LAND AT MELKINTHORPE

CUMBRIA

Desk Based Assessment, Topographic Survey and Geophysical Survey

Oxford Archaeology North

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CONTENTS

SUMMARY

Oxford Archaeology North (OA North) was commissioned by John Turner of Lowther Estates to undertake a desk-based assessment, a topographical survey and a geophysical survey of a plot of land at Melkinthorpe, Cumbria (NY 5555 2518). The land is statutorily protected as a scheduled monument (SM 32822/01) and the work was required to inform a planning application and an application for Scheduled Monument Consent to enable the land to be adapted as a temporary parking area.

The documentary survey demonstrated that Melkinthorpe probably had its origins as a planned village in the twelfth century. It had a regular layout with back lanes on either side of a central green, and a series of compartments (containing former tofts) extending out from the green and cultivation strips pertaining to each of the tofts within open fields behind. The village subsequently, shrank leaving many of the former farm compartments unoccupied and recent work by Brian Roberts (1993) has demonstrated that the fossilised remains of the former crofts, and associated infrastructure, are preserved as earthworks within these still empty plots. The Ordnance Survey first edition map showed only a single north-east/south-west field boundary extending through the southern third of the plot.

The topographic survey recorded a long scarp slope (Site **53**) that ran parallel to the line of the main street, and probably defined the edge of the former green. Above this were two artificial terraced platforms, which were both rectilinear in shape and were potentially building platforms (Areas A and B). Extending to the south-east of the southernmost platform (Area A) was an erratically preserved field boundary (F11/12) which was perpendicular to the line of the main street and corresponded to the boundary shown on the OS first edition map.

A geophysical survey using the resistivity method, was carried out over the whole of the development plot and located a number of anomalies which correlated with certain features recorded by the topographic survey, including an obvious trackway and the terraced platforms. The survey also detected three possible field boundaries, one of which was that shown on the OS first edition map. A substantial high resistance anomaly was found corresponding to the northernmost putative house platform and may reflect substantial deposits of stone below the surface. Features characteristic of embankments and terraces were visible in the survey data, as was a feature of unidentified provenance.

It was recommended that the proposed temporary parking be kept away by fencing from the principal earthworks (the putative house platforms and field boundaries) and that the areas of the geophysical anomalies be protected by building up the ground level with imported soil or aggregate.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank John Turner of Lowther Estates for commissioning the project and for help in obtaining access. Thanks are also due to Jo Mackintosh at the Cumbria Historic Environment Record (HER), and all the staff of the Cumbria County Record Office in Kendal for their assistance with this project.

Neil Wearing undertook the desk-based assessment, the topographic survey was carried out by Andrew Lane, the geophysical survey was carried out by Karl Taylor; the report was written by Neil Wearing and Karl Taylor; and the illustrations were by Mark Tidmarsh and Karl Taylor. Jamie Quartermaine managed the project and edited the report, together with Alan Lupton.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Oxford Archaeology North (OA North) was commissioned by John Turner of Lowther Estates to undertake a desk based assessment, a topographical survey and a geophysical survey of a plot of land at Melkinthorpe, Cumbria (NY 5555 2518). The land is statutorily protected as a scheduled monument (SM 32822/01) and the work was required to inform a planning application and an application for Scheduled Monument Consent to enable the land to be adapted as a temporary parking area. The requirements for the archaeological works were outlined in a letter (24th October 2005) from Andrew Davison, English Heritage Inspector of Ancient Monuments, to John Turner, and was subsequently confirmed as a verbal brief by Andrew Davison.

1.1.2 The desk-based assessment and the topographic survey were undertaken in the weeks of the 12th and 19th of December 2005 and the geophysical survey was undertaken in the week of the 9th January 2006. The present report incorporates the results of all phases of work, and is accompanied by an impact statement and a series of recommendations.

2. METHODOLOGY

2.1 DESK-BASED ASSESSMENT

2.1.1 An area of 1km radius of the proposed development area was examined in order to identify sites of archaeological interest that were likely to be affected by the proposed development, or provide an historic context. The results of the desk-based assessment were collated into a gazetteer, which is presented as an appendix (*Appendix 1*).

2.1.2 ***Cumbria Historic Environment Record (HER):*** this is a record of all of the known sites of archaeological interest within the county, including Listed Buildings and Scheduled Monuments, and is the primary source of information in a study of this kind. Each site has a brief description and an accurate location.

2.1.3 ***Cumbria County Record Office, Kendal (CRO(K)):*** a number of primary documents, principally early maps of the study area were examined in order to identify additional sites of archaeological interest that might be affected by the proposed development. Secondary sources were also examined in order to provide background information about the area.

2.1.3 ***Oxford Archaeology North:*** OA North has an extensive archive of secondary sources relevant to the study area, as well as numerous unpublished client reports on work carried out both as OA North and in its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where necessary.

2.1.4 ***Secondary Sources:*** secondary sources, such as local histories as well as published and unpublished works, were examined in order to contribute to the historical background and add information regarding specific sites. In particular the study drew upon the results of Brian Roberts (1993) who had undertaken an important survey of the village which had examined the development of the village.

2.2 TOPOGRAPHIC SURVEY

2.2.1 ***Instrument Survey:*** a level 2b survey (OA North 2002a), equivalent to RCHM(E) level 2, was undertaken of the study area. Survey control was established over the site by closed traverse and internally was accurate to +/- 15mm; the control network was located onto the Ordnance Survey National Grid by locating the site to the current field boundaries shown on the Ordnance Survey 1:10,000 base map.

2.2.2 ***Detail Survey:*** the surface features were surveyed by EDM tacheometry using a total station linked to a data logger, the accuracy of detail generation being appropriate for a 1:500 output. The digital data was transferred onto a portable computer for manipulation and later transferred to other digital or hard mediums. Film plots were outputted via a plotter. The archaeological detail was drawn up in the field as a dimensioned drawing on the plots with respect to survey markers. The survey drawings were generated within a CAD system and were merged with existing topographic data, and with the results from earlier surveys.

