

Northern Archaeological Associates

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CARKIN MOOR QUARRY
EAST LAYTON, NORTH YORKSHIRE

ARCHAEOLOGICAL DESK-BASED ASSESSMENT REPORT

prepared for

THE LAND AND DEVELOPMENT PRACTICE

on behalf of

MR D.J. HARRISON

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Summary

This document presents the results of a desk-based assessment of the proposed quarry at Carkin Moor, near East Layton in North Yorkshire. The study comprises an assessment of all available archaeological and cultural heritage information and considers the potential for the survival of previously unrecorded archaeological remains within the development area.

A total of ten archaeological sites are recorded within the study area. Most of these are cropmarks of prehistoric features, although there are a small number of upstanding remains. There are no Registered Historic Parks and Gardens, Registered Battlefields, Conservation Areas or Listed Buildings within the study area. There is one Scheduled Monument: Carkin Moor Roman fort and prehistoric enclosed settlement.

The Scheduled Monuments of the Roman fort and adjacent prehistoric settlement are within sight of, but arguably unaffected by the proposed development. The Roman road and those items associated with the turnpike road are equally unaffected, or will have been removed by the upgrading of the present highway in the near future. The primary concern for any proposed development must lie in the three fields to the north and east of the existing quarry. It is not possible to see any signs of archaeological activity there on aerial photographs or on the ground, but the possibility exists that ridge and furrow in OS field 8925 is masking earlier remains.

A programme of geophysical survey is recommended within the field directly affected by the proposed developments (OS field 8925) in order further to evaluate the archaeological potential of the area. The enhancement of the existing topographic survey of the area into an earthwork survey in order to record the existing quarry and trackway would be desirable in advance of quarrying. A Level 2 survey of the Porter Lodge would be recommended in order to record it before it is removed.

1.0 INTRODUCTION

- 1.1 Northern Archaeological Associates (NAA) were commissioned by The Land and Development Practice on behalf of Mr D.J. Harrison to undertake an archaeological desk-based assessment of a proposed quarry development at Carkin Moor, North Yorkshire (Figure 1).
- 1.2 The report describes the location of the development and its environs, and the methodology and information sources utilised while undertaking the study. It describes any known archaeological remains within 500m of the proposed

development and assesses the potential for any previously unknown or unrecorded sites to survive within the area. The potential impacts of the development proposals are discussed and appropriate mitigation strategies proposed.

- 1.3 This desk-based assessment was undertaken following the IFA *Standard and Guidance for Archaeological Desk-Based Assessment* (2001).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 The proposed quarry is located on Carkin Moor itself, 1.5km to the south-south-east of East Layton and 3km west of Melsonby, North Yorkshire (Figure 1), at a height of 175m OD.

- 2.2 The proposed quarry extension will be located to the north and east of the existing 19th-century sandstone quarry, some 300m south-east of Carkin Moor farm, south of Carkin Moor itself, and immediately west of Gatherley Moor (NZ 1685 0821). The proposed works will be located within the civil parish of East Layton, in the district of Richmondshire, North Yorkshire.

- 2.3 The proposed quarry will entail extending an existing 19th-century sandstone quarry to the north and east and the construction of an access track of some 0.6km from the B6274 to the north-east. The extension will comprise some 3.2ha in addition to the existing quarry, with a subsoil storage mound to the south-east and a topsoil storage mound forming a bank around the rim of the extension.

- 2.4 The solid geology within the study area consists of an inlier of sandstone set within the Brigantian limestone of the Alston Group, which is overlain by boulder clay and morainic drift (IGS 1977; BGS 1978). The soils are mapped as the Brickfield 2 association with the East Keswick 1 association immediately to the north and the Wick 1 association immediately to the south (Jarvis *et al.* 1984).

- 2.5 The topography of the site slopes down southwards to the line of the A66, west towards Carkin Moor fort, and east towards a stream before it rises to Diddersley Hill. To the north, there is a gentle slope upwards. The existing quarry thus effectively sits upon a low promontory.

