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CARLISLE NORTHERN RELIEF ROAD
Cumbria

Archaeological Assessment Report

Commissioned by:

Cumbria County Council

Carlisle Northern Relief Road
Cumbria

Archaeological Assessment Report

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This report was compiled by Peter Redmayne, fieldwork was carried out by the author and Richard Short, and the illustrations were prepared by Richard Danks. The project management was undertaken by Jamie Quartermaine who also edited the report in conjunction with Rachel Newman (Assistant Director).

EXECUTIVE SUMMARY

In April 1996 a Stage 2 Environmental Assessment was undertaken by the Lancaster University Archaeological Unit (LUAU), on behalf of the Environment and Design division of Cumbria County Council Construction Services, of a designated study area along the proposed Carlisle Northern Relief Road, Cumbria.

The assessment was required to evaluate the archaeological impact of four alternative routes, which all extend between Newby West (NY 3731,5365) in the south through to Greymoorhill North Bridge (NY 3945,5990) at the northern end.

The assessment comprised two elements: firstly a desk-based study was undertaken to recover available documentary evidence relating to the overall road scheme; the second phase involved a walk-over survey of the proposed road corridors to identify on the ground any areas of archaeological potential which were not previously identified from the desk-based survey.

The results of the assessment are shown on 1:10,000 mapping and incorporated within a site gazetteer. The assessment identified 25 sites of archaeological interest, which included stray find spots, industrial monuments, cropmark sites, listed buildings and a section of Roman road. The most significant site on the proposed route is Hadrian's Wall and the associated *Vallum*, including the putative site of milecastle 68. The significance of these monuments is reflected in their scheduled status and their designation as part of a World Heritage Site. The walkover survey demonstrated that the *Vallum* was well preserved, but no surface evidence for the Wall or the milecastle were identified from the surface evidence.

1. INTRODUCTION

An Archaeological Assessment was undertaken by Lancaster University Archaeological Unit (LUAU) on the proposed route of the Carlisle Northern Relief Road which extends around the west and northern side of Carlisle, Cumbria (Fig 1). The work was carried out, in April 1996, on behalf of the Environment and Design division of Cumbria County Council as part of a Stage 2 environmental impact assessment. The assessment was undertaken in accordance with a specification (Appendix 1) based on the procedures set out in Volume 11 of the *Environmental Design Manual for Roads and Bridges*, Section 3, Part 2, Chapter 8 (Cultural Heritage), and a project design compiled by LUAU (Appendix 2).

The assessment was required to evaluate four alternative routes to determine their differential impact upon the archaeological resource; all of these extend between Newby West (NY 3731,5365) in the south through to Greymoorhill North Bridge (NY 3945,5990) at the northern end.

The assessment comprised two elements, a desk-based assessment undertaken to recover relevant documentary and cartographic information and a walk-over survey along the proposed route to record evidence of sites on the ground which were not identified during the desk-based assessment.

This report sets out the results of this work as a gazetteer in conjunction with a methodology statement, a brief summary of the topographic and historical background, an assessment of the archaeological potential within the study area, and an evaluation of the impact that the bypass proposals will have upon the archaeological resource.

2. METHODOLOGY

2.1 Project design

A project design was submitted by LUAU in response to a brief supplied by Cumbria County Council's Environment and Design division (Appendix 1) for an archaeological assessment of the proposed Northern Relief Road around Carlisle.

The project design (Appendix 2), produced in accordance with the brief, provided for an initial archaeological assessment involving a desk-top survey and a rapid field inspection culminating in a written report. The work has been carried out in accordance with the project design.

2.2 Desk-top survey

2.2.1 Documentary Study

A wider study area than the road corridor was drawn upon in order to consider the archaeological context of the corridor of the proposed road development. The desk-based assessment entailed consultation with various sources in order to determine the range of documentary and cartographic sources available. These included information from the Cumbria Sites and Monument Record (SMR), the Cumbria Record Office (Carlisle), Carlisle Library, Lancaster University Library, and LUAU library. The county history for this area contains little appropriate information and the relevant title maps for the parishes affected by the route were not lodged with the County Record Office, consequently the earliest available cartographic source was the OS 1st edition mapping of 1886, which is relatively late for this map series.

2.2.2 Aerial Photography

A series of recent oblique aerial photographs covering the bypass route were consulted at the offices of the Environment and Design Division of Cumbria County Council, as well as some small-scale vertical photographs. A request for information on the coverage (especially of oblique photographs) held by the Air Photo Library at the National Monuments Record (NMR) has been made, to which a reply in mid-July is expected. The results of the NMR photographic search will be incorporated into any subsequent evaluatory report.

2.2.3 Consultation

Consultation has taken place with Bette Hopkins, the Cumbria Sites and Monuments Record Officer, Mike McCarthy, the Principal Archaeologist for Carlisle City Council, Mike Daniells, the Cumbria County Archaeologist, Gerry Friell, the English Heritage inspector responsible for Hadrian's Wall and Paul Austen the English Heritage case worker for Hadrian's Wall.

2.3 Field Survey

2.3.1 Access

A list and map of the landowners within the road corridor was provided by Cumbria County Council and on the basis of this information LUAU contacted the owners to request access. Only one landowner denied access, and in this instance the relevant land parcel could be adequately examined from an adjacent public right of way.

Where the line of the proposed road followed that of an existing road, the examination was undertaken from the appropriate public access route.

2.3.2 Survey Methodology

A systematic surface inspection was undertaken to ensure complete coverage of the ground, along a 100m corridor centred on each line of the proposed road. Traverses were adjusted to take account of the level of visibility or ground conditions and included visual inspection of the wider area to maintain an overview of the landscape. The majority of the fields examined in the walkover survey were pasture with long grass, or growing arable crops. Only one field had been ploughed, which was walked on narrow 10m transects to enable the identification of possible artefacts raised by the plough.

2.3.3 Confidence rating

There was generally poor visibility along the route, as in the areas of pasture and arable crops the grass or crops were quite long, therefore the potential for identifying surface remains was poor.

2.4 Gazetteer of sites

The majority of the collated information has been presented in the form of a gazetteer in conjunction with a set of annotated maps at 1:10,000 scale indicating the site locations as required in the brief.

The sites in the gazetteer are identified by a site number for this report. Locations are given either as six-figure or eight-figure national Grid References (NGR), depending on the extent of the feature. A summary description of each site is provided in conjunction with a reference to the source of the information (field inspection, SMR, cartographic and documentary) with references as appropriate. An assessment has been given of the interpretation and archaeological potential of the site.

2.5 Archive

A full archive of the desk-top survey and the field inspection has been produced to a professional standard in accordance with the current English Heritage guidelines (*Management of archaeological projects*, 2nd edition 1991). The archive will be deposited with the County Record Office with a copy of the report given to the Sites and Monuments Record. A copy of the archive will also be available for deposition with the National Archaeological Record in London.

