use in 1627 diverging from the Roman line (1).

---References---

1 : TLCAS					: SMR
Waddelove A C & E	: 1985	: 83/163-165		: Discussion	: Yes
2 : VCH					: CCCRL
3 : Britannia	: 1987	: 1/218		: Discussion	: Yes
Waddelove A C & E	: 1982	: 13/		: Int.report	: Yes

---Finds---

CHESHIRE COUNTY COUNCIL
SITES AND MONUMENTS RECORD

Record number: 835 / /

Site name:

Parish : Delamere
District : Vale Royal

Map: SJ56NW
Ngr type: 8fig Ngr: SJ 5357 6883

Form : Site of	Form :	
Period : Bronze Age	Period :	
Feature : Ditch	Feature : Stone area	
Function : Pot vessel	Function : Cremation	
Element :	Element :	
Site type :		

Related Rn: / /
Event: Chance find
: Minor Excavation
Condition: Destroyed Survival: None
Site status:
Owner type : PRI
Owner : Mr Morrey
Occupier : Morrey's Nursery, Kelsall

Treasure ref: 4/A 039
Worker: Morrey F. Year: O 1947 - 0
Webster G. : O 1951 - 0
Area:
Area status:

Comments: In 1947, Mr Morrey of Morrey's Nurseries, Kelsall, ploughed up large stones later thought to have been the cist of a tumulus & traces of fire & bones.
Site excavated in 1951 by G. Webster. A circle of stones 10ft in diam was found at a depth of 14ins. Outside this was a ditch. The cremated bones of a child were found as a secondary burial in an inverted middle Bronze age urn 4ft deep at the side of the circle. There was no mound on the site, which had been cultivated for a long time (1).

---References---

1 : OS Record Card									
2 : VCH	: 1962	: SJ56NW13		: Description	: Yes				: SMR
Longley D	: 1987	: 1/83		: Gazetteer	: Yes				: SMR
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---Finds---

1 : Middle Bronze Age	: Pottery		: Cremation Urn	: 1
2 : Bronze Age	: Human bone		: Grosvenor	: 30 & 52
:	:		: Cremation	: Some
:	:		: Unloc	: 0
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CHESHIRE COUNTY COUNCIL SITES & MONUMENTS RECORD

These notes are intended to explain the structure and abbreviations used in the Cheshire County Council SMR.

Record Number

The record number is in three parts, i.e. Part 1/Part 2/Part 3. Every record has a primary record number (Part 1), but only some have second and third numbers (Part 2 and Part 3). If the site can be identified at 'Element' level, it is given the second number (Part 2). If the 'Function' and/or 'Feature' of the site 'Element' can be identified, they are given the third number (Part 3). Those sites and finds which share the same primary record number (Part 1) can, therefore, be seen to be directly associated.

NGR Type (Grid Ref Type)

Abbreviated as follows:-

8 fig - 8 figure grid ref	AP - Approximate position
6 fig - 6 figure grid ref	P - Possible position
4 fig - 4 figure grid ref	L - Linear (Central point used for grid ref)
CE - Central point	U - Unlocated

Qualifying Term

The Period, Feature, Function, Element and Site Type fields may be followed by a qualifying term.

The Period qualifiers are:-

P	- Possible
O	- No qualifying term

The Feature, Function, Element and Site Type qualifiers are:-

P	- Possible
S	- Some
M	- Many
1-9	- A specific number
O	- No qualifying term

Site Status (Two Fields)

Abbreviated as follows:-

GAM	- Guardianship Ancient Monument
SAM	- Scheduled Ancient Monument
LBI	- Listed Building, Grade I
LBIIa	- Listed Building, Grade II*
LBII	- Listed Building, Grade II
ECLA	- Church grading, being phased out
ECLB	- Church grading, being phased out
ECLC	- Church grading, being phased out
ECL	- Church grading, being phased out

Area Status (Two Fields)

Abbreviated as follows:-

CA	- Conservation Area
NR	- Nature Reserve
SSSI	- Site of Special Scientific Interest
TPO	- Tree Preservation Order
ASCV	- Area of Special County Value
PP	- Peak District National Park
AAI	- Area of Archaeological Importance
SOBIA	- Site of Biological Importance - Class A
SOBIB	- Site of Biological Importance - Class B
SOBIC	- Site of Biological Importance - Class C

References

References are given in the following order - Reference Number, Reference Title, Reference Location, Author, Date, Volume & Page Number, Reference Type and Reference Checked.

Common periodical titles are abbreviated as follows:-

Ant J	- Antiquaries Journal
Arch J	- Archaeological Journal
CAB	- Cheshire Archaeological Bulletin
Ches N & Q	- Cheshire Notes & Queries
JCAS	- Journal of the Chester Archaeological Society
JRS	- Journal of Roman Studies
Med Arch	- Medieval Archaeology
Post-Med Arch	- Post Medieval Archaeology
PPS	- Proceedings of the Prehistoric Society
T Chat Soc	- Transactions of the Chetham Society
TLCAS	- Transactions of the Lancashire & Cheshire Antiquarian Society
TLCHS	- Transactions of the Lancashire & Cheshire Historical Society

Reference locations are abbreviated as follows:-

CCL.L	- Cheshire County Council Research Library
CCL	- Chester City Library
CCR	- Chester City Records Office
CMR	- County Museums Record
CRO	- County Record Office
GMR	- Grosvenor Museum Records
NP	- Norton Priory
SMR	- All Material in County Planning Department
Unloc	- Unlocated
W.MUS	- Warrington Museum

Reference checked shows whether a reference has been checked at first hand (Yes), or whether it is simply cited from another source (No).