- 2.6 The old quarry is overgrown, particularly around its periphery, with developed scrub and tree species. The land surrounding it is arable, with the field immediately to the north in set-aside stubble at the time of the walkover survey in May 2006.

3.0 METHODOLOGY AND INFORMATION SOURCES

- 3.1 The principal aims of the archaeological appraisal are:

- to identify known archaeological and cultural heritage sites within or immediately adjacent to the proposed development
- to identify areas with the potential to contain any unrecorded archaeological remains
- to assess the effects of the development works upon cultural heritage sites and their settings
- to propose appropriate mitigation measures which can be built into the development to avoid, reduce or remedy any potential adverse effects identified

3.2 This report is based upon a review of existing available information and desk-based studies. The following organisations were researched for the assessment:

- North Yorkshire County Council
- English Heritage

3.3 The following data sources were utilised for the assessment:

- North Yorkshire Historic Buildings, Sites and Monuments Record (HBSMR)
- North Yorkshire Records Office
- National Monuments Record (NMR)
- published and unpublished historical and archaeological studies
- cartographic sources (tithe and historic Ordnance Survey maps)
- aerial photographic archives

3.4 A preliminary walkover was conducted in May 2006 in order to examine the site and assess the terrain. Ground conditions in the arable fields were slightly damp and generally favourable for examination, but the set-aside stubble in the field hindered observation of any surface artefacts in the field immediately north of the existing quarry, and standing crops rendered examination of the two fields beyond that impossible.

4.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 Archaeological sites recorded within the area of the proposed development are listed in Table 1 below. Sites are given a unique identification number and where relevant identified by their North Yorkshire Historic Buildings, Sites and Monuments Record

(HBSMR) number or national Monuments Record (NMR) number. A central grid reference, description and date are provided for each site, which are graded in archaeological significance as being of 1 (national), 2 (regional) and 3 (local) importance. Grading is based upon professional judgement and the criteria set out in Annex 4 of Planning Policy Guidance Note 16 (DoE 1990). The locations of the sites are indicated on Figure 2.

- 4.2 A total of ten archaeological sites are recorded within the study area. Most of these are cropmarks of prehistoric features, although there are a small number of upstanding remains. The wealth of cropmark sites within the area prompted the Royal Commission on the Historic Monuments of England (RCHME, now part of English Heritage) to undertake the Dales Mapping Programme as part of the National Mapping Programme. There are no Historic Parks and Gardens, Registered Battlefields, Conservation Areas or Listed Buildings within the study area. There is one Scheduled Monument: Carkin Moor Roman fort and prehistoric enclosed settlement (SM 28289/01; NY726). Figures in brackets, below, refer to site numbers in Table 1.

Table 1. Archaeological and historic sites within 500m of the proposed work

<i>Site</i>	<i>HBSMR</i>	<i>Grid reference</i>	<i>Classification</i>	<i>Period</i>	<i>Grade</i>
1	21530	NZ 1605 0847	Sub-rectangular enclosure	Prehistoric	1*
2	–	NZ 1725 0830	Sub-rectangular enclosure with possible hut circles?	Prehistoric?	2
3	21556	NZ 16 08	Three worked flints	Prehistoric	–
4	1031457	NZ 166 080 (nearest point)	Road	Roman	1
5	21542	NZ 1620 0827	Fort	Roman	1*
6	579276	NZ 1636 0819	Bridge (Cloven Hill)	Post-medieval	3
7	579359	NZ 1665 0801	Bridge (Bleak Hill)	Post-medieval	3
8	579360	NZ 1684 0814	Sandstone quarry	19th-century	3

<i>Site</i>	<i>HBSMR</i>	<i>Grid reference</i>	<i>Classification</i>	<i>Period</i>	<i>Grade</i>
9	–	NZ 1710 0815 to NZ 1736 0824	Quarry access track	19th-century	3
10	579361	NZ 1736 0824	Building (Porter Lodge)	19th-century	3