3. TOPOGRAPHICAL AND HISTORICAL CONTEXTS

3.1 Landscape and Location

The proposed route runs in a south-westerly direction from Junction 44 of the M6, following the course of existing roads and passing close to Kingstown before crossing the main West Coast rail line. The line continues, crossing the River Eden to the west of Stainton and on the south bank of the river the route intersects the line of Hadrian's Wall and the *Vallum*. The route then turns south near Cornhill, following a minor road for some of the distance to Bunkershill, where it turns south-east to join the existing A595.

The 1886 1st edition OS map shows that the landscape to the west of Carlisle comprised small villages, individual farmsteads, and private residences, connected by a network of narrow lanes intersected by radial roads from the city to the west and south-west. The landscape today is relatively flat and treeless, and is high quality agricultural land, used for a mixture of both arable and dairy farming. There is little evidence of early field patterns, probably due to ploughing and the intensive nature of land use in the area.

3.2 Historical Background

Most of the earliest recorded activity within the study area relates to Hadrian's Wall with the associated *Vallum*, and the Roman road which now underlies the A595. Antiquaries such as Camden (Collingwood Bruce 1853) have concentrated on descriptions of the Wall and related remains, and there appears to be relatively little easily accessible data on the medieval and other later periods in this area. The area has probably been used for cultivation since the Roman period with relatively little change to the landscape taking place.

The main authority for an early survey of the Wall is J Collingwood Bruce (1853) who drew on both his own, and earlier observations. The relevant section this states that:

'The Wall and Vallum draw together again on the high ground just beyond the engine sheds (originally located on the south bank of the Eden due south of Stainton) and run along the south bank of the river. Here along the bluffs called Davidson's bank (adjacent to Knockupworth Gill) the Wall ran near the river, which probably served as the ditch. The Vallum lies close behind, and at one point four or five gaps, spaced at the usual interval of 45 yards, can be seen in its north mound. East of the measured position of Milecastle 68 (Boomby Gill) the two works diverge and the Wall keeps to the riverbank as far as Grinsdale, where the Vallum aims straight for Kirkandrews' (Collingwood Bruce 1853).

Most later references to this section of the Wall re-state a similar description to that found in Collingwood Bruce's text.

Whellan (1860, 186) states that 'The Wall as it entered the parish (Grinsdale) from the east, came a little way south of the footpath which now leads from Carlisle to Grinsdale by the river side'. The SMR (00439) records that a trench was excavated at the measured position of Milecastle 68 (NY 3711,5715) and revealed 'many undressed stones'. Unfortunately the date and excavator of the trench is unknown.

The construction of a canal from Carlisle to Port Carlisle on the Solway coast was completed in 1823. The Lancaster to Carlisle railway link was completed in 1846 which connected London and Carlisle by rail for the first time. The Carlisle and Silloth branch line which crossed the line of Hadrian's Wall and *Vallum* immediately to the south of the River Eden, and to the north of Newtown, was completed in 1856. Further west the line crosses the *Vallum* twice near Knockupworth Cottage. There was also an North British Railways branch line constructed to the east of Stainton (Bulmer 1901, 841-3).

The area between the proposed route and the current city boundary has been subject to gradual encroachment of housing since the latter part of the nineteenth century, with villages such as Newtown, Morton and Belle Vue now within the city boundary. This urban spread is probably associated with the railway, canal, and associated industrial development in Carlisle and the surrounding area in this period.

The basic field pattern in the area has not changed dramatically from the 1886 1st edition OS map to the present day. The main changes have been the removal of boundaries of adjoining fields to make them larger and more suitable for modern cultivation methods.

4. ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

4.1 Desk-top survey

The desk-top survey was based on five sources of information: Cumbria Record Office (Carlisle), Cumbria Sites and Monuments Record (Kendal), Carlisle Library, Lancaster University Library, and LUAU Library. Paul Austen and Gerry Friell of English Heritage (Carlisle) were also consulted to identify any monument detail relating to the study area, but particularly in connection with Hadrian's Wall .

4.1.1 County Record Office

The proposed route runs through several parishes to the west of Carlisle. The County Records Office (Carlisle) unfortunately does not have copies or originals of the tithe maps for any of these areas. These can be an extremely valuable source of information, since they often record individual field names, which can on occasion act as pointers to earlier sites which are no longer visible on the surface. The main cartographic sources consulted were the first and second edition Ordnance Survey maps (1886, 1901). Earlier county maps such as Speed (1611) were at too small a scale to be useful. It was considered that a detailed search of Parish Records for the study area would not be cost effective at this stage, particularly as the search was not likely to produce much new relevant information.

4.1.2 Sites and Monuments Record

The Phase 1 study had revealed a total of eight known sites within or close to the study area, as well as a number of listed buildings. This included the cropmark site (03) which was identified from oblique aerial photography and which may be affected by the proposed road scheme. The guidelines for the Stage 2 assessment stipulate that if a significant amount of time has elapsed between the two stages the SMR should be re-consulted to establish if any new sites have been recorded in the intervening period. The search revealed no new sites, but more detailed information was supplied about the listed buildings within the study area.

4.1.3 Carlisle City Council and English Heritage

The Principal Archaeologist for Carlisle City Council has revealed that the Carlisle Archaeological Unit has carried out work in the vicinity of the railway marshalling yards and that pertinent information relating to the proposed Carlisle Northern Relief Road may exist. Unfortunately he was not prepared to allow access to this potentially important source of information, or to disclose the amount of pertinent data available. Therefore as a consequence the present archaeological assessment may be significantly deficient.

Paul Austen, the English Heritage case worker for Hadrian's Wall, has stated that very little archaeological work has been undertaken on this section of the Wall and *Vallum* affected by the proposed route and that even the precise alignment of the Wall and the position of milecastle 68 is uncertain here.

4.1.4 Published sources

Most of the published sources consulted related to Hadrian's Wall and the *Vallum*. These sites appear at the present time to be the only ones of major significance within the road corridor; the Wall and associated features are not only a Scheduled Ancient Monument, but the area surrounding them has also been designated as a World Heritage Site. The study concentrated on attempting to establish areas in which the Wall foundations and the Milecastle remain *in-situ*, and any evidence for wholesale removal of sections which, if found, might point to the least damaging route for the new road. Details of the results of this work are included in section 3.2.

4.2 Field Survey

The walkover survey was carried out on 29/4/96. Most of the fields within the 100m wide corridor were of pasture, much of which had obviously been reseeded. Reseeded grass fields have a very low potential for fieldwalking as this process, which usually follows the use of the fields for arable cultivation, removes all evidence of surface features. For this reason the reseeded fields were not systematically examined, although they were subject to a rapid survey. Other areas of pasture were examined in a more systematic fashion but no surface features were recorded. Fields with growing crops were not examined in detail as the crops were up to 0.2m in height, making it impossible to see the ground surface. Only one recently drilled field was suitable for systematic fieldwalking, on the north bank of the Eden opposite Boomby Gill. Despite walking the field on 10m transects the only artefacts identified were modern glass, ceramic and clay pipe fragments.

