

September 1996

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**EDEN FOLD, BOLTON, APPLEBY**  
**Cumbria**

**Archaeological Evaluation Report**

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Commissioned by:

**Russell Armer Ltd**

Eden Fold, Bolton  
Appleby  
Cumbria

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Archaeological Evaluation Report

Checked by Project Manager. ..... Date
Passed for submission to client. ..... Date

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October 1996

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The documentary research was undertaken by Nigel Neil, the site inspection and field survey by Chris Wild, and the excavation by Dave Hodgkinson; the fieldwork was assisted by Graham Motteshead. The report was compiled by Nigel Neil, Dave Hodgkinson and Chris Wild, and edited by Jamie Quartermaine (Project Manager) and Rachel Newman (Assistant Director). The project was managed by Jamie Quartermaine.

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## EXECUTIVE SUMMARY

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An archaeological evaluation was carried out on pasture land adjacent to the New Crown Inn, Bolton, near Appleby, Cumbria (centred NGR NY 6395 2335) in advance of a proposed housing development. The work was carried out by the Lancaster University Archaeological Unit (LUAU) on behalf of Nichol Armstrong Lowe, Chartered Architects, and Russell Armer Ltd.

This was a green field site, with no previous archaeological information available, but was in close proximity to an early Norman church, which was potentially once the focus of a medieval village; the present village is now centred *c*275m to the south-west of the church. An evaluation programme was therefore recommended by the County Archaeologist to establish if the area of the proposed development had any archaeological potential. LUAU prepared a project design for this evaluation (*Appendix 2*), in accordance with a verbal brief from the County Archaeologist.

The work comprised a desk-based study, compiling data from the Cumbria Sites and Monuments Record, National Monuments Record, and Cumbria Record Office, followed by a topographic survey of the upstanding earthworks and a selective programme of excavation by trial trenching.

The desk-based study confirmed the fourteenth-century or earlier date of the manor, and twelfth-century construction of the nearby All Saints church, but showed that the village was poorly documented in the written and cartographic record. Earthworks had previously been identified from aerial photographic sources in the northern and central parts of the village, including poorly defined examples within the development site. Although the aerial photographic sites had not been plotted in detail, the earthworks throughout the village were considered to be predominantly of agricultural origin, though they also included a few probable boundary features. A number of late medieval or early post-medieval houses (which were listed buildings), and an early nineteenth century bridge, were also noted, but none of the latter were at risk from the development.

The study area is presently permanent pasture, but evidence for ploughing was present in the form of ridge and furrow earthworks in the southern part of the field. The spacing of the crowns was on average 5.5m, and seemingly belongs to a period prior to the introduction of post-medieval steam ploughing. Immediately to the south-east of this field system lay a large bank which possibly formed its eastern boundary; this was aligned parallel to the ridge and furrow.

The trenching programme investigated the ridge and furrow and the associated bank, but neither produced any dating evidence. The large bank was found to have been formed by the gradual accumulation of topsoil as a result of ploughing activity against the line of a former field boundary. A depression situated in the northern part of the study area was revealed to be a small quarry, which was possibly the source for the adjacent wall.

The archaeological resource, identified during the evaluation, was consistent with a medieval or post-medieval agricultural landscape, but was not of sufficient archaeological importance to justify recommending any further archaeological work.

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## 1. INTRODUCTION

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- 1.1** An archaeological evaluation was undertaken by the Lancaster University Archaeological Unit (LUAU) on behalf of Nichol Armstrong Lowe, Chartered Architects, as a planning condition applied by Eden District Council, in advance of a housing development of pasture land adjacent to the New Crown Inn, Bolton, near Appleby, Cumbria (centred NGR NY 6395 2335). This proposed housing development is to the north-west of another recently constructed housing estate. The study area comprises an area of *c*24ha, lying between the New Crown Inn (to the south-west) and Bolton vicarage (to the north-east), on the opposite side of the Cliburn to Appleby road from All Saints Church.
- 1.2** The purpose of the assessment was to collate existing archaeological information from various sources, and to carry out a field survey and trial excavation to identify any surface or sub-surface archaeological remains.
- 1.3** Due to time constraints, the field survey and trial excavations were carried out in parallel with the desk top study. All the work was undertaken between 9th and 20th September 1996 and the fieldwork was undertaken on 13th and 16th September 1996.
- 1.4** This report sets out the results of the work as a gazetteer in conjunction with a methodology statement, a brief text description of desk-based and field results, an assessment of the archaeological potential within the study area, and an evaluation of the impact that the development proposals will have upon the archaeological resource.

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## 2. METHODOLOGY

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### 2.1 PROJECT DESIGN

- 2.1.1 A Project Design (Appendix 2) was submitted by LUAU in response to a request from Nichol Armstrong Lowe, Chartered Architects, for an archaeological evaluation of the proposed development of pasture land adjacent to the New Crown Inn, Bolton, near Appleby, Cumbria (centred NGR NY 6395 2335). This was designed to meet the requirements of a verbal Project Brief by the Cumbria County Archaeologist.
- 2.1.2 The Project Design provided for an initial archaeological assessment involving a desk top survey and a topographic field survey, followed by the excavation of trial trenches, the results being presented in the present written report. The work has been carried out entirely in accordance with the Project Design.

### 2.2 DESK TOP SURVEY

- 2.2.1 Existing archaeological information was obtained by postal search from the Cumbria Sites and Monuments Record (CSMR) and the Archaeology and Buildings sections of the National Monuments Record, Swindon (NMR). Copies of geological, soils, and early topographical maps were obtained from Lancaster University Library; the early maps include those of Saxton (1576), Speed (1611), and Cary (1805). Cumbria Record Office (CRO), Kendal, supplied copies of the 1863 Ordnance Survey (OS) first edition 6": 1 mile (1:10,560), second (1898) and third (1916) editions of the 1:2500 series (first edition of the relevant sheet is missing from the CRO collection), and the 1:1250 series of 1911 and accompanying Inland Revenue land valuation assessment (CRO WT/DV/2/7, p10, no 86). A few published antiquarian sources were also studied in Lancaster University Library (Nicholson and Burn 1777, 1, 454-6; Whellan 1860, 804-5; Fleming 1882; Bulmer 1885, 352-4). Previous researchers (Lees 1876; Carmichael 1927 (a and b), and RCHME 1936, 42-4) have concentrated on the thirteenth-century Bewley Castle (CSMR 1639), some 2.3km to the south, and the twelfth-century Bolton Church (CSMR 1645), c50m from the northern edge of the site; however, there is very little published historical documentation for the village as a whole.
- 2.2.2 The former Cumbria County Archaeologist, Mr T Clare, now of the Department of Biological and Earth Sciences, John Moores University, Liverpool, is currently studying some of the medieval villages of Cumbria (Clare 1996), and in part reviewing the 'archaeological hazard area' surveys of Mr P Turnbull (c1985). This provides an important perspective to the formation of Cumbrian villages, but unfortunately the material provided makes no direct reference to Bolton.
- 2.2.3 **Cartographic sources:** Manuscript maps and selected documents were studied in the Kendal and Carlisle branches of the Cumbria Record Office (CRO). Whilst most former Westmorland CRO material is housed in Kendal, much of Bolton was in the ownership of the Dean and Chapter of the Diocese of Carlisle, and the customary tenancy of the Lowther family, Earls of Lonsdale, both of whose



collections for the whole of Cumbria are housed in Carlisle. The availability of manuscript maps was limited to an enclosure map of 1813 (CRO Kendal WQR/I 10; award 1808). No tithe map exists, indicating that tithes were probably commuted at the time of enclosure, and no estate maps were located. The enclosure map is also of little relevance, since the field comprising the study area is not indicated, other than as part of 'Bolton Grounds' (common fields). It seems likely, though cannot be proved, that 'Bolton Grounds' were still open fields until c1813, although enclosure was clearly complete by 1863, the date of the OS 1st edition 6": 1 mile map.

2.2.4 In view of the poor cartographic documentation the following catalogues of Lowther documents were appraised, and selected documents studied briefly for relevant information: estate documents (CRO Carlisle D/Lons/L5 Bolton/1-22), manorial (D/Lons/L5/2/3/1-20), surveys (D/Lons/L8/17-37), deeds (D/Lons/L5/1), and Carleton of Hillbeck and Appleby papers deposited through the Lowther estate (D/Lons/L12/2 and 3). The Dean and Chapter of the Diocese of Carlisle collection was found to contain a few Bolton surveys, rentals, deeds, and correspondence under the Morland parish heading (D&C Morland), but the fine Morland enclosure map of 1799, in this collection (D&C/1/77), does not show Bolton.

2.2.5 **Aerial photography:** Examination of the oblique aerial photographs within the CSMR was undertaken. Although a number of general and detail views of the village were available (CSMR CCC 2438, 11-18; CCC 2826,3, and MU CS 94,20), none of the detailed views covered the study area, and none of the earthworks in the village appear to have been previously plotted. Ordnance Survey (1968) 1:2500 vertical coverage in the Cumbria County Council offices, Kendal, is currently inaccessible. Vertical and oblique cover-searches of the NMR's Aerial Photography collections have been requested, but this information cannot be included in the present report as there is currently a four week waiting list for this service.

## 2.3 FIELD SURVEY

2.3.1 A field survey was carried out at the request of the County Archaeologist in order to evaluate the area of proposed development by non-intrusive methods. Any sites of archaeological interest identified were then incorporated into the subsequent programme of trial trenching.