2.3 GEOPHYSICAL SURVEY

2.3.1 ***Introduction:*** resistivity relies on the relative inability of soils to conduct an electrical current when passed through them. Resistivity is linked to both the moisture content and porosity of soils. Therefore, dense features that are impervious, such as stone, offer relatively high resistance to the current while features such as ditches, which are usually moisture retentive, give a relatively low resistance response. An RM15 resistance meter manufactured by Geoscan Research, Bradford, was utilised for this survey, which was attached to a Geoscan Research mobile Twin Probe Array. The array was configured to 0.5m probe separation (which has a typical depth of penetration of approximately 0.5m to 1m) with two remote probes, connected to the RM15 via a cable drum, positioned approximately 15m outside the survey grid. The RM15 uses an internal automatic data logger which permits survey data to be recorded as the survey progresses. The data are later downloaded to a computer for processing and presentation. Although the values being logged are actually resistance in ohms, they are directly proportional to resistivity (ohm-metres), as the same probe configuration was used throughout the survey.

2.3.2 ***Field Survey:*** the survey area was divided into 20m x 20m survey grids, totalling 0.26ha (Fig 7), the survey traverses were 1m apart and readings were taken at 1m intervals along these traverses. Therefore, in a full 20m x 20m survey grid, 400 readings are taken. All traverses were surveyed in 'zig-zag' mode. Data collection at 1m centres with a 0.5m probe separation provides a balance between cost and resolution.

2.3.3 ***Data processing:*** following data collection in the field, the data are downloaded and processed on a computer using the specialist software *Geoplot 3*, developed by Geoscan Research. Minimal processing of the data was undertaken so as to enhance any archaeological anomalies without distorting the data image. Both raw and processed data are presented as grey scale plots (Figs 8 and 9). Abstracted anomalies are presented and interpreted on Figure 10.

2.4 ARCHIVE

2.4.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Cumbria County Record Office in Kendal on completion of the project.

3. DESK-BASED ASSESSMENT RESULTS

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

3.1.1 ***Location:*** the site plot is located immediately off the south-western side of the main village street of Melkinthorpe, which is on the edge of the Eden Valley, some 6km south-east of Penrith and 4km east of Lowther (Fig 1) (NY 5555 2518). Melkinthorpe is one of the three townships of Lowther parish, the others being Hackthorpe and Whale (Whellan 1860). The study area is bounded on its south-eastern side by housing, much of which appears on the first edition Ordnance Survey mapping (1863) (Fig 3). To its north-east is sited a reservoir with little other development having taken place. The site lies on ground which rises away from the road, to the south-west.

3.1.2 ***Geology:*** the study area is close to the north bank of the River Leith, a tributary of the River Eden. The river valley cuts through typical stagnogley soils of the Clifton Association [711n] derived from drift geology, comprising yellowish brown boulder clay (Lawes Agricultural Trust 1983). The solid geology below Melkinthorpe comprises Lower Permian sandstones, the Penrith Sandstone (Institute of Geological Sciences 1980; Arthurton *et al* 1978, 135-9, 186-8, and 302-5).

3.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

3.2.1 ***Prehistoric and Roman Period:*** only one pre-medieval record is held in the Cumbria HER, that is within close proximity to Melkinthorpe. This is a linear cropmark which has been suggested as part of the line of a Roman Road (Site **05**), and is located some 850m north-north-east of the proposed development site (Fig 2).

3.2.2 ***Medieval:*** Melkinthorpe does not appear in *Domesday Book*, since this only covers the Kendale area of Cumbria and bits of Lancashire North of the Sands. The first reference to the name of *Melcanetorp* is in 1150, with variants of the name present from 1195 onwards (Smith 1967, 183). The name in all its variants means 'Melkan's hamlet' and is relatively unusual as it combines a personal name element which may be either Irish, as in 'Maelchon', old Irish 'Maelcian' or Old Welsh 'Malican' (*ibid*), with the Scandinavian name ‘thorpe’ meaning hamlet or farmstead (Mills 2003).

3.2.3 Despite the lack of earlier documentary evidence, the topographical form of Melkinthorpe was possibly established by the late eleventh century (Curwen 1932). The nature of the documentary sources indicate that the manor of Melkinthorpe was of average size when compared to the other manors in Lowther parish. In 1415, the parish paid a 1/15th of the tithe as subsidy to the king to finance the French campaigns; Lowther was valued at 13s 4d, Quale (Whale) at 17s, Hackthorpe at 18s and Melkinthorpe at 15s (*op cit*, 333). It had a low evaluation in the nineteenth century when Whellan gave the rateable value of the parish as £4,400 18s 3d, of which Melkinthorpe was rated at only £364 2s 5d, whilst Hackthorpe was valued at £1,939 10s and Whale at £ 481 4s 6d (Whellan 1860).

3.2.4 The village is recorded on the Cumbria Sites and Monuments Record (CSMR) as a shrunken medieval village (Site **03**) and its layout is generally indicative of a planned nucleated settlement, which typically date to the post-Conquest period, particularly in the late twelfth century, following the reincorporation of the region into England (Roberts 1988). Roberts, in his description of the village, notes the basic pattern of a north-west/south-east axial street, mirrored to the north-east by a secondary lane, Back Lane (Roberts 1993). The land to the rear (north-east) of Back Lane forms a rectangular furlong (Site **06**), which retains evidence of ox-ploughing in the aratral, reversed 'S', configuration of the extant field boundaries (*op cit*, 131). There are two areas of earthworks (Sites **01**, **02**) recorded on the Cumbria Sites and Monuments Record (CSMR), located at the western village edge, within the extent of the Scheduled Monument. These are undated, but are likely to be remains of the former village / field system that have been fossilised by its subsequent shrinkage.

3.2.5 ***Post-Medieval:*** there are no known structural remains from the medieval period within the village (Fig 2). Melkinthorpe Hall (Site **04**) was at least sixteenth century in date and has been described as a '*little low mean looking building*' (quoted by Curwen 1932, 329); it was still inhabited in the 1860s, but it has now been demolished. (*op cit*, 330). The RCHME (1936) inspection of the village noted only a limited number of buildings of interest, the oldest of which appear to date to the seventeenth century and contain some panelled doors and corbelled fireplaces. From the seventeenth century the extent of the village was similar to that at present. The Hearth Tax Roll of 1669-1672 identified a total of eleven houses with a single hearth and a further six houses which were exempt (Curwen 1932, 333). By the time of the Window Tax, exacted between 1766 and 1825, 16 buildings were recorded as having up to seven windows, and hence were charged the minimum tax of three shillings. Only one house contained seven windows, that of John Graham (*ibid*), although the location of this house was unspecified.