A systematic investigation of a c 200m wide corridor was made in the area to the south of the Eden, covering the line of Hadrian's Wall as marked on the Ordnance Survey map, the putative site of Milecastle 68, and the *Vallum*. The course of the dismantled railway (Site 6) is still well-defined, and a level platform for the track has been created, on the edge of the slope. On the ground surface are numerous brick fragments and other debris, and the vegetation cover is very thin. The line of the railway is now used as a farm track.

The sides of Boomby Gill, and the bank of the River Eden were carefully examined for evidence of exposed stone structures and rubble. The SMR location of Milecastle 68 was examined, but there was no evidence for the possible excavation trench with rubble mentioned in that record. The line of the *Vallum* is still clearly visible in the fields to the south of the railway, and appears to be well preserved in this area. There was no evidence of a mound or any other feature which might indicate the existing line of the Wall within the road corridor.

4.3 Conclusions

4.3.1 Desk Top Study

The study of published sources relating to the Hadrian's Wall did not produce any detailed information of the present state of survival of the Wall within the proposed road corridor. The descriptions given by sources such as Collingwood Bruce (1853) and Mothersole (1926) describe the Wall as still being visible at least as far as Knockupworth Gill to the east of the study area, and at Grinsdale to the west, but not recently within the section under consideration here.

Between these points both authors mention a track or footpath beside the River Eden, but it is not clear whether this is on the line of Hadrian's Wall, or whether the Wall was actually visible in this area. Whellan's (1860, 168) description suggests that the line lay a short distance to the south of this track.

The cartographic evidence is also somewhat inconclusive, the line of Hadrian's Wall as it is marked on the present Ordnance Survey being quite sinuous. This is distinctly out of character with the layout of the Wall elsewhere, which typically comprises straight sections with dramatic angular changes in direction rather than gently curved ones, in a similar manner to the line of the *Vallum* immediately to the south. By virtue of the proximity of the reported line of the wall to the present bank of the River Eden, there is a significant possibility that parts or even all of the wall have been affected by riverine erosion; however, there was no indication from the surface evidence to establish the impact of any erosion.

The SMR data on the putative site of Milecastle 68 is based only on a measurement along the assumed line of Hadrian's Wall, and the record of some undressed stones in a possible excavation trench, at a grid reference which puts it to the south of line of the Wall shown on the Ordnance Survey map (site 05).

Consultation with Paul Austen of English Heritage (Carlisle) confirmed that the line of the wall shown on the Ordnance Survey maps was not always reliable, and that English Heritage knew of no archaeological work that has been undertaken within the study area in association with Hadrian's Wall.

For the reasons stated above it is obviously not safe to assume that the line of Hadrian's Wall shown on current Ordnance Survey maps is correct, since it is possible that the line is further south than shown. Therefore its path within the proposed corridor cannot be taken as certain.

4.3.2 *Field Survey*

No new sites were recorded during the field survey. An intensive examination of the area to the south of the river was undertaken, but no surface evidence relating to Hadrian's Wall or Milecastle 68 was recorded. The cropmark site 03 was partly under an obscuring crop and it was not possible to confirm its existence from surface evidence.

The fact that the survey did not record any sites within the greenfield areas cannot be taken as evidence that archaeological sites are not present, and it would be desirable to re-examine these areas when the ground conditions for fieldwalking were more favourable.

5. ARCHAEOLOGICAL IMPACT

5.1 Impact

The evidence collected relating to the archaeology of the study area shows that there is only one section of the route which contains known sites of high archaeological potential, that are likely to be affected by the bypass routes: Hadrian's Wall and the *Vallum* are not only of national but also of international importance, as demonstrated by their Scheduled Ancient Monument status and the designation of their line as a World Heritage Site. There are also two sites of lesser archaeological potential which would be damaged during the work (sites 3 and 16).

5.2 Common Routes: Sections A and B

5.2.1 Common Route Section A

This section starts at the A595 south of Carlisle (NY 3730,5365) and follows an existing road past Newby West Farm to the crossroads where it meets Orton Road. The route then runs due north crossing several open fields before reaching Sandsfield Road which it follows to another crossroads before crossing three fields and joining a minor road to the west of Knockupworth Farm (NY 3691,5666).

As this part of the route mainly follows existing roads, the main impact will be on the areas to either side when they are widened. The work carried out during the assessment did not identify any archaeological sites which would be affected by road widening. Where the road crosses the fields to the north of the crossroads with Orton Road, a small ruined building (Site 16) was recorded during the walkover survey. This building would be destroyed by the road construction, but is considered to be of low archaeological importance. However, it would be desirable to undertake a brief survey of the site in advance of construction.

5.2.2 Common Route Section B

A further section of the Common Route runs from NY 3812,5811, at the point where the Purple/Green and Orange/Yellow routes join, to the site of a proposed roundabout at NY 3857,5907. This section largely follows the line of a dismantled railway and does not affect any of the recorded sites.

5.3 Green Route

The Green Route diverts away from the Common Route from a point to the west of Knockupworth Farm (NY 3691,5666) and, along with the Purple Route crosses the line of Hadrian's Wall and the *Vallum*, and also the line of the dismantled railway. The route follows from the north bank of the Eden to the east of Powlees Lane and joins the Orange/Yellow Route at the start of Common Route Section B (NY 3812,5811).

The second part of the Green Route starts from the end of Common Route section B, and along with the Orange Route follows the route of an existing road to a roundabout at NY 3700,5958. No sites would be affected by this section of the road. The route

then turns east crossing the M6 to the site of a new roundabout, running mostly through open land. No sites were recorded in this area.

Hadrian's Wall and the associated *Vallum* are the main sites which would be affected by this route. These remains are not only part of a Scheduled Ancient Monument but also a World Heritage Site and a method of preserving these sites *in-situ* should be considered as part of the proposed road design. The line of a now dismantled railway lies close to the possible line of Hadrian's Wall; although this in itself is not of great archaeological significance it may overlie elements of the Wall. and therefore any construction works affecting it may require archaeological supervision.

5.4 Purple Route

The Purple Route diverts away from the Common Route from a point to the west of Knockupworth Farm (NY 3691,5666) and, along with the Green Route, crosses the line of Hadrian's Wall and the *Vallum*, and also the line of the dismantled railway. The route follows from the north bank of the Eden to the east of Powlees Lane and joins the Orange/Yellow Route at NY 382,581, at the start of Common Route section B. No sites have been recorded in this section.