2.3.2 A Level 2 topographic survey (LUAU 1993) was undertaken by LUAU of the study area. This involved the generation of complete hachured interpretative drawings of the earthworks, and defined the extent of all surface archaeological features, in relation to the main topographic elements. It is produced in conjunction with both an objective and an interpretative description of individual features, and all these elements have been included, in full, in the landscape gazetteer (Section 7). It can serve as the basis for archaeological mitigation of earthwork sites of limited archaeological significance.

2.3.3 The archaeological features were located by systematic ground reconnaissance. The archaeological detail as well as significant topographic detail were surveyed using a total station and data-logger. The digital survey data was transferred into a CAD system (FastCAD). The archaeological detail was drawn up in the field with

respect to field plots of the survey data and these edits were then drawn up onto the raw survey data within the CAD system. The archaeological digital data was subsequently superimposed with base digital topographic data digitised from the appropriate Ordnance Survey base.

## 2.4 TRIAL TRENCHING

- 2.4.1 A programme of trial excavation was formulated in consultation with the County Archaeologist, and it was intended that this would target features of suspected archaeological significance which were visible as earthworks or linear features identified from the surface survey. The County Archaeologist requested that the trenches investigate an area of approximately 3.5% of the study area, which was to be achieved through the excavation of either four trenches each measuring 30m in length, or eight trenches measuring 15m in length. In the eventuality a total of five trenches was excavated measuring between 20-30m by 1.80m; on average the trenches were 0.25m - 0.35m deep. For the most part the trenches were located to examine surface features.
- 2.4.2 Turf, topsoil and subsoil were separated during the excavation and replaced in reverse order to ensure that the reinstatement was to as high a standard as possible. The field was used as grazing for a horse in the course of the evaluation, and it was therefore necessary to backfill the trenches immediately after recording had taken place, to prevent any risk of injury to the animal.
- 2.4.3 The excavation was initially undertaken by a mechanical excavator (a Case Sitemaster) fitted with a 1.8m toothless ditching bucket, and was followed by manual excavation for the purposes of examining archaeological detail. Excavation was undertaken to a depth of natural subsoils in all trenches. The trenches were then mechanically backfilled.
- 2.4.4 All excavation was carried out stratigraphically, whether by machine or by hand, and recorded in the appropriate manner. The recording methods employed by LUAU accord with those recommended by English Heritage's Central Archaeology Service (CAS). Recording was in the form of *pro forma* Trench Sheets for each trench, which recorded the orientation, length, and depth of machining, and described the nature of the topsoil, subsoil (where applicable), and geological deposits. Where potential features were observed they were manually sampled with a full textual, drawn, and photographic record being maintained. Any finds recovered were bagged and recorded by either the trench number or, where appropriate, by the context number of the deposit from which they were recovered.
- 2.4.5 The positions of the trenches were recorded using a Global Positioning System (GPS). The GPS consists of two receivers, one stationary in a known location and a second mobile one used in the field, both of which record data transmitted from earth-orbiting satellites. Comparison of the data from the two receivers enables the location of the mobile one to be determined to an accuracy of better than c1m.

## 2.5 GAZETTEER OF SITES

2.5.1 The collated information on the site and its *immediate* environs has been presented in the form of a gazetteer in conjunction with an annotated map at 1:10,000 scale showing the locations of the sites. Locations are given as eight-figure National Grid References where possible. A summary description of each site is provided in conjunction with a reference to the source of the information (SMR, cartographic, documentary, field inspection, and trial excavation) with references as appropriate. An assessment has been given of the interpretation and archaeological potential of the site. Other sites within and around the village, which were considered to be of background relevance, are mentioned in the text with appropriate SMR references.

## **2.6 ARCHIVE**

2.6.1 A full archive of the desk top survey, field inspection, and trial trenches has been produced to a professional standard in accordance with the current English Heritage guidelines (English Heritage 1991). The archive will be deposited with the County Record Office with a copy of the report given to the CSMR. A copy of the archive will also be available for deposition with the National Monuments Record in Swindon.

## **2.7 HEALTH AND SAFETY**

2.7.1 Both Lancaster University and LUAU maintain Safety Policies, the latter based on the SCAUM (Standing Conference of Unit Managers) Health and Safety Manual (1991). In keeping with current Health and Safety at Work Regulations, prior to commencing on-site work, a risk assessment for each activity was completed. Due regard was given to all Health and Safety considerations during all aspects of the project, with service information having been gained from the client regarding services. However, it is LUAU standard practice to scan the positions of all trenches for underground cables using a U-scan meter. No services were revealed during the course of the evaluation programme.

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### 3. TOPOGRAPHIC AND HISTORICAL CONTEXT

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#### 3.1 LOCATION

3.1.1 The site lies at the north-east corner of the medieval and post-medieval village of Bolton, some 4km east of Morland, 2.9km north-east of King's Meaburn, and 5km north-west of Appleby. Historically, the chapelry of Bolton comprises no dependant townships, being included in the townships of Morland and Sleagill, within Morland Parish, in the West Ward of Westmorland (Whellan 1860, 804-5). The study area is bounded to the north-west by the Cliburn to Appleby minor road, and between the New Crown Inn, formerly the Malt Shovel (OS 1863; to the south-west), and Bolton vicarage to the north-east. The latter was built in 1874 (Bulmer 1885, 353; plan CRO Carlisle DB/6/1/242). The site lies on the opposite side of the Cliburn to Appleby road from All Saints Church (CSMR 1645; NMR 13654), which is of twelfth century foundation.

#### 3.2 GEOLOGY

3.2.1 The study area lies c250m from the west bank of the River Eden. The river valley cuts through soils of the Clifton Association [711n] derived from reddish till drift geology (Lawes Agricultural Trust 1983). Soils of the Enborne Association [811a], immediately to the north-east of the site and possibly below part of it, are derived from the river alluvium, as are Wick 1 Association [541r] river terrace drift soils east of the river (Jarvis *et al* 1984, 186-8). The solid geology below Bolton comprises Lower Permian sandstones, the Penrith Sandstone (Inst Geol Sci 1980; Arthurton *et al* 1978, 135-9, 186-8, and 302-5).

#### 3.3 HISTORICAL BACKGROUND

3.3.1 **Prehistoric and Roman:** Four pre-medieval sites are recorded in the CSMR in relatively close proximity to the Eden Fold site. The first of these is a Roman temporary camp (a Scheduled Monument; NGR NY 6510 2380, CSMR 1654; NMR 13608) which is c1.1km north-east of Eden Fold, east of Redlands, and is visible as an earthwork and crop marks. A second crop mark site, a sub-circular ditched enclosure, possibly a Romano-British farmstead, is located at NY 6437 2432 (CSMR 1641). The others are an imprecisely located Roman signalling station (NY 65 23; NMR 13621) first recorded by Rev Thomas Machell in the mid-seventeenth century, and an undated, but possibly prehistoric, ring ditch at NY 650 239 (NMR 13624). All these sites lie east of the River Eden.

3.3.2 **Medieval:** Bolton does not appear in *Domesday Book*, but Smith (1967, 139) gives variant spellings of the place-name from c1100-33 onwards. These include *Boelton* (1100-33 and 1268), *Botelton* (twelfth century), *Bothinton* (c1200), *Boulton* (1176, and repeatedly to 1496), *Bowelton* (1256), *Boleton* (1315), and finally *Bolton* (1317 to 1663). The derivation of the name is probably the Old English *bool* 'buildings, houses' with *tun* 'enclosure' (Ekwall 1960, 52; Smith 1967, 139), or, stretching the point, 'the town near the manor house' (Bulmer 1885, 353).

- 3.3.3 The Church of All Saints, Bolton (NMR 13654; also 508130 and National Buildings Record 19094), is of twelfth and thirteenth century date, with later additions in 1848. It was formerly a chapel of Morland parish and was attached to the Priory of Wetheral, by 1885 Bolton had become a parish in its own right and the chapel became the parish church. It is first documented in 1314, as being in the ownership of Ralph, Baron of Greystoke. It is a Grade I listed building (DoE 1984, 17) and is most celebrated for a twelfth century carving of two knights on horseback fighting or jousting with kite-shields and lances (Carmichael 1927b, 189-90; RCHME 1936, 43 and pl 5; Burgess 1982, 14).
- 3.3.4 Lees (1876, 278) states that a partly blocked twelfth century doorway in the north wall of the nave of All Saints Church was, according to local tradition, for the use of the inhabitants of a much larger village situated north of the church in ancient days' (NMR 13647). The OS field inspector, Finch-Dawson (June 1978; CSMR 1645) stated that 'we doubt if this exists. ... there was a row of thatched cottages west of the church, which were pulled down ... in no sense a deserted village'.
- 3.3.5 It appears that there were two manors within the Chapelry of Bolton. In 1779 the Lowthers, Earls of Lonsdale, bought one from the Brougham family, and in 1809 the other from the Fletcher Vane family (CRO Carlisle, notes in D/Lons catalogue). There being no published or manuscript map evidence to identify these boundaries, no attempt was made to identify them from documents, since this was not immediately relevant to the site-specific study. A number of documents were noted, however, as describing the bounds of the manors and the boundary between Bolton and King's Meaburn (CRO Carlisle D/Lons/L5/2/3/19 and 20). Carmichael (1927a, 185) and Smith (1967, 139) contend that the manor containing Bewley Castle was originally called *Fitnenin*, which is first recorded in 1170-5. The name of the other manor was presumably always Bolton. The Lowther Bolton estate in c1803 was tenanted by William Corry, and was described (CRO Carlisle D/Lons/L8/18, f10) as 'Corry farm is in general poor land ... very [?wide] and small parcels, the buildings are all in bad state and ought to be repaired immediately'.
- 3.3.6 It is known that Bewley Castle, south of Bolton, was a residence of the bishops of Carlisle, and apparently built by them in the thirteenth century, and restored by Bishop Strickland in 1402 (SMR 1639; RCHME 1936, 43-4; Carmichael 1927a); however, it is not known how much of the adjacent land was owned by the Dean and Chapter. Nicholson and Burn (1777, 1, 455) record that the Priory of Wetheral had five tenements in Bolton in the twelfth century, while the Ratcliffes rented their land in Bolton from Shap Abbey at the time of the Dissolution. Henry II (1154-89) confirmed to the priory of Carlisle certain 'debatable lands', with common of pasture, lying between Bolton and Colby (Nicholson and Burn 1777, 1, 455). The CRO catalogues indicate that a dozen or more families were customary tenants in Morland Parish, generally taken to include Bolton, by the nineteenth century.
- 3.3.7 The earliest recorded possessor of Bolton is Ralph, Baron of Greystoke, in 1314. In 1326 the Derwentwaters held it under the Greystokes, and are recorded as having founded a Chantry in Bolton Chapel. Subsequently, the manor(s) was/were held as sub-tenancies by the Radcliffes (who were related to the Derwentwaters) from the Greystokes, who in turn held it from the Cliffords.