3.3 MAP REGRESSION ANALYSIS

3.3.1 By the mid nineteenth century, the cartographic evidence illustrates that the development of the settlement was static; there has been little change taking place within the village layout since. The tithe map of 1837 (CRO(K) WDRC/8/64) shows no difference in the layout of buildings or plot boundaries by comparison with the later first edition Ordnance Survey mapping of 1863 (Fig 3).

3.3.2 By the publication of the first edition mapping in 1863 (Fig 3) the village and its immediate surrounding fields can be clearly seen to stand in stark contrast to the later parliamentary enclosure fields to the north. This landscape between Melkinthorpe Wood (English Nature Designated Ancient Woodland) and the unclassified B-roads north of the village (which appear on the OS first edition mapping) is a relict landscape which has been subject to slow attrition of its fabric and form over the last 150 years.

3.3.3 Between the first edition mapping and the present day, 24 field boundaries have been removed from within a 1km radius of the proposed development area (Sites **7-30**). In addition to this, ten communication routes (tracks, roads, or paths), shown on the OS first edition mapping, have also been lost (Sites **31-40**). Immediately adjacent to each side of the main road are a series of garden walls and plots that can

be clearly seen on the OS first edition mapping, and have been grouped together as a single group site ((Site **49**) this was for ease of recording and does not infer any direct relationships between the different areas), but which are no longer depicted on the current mapping. There is a single former field boundary, included in group Site **49**, which runs north-east/south-west across the southern third of the proposed development area (Plate 2).

3.3.4 Sites **41**-**44** are all wells shown on the first edition mapping, including Site **44,** which is located at the road side centre of the proposed development area. Site **45** is a 'Guide Post' shown on both the OS first edition and current mapping. Site **46** is a ford which was shown on the OS first edition mapping, and Site **47** is a railway embankment, now disused but shown on the OS first edition mapping.

3.4 ARCHAEOLOGICAL INTERVENTIONS

3.4.1 Several programmes of archaeological work have been undertaken in Melkinthorpe in recent years. In April 1997 a desk-based assessment, topographic survey and series of trial trenches were undertaken by Lancaster University Archaeological Unit (LUAU 1997 (now OA North). This work took place at The Farm, Melkinthorpe (NY 6395 2335 centred) and the excavations (Site **48**) revealed the remains of post-medieval agricultural activity, comprising a circular and kerbed horse engine for a former threshing floor, and a field lynchet. Two other platform features of unknown date and form were excavated, but no secure dating materials were recovered and they remain uninterpreted (LUAU 1997).

3.4.2 In January 2000 Lancaster University Archaeological Unit undertook a second programme of works at Melkinthorpe (LUAU 2000a). A series of rectangular earthworks was surveyed and two small evaluation trenches were excavated, on a plot of land at Rose Farm, Melkinthorpe, Cumbria (NGR NY 554 253), to the north-west of the current study area (Site **50**). The survey highlighted two possible building platforms; while the accompanying evaluation found no explicit evidence for structural features. A subsequent watching brief was undertaken at the same site by OA North (2002b) between April / May 2002 (Site **52**) in the course of the groundworks for the construction of a small house. This revealed three substantial stone wall foundations that were set, parallel to the road. There were no directly associated finds with the structures, although there were post-medieval finds in a later stone spread deposit. They were tentatively interpreted as croft structures.

3.4.3 A further watching brief (LUAU 2000b) was undertaken during groundworks at a site (Site **51**) on the opposite side of the road from the present development site. This found no structural remains but did recover medieval pottery from the topsoil.

3.4.4 ***Roberts Survey:*** in addition to the commercial work undertaken, Melkinthorpe was subject to a survey by Brian Roberts (Roberts 1993) during January and February of 1993 (Figs 4 and 5). This work was part of a wider project examining the development of settlement in the Eden Valley of Cumberland and Westmorland. The study plotted all ridge and furrow and earthworks within the immediate fields around the village (Figs 4 and 5). Most significant to this project was a sinuous linear bank and smaller sub-circular bank in the centre of the proposed development area (Site **53**, Plates 3 and 4).

3.4.5 ***Aerial Photography:*** the most useful aerial photography for the development area was provided by the client at the outset of the project (Plates 1 and 2). This clearly

shows the long sinuous break of slope running parallel to the road. The area below this earthwork, was flat and relatively smooth, with very few evident structural features, and was potentially a part of the former village green. Above the break of slope is an expanse of generally undulating ground, and within this are two further localised areas of flatter ground. The photograph shows a linear feature extending south-west/north-east through the plot, and parallel to the present day field boundaries. Although only poorly defined on the photograph, it can be tentatively interpreted as a former, now relict boundary.

4. TOPOGRAPHIC SURVEY

4.1 INTRODUCTION

4.1.1 From the investigation of aerial photographs (Plate 1 and 2) it was evident that there were a number of platforms above the principal break of slope (Site **53**) and these were more evident from the ground. Similarly, the survey by Roberts (1993) (Figs 4 and 5), simplified the form of the earthworks, and this depicted a single large bank aligned north-west/south-east, and a smaller bank, defining a platform, to the south-west. The aim of the present topographic survey was to expand on the earlier survey work and to clarify the form and character of the earthworks.

4.1.2 ***Topographic Setting:*** the study area is bounded on its south-eastern side by housing, much of which appears on the OS first edition mapping, and to its north-east is a small reservoir. The site, *c*57.5m by 56m, comprises undulating ground which rises away from the road, towards the south-west.

4.2 SURVEY RESULTS

4.2.1 ***Survey Results:*** the survey (Fig 6) identified a complex of earthworks which survive as a series of terraced platforms (Areas A and B), ditches (**F1**), tracks (**F4**) and banks (**F11**, **F12**, and **F13**), along with a stony area incorporating a stone trough and a possible well site (**F2**).

4.2.2 ***Platform A:*** the main platform (Area A), 15.5m by 7.6m, has a moderately level sub-rectangular terraced surface, edged to the north-east (Plate 3), north-west and south-east by steep scarp slopes (**F6**). The upper terrace bank (**F7**) of the platform has a moderate slope and a curvilinear plan. The terrace is artificially level and has a rectilinear shape, parallel to the line of the road / village green and was almost certainly a building platform, although there was no evidence of any building materials exposed on the surface.