At the northern end the Purple Route diverts away from Common Route Section B to the south side of the motorway, crossing an area already developed, and joins the M6 at roundabout of Junction 44. This section partially follows an existing road with a short section crossing open ground. No sites were recorded in this section.

As with all proposed routes Hadrian's Wall and the associated *Vallum* are the main sites which would be affected by this route and a method of preserving these sites *in-situ* should be considered as part of the proposed road design.

5.5 Orange Route

From the northern end of Common Route Section A the Orange Route, along with the Yellow Route, crosses the dismantled railway at the point where it overlies the *Vallum* (Sites 6 and 7) at NY 3716,5688. It then crosses the line of Hadrian's Wall and crosses open fields before ending at a roundabout from where all routes follow a common line. In the open fields the route crosses Site 3, which is a possible enclosure identified from aerial photography.

The second part of the Orange Route starts at the end of the northern part of the Common Route Section B, and follows the route of an existing road to a roundabout at NY 3700,5958. No known sites would be affected by this section of the road. The route then turns east crossing the M6 to the site of a new roundabout, running through open land on most of its route. No sites were recorded in this area.

As with all of the proposed routes Hadrian's Wall and the associated *Vallum* are the main sites which would be affected by this route. The destruction of these remains, which are not only part of a Scheduled Ancient Monument but also a World Heritage Site should be, if possible, prevented. The cropmark site (site 3) needs further archaeological investigation in advance of road construction.

5.6 Yellow Route

From the northern end of the Common Route section A the Yellow Route, along with the Orange Route, crosses the dismantled railway at the point where it overlies the *Vallum* (Sites 6 and 7) at NY 3716,5688. It then crosses the line of Hadrian's Wall and crosses open fields before ending at a roundabout from where all routes follow a common line. In the open fields the route crosses Site 3, which is a possible enclosure identified from aerial photography.

The northern section of the route runs from the north end of Common Route Section B and passes to the south of the motorway, crossing an area already developed, and also runs to join the M6 at the roundabout of Junction 44. This section partially follows an existing road with a short section crossing open ground. No sites were recorded in this section.

5.7 General Recommendations

Generally there is little difference in the archaeological impact of the Green, Purple, Orange or Yellow routes. The Orange/Yellow routes would destroy one known site (Site 3) which remains to be fully assessed, whereas the Green/Purple route would not affect any additional sites. All routes, however, would have a major impact on Hadrian's Wall and the associated *Vallum*. The Green and Purple routes take a line that is slightly closer to the putative location of Milecastle 68, although, the precise position of this Milecastle is at present uncertain.

Current policy, as embodied in the Institute of Field Archaeologists Code of Conduct, the Department of the Environment *Planning Policy Guidance Note 16* on Archaeology and Planning, and the Department of Transport *Design Manual for Roads and Bridges* (DOT Volume 11 Environmental Assessment), dictates that wherever possible identified sites of archaeological importance are preserved *in-situ*. The latter also accepts that further evaluation of specific sites may be required prior to road construction.

Hadrian's Wall is both a Scheduled Ancient Monument and part of a World Heritage Site and any engineering solution to the Eden crossing will need to anticipate the possible impact to the Wall within the design process. However, our present knowledge of the condition, survival and even the precise location of the Wall, and the putative milecastle, are insufficient to inform this process. Following discussions with the English Heritage Inspector of Ancient Monuments for Hadrian's Wall, it is clear that further information must be gathered prior to any decisions being made as to the route or the design of the road. It is therefore recommended that a full archaeological evaluation of the area of the Hadrian's Wall be undertaken in advance of any decision-making process on the Eden crossing. In particular, it is important that this evaluation establish both its position and the state of preservation of the Wall. Any evaluation should not concentrate solely on the marked line of the Wall on the map, but should cover an area from beyond the southern edge of the *Vallum* to the south bank of the River Eden. Additionally, it should be noted that the platform constructed for the track of the Carlisle to Silloth railway is likely to mask archaeological features

relating to the Wall. Part or even all of this section of the Wall and Milecastle may have been affected by riverine erosion, but this can not be established without the benefit of an archaeological evaluation. The preferred option for the crossing of the Wall is that it should be located where the Wall has either been destroyed or where it has been subject to the greatest disturbance. However, if the Wall survives in a good condition across the full width of the proposed road, it may be necessary to consider either an engineering solution, such as the construction of a bridge to span over the line of the Wall and *Vallum*, as well as the Eden, or an excavation of that section of those features that will be disturbed, so as to mitigate the effect of the construction programme. Such a decision will need to be based on a detailed cost analysis in the light of the recommended intrusive evaluation.

The line of the disused railway (06) may cover archaeological deposits relating to the roman defence system and it is therefore recommended that any construction works affecting it may require archaeological supervision.

A plan should also be prepared and implemented to prevent ancillary damage to any *in-situ* archaeological remains under threat from heavy plant machinery, and new access roads during the construction period.

Conditions for fieldwalking were far from ideal, since most of the area covered in the walkover survey was under pasture or crops. Therefore the fact that no sites were recorded in some areas cannot be taken to show that no archaeological deposits are present. It is therefore recommended that the route is subjected to a further walk-over examination when crops no longer obscure the surface, typically in early autumn. It is also recommended that a programme of 'greenfield' evaluation be undertaken to identify sub-surface features and deposits; however, this stage of evaluation may be undertaken once the route of the Relief Road has been finalised.

6. GAZETTEER

The gazetteer entries include a description and assessment of the archaeological potential of each individual site. Sites have been broadly grouped in three categories of low, medium and high archaeological potential for ease of reference.

Site Number	01
Site Name	Greymoor Hill, Carlisle
NGR	NY 39500,59800
Site Type	Spot Find
Period	15th/16th century
Source	SMR 00465
Archaeological Potential	Low
Figure	4

Description

Pure gold ring found in 1817 while levelling an old fence on Greymoorhill, Kingstown. It was 1/4" thick and broad.

Assessment

A chance find, which is not necessarily an indicator of a site of this date close to the bypass route.

Site Number	02
Site Name	Kingmoor Lane
NGR	NY 38440,58280 to 38570,58650
Site Type	Dismantled railway
Period	c 19th century
Source	SMR 10036
Archaeological Potential	Low
Figure	4

Description

A section of the trackbed of the now dismantled North British Railway which connected Carlisle with Hawick and Melrose. This joined the Carlisle-Silloth railway near the old canal basin which ran from Canal Station, Caldewgate.

Assessment

This section of trackbed lies towards the eastern side of the study area and is now a lane giving access to Kingsmoor Nature Reserve. The rest of the line has been destroyed leaving this as a small isolated section. It is therefore considered to be of low archaeological significance.