3.3.8 Other post-medieval sites in the vicinity include Bolton Mill (NY 6455 2328; CSMR 15514), with a mill stream to the north, which is shown on the OS (1863) map, and as disused in 1957, but apparently in use in 1974. Bolton Bridge (NY 6416 2351; CSMR 15511) was built in 1807. A number of houses in the village incorporate late medieval or early post-medieval elements (DoE 1984, 17-19) but, as with the mill and bridge, are too far from the development site to be of relevance to the present study.

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## 4. ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

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### 4.1 DESK TOP STUDY

- 4.1.1 **Cumbria Sites and Monuments Record, and National Monuments Record:** An examination of the Cumbria Sites and Monuments Record (CSMR) and National Monuments Record (NMR) databases revealed only four sites in the immediate vicinity of the study area (taken as being a 1 km radius from the centre of the Eden Fold site), of which only two are specifically relevant to the present study, and one of these is an 'archaeological hazard area' for the village as a whole. These sites are listed in the gazetteer (*Section 7*). No specifically described CSMR or NMR sites were found within the area of the proposed development. Other sites outside this study radius on the CSMR and NMR databases include Roman, Romano-British, and possibly late prehistoric sites east of the River Eden and are mentioned in the text (3.3.1). There is therefore a possibility that unsuspected archaeological sites or unassociated finds of these periods could be discovered in the development site.
- 4.1.2 All of the recorded buildings and structures in the village (CSMR, NMR, and DoE list) are too far from the development site to be materially relevant.
- 4.1.3 The 'archaeological hazard area' (CSMR 6751) for Bolton village is based on the limits of apparently early plot boundaries. An internal Cumbria County Council report *Medieval Villages in Eden District*, compiled by Mr P Turnbull (c1985), defines three classes of earthwork visible in villages in the District. These are: Class 1, poorly defined earthworks; Class 2, boundary features and cultivation; and Class 3, house platforms, other structures, fishponds, and possibly pre-medieval features. Nine areas of earthworks, one of Class 1, three of Class 2, and five of Class 3 occur in Bolton; those in the Eden Fold site are designated as Class 2. The aerial photography unfortunately is of insufficient quality to enable mapping of the earthworks in the Eden Fold site. According to the CSMR, no indications of a Deserted Medieval Village are visible on the OS 1968 aerial photographs, but these could not be accessed to confirm this.
- 4.1.4 The classification system of 'archaeological hazard areas' described above is now considered to be flawed (B Hopkins, CSMR, pers comm) and the hazard area around Bolton could justifiably be increased, on the basis of further areas of medieval cultivation (ridge and furrow). Mr T Clare, of John Moores University, Liverpool, is re-assessing some Cumbrian village plans (Clare 1996; T Clare pers comm), but this work has not yet included a detailed treatment of Bolton, in part because of the limited documentary evidence available.
- 4.1.5 A listing of further aerial photographic coverage available elsewhere has been requested from the NMR and will be received within about three weeks of the submission of the present report, but it is not considered that the results of the desk-based and field work undertaken to date justify the cost or delay necessary to obtain copies for study on receipt of this list.
- 4.1.6 **Documentary and cartographic evidence:** The desk-based study confirmed the fourteenth-century or earlier date of the manor, and twelfth-century construction of the nearby All Saints church, but showed that the village was poorly documented in

the written and cartographic record. Although a number of manuscript sources were studied, in addition to the published histories of Westmorland, no mention was found of settlement to the south of the church, in or near the development site.

- 4.1.7 With the absence of a title or estate map, six maps were examined: the 1813 enclosure map (CRO Kendal WQR/ I 10), Cary's (1805) map, the Ordnance Survey (OS) 1st edition 6": 1 mile map of 1863, the OS 1:2500 maps of 1898 and 1916, and OS 1:1250 map of 1911.
- 4.1.8 Saxton's (1576) and Speed's (1611) maps are at too small a scale to show the development site. Cary's (1805) map shows that the road on the north side of the site did not extend beyond the church, Bolton Bridge to the east having been built in 1807. It is not known, however, if the bridge was preceded by a ford at the same location. The Eden Fold site, and New Crown Inn adjacent to it, were numbered 86 on the OS 1:1250 map, Inland Revenue land valuation copy, in 1911. In the accompanying schedule (CRO Kendal WT/DV/2/7, p10) it is shown as being occupied by Robert Seed, and owned by Glasson's Brewery Co, Penrith. The inn is shown (unnamed) on the enclosure map of 1813 (CRO Kendal WQR /I 10), as the Malt Shovel in 1863 (OS 1st edition 6": 1 mile), and as the New Crown from 1898 (OS); it is not known when, or why, the name was changed. The 1:1250 and 1:2500 maps of 1898-1916 indicate no features within the Eden Fold site, other than a 'trough' 14m long at the roadside to the north-east, which is still *in-situ*. The plot boundary has remained unchanged from 1863 to the present.

## 4.2 FIELD SURVEY

- 4.2.1 The topographic survey of the proposed development area identified the following features:
- 4.2.2 **Ridge and Furrow:** An area of ridge and furrow field system (Site 1) was identified in the southern part of the field. The remains were very ill-defined due to subsequent ploughing, but five crowns were visible aligned parallel to the road, surviving to a maximum height of 0.2m, and at a spacing of *c*5.5m on average. The field system had been cut by two narrow paths or tracks of later date, and have also been destroyed in the south-western part of the field by recent activity. The width of the ridge and furrow is broader than that typically generated by nineteenth century steam ploughing, and therefore may be of an earlier date.
- 4.2.3 **Boundary Bank:** Immediately to the south-east of this field system lay a bank (Site 6) which may possibly have been its eastern boundary. It survived to a maximum height of 0.4m and was aligned parallel to the ridge and furrow, but at a slight angle with respect to the present field boundary. The bank extended for *c* 50m, and was truncated at its western end by a large tree. It was not observed beyond this point, probably having been levelled during subsequent re-organisation of field boundaries.
- 4.2.4 In the northern part of the field, to the east of the recently inserted access road, a semi-circular depression (Site 8) was identified. It was *c*25m in diameter, *c*1.5m in depth and had a slight bank of 0.1m height on the south side. This feature is



most likely to have been a quarry for stone either for the road or the adjacent field boundaries.

4.2.5 In the north-east corner of the survey area were the remains of a possible demolished stone structure (Site 8), which was of an unknown date.

4.2.6 There was much modern disturbance immediately to the east of the new access road, in an area adjacent to the recent housing development, which is to the south-west of the study area.

#### 4.3 TRIAL TRENCHING

4.3.1 A total of five trenches was excavated to evaluate the archaeological potential of the proposed housing development site. The locations of the trenches are shown in Fig 2; the generalised trench description is assessed below (*Sections 4.3.2-4*) and the detailed descriptions for each excavated trench are given in Appendix 1.

4.3.2 **General Trench Description:** The trench dimensions varied from 20m and 30m in length due to constraints of topography. Trench 1 was excavated across the eastern edge of the study area; Trench 2 was sited to inspect the nature of a hollow and bank feature (Site 8) located in the northern sector of the study area; Trenches 3 and 4 were sited in areas where there were no obvious archaeological features to act as a control and Trench 5 was excavated through a large linear bank (Site 6) in the south of the study area, immediately north of the hedge.

4.3.3 The identified natural deposits were exclusively orange brown, silty clay sands which contained *c*10% small angular and sub-angular stones; no solid geological deposits were revealed as part of this evaluation. The stones were of mixed sizes and were glacially derived.

4.3.4 The large semi-circular feature (Site 7) examined by Trench 2, appeared to be a quarried area which contained large boulders within a deposit of mixed sandy clay. The ridge and furrow earthworks inspected within Trench 1 did not produce any datable artefacts, but they did survive as subsurface features in the form of strips of mixed sand and loam within the natural subsoil, coinciding with the surface furrows. The large bank (Site 6) which was examined by Trench 5 was the result of the gradual accumulation of soil as the result of the ploughing activity and marked the extent of the ploughed area.

4.3.5 No datable archaeological features were identified within any of the evaluation trenches. Those artefacts that were recovered from the evaluation were exclusively post-medieval in date and were recovered from topsoil deposits.