4.2.3 ***Platform B:*** to the north-west and west of Area A was a further rectilinear platform (Area B) which had a level surface (9.6m x 7.3m) edged to the east by a sharply defined break of slope. A further, less marked, break of slope divides this platform from that (Area A) to the south-east. The upper side of the terrace is marked by a gradual slope and there is no clearly evident scarp edge. Again, the forward edge of the platform coincides with the Site **53** scarp slope, and it is parallel to the road / village green. The surface is also artificially level and there is a possibility that it was a building platform.

4.2.4 A track (**F4**) runs across the site from the existing gate on the north-east field boundary winding around Area B and then running south to the south-west boundary and exiting the field by an existing gate. The track would appear to respect the platforms and curvature of the field (Plate 6) and follows a natural low gradient route up the scarp slope.

4.2.5 To the north of Area B lies a sub-oval area of stones (**F2**), 4.3m by 1.8m, and incorporating a stone water trough 1.2m by 0.7m (Plate 7). A well was depicted on the OS first edition map (Site **44**) and was approximately on the north-east boundary where the present gateway is located. It would appear that this has either

been totally removed by the track and entrance into the field, or was imprecisely located in the earlier survey. To the north-east of this feature is a linear mound (**F3**) aligned north-east/south-west, which forms a raised section of the boundary wall and is therefore earlier than the wall; however its function is uncertain. A ditch aligned north-east/south-west, *c*1.25m (maximum) wide, runs parallel with the north-west field boundary and probably forms an earlier line of the existing boundary.

4.2.6 ***Area C:*** to the south-west of linear mound **F3** lies Area C, which comprises a stone-built linear bank (**F11**) (Plate 5), and extends north/east for 13.8m from the existing field boundary, where it is overlain by an irregular small semi-circular mound, 9.2m by 6.1m (**F1**); this latter feature was possibly a localised dumping area. To the north-east of mound **F1** is an ill-defined continuation of linear bank **F11**, which extends over mound **F8** and down scarp slope **F9**, and terminates on the flat of the former village green. The south-western end of this bank extends into the adjoining field and ultimately terminates into an old boundary. The bank had a maximum width of 2m and was probably a field boundary. A sharp incline, and probable lynchet (F13), extends perpendicular out from bank **F11**; it was aligned north-west/south-east, and was 8.9m in length.

4.2.7 From a visual inspection of the site it was evident that the ridge and furrow (Site **54**), observed in the field to the south-east of the site, does not encroach into the survey area. This would imply that the present south-western boundary of the study area was an historic one that divided areas of different agricultural functions, and was almost certainly the boundary between the tofts of the study area and the open fields beyond. A further old field boundary was located in the adjoining field to the south-west of the site in the form of a cut bank with mature trees growing along its line.

5. GEOPHYSICAL SURVEY

5.1 INTRODUCTION

5.1.1 A resistivity survey was undertaken across the entirety of the study area on Friday 13th January 2006, which was a cold and overcast day (Fig 7). The ground conditions over the area surveyed was generally firm underfoot and the area was being used as grazing for horses at the time of survey and was laid down to short pasture. Some standing water was present, particularly at the bottom for the slope, together with areas of outcropping rocks and boulders. This section of the report sets out the results of the resistivity survey.

5.2 RESULTS

5.2.1 From the survey data presented in Figures 8 and 9, and with reference to the topographical survey results (Fig 6), a number of anomalies have been abstracted (Fig 10). Each anomaly has been labelled and is described in sequence below.

5.2.2 ***Anomaly R1:*** this anomaly is of fairly high resistance and is visible on the ground as a stone bank ((F12) (Plate 5). Its position corresponds to the location of a field boundary shown on the OS first edition map of 1863 (Fig 3). Slightly higher resistance anomalies appear to continue to the north-east and would appear to represent the extension of the field boundary (dashed line on Fig 10). The OS 1863 map (Fig 3) shows the boundary as being wider at the western end which is consistent with the geophysical survey results, leading to the conclusion that the boundary was either partly robbed or was not of the same construction for its entire length. In addition, it appears to illustrate this feature as being a continuation of a boundary in the adjacent field (still present as a banked field boundary). It is interesting to note that a semi-circular feature (F10) recorded during the topographic survey (Fig 6), but not visible in the geophysical data, lies exactly on the line of the field boundary plotted on the 1863 OS map (Fig 3).

5.2.3 ***Anomaly R2:*** this is a high resistance anomaly of similar characteristics to ***R1*** and can be observed on the ground as a similar feature. It lies perpendicular to ***R1*** and parallel to a bank visible in the adjacent field. It is, therefore, probable that this was also a relict boundary and extends between R1 and the southern field boundary.

5.2.4 ***Anomaly R3:*** this feature juts out from the north side of anomaly ***R1***, and seems to respect a comparable feature shown on the OS 1863 map (Fig 3) and is of similar magnitude to the other field boundary anomalies (R1 and R2). It probably represents some form of buried wall or similar construction; however, no corresponding remains were visible on the ground.

5.2.5 ***Anomaly R4:*** there are a number of discrete higher resistance linear anomalies that when grouped together, appear to represent an additional field boundary similar to ***R1***, particularly as it shares similar characteristics and is parallel to it. This feature was not illustrated on either the OS 1863 map (Fig 3) or was evident on the ground (Fig 6).

5.2.6 ***Anomaly R5:*** this is a high resistance linear anomaly of similar characteristics to Anomalies ***R1*** and ***R4***, and may be the remains of a further section of relict

boundary. No evidence of it was evident on the ground and it does not appear to respect the curve of the trackway as it appears to project into the line of the track at its western end.

5.2.7 ***Anomaly R6:*** there is an area of slightly higher resistance located at the eastern side of the field at the base of the slope (Fig 10) that cannot be seen on the cartographic evidence or was evident on the ground (Figs 6 and 11). It is not possible to assign an interpretation to this feature but it is possibly of anthropogenic origin. Two small discrete high resistant anomalies contained within this area, are possibly either collapsed wall material (from that abutting the present boundary), or isolated buried stones.

5.2.8 ***Anomaly R7:*** this area of the field contains a number of buried and exposed stones and the relatively random nature of the high resistance precludes detailed explanation. The OS 1863 map (Fig 3) shows a well in this locality, and may explain the collection of stones observed on site. However, the anomaly may simply be the results of upcast from the creation of the track.