Site Number	03
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Site Name	Kingmoor Greystone Lane
NGR	NY 37810,57470
Site Type	Cropmark
Period	Unknown
Source	SMR 09750
Archaeological Potential	Low
Figure	3/4

Description

A sinuous cropmark to the east of the road corridor recorded from aerial photography. The cropmark was not visible on the ground. It is noticeable that the south-eastern side is recorded as very faint, and follows the line of the 15m contour on the 1974 1:10,000 map, so it is possible that it is a contour shadow rather than a boundary.

Assessment

The cropmark lies on the line of the Orange/Yellow Route road corridor, and the site will be damaged if the Orange/Yellow Route is taken.

Site Number	04
Site Name	Hadrian's Wall and <i>Vallum</i> in wall mile 69.
NGR	NY 36570,58100
Site Type	Milecastle/Frontier Defence
Period	Roman
Source	SMR 00437
Archaeological Potential	High
Figure	Not shown

Description

This site is incorrectly located in the Stage 1 assessment. The grid reference quoted above is correct, and the site which corresponds with Milecastle 69 lies *c* 1 mile from the corridor to the west of Grinsdale. This site should therefore not be considered during the assessment.

Assessment

This site does not lie within the corridor.

Site Number	05
Site Name	Hadrian's Wall and Milecastle in wall mile 68 Boomby Gill-Sourmilk
NGR	NY 37110,57150
Site Type	Milecastle/Frontier Defence
Period	Roman
Source	SMR 00439
Archaeological Potential	High
Figure	3

Description

Milecastle:

The putative site of Milecastle 68. The location of the scheduled area is based on a measurement along the line of Hadrian's Wall shown on the OS map, The SMR record mentions an old excavation trench which revealed undressed stones at NY 3709,5717; the original source is from the OS record cards and the date and excavator are unfortunately unknown.

Hadrian's Wall:

The main authority for an early survey of the Wall is J Collingwood Bruce (1853) who drew on both his own, and earlier observations. The relevant section this states the following:

'The Wall and Vallum draw together again on the high ground just beyond the engine sheds (originally located on the south bank of the Eden due south of Stainton) and run along the south bank of the river. Here along the bluffs called Davidson's bank (adjacent to Knockupworth Gill) the Wall ran near the river, which probably served as the ditch. The Vallum lies close behind, and at one point four or five gaps, spaced at the usual interval of 45 yards, can be seen in its north mound. East of the measured position of Milecastle 68 (Boomby Gill) the two works diverge and the Wall keeps to the riverbank as far as Grinsdale, where the Vallum aims straight for Kirkandrews' (Collingwood Bruce 1853).

The evidence for the location of the wall is based on antiquarian reports, and can not be entirely relied upon. It would, however, suggest a line in the proximity of the Eden and consequently there is a possibility that the wall has been subject to riverine erosion.

Assessment

As stated in the above there is no present evidence to show that the line of the Wall as shown on the map is correct. The Scheduled Area is also based solely on map evidence and does not necessarily cover the actual position of the Wall or the Milecastle. The Milecastle and Wall have a high archaeological potential, as does the whole of the area between the south bank of the Eden and the *Vallum*. The measured location of the Milecastle is to the west of the alternative routes proposed for the relief road, and the impact on it should be minimal.

Site Number	06
Site Name	Holme East Waver
NGR	NY 15000,51370 NY 20000,54090
Site Type	Dismantled Railway
Period	1856-post 1900
Source	SMR 10036
Archaeological Potential	High
Figure	3

Description

The trackbed of the now dismantled Carlisle to Silloth railway, which in this area was constructed along the bed of the Carlisle to Port Carlisle Canal built in 1823.

Assessment

The trackbed is used as a farm road, and the site comprises both the line of the canal and railway. The construction of the canal/railway has involved the importing of material which was built against the existing slope to provide a level surface. This imported material is likely to mask earlier deposits associated with Hadrian's Wall and the *Vallum*, so while the canal and railway are of low archaeological potential, the deposits below are of high archaeological significance.

Site Number	07
Site Name	Hadrian's Wall/ <i>Vallum</i>
NGR	NY 5684,3720,-5718,3682
Site Type	Ditch/Frontier Defence
Period	Roman
Source	SMR 00439
Archaeological Potential	High
Figure	3

Description

The line of the *Vallum* is within the area to be affected by the road corridor. The line is very clear on the ground on the side of a slope; it appears to be at least 6m wide and is 0.4m deep at its deepest.

Assessment

The *Vallum* has high archaeological potential, and if the deposits within it are waterlogged, there is great potential for palaeoenvironmental sampling.

Site Number	08
Site Name	Knockupworth Hall
NGR	NY 37060,56560
Site Type	Grade II Listed Building
Period	Late c18th century
Source	SMR
Archaeological Potential	Low
Figure	3

Description

Knockupworth Hall stands on a chamfered plinth, has painted stucco walls, V-jointed quoins, graduated greenslate roof, and rendered end chimney stacks. It is a two storey three bay house with a one bay extension. It has a Roman Doric-style porch with flanking double sash windows in stone surrounds.

Assessment

The house lies outside the proposed route, is of relatively late date, and has low archaeological potential.

Site Number	09
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Site Name	Kirkbride/Burgh/Castle
NGR	NY 26400,57200-NY 3000,58000
Site Type	Cropmark
Period	Roman ?
Source	SMR 04677
Archaeological Potential	Low
Figure	3

Description

A linear cropmark which, according to the SMR, may be associated with the Stanegate Roman Road which may have been on the line of the road from Carlisle to Burgh-By-Sands where it passes Knockupworth.

Assessment

The association with the Stanegate seems unlikely. The site has a post and wire fence, which may have replaced a hedgerow; and would have left a linear mark when removed. Additionally, while many Roman roads have associated ditches, they are generally found close to the road, and the line of the post and wire fence is also divergent from the line of the road to the north. For these reasons the site is considered to have low archaeological potential.

Site Number	10
Site Name	Beaumont, north-east of Cornhill
NGR	NY 36470,5670
Site Type	Cropmark
Period	Not known
Source	SMR 09744
Archaeological Potential	Low
Figure	3

Description

It is described as vague oval cropmark, possibly an enclosure.

Assessment

The site was in a field of pasture when visited, and was not visible on the ground. It lies beyond the western boundary of the road corridor and is considered to be of low archaeological significance.

Site Number	11
Site Name	Beaumont Orton Road, Carlisle
NGR	NY 3670,5468
Site Type	Grade II listed building
Period	Late 18th/ early 19th century
Source	SMR
Archaeological Potential	Low
Figure	3

Description

A tall two storey former dovecote constructed of river cobbles and red sandstone rubble, with a graduated welsh slate roof and glover. The roof was re-slatted in the 1970s. The interior retains original brick boulders for c 500 nests. There is now a wide rectangular door in west side.