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## 5. DISCUSSION

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### 5.1 FIELD SURVEY

5.1.1 The topographic survey identified an extant agricultural landscape within the area of the proposed development. A field system of ridge and furrow, with an associated bank (Site 6), was identified and recorded in the southern part of the study area. A stone quarry (Site 7) was also identified which probably supplied the material for the adjacent dry-stone walls. The broad width of the ridge and furrow would suggest that it was not a product of post-medieval steam ploughing and therefore may be of a medieval or early post-medieval date. The bank deviated from the line of the present field boundary, suggesting that it followed the line of an earlier boundary. Although both features do not appear to be of recent origin, it was not possible to provide a reliable date on surface form alone, and they were therefore identified as target areas for the subsequent excavation.

### 5.2 TRIAL TRENCHING

5.2.1 The features examined by the trial trenching programme did not yield any datable artefacts, and those artefacts which were recovered were located in the topsoil deposits and were of later post-medieval date. The trenching was therefore not able to demonstrate earlier activity on the site. The upstanding earthworks investigated proved to be associated with either localised quarrying for wall stone, or with cultivation in the form of ridge and furrow earthworks and a field boundary. The quarry appears to have exploited an isolated occurrence of large, rounded glacial boulders within the natural subsoil.

5.2.2 The ploughing activity, although easily identifiable as surface remains, also left subsurface features in the form of strips of mixed sand and loam within the natural subsoil, coinciding with the furrows of the surface remains. The bank investigated in Trench 5 was the result of the gradual accumulation of soil due to the ploughing activity, and marked the extent of the ploughed area.

### 5.3 VILLAGE DEVELOPMENT

5.3.1 The documentary evidence for a Deserted Medieval Village at Bolton is tenuous; the church is located in the north-east corner of the present village, and might be expected originally to have lain in the centre of the village. The curved southern boundary to the churchyard, around which the road has diverted, could also be taken to be an original medieval feature. However, neither cartographic nor written documentary evidence has been found to confirm the former location of dwellings other than to the south-west of the church, as today.

5.3.2 As was stated in Section 3.3.7, Lees (1876, 278) states that a partly blocked twelfth century doorway in the *north* wall of the nave of All Saints Church was according to local tradition, for the use of the inhabitants of a much larger village situated north of the church in ancient days' (NMR 13647). The OS field inspector, Finch-Dawson (June 1978; CSMR 1645) stated that 'we doubt if this exists' and commented that demolished thatched cottages to the west were 'in no

sense a deserted village'. The apparent absence of settlement earlier than the post-medieval period within the study area indicates that medieval settlement in the area was perhaps not focused around the church as was the norm and was perhaps more linear, strung out along the road. Roberts (1990) and Clare (1996, 173) consider planned linear villages in Cumbria to have appeared in the twelfth century, which would be in keeping with the date of the church, but others (O'Sullivan 1980, 1985) have seen the potential circular enclosure around the church as being possibly indicative of a Celtic foundation, on the basis of Irish and Welsh parallels. However, there is little evidence to support such a chronology for Cumbrian examples.

- 5.3.3 The documentary study has not been able to identify any evidence of settlement to the south-east of the church and this would appear to accord with both the surface and sub-surface evidence from the evaluation. It would therefore appear that the study area has always had an agricultural function.

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## 6. ARCHAEOLOGICAL IMPACT AND RECOMMENDATIONS

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### 5.2 IMPACT

- 5.2.1 The proposal to develop the study area for housing will involve extensive groundworks for the provision of services and for the excavation of foundations and would thus have a profound impact on any archaeological remains within the extent of the study area.
- 5.2.2 There is a limited potential for medieval or early post-medieval remains within the area around the Norman church. However, despite systematic trenching, the evaluation has not identified significant archaeological features within the extent of the study area and has highlighted a resource of only local archaeological importance. Therefore, on the present evidence, it is believed that the proposed development will not have an undue impact upon the archaeological resource of the locality.

### 5.3 RECOMMENDATIONS FOR FURTHER INVESTIGATION

- 5.3.1 Current policy dictates that wherever possible identified sites of archaeological importance are preserved *in-situ* as embodied in the Institute of Field Archaeologists' *Code of Conduct* and the Department of Environment *Planning Policy Guidance Note 16*. Our concern must be to protect and preserve archaeological sites wherever possible, and only where this is not feasible are destructive techniques of record advocated. Our aim is to recommend the appropriate action which will achieve recording objectively, without the waste of resources.
- 5.3.2 The Level 2 form of survey (LUAU 1996) provides for a basic record of surface features, and is a type typically undertaken as part of an evaluation (CAAO 1993). It can serve as a mitigation measure for sites of limited archaeological significance with poor surface survival and which are under threat. The earthworks identified by the present programme fall within this category and it can therefore be considered that an adequate mitigative record of the surface features has now been undertaken
- 5.3.3 The evaluation of the proposed housing development at Eden Fold, Bolton, Appleby has not revealed any significant or datable archaeological features which would be compromised by the proposed housing development, and the identified resource was not of sufficient archaeological importance to justify recommending any further archaeological work.

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## 7. GAZETTEER OF SITES

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### 7.1 DOCUMENTARY SURVEY

<b>Site number</b>	<b>01</b>
<b>Site name</b>	Eden Fold (applies to whole site)
<b>NGR</b>	NY 6395 2335
<b>Site type</b>	Earthworks, field boundary
<b>Period</b>	Unknown, ?medieval
<b>Source</b>	<b>Documentary:</b> CSMR 6751; [Turnbull, nd] <i>Medieval villages in Eden District</i> .

#### Description

No description or specific location was available for the earthworks from the SMR or other sources. Eden Fold is the name of the plot supplied by the client; but no confirmation for this was established from the investigated cartographic sources; although there were none to contradict it either. CSMR 6751 is the Cumbria County Council 'archaeological hazard area' for Bolton village as a whole, and none of the earthworks in the village are specifically described. The available aerial photography (oblique) was too distant to plot earthworks in this part of the village, and no previous plotting has taken place. A field boundary, which was not shown on the enclosure map (1813), possibly indicates a post-1813 enclosure; however, this may have been an intentional omission. It is shown in all subsequent OS mapping from 1863 to the present.

#### Assessment

Described as Class 2 earthworks by Turnbull, implying boundary and agricultural features.

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<b>Site number</b>	<b>02</b>
<b>Site name</b>	Eden Fold
<b>NGR</b>	NY 6395 2336
<b>Site type</b>	Trough
<b>Period</b>	Unknown, ?post-medieval
<b>Source</b>	Cartographic

#### Description

A trough, shown on OS maps 1898-1916. The trough still survives, and is supplied by a conduit from a natural spring. It may be of a relatively early date.

#### Assessment

The development should seek to retain the trough and its water supply, if at all possible.

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<b>Site number</b>	<b>03</b>
<b>Site name</b>	New Crown Inn
<b>NGR</b>	NY 6392 2334
<b>Site type</b>	Public house
<b>Period</b>	Unknown, post-medieval, pre-1813
<b>Source</b>	Cartographic
<b>Description</b>	

A building shown on the enclosure map (1813) and all OS editions. It was called the Malt Shovel on the OS 1863 map, but was the New Crown by 1898. It is not a listed building.

#### Assessment

The site lies outside the proposed development area.

<b>Site number</b>	<b>04</b>
<b>Site name</b>	All Saints Church
<b>NGR</b>	NY 6393 2341
<b>Site type</b>	Church, graveyard
<b>Period</b>	Medieval, 12th century with later additions
<b>Source</b>	NMR 13654; CSMR 1645 (mention of); DoE 1984, 17

#### Description

A Norman chapel and a Grade I listed building. Detailed descriptions are provided by Lees (1876), Carmichael (1927b), RCHME (1936) and DoE (1984).

#### Assessment

The site lies outside the proposed development area.

## 7.2 FIELD SURVEY

<b>Site Number</b>	<b>05</b>
<b>Type</b>	Field system
<b>Period</b>	Post-medieval
<b>NGR</b>	NY 6399 2334

#### Description

An area of poorly preserved ridge and furrow field system. The maximum height of the crowns was 0.2m and the average distance between crowns was c5.5m. Five ridges, aligned parallel to the road, survived, although these were truncated by modern disturbance at the western end of the field.

<b>Site Number</b>	<b>06</b>
<b>Type</b>	Bank
<b>Period</b>	Post-medieval
<b>NGR</b>	NY 6401 2333

#### Description

A bank, with a maximum height of 0.4m, marks the southern edge of the ridge and furrow field system (Site 1), and is aligned parallel to it. It is only visible in the eastern part of the field, for a length of c50m; the remainder was possibly levelled during subsequent re-organisation of field boundaries in the area.

<b>Site Number</b>	<b>07</b>
<b>Type</b>	Quarry
<b>Period</b>	Post-medieval

**NGR** NY 6397 2336

**Description**

A semi-circular depression in the north of the area of proposed development, adjacent to the road. It measures c25m in diameter, and has a slight bank of 0.1m on the south side. It was investigated by the excavation Trench 2 and was found to contain large stones within a deposit of sandy clay. It was probably a quarry for stone for the adjacent field boundaries.

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**Site Number** 08

**Type** Demolished building ?

**Period** Post-medieval

**NGR** NY 6398 2338

**Description**

A large pile of worked, and ashlar building masonry; It probably originated from a now demolished building, although this was not necessarily at this location and may have been moved to the present site. It was contained within an area of dark green vegetation.