5.2.9 ***Anomalies R8, R9 and R10:*** these are areas of high resistance that appear to correlate with the edge of the platform (F6) and slope highlighted by the topographic survey (Figs 6, 7 and 11). These are characteristic of man-made embankments and the low resistance anomalies located at the base of the slope (***R10***), support this explanation, as they were probably due to the accumulation of hill-washed material from the higher resistance topographic feature above.

5.2.10 ***Anomaly R11:*** this anomaly correlates almost exactly within a platform area recorded by the topographic survey (F5). The general appearance of ***R11***, in both its geophysical characteristics and from observations on site, suggests that it may be indicative of a house platform.

5.2.11 ***Anomaly R12:*** this high resistance feature was seen to respect the line of the trackway recorded by the topographic survey (Fig 6), and was noted at the time of survey to consist of a highly compacted mixture of modern aggregate and cobbles. This prevented the insertion of the mobile probes to any great extent, and explains the fragmentary nature of the high number of high resistance anomalies which are indicative of this type of surface. Interestingly, the central part of the anomaly, where it curves around the house platform, ***R10***, does not show the same resistance response, and the reason for this is not fully understood.

5.3 GEOPHYSICS SURVEY CONCLUSIONS

5.3.1 The anomalies highlighted by the geophysical survey can be grouped into the following main categories which have been abstracted on Figure 10;

- Field Boundaries, ***R1*** – ***R5***
- High resistance areas associated with the edge of the platforms, ***R8*** and ***R9***
- The existing trackway, ***R12***
- The possible House Platform, ***R11***
- The area around the possible well, ***R7***
- The unknown feature, ***R6***

5.3.2 Of the anomalies abstracted, only two, ***R1*** and ***R3***, are represented cartographically as a field boundary (OS first edition map 1863), probably a wall, and can be assigned a provenance with any degree of certainty. The OS first edition map (Fig 3) also highlights a well, which appears to be positioned amongst ***R7*** but there was no evidence for this in the data.

5.3.3 A second field boundary, ***R4,*** was not represented in either the topographic survey or the map regression analysis. It may be an early feature, as it appears to also underlie and therefore, predate the trackway. It does, however, seem to be abutted by the possible building platform ***R11***, suggesting that they may be contemporary features. The deviation of the trackway around ***R11*** shows that, although the field boundary was probably no longer in existence, ***R11*** was substantial enough for the trackway to respect it.

5.3.4 Evidence for the slope and platforms recorded by the topographic survey (Fig 6) were also present in the geophysical data (***R8***, ***R9*** and ***R10***). However, the only indication of habitation within the site was provided by ***R11***. The other features abstracted from the geophysical data probably result from natural geomorphological/geological features with some (***R8, R9*** and ***R10***) showing the natural response to the creation of terracing. It is significant to note that the track, ***R12***, which is very much in evidence today and is clearly present in the geophysical survey data, was not depicted on the OS first edition map (Fig 3) and was probably a relatively recent feature.

6. DISCUSSION

6.1 THE ORIGIN AND DEVELOPMENT OF MELKINTHORPE

6.1.1 The origin and development of Melkinthorpe has been discussed by Brian Roberts (1993). It is first referred to as 'Melcan's hamlet' in 1150 within the Lowther archive (Smith 1967, 150) and the layout of the village is sufficiently regular so as to suggest that it was a 'planned nucleated' settlement rather than having evolved (Roberts 1988). The central street was formerly a wide outgang or drove route (village green) that extended out from a watering / crossing point on the River Leith. The present relatively wide main street was formerly considerably wider, being at least 28m in width, and the south-eastern edge of the green was marked by linear scarp slope - Site **53** (Roberts 1993). Parallel to the main street, on the north-eastern side, was a back lane which provided access to the open fields beyond. On the south-west side of the village is a further back lane; however, this has only fragmentary survival (Fig 4 and 5), and part of this extends immediately to the south-west of the present development area.

6.1.2 Even now the strips of the former open fields are preserved by a series of aratral ('S') shaped strip fields (furlongs) that extend out from the north-east back lane. These are clearly continuations of property boundaries that presently exist within the village compartment, and indicate that the properties, their accompanying boundaries and the furlongs behind are fossilised remnants of a former, medieval layout. Further, albeit less clearly defined strip fields extend out from the south-eastern back lane, but within these are the evident remains of broad ridge and furrow, which is typically ascribed to the medieval period (Taylor 1983).

6.1.3 ***Tofts and Crofts***: what is perhaps most significant about Melkinthorpe, indeed is the reason that it is scheduled, is that many of the compartments, or property plots, on either side of the main street are unoccupied by present day buildings. This reflects that the village has shrunk from its former medieval extent. Within these open plots are the earthwork remains of former village features which include relict boundaries, cultivation remains and most importantly of all crofts, that is the former, simple medieval dwellings. Associated with each croft would have been an area of domesticated land, called a toft, which would typically have extended between the croft and the back lane. Beyond the back lane would have been the strips of cultivated land pertaining to the croft and set collectively within a much larger open field.

6.1.4 The existence of a former croft at Melkinthorpe is suggested by the discovery of a wall foundation at NY 443 253, on the north-eastern side of the village (OA North 2002b). The wall foundation formed the corner of a structure that was set parallel to, and set back *c*7m from, the main street. The only ceramics recovered were post-medieval and stratigraphically above the structure, so although the medieval origin of the structure is not confirmed, neither is it denied.

6.2 THE ARCHAEOLOGICAL REMAINS WITHIN THE DEVELOPMENT AREA

6.2.1 The combination of the documentary study, the topographic survey and the geophysical survey (but not the OS first edition map) provide an important insight

into the archaeological make-up of the development area. The most prominent feature in the landscape is the prominent scarp slope (Site **53**), which extends parallel to the main street, and was highlighted on Roberts (1993) plan of Melkinthorpe, the topographic survey and the geophysical survey. This as discussed above (*Section 6.1.1*) almost certainly marked the south-eastern edge of the village green, as the ground at the base is level with the adjacent main street (*op cit*, 131). At some stage in the history of Melkinthorpe the village green shrunk back to its present extent, leaving the scarp slope as a fossilised earthwork.