Assessment

The site lies beyond the road corridor and is considered to be of low archaeological potential in the context of the road development. It is however a relatively uncommon type of building, and despite some minor alteration is still in its original condition.

Site Number	12
Site Name	Bunkershill
NGR	NY 3692,5465
Site Type	Grade II listed building
Period	Late 18th century
Source	SMR - Listed Building Records
Archaeological Potential	Medium
Figure	3

Description

A house and stables probably erected in 1797 for John Milbourn. The house has a chamfered raised plinth, raised V-jointed quoins, moulded cornice and parapet; there is a graduated greenslate hipped roof hidden by the parapet. Now divided into three dwellings, and was originally an eight bay two storey construction, now 11 bays incorporating the stables.

Assessment

The building lies outside the road corridor and is considered to be of moderate archaeological potential.

Site Number	13
Site Name	Maxwell Cottage
NGR	NY 36805,53920
Site Type	Grade II Listed Building
Period	Early c19th century
Source	SMR
Archaeological Potential	Low
Figure	3

Description

An early nineteenth century cottage of mixed red and yellow sandstone construction, with a slate roof, and a brick chimney. Two storeys with three bays, a twentieth century porch plain stone door and window surrounds.

Assessment

The building lies outside the road corridor and is considered to be of low archaeological potential.

Site Number	14
Site Name	Newby West Farmhouse
NGR	NY 3684,5382
Site Type	Grade II Listed Building
Period	Early c19th century
Source	SMR
Archaeological Potential	Low
Figure	3

Description

A farmhouse and attached barn. The house has Flemish bond brickwork, a slate roof and gables, and brick chimney stacks. It is of two storeys, with three bays, and a chamfered stone plinth. The entrance surround is of square pilasters, with a plain entablature and moulded cornice. The windows have brick heads and stone sills, and sashes with glazing bars. The barn is joined to the farmhouse with a sandstone-quoined arched entrance. Its walls are of English bond brick on a rubble plinth course. It has small glazed windows, slit vents and plank doors.

Assessment

The building lies outside the road corridor and is considered to be of low archaeological potential.

Site Number	15
Site Name	Cummersdale
NGR	NY 35000,51780-NY 38200 ,55000
Site Type	Road
Period	Roman
Source	SMR 10507
Archaeological Potential	Medium
Figure	3

Description

The probable position of a length of Roman road, now overlain by the A595. The field survey recorded no traces of the road or any associated features.

Assessment

The site is of medium archaeological potential as it is possible that remains of the road and associated features still survive below the present surface.

Site Number	16
Site Name	Building north-west of Bunkershill
NGR	NY 3555,5584
Site Type	Agricultural Building
Period	c19th century ?
Source	Walkover Survey
Archaeological Potential	Medium
Figure	3

Description

The remains of a small rectangular brick-built building to the north-west of Bunkershill. The building is 10x4m in size and on the north-eastern side has an open area which appears to have been surrounded by a wall made of rounded river stones bonded with lime mortar.

Assessment

The site is on the 1886 and 1901 OS maps, where it is shown as lying within an enclosure and surrounded by trees. The site is of medium archaeological potential, and will be significantly affected by the road, and perhaps destroyed during construction.

Site Number	17
Site Name	Suttle House
NGR	NY 3760,5431
Site Type	Domestic structure
Period	-
Source	Cumbria County Council pers comm
Archaeological Potential	Low
Figure	3

Assessment

The site lies well beyond the road corridor, and outside the area of interest. It is of low archaeological potential, and will not be affected by the road.

Site Number	18
Site Name	Milestone near Suttle House
NGR	NY 3769,5422
Site Type	Milestone

Period	-
Source	Listed Building Records
Archaeological Potential	Low
Figure	3

Assessment

The site lies well beyond road corridor, and outside the area of interest. It is of low archaeological potential, and the impact of the road on the site will be minimal.

Site Number	19
Site Name	Milestone off west side Kingstown Road
NGR	NY 3947,5943
Site Type	Milestone Grade II Listed
Period	18th century
Source	Listed Building Records
Archaeological Potential	Low
Figure	4

Description

Milestone, probably dating to 1820-22, for the Carlisle to Glasgow Turnpike; it is made from red sandstone ashlar. The rounded top stone has set into its face a circular cast-iron plate with raised letters 'Carlisle 2 miles'. The stone was originally whitewashed and the plate with lettering is picked out in black. It may have been moved a few metres from its original position to allow for the slip road.

Assessment

The milestone is of low archaeological potential, and is away from the presently proposed alternative lines for the road. The impact caused by road construction is therefore likely to be low.

Site Number	20
Site Name	Kingmoor House
NGR	NY 3837,5847
Site Type	Farmhouse Grade II Listed
Period	18th century
Source	Listed building Records
Archaeological Potential	Low
Figure	4

Description

It was originally built, in the mid or late eighteenth century, as a farmhouse but is now a private house. The house has rendered walls and a graduated greenslate roof, and rendered ridge chimney stacks. The house is of two storeys with six bays, the front door is six panelled with a glazed fanlight; the porch has engaged

Doric columns, dentilled open pediment and decorated impost blocks. There are flanking bank walls with battlemented parapets.

Assessment

The site is of low archaeological significance, although the house is relatively close to the proposed road and will suffer some impact from increased traffic noise.

Site Number	21
Site Name	Kingmoor Cottage Grade II Listed
NGR	NY 3840,5842
Site Type	Cottage Grade II Listed
Period	c18th century
Source	Listed Building Records
Archaeological Potential	Low
Figure	4

Description

A mid-eighteenth century farmhouse with rendered walls and a graduated greenslate roof, and rendered chimney stacks. The house is of two storeys and three bays. It has a projecting gabled porch and is connected with Kingmoor House by a battlemented blank wall.

Assessment

The site is of low archaeological significance, although the house is relatively close to the proposed road and may suffer some impact from increased traffic noise.

Site Number	22
Site Name	Knockupworth Gill Bridge Grade II Listed
NGR	NY 3713,5675
Site Type	Railway Bridge
Period	c19th century
Source	Listed Building Records
Archaeological Potential	Low
Figure	3

Description

A sandstone bridge crossing the now dismantled Carlisle to Silloth Railway. It may have been originally constructed for the Carlisle to Port Carlisle Canal.

Assessment

The site is of low archaeological potential, and is some distance from the Orange/Yellow Route options which will have little impact on the site.

Site Number	23
Site Name	Waverley House
NGR	NY 3808,5683
Site Type	Farmhouse and barn Grade II Listed
Period	Unknown
Source	Listed Building records
Archaeological Potential	Low
Figure	3

Assessment

The site is in the village of Stainton and is considered to be of low archaeological potential. It is some distance from the road corridor and will not be affected.