## 8. BIBLIOGRAPHY

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### 8.1 PRIMARY SOURCES

#### *Cumbria Record Office, Kendal*

WQR/ I 10            *Plan of Bolton Common in the county of Westmoreland*, 1813.  
Enclosure map (See also WD /BS No 1179, late nineteenth century  
copy of same)

WT/DV/2/7            Inland Revenue valuation book, 1911 (ref to OS 1:1250 map)

WD/HH/145            Sale particulars (no plan) *Farm called Old Bewley Castle, in King's  
Meaburn, Colby, and Bolton, 19 March 1921*

#### *Cumbria Record Office, Carlisle*

DB/6/1/242            Ground floor plan of Bolton Vicarage, J H Martindale & Son,  
architects, Carlisle, nd [?1870s]

#### D/Lons/L8 (Surveys)

/17                      Survey, valuation, and description of farms at Ravenstonedale, ...  
Bolton, ..., nd c1811

/18                      Book of surveys and valuations with reports of estates in  
Ravenstonedale, .. Bolton, nd, c1811

/26                      Book of surveys and valuations with plans (not of Bolton) by Wm  
Lumb of ... Bolton Moor, nd, c1817

/37                      Book of township and farm valuations, 1807-39, including *A  
valuation of the Earl of Lonsdale's estate under the management of  
Mr Benn of Lowther*

#### D/Lons/L12

/3/3                      Carleton of Hillbeck and Appleby papers  
Bundle of deeds and papers re Carlisle D&C property in Bolton,  
1643-1798 (38 items)

/3/4                      Letters and papers re enclosure of Bolton Pasture, 1751-61 (24  
items)

3/19                      Measurement of land, Bolton, Clifton, and Dockergarth, 1759

#### D&C

D&C/ 1/77              Dean and Chapter of Carlisle  
*A plan of the old improved lands and also the commons, moors or  
waste grounds within the manor or lordship of Morland, as divided  
amongst the several proprietors*, 1799

#### D&C Morland

/12                      Rentals of Morland, including Bolton, 1662-1934 (28 items)

/25-37                  Draft deeds, plans, etc re enfranchisement of manorial property  
belonging to ...

/27                      Earl of Lonsdale

### 8.2 PRIMARY SOURCES NOTED BUT NOT USED

#### *Cumbria Record Office, Carlisle*



## D/Lons/L8 (Surveys)

- /19 and 20 List of farms in Cumberland and Westmorland, with proposed revision of rates
- /32 Rental giving acreages, cattle gates, rent, abatement of rent, annual value in 1823

## D/Lons/L5/1 Deeds

- Yanwath T29, T30 De Threlkeld, interim feofees. Grant of lands in Yanwath, and Bolton, March and Oct 1373
- Penrith T41, T42 De Threlkeld, interim feofees. Grant of rents, services, mills, etc, in Bolton, Penrith, Meaburn Maun, and Grayrigg, 1408
- Bolton MM20 Indictment ?at Appleby assizes, for theft of a wagon and a half of hay, by persons of name of Watte, 1555
- Bolton, 1653 Kirkbride/Gibson. Customary tenantright holding in territory of Boulton, manor of Morland, previously held of the late Dean and Chapter of Carlisle, 1653

## D&amp;C, Dean and Chapter of Carlisle

- Machell, 3, f269 Machell MSS. re Bewley castle, place-names, boundary, villages, houses, freeholders
- D&C/1/75 Plan of the manor of Morland. Enfranchisements and compensation agreements, ex Ordnance Survey, post-1920

**8.3 PUBLISHED CARTOGRAPHIC SOURCES**

Cary, J 1805 *A map of Westmoreland from the best authorities*, London

Geol Surv Geological Survey, 1865 1": 1 mile series, *Sheet 102 SW (New Series 30), Appleby (Penrith)*, Southampton

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

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

OS Ordnance Survey, 1863 1": 1 mile, 1st edition, *Sheet 8, Appleby*, repr London, 1970

OS, 1863 6": 1 mile, 1st edn, *Westmorland Sheet 9*, Southampton [CRO Kendal]

OS, 1898 1:2500 series, *Sheets 9.5, 9.9, 2 edn*, Southampton [CRO Kendal]

OS, 1911 1:1250 series, *Sheet 9.9 NW*, Southampton [CRO Kendal]

OS, 1916 1:2500 series, *Sheet 9.9, 3 edn*, Southampton [CRO Kendal]

OS, 1957 1:10,560, *Sheet NY 62 SW*, Southampton

OS, 1974 1:10,000, Sheet NY 62 SW, Southampton

Saxton, C, 1576 *Westmorlandiae et Cumberlandiae comit' noua vera et elaborata descriptio*, repr London, British Museum maps C7.c1

Speed, J, 1611 *The countie Westmorland and Kendale the cheif (sic) towne described ...*, in *Theatre of the empire of Great Britaine*, repr in Arlott, J (ed) 1954 *John Speed's England ...*, London

#### 8.4 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

Bulmer, T F (ed), 1885 *History, topography, and directory of Westmoreland ...*, Manchester

Burgess, J, 1982 *Christians in Cumbria: published to commemorate the 850th anniversary of the founding of the Diocese of Carlisle in 1133*, Kendal

Carmichael, Rev T A, 1927a Bewley Castle, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **2 Ser**, **27**, 184-8

Carmichael, Rev T A, 1927b Bolton church, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **2 Ser**, **27**, 189-94

Clare, T, 1996 Archaeology, conservation and the late twentieth-century village landscape, with particular reference to Westmorland and North Lancashire in northwest England, *Conservation Management Archaeol Sites*, **1(3)**, 169-88

DoE Department of the Environment, 1984 *23rd list of buildings of special architectural or historic interest: District of Eden (Cumbria), ... comprising Ashby, ..., Bolton, ...*, London

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

Ekwall, E, 1960 *The Concise Oxford Dictionary of English Place-Names*, 4 edn, Oxford

Fleming, Sir D (ed Duckett, Sir G F), 1882 Description of the county of Westmoreland, AD 1671, *Cumberland Westmorland Antiq Archaeol Soc Tract Ser*, **1**, London

Jarvis, R A, Bendelow, V C, Bradley, R I, Carroll, D M, Furness, R R, Kilgour, I N L, and King, S J, 1984 *Soils and their uses in Northern England*, Soil Survey of England and Wales Bull **10**, Harpenden

Lees, Rev T, 1876 Bolton church, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **1 Ser**, **2**, 276-9

Mee, A, 1937 *The King's England. The Lake Counties: Cumberland and Westmorland*, London, repr London, 1994

Nicholson, J, and Burn, R, 1777 *The history and antiquities of Westmorland and Cumberland*, 2 vols, repr Wakefield, 1976

O'Sullivan, D E, 1980 *A reassessment of the early christian archaeology of Cumbria*, Unpubl MPhil thesis, University of Durham.

O'Sullivan, D E, 1985 *Cumbria before the Vikings*, A review of some "Dark Age" problems in North-West England, in J R Baldwin and I D Whyte (Eds), *The Scandinavians in Cumbria*, 17-35, Edinburgh.

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

Roberts, B K, 1990 *Rural settlement and regional contrasts: questions of continuity and colonisation*, *Rural Hist*, **1(1)**, 51-72

Smith, A H, 1967 *The place-names of Westmorland*, part 2, *English Place Name Soc*, **43**

Turnbull P, nd (c1985?) *Medieval villages in Eden District*, Unpubl rep, Cumbria County Council, CSMR

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

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## APPENDIX 1

### DETAILED TRENCH DESCRIPTIONS

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**Trench No.** T1**Alignment** North/South**Length** 32m

Natural deposits of orange, brown coarse silty clay sand were identified at a depth of 0.41m below surface. The natural subsoil was disturbed by a series of east/west linear hollows filled with orange brown clay sand with 20% rounded pebbles (0.06m diameter), approximately 4.5m apart and c0.04m in depth. These coincided with the furrows of the ridge and furrow earthworks. The natural deposits were overlain by an orange brown, friable clay sand deposit, 0.16m in depth. This in turn was overlain by a topsoil deposit of sandy clay loam, 0.25m in depth, the upper 0.10m matted with turf and rootlets.

**Trench No.** T2**Alignment** North/South**Length** 18.6m

Trench 2 was excavated to inspect the nature of hollow/depression (Site 7). Naturally occurring light brown sandy clay sand was identified at a depth of 0.26m. It was heavily disturbed by a series of thin linear features aligned north-east / south-west. On inspection these proved to be cuts for ceramic land drains which were approximately 0.27m in depth and measured 0.23m in width. They occurred at regular intervals, approximately 3m apart. The natural clay was also disturbed by faint traces of ploughing. The topsoil was a yellowish brown clay silt with a slight sand content and was 0.25m in depth.

**Trench No.** T3**Alignment** East/West**Length** 29.5m

Natural orange brown silty clay sand was recorded at a depth of 0.22m. No archaeological features were revealed. The natural silty clay sand was overlain by 0.22m of sandy clay loam topsoil.

**Trench No.** T4**Alignment** East/West**Length** 19.2m

Naturally occurring deposits of orange brown silty sand with occasional small stones (0.03m diam.) were identified at a depth 0.23m. No archaeological deposits were revealed during the excavation of this trench. The natural deposits were overlain by 0.20m of brown sandy clay loam topsoil.

**Trench No.** T5**Alignment** North/South**Length** 14.5m

Trench 5 was excavated to inspect the nature of the linear bank (Site 6) adjacent to the hedge forming the field boundary at the southern edge of the study area. Natural deposits of orange brown silty clay sand containing small rounded stones were identified at a depth of 0.32m. The excavation did not reveal any archaeological features cut into the natural deposits. The natural deposits were overlain by a uniform deposit of brown sandy clay loam, which varied in depth from 0.20m to 0.32m where it formed the earthen bank.