6.2.2 ***Putative Croft – Area A:*** the topographic survey identified a clearly defined, rectilinear terraced platform, edged and accentuated to the north-east by the steep scarp slope Site **53**. The terraced platform could be accessed from the lower area of village green via a gentle sloped ramp at the northern end of the terrace. The geophysical survey identified a substantial high resistance anomaly along the forward edge of the terrace, which was interpreted as a natural response to the creation of terracing (*Section 5.3.5*). Even though the geophysical survey could not confirm any stone material associated with the platform, this does not indicate that this was not the site of a structure, as one could have been constructed of timber. The surface remains are too clearly defined, and too regular to be anything but of artificial origin, and the form is consistent with a building platform. As such it is a good contender for a former croft, which, on the present negative evidence, was potentially of wooden construction.

6.2.3 ***Putative Croft – Area B:*** the physical form of the second platform (Area B) is less well pronounced. While it does have a sub-rectangular shape and a marked forward scarp edge, it has no obvious rear terrace edge and the internal terrace is not as level as that of Area A. However, the geophysical survey reveals a very pronounced high resistance anomaly (R11) across its extent and which accentuates the physical form and suggests that there are substantial amounts of stone below the surface in the area of the putative platform. While the survey does not discriminate any individual structures or walls, the anomaly potentially reflects collapse or hardstanding from a former structure. This reinforces the physical evidence and suggests that there was possibly a building or croft on the site of this putative platform.

6.2.4 ***Field Boundaries:*** the OS first edition, Roberts survey (1993), the topographic survey and the geophysical survey all indicate the line of a field boundary (Site **49**; F11 and 12; ***R1***) that extends north-east/south-west through the development area between the main street and the south-western back lane. A significant result of the geophysical survey was that it alone demonstrated a second field boundary ***R4***, which is parallel to, and 19m to the north-west of Site **49**. It may be an early feature, as it appears to also underlie, and therefore predate, the trackway. Both boundaries extend between the back lane and the main street and significantly extend over the scarp slope Site **49**, which would indicate that the latest line of both boundaries post-dated the shrinkage of the village green. The two walls are on either side of the large platform (Area A), and the north-westernmost wall (anomaly ***R4***) neatly divides the two platforms. While their latest form evidently post-dates the scarp slope, and by implication the platforms; their earliest forms, before they were extended to the main street, may well have related to the platforms and therefore could have defined the limits of former tofts.

6.2.5 The geophysical survey identified two further sections of walling ***R2*** and ***R3*** which extended north-west/south-east out from R1, and would have further divided the putative toft that extended out from the possible Area A croft.

7. IMPACT AND RECOMMENDATIONS

7.1 IMPACT

7.1.1 Given that the archaeological investigation techniques have been non-intrusive, there is inevitably some uncertainty over the precise interpretation and dating of the identified features and anomalies. However, it is apparent that they have identified a significant archaeological resource within the extent of the development area. The key element is a long linear scarp slope (Site **53**) that extends through the study area, and would appear to divide an area of settlement remains from the village green. Above the scarp slope are two putative building platforms and a series of upstanding relict field boundaries, as well as one buried field boundary (Fig 6).

7.1.2 It is proposed that the area be utilised for temporary parking, which would entail covering the earthworks with terram (or equivalent) and utilising the existing track to provide vehicular access across the site. The area of village green below the scarp slope is relatively flat terrain and has few upstanding earthworks, although there are also the sub-surface remains of field boundaries. As such, the land is less vulnerable to vehicular activity than the area of earthworks above the scarp slope. In this instance, it is considered that occasional parking, when the ground is dry, will have only limited impact upon the underlying resource.

7.1.3 By contrast the area above the scarp slope, is relatively steep, and undulating because of the platforms and the extant field boundaries. Two wheel drive vehicles would find it difficult to negotiate the undulating area of the platforms (Areas A and B) without bottoming, and because of the slope, in even mildly damp ground conditions, there is considerable potential for damage to the underlying and surface archaeology by vehicle rutting. It is evident that the field boundary anomaly ***R4*** extends beneath the line of the track, and intensive usage of the track by vehicles will cut down on to the underlying archaeological remains.

7.2 RECOMMENDATIONS

7.2.1 Given the very real risk of damage to the earthworks by vehicle rutting, it is recommended that vehicle parking is kept away from any of the identified earthworks. Should Scheduled Monument Consent be granted to allow for parking on the site it is recommended that this be arranged so as to ensure the protection of the archaeological remains. It is suggested that the following arrangement of the parking areas and landscaping be implemented to prevent vehicle damage to the earthworks:

7.2.2 ***Parking Areas:*** it is suggested that the fences should be erected to keep vehicles off Areas A and B, the areas of the south-eastern field boundary (F10, 11 and F13) and also earthwork F3. This would leave three areas for parking shown on Figure 12:

- an area below the scarp slope (Site **53**),
- an area to the south of the track and above the scarp slope and edged by Areas A / B and F11/12

- an small area between track F4 and boundary F1 in the north-western corner of the field

7.2.2 ***Landscaping:*** while this strategy would avoid the upstanding earthworks, it would not address the buried archaeology. It is therefore recommended that anomalies ***R3, R4*** and ***R5***, be protected by the importing of soil / aggregate to cover over these features and provide an additional buffer against vehicle erosion. Terram or similar should then be placed over the top of these deposits to further protect the ground from vehicle damage. Similarly, there is a risk of increased erosion of the track, and it is recommended that its surface be built up with imported aggregate to provide additional protection for the underlying archaeology.