Site Number	24
Site Name	Eden View
NGR	NY 3804,5687
Site Type	Farmhouse Grade II Listed
Period	Unknown
Source	Listed Building records
Archaeological Potential	Low
Figure	3

Assessment

The site is in the village of Stainton and is considered to be of low archaeological potential. It is some distance from the road corridor and will not be affected.

Site Number	25
Site Name	Waverley Viaduct
NGR	NY 3831,5651
Site Type	Viaduct Grade II Listed
Period	c 19th century
Source	Listed Building Records
Archaeological Potential	Low
Figure	3

Description

A viaduct constructed for the now dismantled North British Railway which connected Carlisle with Hawick and Melrose. This joined the Carlisle-Silloth railway near the old canal basin which ran from Canal Station, Caldewgate.

Assessment

The site is well outside the road corridor and is considered to be of low archaeological potential. There will be no impact from the proposed bypass.

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7.2 Cartographic Sources

- OS, 1886, *Sheet XVI*
- OS, 1886 *SheetXXIII*
- OS, 1901, *Sheet XXIII NE*
- OS, 1901, *Sheet XXIII NW*
- OS, 1974, *Sheet NY 35 NE*
- OS, 1974, *Sheet NY 35 SE*

ILLUSTRATIONS

List of Illustrations

- Figure 1: Route location, showing coverage of 1:10000 sectional maps.
- Figure 2: Key to figures 3 and 4
- Figure 3: Southern section of route
- Figure 4: Northern section of route

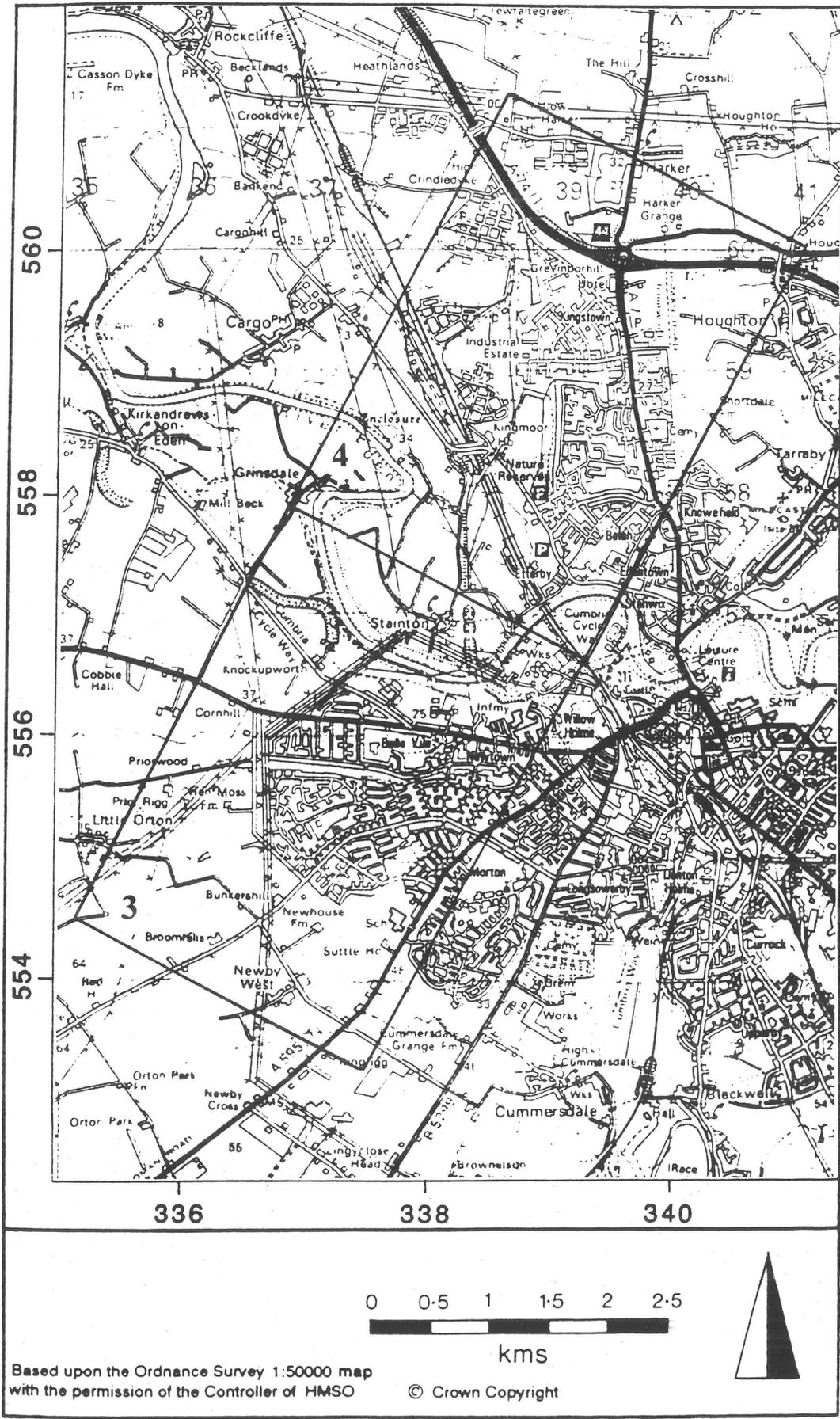
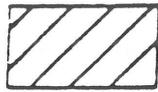