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APPENDIX 2  
PROJECT DESIGN

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September 1996

Lancaster  
University  
Archaeological  
Unit

EDEN FOLD, BOLTON  
Nr APPLEBY,  
CUMBRIA

ARCHAEOLOGICAL EVALUATION

***Proposals***

*The following project design is offered in response to a request from Mr R Hughes, of Nichol Armstrong Lowe, for an archaeological evaluation in advance of a proposed housing development at Eden Fold, Bolton nr Appleby in Cumbria.*

## 1. INTRODUCTION

An archaeological evaluation is required as a planning requirement in advance of a housing development at Eden Fold, Bolton, nr Appleby. The development site is opposite the church, which is remote from the present centre of the village. Within the study area are a series of earthworks, in part of agricultural origin, but which could potentially be the relict elements of an earlier phase of the villages development. The County Archaeologist has therefore recommended that an archaeological evaluation be undertaken to assess the archaeological potential and sub-surface survival of the affected area.

The Lancaster University Archaeological Unit has considerable experience of the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 15 years. Evaluations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. LUAU has the professional expertise and resource to undertake the project detailed below to a high level of quality and efficiency. LUAU and all its members of staff operate subject to the Institute of Field Archaeologists (IFA) Code of Conduct.

## 2. OBJECTIVES

The following programme has been designed to provide an accurate archaeological evaluation of the designated area, within its broader context. The required stages to achieve these ends are as follows:

### **2.1 Desk Top Survey**

To accrue an organised body of data to inform the field inspection.

### **2.2 Field Survey**

A topographic survey to record the character of the extant earthworks within the study area and provide an assessment of the archaeological significance of the earthwork remains.

### **2.1 Trial trenching programme**

A limited programme of trial excavations, as recommended by the County Archaeologist, will be undertaken to establish the nature, extent, chronology, and preservation of any archaeological deposits encountered. Suitable samples recovered will be assessed for their palaeoenvironmental potential.

### **2.2 Evaluation Report**

A written evaluation report will assess the significance of the data generated by this programme within a local and regional context. It will advise on the mitigation measures necessary to protect and/or record (to appropriate levels) identified archaeological features and deposits, including any appropriate further evaluation, excavation, and recording strategies.

## 3. METHODS STATEMENT

The following work programme is submitted in line with the stages and objectives of the archaeological work summarised above.

### **3.1 Desk top survey**

The following will be undertaken as appropriate, depending on the availability of material. The level of such work will be dictated by the timescale of the project.

#### **3.1.1 Documentary and cartographic material**

This work will rapidly address the full range of potential sources of information. It will include an appraisal of the Cumbria Sites and Monuments Record, as well as appropriate sections of County histories, early maps, and such primary documentation (tithe and estate plans etc.) as may be reasonably available. Particular attention will be paid to field- and place-names recorded on early cartographic sources as these often provide important evidence of archaeological activity. Any photographic material lodged in either the County Sites and Monuments Record or the County Record

Offices will also be studied. Published documentary sources will also be examined and assessed. This work will involve visits to the County Record Office in Carlisle.

### *3.1.2 Aerial photography*

A survey of the extant air photographic cover will be undertaken. This may indicate the range and survival of archaeological and structural features in the designated area, and if appropriate coverage is available, allow an assessment of the rate and progress of erosion of archaeological features. It will also facilitate the rapid recognition and plotting of archaeological features including those no longer visible at ground level. Identified features will be accurately plotted at 1:10,000. Aerial photographic work may entail liaison with the Royal Commission on the Historical Monuments (England), although, within the timescale available, it is unlikely that prints will be forthcoming from this body for inclusion in this report.

### *3.1.3 Physical environment*

A rapid desk-based compilation of geological (both solid and drift), pedological, topographical and palaeoenvironmental information will be undertaken. This will not only set the archaeological features in context but also serves to provide predictive data, that will increase the efficiency of the field investigation.

### *3.1.4 Access*

Liaison for basic site access will be undertaken through Nichol Armstrong Lowe.

### *3.1.5 Collation of data*

The data generated by 3.1.1-3.1.4 (above) will be collated and analysed in order to provide an assessment of the nature and significance of the known surface and subsurface remains within the designated area. It will also serve as a guide to the archaeological potential of the area to be investigated, and the basis for the formulation of any detailed field programme and associated sampling strategy, should these be required in the future.

## **3.2 Field survey**

It is proposed to undertake a level two survey (see LUAU survey levels, Appendix 1) of the study area. The survey will involve the detailed mapping of all surface features within the survey area, but will only survey selective topographic detail. Although the survey data will include altitude information this will not be used for the production of the level two survey.

Survey control will be established over the site by closed traverse and internally will be accurate to +/- 15mm; the control network will be located with respect to field boundaries.

The surface features will be surveyed by EDM tacheometry using a total station linked to a data logger, the accuracy of detail generation will be appropriate for a 1:500 output. The digital data is transferred onto a portable computer for manipulation and transfer to other digital or hard mediums. Film plots will be output via a plotter. The archaeological detail is drawn up in the field as a dimensioned drawing on the plots with respect to survey markers. Some topographic detail is also surveyed if it is archaeologically significant or is in the vicinity of archaeological features. The survey drawings will be generated within a CAD system and can be output at any scale, including the specified 1:500 scale. The survey would be plotted as wet ink drawings on stable polyester film sheets, using RCHM(E) draughting conventions and line thicknesses appropriate for reproduction and reduction.

In conjunction with the archaeological survey a photographic archive will be generated, which will record significant features and general landscapes.

## **3.3 Trial Trenching**

### *3.3.1 Targeted trenching*



This programme of trenching will establish the presence or absence of any previously unsuspected archaeological deposits and, if established, will then briefly test their date, nature, and quality of preservation. Excavation will normally be limited to the upper surface of significant archaeological deposits, unless further work is regarded by ourselves and the county archaeologist as essential in order to complete the full evaluation. This element of the trial trenching is invaluable in order to assess those parts within the proposed study area where there is a potential for archaeological deposits to survive which are not visible on the surface. This also reduces the possibility of the discovery of any important archaeological features within those areas during groundworks, so as to minimise the possibility of any disruption at that late stage.

Trial trenching will be required to target features of suspected archaeological significance which are visible as earthworks or linear features identified from the surface survey. It is anticipated that the trenching will examine 5% of the study area, which will involve the excavation of four 30m x 2m trenches or eight 15m x 2m trenches. The precise locations of the trenches would be determined in discussions with the client and County Archaeologist at the outset of the project.

### 3.3.2 Methodology

To maximise the speed and efficiency of the operation the removal of overburden will be undertaken by machine (with a standard five or six foot toothless ditching bucket), although in areas where ephemeral remains are encountered elements may be hand dug.

All trenches will be excavated in a stratigraphical manner, whether by machine or by hand. Trenches will be accurately located with regard to surrounding features, by use of a total station survey instrument or Global Positioning Equipment as appropriate.

### 3.3.3 Recording

All information identified in the course of the site works will be recorded stratigraphically, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.

Results of the field investigation will be recorded using a system, adapted from that used by Central Archaeology Service of English Heritage. The archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20, and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration. Samples will be collected for technological, pedological, palaeoenvironmental and chronological analysis as appropriate, but it is only intended to process such material for assessment at this stage. If necessary, access to conservation advice and facilities can be made available. LUAU maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeoecology specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.

## 3.4 Evaluation report

### 3.4.1 Archive

The results of Stages 3.1-3 will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects, 2nd edition, 1991*). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of any features and finds recovered during fieldwork. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.

This archive can be provided in the English Heritage Central Archaeology Service format, both as a printed document and on computer disks as ASCII files, and a synthesis (in the form of the index to the archive and the report) will be deposited with the Cumbria Sites and Monuments Record. A copy of the archive will also be available for deposition in the National Archaeological Record in London. LUAU practice is to deposit the original record archive of projects (paper, magnetic, and plastic media) with the appropriate County Record Office, and a full copy of the record archive, should any

material be recovered, with the material archive (artefacts, ecofacts, and samples, at this stage from surface collections) with an appropriate museum.

#### *3.4.2 Assessment report*

One bound and one unbound copy of a written synthetic report will be submitted to the Client, and a further copy submitted to the Cumbria County Archaeologist. The report will include a copy of this project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above and will include a full index of archaeological features identified in the course of the project, together with appropriate illustrations, including a map and gazetteer of known or suspected sites identified within or immediately adjacent to the study area. It will also include a complete bibliography of sources from which the data has been derived, and a list of further sources identified during the programme of work, but not examined in detail. It will include an assessment of the overall stratigraphy of the trenches, together with appropriate illustrations, including detailed plans and sections indicating the locations of archaeological features. Any finds recovered from the excavations will be assessed with reference to other local material and any particular or unusual features of the assemblage will be highlighted and the potential of the site for palaeoenvironmental analysis will be considered. The report will also include a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work, but not examined in detail.

This report will identify areas of defined archaeology, the location of trenches, and whether the results of the sampling were positive or negative. An assessment and statement of the actual and potential archaeological significance of the site within the broader context of regional and national archaeological priorities will be made. Illustrative material will include a location map, section drawings, and plans if appropriate; it can be tailored to the specific requests of the client (eg particular scales etc), subject to discussion. The report will be in the same basic format as this project design; a copy of the report can be provided on 3.5" disk (IBM compatible format).

#### *3.4.3 Proposals*

The report will make a clear statement of the likely archaeological implications of the intended development. It will also make recommendations for any further evaluation of the identified archaeological resource deemed necessary or desirable for individual sites. It will seek to achieve, as a first option, the preservation *in situ* of all significant archaeological features, and possible strategies for the mitigation of the development, including design modifications, will be considered. Where conservation is neither possible, nor practical, it may be appropriate to recommend a further stage of more intensive archaeological work in order to mitigate the effects of development.