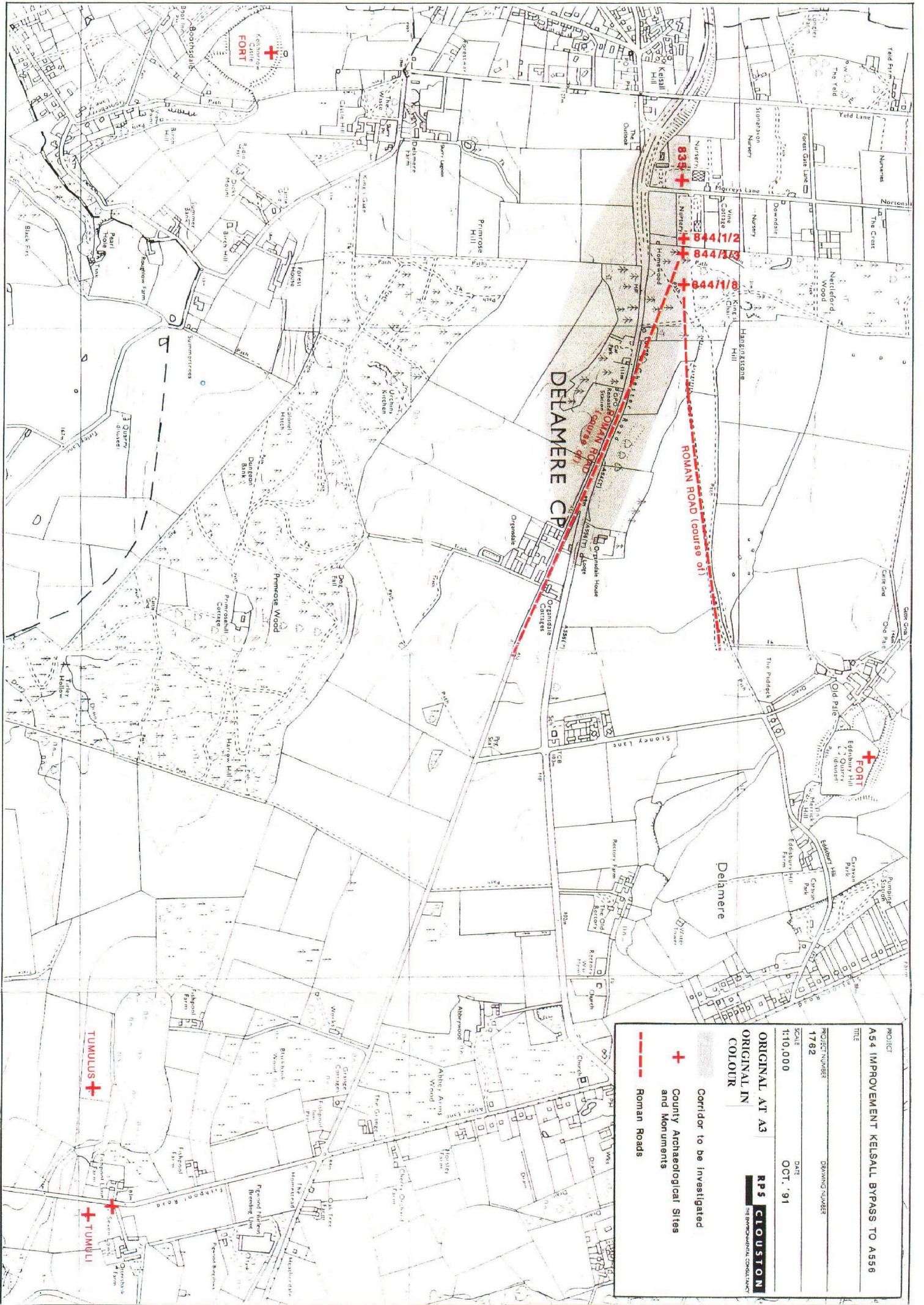
Finds

Finds are listed in the following order - Find Number, Period, Find Material, Find Type, Quantity, 2 Qualifiers, Find Location and Museum Accession Number.

The 2 Qualifiers are descriptive terms relating to the Find Type.

Find locations are abbreviated as follows:-

Boat	- Ellesmere Port Boat Museum
BM	- British Museum
Congleton	- Congleton Museum
County	- County Museums Service
Grosvenor	- Grosvenor Museum, Chester
Lost	- Find lost
Macclesfield	- Macclesfield Museum
Manchester	- Manchester Museum
Merseyside	- Merseyside Museums
Nantwich	- Nantwich Museum
Norton	- Norton Priory Museum
Private	- With private individual
Salt	- Salt Museum
Stoke	- Stoke-on-Trent Museum
Unloc	- Unlocated
Warrington	- Warrington Museum
Williamson	- Williamson Art Gallery & Museum, Birkenhead



PROJECT		A54 IMPROVEMENT KEISALL BYPASS TO A556	
TITLE			
PROJECT NUMBER	1782	DRAWING NUMBER	
SCALE	1:10,000	DATE	OCT. '91
ORIGINAL AT A3	RPS CLOUSTON		
ORIGINAL IN COLOUR	THE ENVIRONMENTAL CONSULTANTS		
<p>Corridor to be investigated</p> <p>+ County Archaeological Sites and Monuments</p> <p>--- Roman Roads</p>			