8. BIBLIOGRAPHY

8.1 PRIMARY AND CARTOGRAPHIC SOURCES

CRO(K) WDRC/8/64,1837 nd *Tithe Award for Lowther Parish, including Melkinthorpe, Hackthorpe and Whale*

Institute of Geological Sciences, 1980 *Lake District Sheet 54ºN - 04ºW, solid geology, 1:250,000,* Southampton

Lawes Agricultural Trust (Soil Survey of England and Wales), 1983 *Soils of Northern England, 1:250,000,* Harpenden

Ordnance Survey, 1863 *6": 1 Mile*, Westmorland Sheet 9 Sheet **16**

8.2 SECONDARY SOURCES

Arthurton, R S, Burgess, I C, and Holliday, D W, 1978 Permian and Triassic, in Moseley, F (ed) *The geology of the Lake District,* Yorkshire Geol Soc Occ Publ, **3**, 189-206, Leeds

Countryside Commission, 1998 *Countryside Character, Volume 2: North West*, Cheltenham

Curwen, JF, 1932 Later records of North Westmorland, *Cumberland Westmorland Antiq Archaeol Soc Record Ser*, **8**

DoE, 1990 *Planning Policy Guidance 16: Archaeology and Planning*, **PPG16**

English Heritage, 1991, *Management of Archaeological Projects* 2nd edition, London

Lancaster University Archaeological Unit (LUAU), 1997 *Land at Melkinthorpe, Nr Penrith, Cumbria; Archaeological Evaluation report*, unpubl rep

Lancaster University Archaeological Unit (LUAU), 2000a *Land at Melkinthorpe, Cumbria; archaeological evaluation report*, unpubl rep

Lancaster University Archaeological Unit (LUAU), 2000b *Rose Cottage, Melkinthorpe, Cumbria; Archaeological Watching Brief*, unpubl rep

Mills, AD, 2003 *Oxford Dictionary of British Place Names*, Oxford

Moseley, F, (ed) 1978 *The geology of the Lake District,* Yorkshire Geol Soc Occ Publ, **3**, 189-206, Leeds

Oxford Archaeology North (OA North), 2002a *Survey Levels*, unpubl rep

Oxford Archaeology North (OA North), 2002b *Land at Melkinthorpe, Cumbria; Archaeological Watching Brief*, unpubl rep

RCHME (Royal Commission on Historic Monuments (England)), 1936 *An inventory of the ancient and historical monuments in the county of Westmorland, accredited to a date before 1714*, London

Roberts, BK, 1988 Norman village plantations and long strip fields in Northern England, *Geografiska Annaler*, **70B**, 169-77

Roberts, BK, 1993 Five Westmorland Settlements: A Comparative Study, *Trans Cumberland Westmorland Antiq Archaeol Soc* nser, **93**, 131-143

Smith, AH, 1967 The place-names of Westmorland, part 2, *Engl Place name Soc*, **43**, Cambridge

Taylor, C, 1983 *Village and Farmstead: A History of Rural Settlement in England*, London

Whellan, W, 1860 *The history and topography of the counties of Cumberland and Westmoreland* (sic), *comprising their ancient and modern history…*, Pontefract

APPENDIX 1
GAZETTEER OF SITES

Site number **01**
Site name Burnbank Dubs
NGR 355308 524509
Site type Lynchet
Period Unknown
SMR No **5176**
Sources CSMR
Description A series of unclassified earthwork features which may be lynchets.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **02**
Site name Melkinthorpe
NGR 355336 524996
Site type Earthworks
Period Unclassified
SMR No **5194**
Sources CSMR
Description A series of unclassified earthworks at the western edge of the village of Melkinthorpe
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **03**
Site name Melkinthorpe Village
NGR 355686 525100
Site type Shrunken Medieval Village
Period Medieval
SMR No **5195**
Sources CSMR
Description A possible eleventh/twelfth century deliberately planned rural settlement. The site consists of a single main road, with a subsidiary back lane to the east. The village would appear to have formerly had a central green, now only recognisable as an earthwork. It is similar to other planned villages in the Eden Valley.
Assessment The proposed development site is within the Scheduled Ancient Monument area of the village and will have a direct impact on the known earthwork features.

Site number **04**
Site name Melkinthorpe Hall
NGR 355580 524951
Site type Hall (site of)
Period Post-medieval
SMR No **2829**
Sources CSMR: Curwen 1932, Nicholson and Burn 1771
Description The site of Melkinthorpe Hall was reputedly constructed in the sixteenth century, and then described as a 'low mean looking building'. It was still inhabited by the 1860s, but now the site is cleared.
Assessment The site lies outside of the proposed development area and will not be affected

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Site number **05**
Site name Brownhow
NGR 324610 474120
Site type Roman Road
Period Roman

SMR No	**2838**
Sources	CSMR
Description	A cropmark is suggested as indicating the line of a Roman Road, located north of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected

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Site number	**06**
Site name	Back Lane Melkinthorpe
NGR	355757525331
Site type	Field system
Period	Medieval
SMR No	-
Sources	Roberts 1993
Description	An area identified by Roberts during 1993 as a medieval Furlong, and comprises the reverse 'S' aratral-shaped strip fields.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**07**
Site name	Melkinthorpe
NGR	355648 525507
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**08**
Site name	Melkinthorpe
NGR	355832 525259
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**09**
Site name	Melkinthorpe
NGR	356021 525096
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**10**
Site name	Melkinthorpe
NGR	356040 525042
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.

Assessment The site lies outside of the proposed development area and will not be affected.

Site number **11**
Site name Melkinthorpe
NGR 356120 525023
Site type Disused Field Boundary
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **12**
Site name Melkinthorpe
NGR 355978 525418
Site type Disused Field Boundary
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **13**
Site name Melkinthorpe
NGR 35297 525246
Site type Disused Field Boundary
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **14**
Site name Melkinthorpe
NGR 355410 524904
Site type Disused Field Boundary
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **15**
Site name Melkinthorpe
NGR 355411 524961
Site type Disused Field Boundary
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **16**
Site name Melkinthorpe

NGR	355352 524899
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**17**
Site name	Melkinthorpe
NGR	356178 525601
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**18**
Site name	Melkinthorpe
NGR	355166 524845
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**19**
Site name	Melkinthorpe
NGR	355259 524775
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**20**
Site name	Melkinthorpe
NGR	354557 525410
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**21**
Site name	Melkinthorpe
NGR	354624 525487
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863

Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**22**
Site name	Melkinthorpe
NGR	354722 525569
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**23**
Site name	Melkinthorpe
NGR	354424 524957
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**24**
Site name	Melkinthorpe
NGR	354383 525705
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**25**
Site name	Melkinthorpe
NGR	354956 525785
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**26**
Site name	Melkinthorpe
NGR	355463 526138
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**27**
Site name	Melkinthorpe
NGR	356476 525645
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**28**
Site name	Melkinthorpe
NGR	355605 524826
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**29**
Site name	Melkinthorpe
NGR	354925 526156
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**30**
Site name	Melkinthorpe
NGR	355786 525645
Site type	Disused Field Boundary
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A robbed-out field boundary within 1km radius of the village of Melkinthorpe.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**31**
Site name	Melkinthorpe
NGR	354429 524861
Site type	Disused Route
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**32**
Site name	Melkinthorpe
NGR	354403 524944
Site type	Disused Route

Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **33**
Site name Melkinthorpe
NGR 354830 526121
Site type Disused Route
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **34**
Site name Melkinthorpe
NGR 354836 526124
Site type Disused Route
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **35**
Site name Melkinthorpe
NGR 355979 525546
Site type Disused Route
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **36**
Site name Melkinthorpe
NGR 356322 524831
Site type Disused Route
Period Post-medieval
SMR No -
Sources Ordnance Survey 1863
Description A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment The site lies outside of the proposed development area and will not be affected.