#### *3.4.4 Confidentiality*

The evaluation report is designed as a document for the specific use of the client, for the particular purpose as defined in the project brief and this project design, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

### **3.5 Other Matters**

#### *3.5.1 Health and Safety*

Full regard will, of course, be given to all constraints (services etc) during the excavation of the trenches, as well as to all Health and Safety considerations. LUAU provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1991) and risk assessments are implemented for all projects. As a matter of course the Unit uses a U-Scan device prior to any excavation to test for services. It is assumed that the client will provide any available information regarding services within the study area, if available.

#### *3.5.2 Reinstatement*

Land disturbed as a result of this work will be reinstated to the Client's satisfaction, although LUAU as a matter of course replaces material in a stratigraphic manner and relays the surface, if possible. It is presumed that the Client will have responsibility for site security. LUAU would take responsibility for temporary fencing arrangements to exclude livestock or any other farming activities. In addition, any deep sections of open trench would be fenced off to prevent any accidents occurring to LUAU/client staff.

#### **4. Project monitoring**

##### *4.1 Nichol Armstrong Lowe*

LUAU will consult with Nichol Armstrong Lowe regarding access to land within the study area. This consultation will include, if required, the attendance of a representative of the client at any meetings convened with the Cumbria County Archaeologist, or his representative to discuss progress or the report.

##### *4.2 Cumbria Sites and Monuments Record*

Any proposed changes to the project brief or the project design will be agreed with the Cumbria County Archaeologist in coordination with the client. LUAU will arrange a preliminary meeting, if required, and the Cumbria SMR will be informed of the commencement of the project in writing.

#### **5. WORK TIMETABLE**

The phases of work would comprise:

##### *5.1 Desk Top Study*

A one day period is required to collate all the available data.

##### *5.2 Field Survey*

Topographic survey for one day will be required.

##### *5.3 Trial Trenching Programme*

One day will be required to undertake the trenching.

##### *5.4 Prepare evaluation report*

A three day period would be required to complete this element.

LUAU can execute projects at very short notice once an agreement has been signed with the client. LUAU would be able to submit the report to the client by 30th September, subject to the terms of the agreement, if the contract is awarded immediately after the tender closure date.

#### **5. OUTLINE RESOURCES**

The following resource base will be necessary to achieve the proposals detailed above.

##### *5.1 Desk Top Study*

1 man-days Project Officer

##### *5.2 Field Survey*

1 man-day Project Supervisor

1 man-day Project Assistant

##### *5.3 Trial Trenching programme*

1 man-day Project Supervisor

1 man-day Project Assistant

##### *5.4 Evaluation Report*

1.5 man-days Project Officer

The project will be under the direct line management of **Jamie Quartermaine, BA, Surv Dip, MIFA** (Unit Project Manager) to whom all correspondence should be addressed.

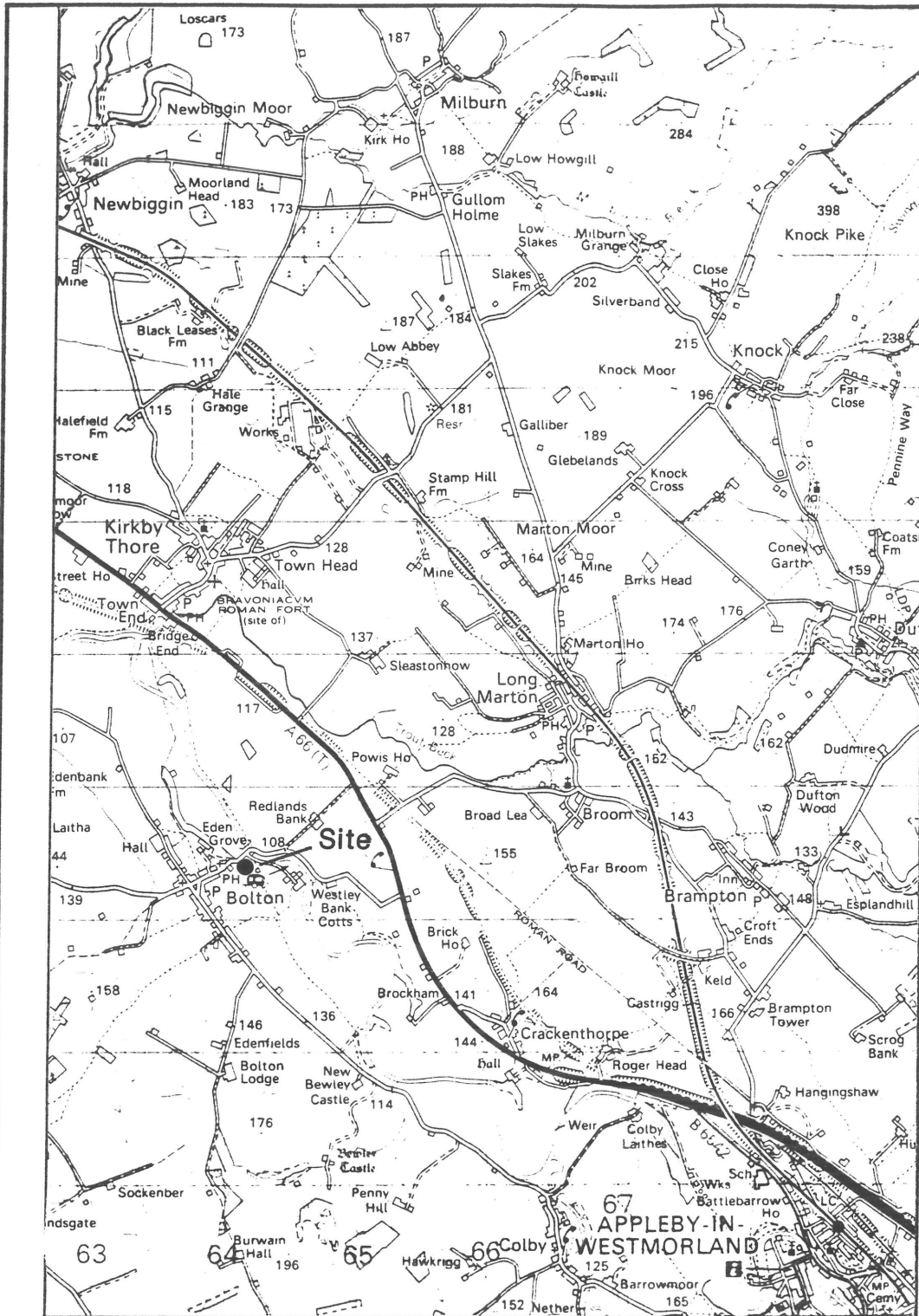


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## ILLUSTRATIONS

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- Figure 1 Site Location Plan
- Figure 2 Bolton Site plan, based on 1:2500 OS map of 1916
- Figure 3 Eden Fold Site plan
- Figure 4 Study Area:



0 2.5 kms



© Crown Copyright



Based upon the Ordnance Survey 1:50000 map with the permission of the Controller of HMSO