Fig.1

KEY TO FIGURES 3 - 4



FIELDS KNOWN TO CONTAIN
ARCHAEOLOGICAL REMAINS



EXTENT OF WALKOVER SURVEY



LINEAR FEATURES

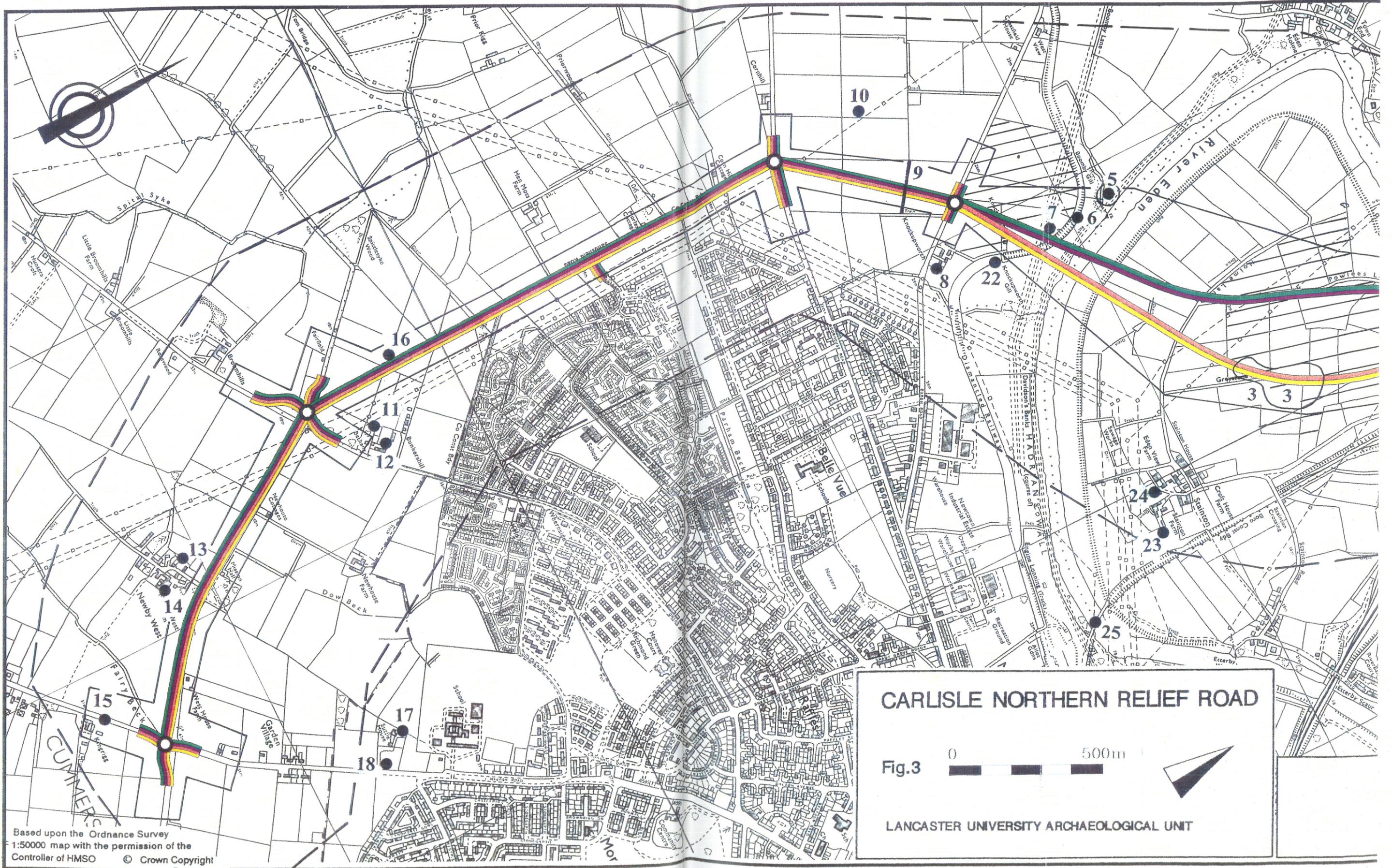


SITE WITH SCHEDULED AREA



OTHER SITES

Fig.2



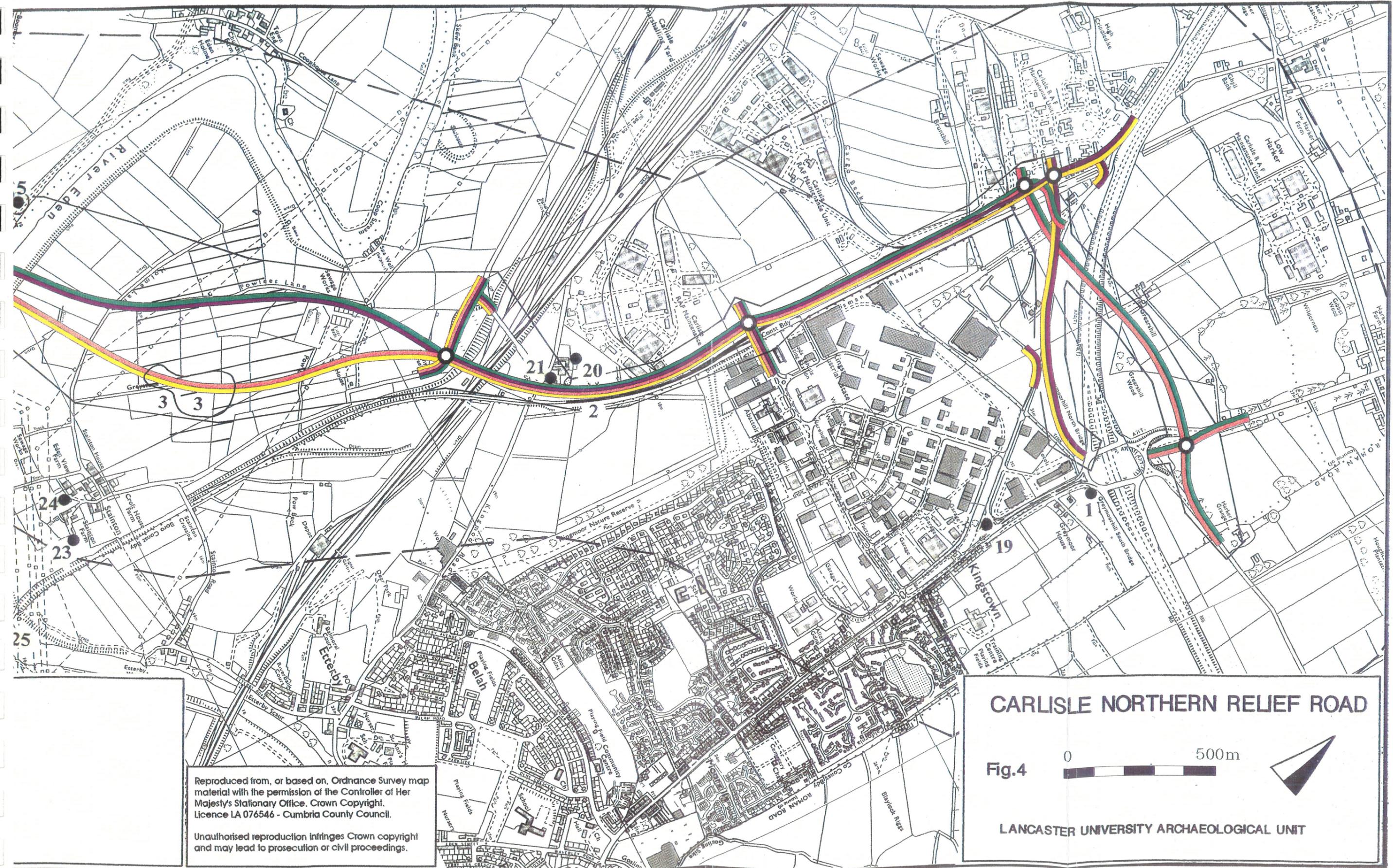
CARLISLE NORTHERN RELIEF ROAD

Fig.3 0 500m



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CARLISLE NORTHERN RELIEF ROAD

Fig.4



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APPENDIX 1
PROJECT BRIEF

APPENDIX 2
PROJECT DESIGN