Site number **37**
Site name Melkinthorpe
NGR 355217 525646
Site type Disused Route

Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**38**
Site name	Melkinthorpe
NGR	354734 525244
Site type	Disused Route
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**39**
Site name	Melkinthorpe
NGR	354468 524842
Site type	Disused Route
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**40**
Site name	Melkinthorpe
NGR	354442 524879
Site type	Disused Route
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A communication route (road, track or path) seen on 1863 mapping and which is not shown on modern mapping.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**41**
Site name	Melkinthorpe
NGR	355335 525365
Site type	Well
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	One of four wells shown on the 1863 mapping within the village.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**42**
Site name	Melkinthorpe
NGR	355390 525329
Site type	Well
Period	Post-medieval

SMR No	**-**
Sources	Ordnance Survey 1863
Description	One of four wells shown on the 1863 mapping within the village.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**43**
Site name	Melkinthorpe
NGR	355454 525302
Site type	Well
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	One of four wells shown on the 1863 mapping within the village.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**44**
Site name	Melkinthorpe
NGR	355603 525175
Site type	Well
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	One of four wells shown on the 1863 mapping within the village.
Assessment	The site lies within the proposed development area and will be potentially affected.

Site number	**45**
Site name	Brown Howe Melkinthorpe
NGR	355957 525945
Site type	Guide Post
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A guide post marked on both the Ordnance Survey 1863 map and the current mapping.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**46**
Site name	Shuts Lane, Melkinthorpe
NGR	356208 524972
Site type	Ford
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	The site of a ford shown on the 1863 mapping.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**47**
Site name	Wetheriggs, Melkinthorpe
NGR	355346 526232
Site type	Railway embankment (Disused)
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	**A r**ailway shown on the 1863 mapping, but which is now disused
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**48**
Site name	The Farm Melkinthorpe
NGR	355782 525096
Site type	Archaeological Intervention
Period	Post-medieval
SMR No	-
Sources	LUAU 1997
Description	Horse engine, banks and earthwork platform excavated by Lancaster University Archaeological Unit (now OA North) in 1997. It revealed a post medieval agricultural structure and undated platform features
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**49**
Site name	Melkinthorpe Village Core
NGR	355640 525260
Site type	Plot Boundaries
Period	Post-medieval
SMR No	-
Sources	Ordnance Survey 1863
Description	A collection of small plot boundaries and garden walls all shown on the OS first edition mapping but is not mapped today. The grouping of these features implies no direct relationship between them. One boundary is located within the proposed development site running north-east / south-west across the south-east end of the field.
Assessment	Part of the site lies within the proposed development area and will be affected.

Site number	**50**
Site name	Rose Farm Melkinthorpe
NGR	3355457 525316
Site type	Archaeological Intervention
Period	Post-medieval
SMR No	-
Sources	LUAU 2000b
Description	The area was subject to topographic survey and trial trenching in early 2000 by OA North. Some potential building platforms were surveyed but during excavation no conclusive structural building remains were encountered.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**51**
Site name	Melkinthorpe
NGR	355615 525214
Site type	Archaeological Intervention
Period	Post-medieval
SMR No	-
Sources	LUAU 2000b
Description	During a watching brief carried out by OA North in April 2000, no features were found but medieval pottery was found in the topsoil.
Assessment	The site lies outside of the proposed development area and will not be affected

Site number	**52**
Site name	Rose Farm Melkinthorpe
NGR	355458 525315
Site type	Archaeological Intervention
Period	Post-medieval
SMR No	-
Sources	OA North 2002

Description	During a watching brief carried out by OA North in April 2002 on the site of the Site 50 survey three substantial stone wall foundations were encountered. They all predated the tithe mapping of 1837.
Assessment	The site lies outside the proposed development area and will not be affected.

Site number	**53**
Site name	Melkinthorpe, south west of main street.
NGR	355604 525017
Site type	Earthwork
Period	Medieval?
SMR No	-
Sources	Roberts 1993
Description	A linear earthwork running roughly north-west / south-east parallel the main street. The feature forms a sharp slope rising up from the area of the main street. It has been interpreted as being the terraced edge of a former village green.
Assessment	The site is within the proposed development area and is likely to be seriously affected.

Site number	**54**
Site name	Melkinthorpe
NGR	355444 525327
Site type	Ridge and furrow
Period	Medieval
SMR No	-
Sources	Roberts 1993
Description	An area of ridge and furrow identified by Roberts 1993. The width is between 4m and 6m.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**55**
Site name	Melkinthorpe
NGR	3355435 525327
Site type	Ridge and furrow
Period	Medieval
SMR No	-
Sources	Roberts 1993
Description	An area of ridge and furrow identified by Roberts 1993. The width is between 4m and 6m.
Assessment	The site lies outside of the proposed development area and will not be affected.

Site number	**56**
Site name	Melkinthorpe
NGR	355533 525225
Site type	Earthworks
Period	Unknown
SMR No	-
Sources	Roberts 1993
Description	A series of unclassified earthworks planned by Roberts
Assessment	The site lies outside of the proposed development area and will not be affected.

ILLUSTRATIONS

FIGURES

PLATES

Plate 1: General aerial photographic view of Melkinthorpe (provided by Lowther Estates)

Plate 2: Aerial photograph of the development area (provided by Lowther Estates)

Plate 3: Site 53 scarp slope and Area A platform looking south-east

Plate 4: View of Site 53 scarp slope and track (F4), looking south-east

Plate 5: View of the stone bank (F11), looking

Plate 6: View of the track (F4), looking south-west

Plate 7: View of the water trough and stony area (F2), looking west