Fig 1 Eden Fold, Bolton Location Plan

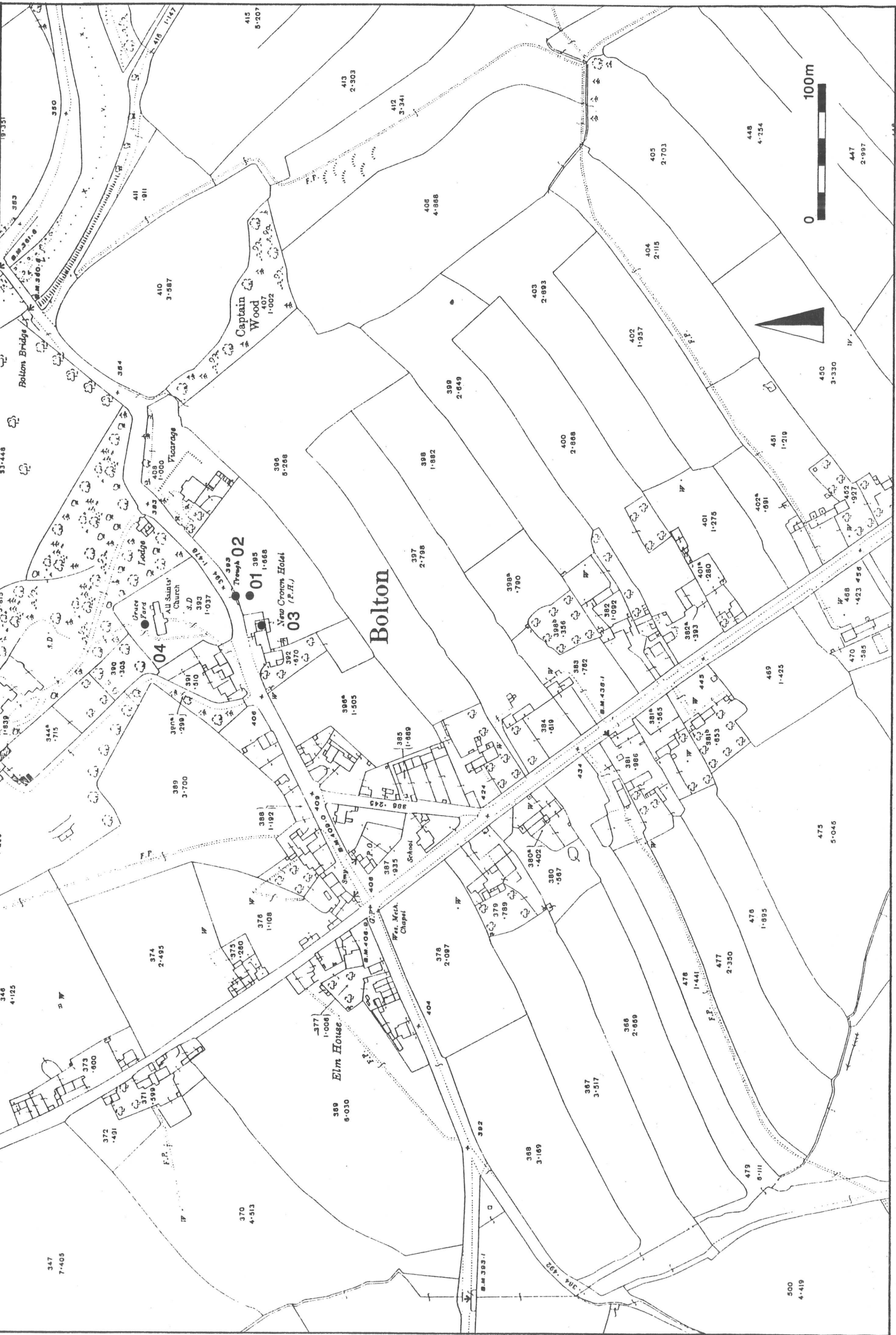
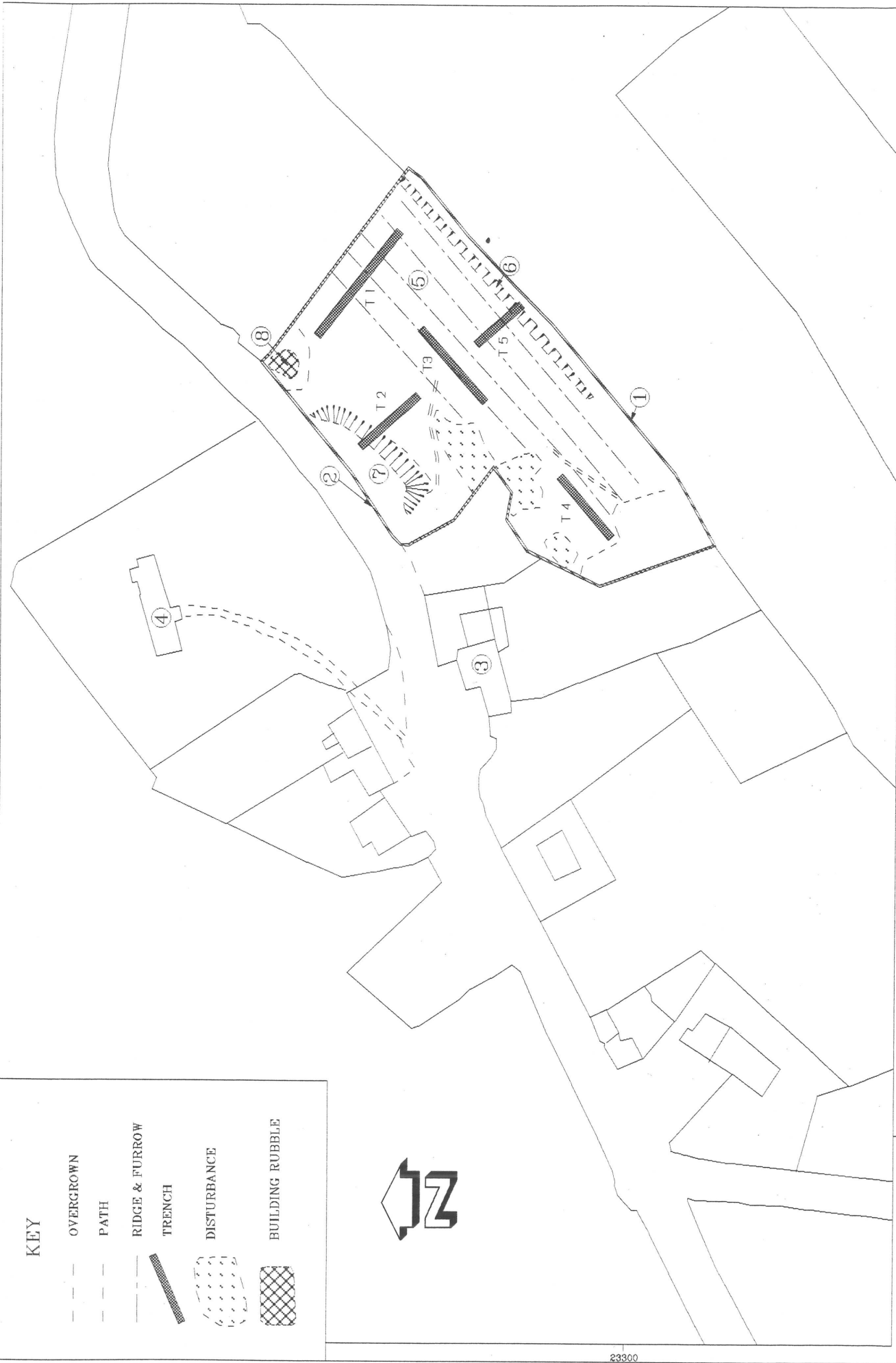


Fig.2 Site plan, based on 1:2500 OS map of 1916



**KEY**

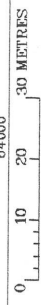
- OVERGROWN
- PATH
- RIDGE & FURROW
- TRENCH
- DISTURBANCE
- BUILDING RUBBLE



23300

63600

64000



DRAWN BY: CW

DATE: 09/96

COMMISSIONED & FUNDED BY:  
RUSSELL ARMER Ltd

DRAWING NAME:  
SITE PLAN

EDEN FOLD, BOLTON, APPELBY, CUMBRIA

LANCASTER UNIVERSITY ARCHAEOLOGICAL UNIT

Fig 3 Eden Fold Site Plan



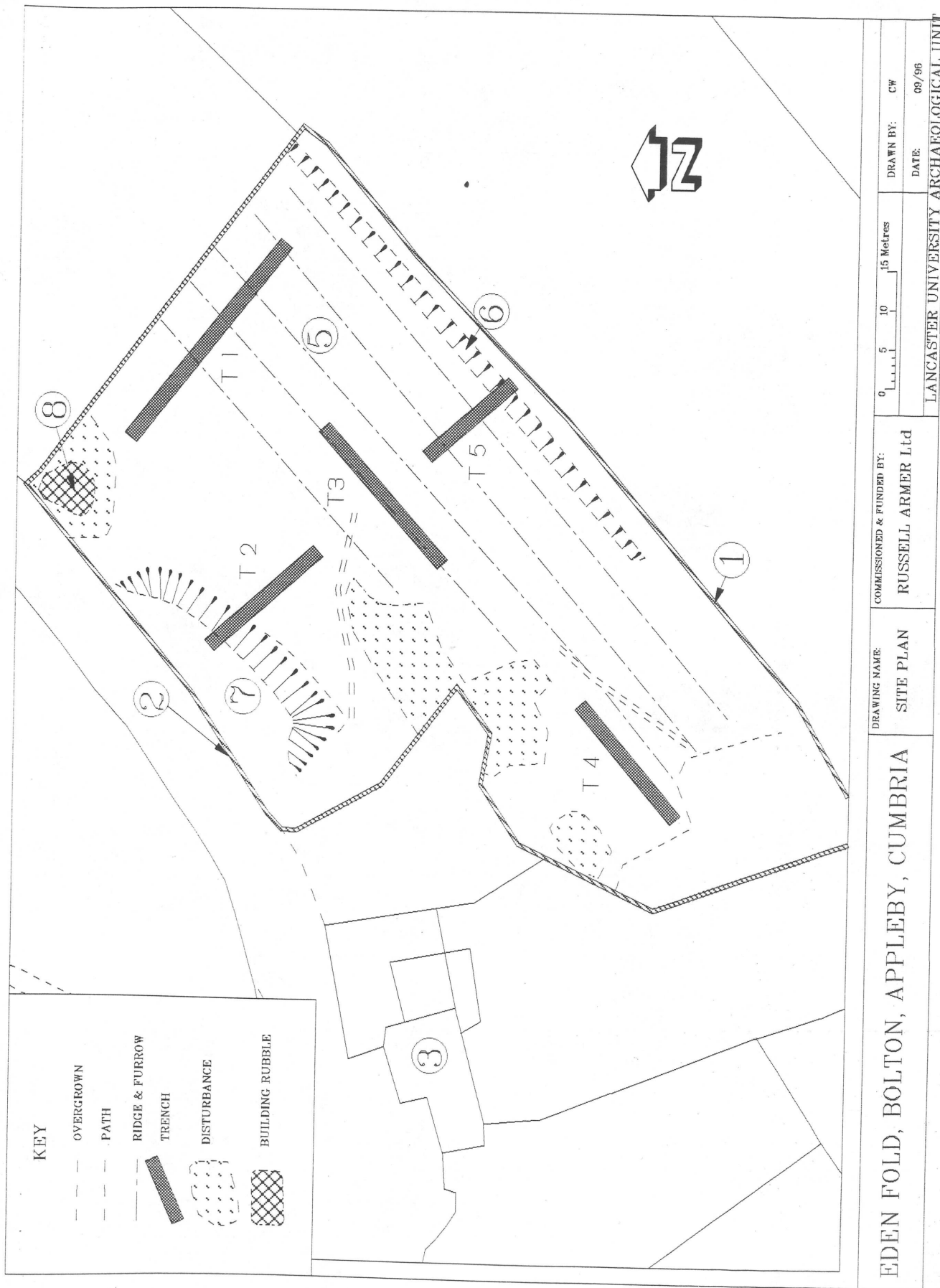


Fig 4 Study Area