* denotes a Scheduled Monument

Prehistoric

- 4.3 The only indications of early prehistoric activity in the vicinity comes from three worked flints found on Carkin Moor (Site 3). These are not accurately provenanced, other than their being from 'Carkin Moor'.
- 4.4 Later prehistoric activity is represented by at least one possible settlement (Site 1), a sub-rectangular enclosure 100m by 75m to the north-west of the Roman fort but included within the same scheduling (SM 28289). Examination of aerial photographs (notably RAF/58/2034) reveals cropmarks suggesting another possible such settlement to the north-east of the proposed quarry (Site 2), which has previously not been remarked upon.
- 4.5 There is some potential for previously unrecorded prehistoric remains in the vicinity, particularly given the possible masking effect of the recorded ridge and furrow cultivation.

Romano-British

- 4.6 To the south of the proposed development, the modern A66 is on the line of the Roman road from Scotch Corner to Brougham (Site 4), Margary's (1973) route 82, once popularly known as Watling Street.
- 4.7 The Roman fort of Carkin Moor (Site 5) is a Scheduled Monument (SM 28289). Bisected by the A66 (and the underlying Roman road), the site of the fort presumably predates the construction of the road. Enclosing some 2ha, the fort measures 150m by 132m and is located 450m to the south-west of the proposed development (Plate 1).
- 4.8 The potential for remains peripheral to the fort is low and the site is sufficiently far from the road to render it unlikely that any remains relating to that route will be affected by the development.

Medieval

- 4.9 Breeze (2005) has suggested that Diddersley Hill, which overlooks the site to the east, may have been the mustering point in AD 651 for the army of Oswine of Deira (who was subsequently murdered nearby at Gilling). Otherwise, no archaeological sites relating to the medieval period were identified during the preparation of this report.

Post-Medieval

- 4.10 The Yorkshire Dales Mapping Programme of 1989–93 has identified several areas of enclosed ‘narrow rig’ ridge and furrow and more are visible as cropmarks on aerial photographs. The most pertinent of these is in the field into which it is proposed to extend the quarry.
- 4.11 Items associated with the turnpike road include Bleak Hill Bridge (Site 7) and Cloven Hill Bridge (Site 6), although these may now be affected by the dualling of the A66.
- 4.12 There are both sandstone and limestone quarries (and a lime kiln) immediately outside the study area, to the south of the site, and the proposed development is itself an extension to a 19th-century sandstone quarry (Site 8; Plate 2). This quarry did not exist on the 1847 tithe map (Figure 3), but was marked on the 1857 First Edition 6-inch Ordnance Survey map. By the time of the 1913 25-inch edition, it was already described as an ‘old quarry’. The quarry is now overgrown, although the worked faces are still visible and stand up to 6m high, and a pair of stone gateposts are extant at the eastern end of it (NZ 16859 08128).
- 4.13 The proposed development includes an access road which follows the route of the original track (Site 9), which is now only evident as a hedgerow-lined earthwork (Plate 3). It is preserved as a 5m-wide boundary standing up to 1.2m high between OS fields 0427 and 2035 to the west and OS field 2400 to the east, and as a ridge visible on aerial photograph RAF/58/2034 running across the now-united OS fields 0005 and 8925. The track embankment has been removed in OS field 2035 but a concentration of stonework on the eastern side of the field marks its original course.
- 4.14 At the entrance to OS field 2035, the track to the quarry passes the now-ruinous Porter Lodge (Site 10; Plate 4). The tithe map shows this to originally have been twinned with another structure on the other side of what is now the B6274 and the structure thus pre-dates 1847 and so is not connected with the former quarry (Figure 3).
- 4.15 Trial excavation in OS field 0005 in 1999 as part of the A66 upgrade scheme identified a possible furrow base from ridge and furrow (NAA 2000, 5), confirming the results of geophysical survey (which was undertaken in a 40m-wide strip adjacent to the existing road).

5.0 DISCUSSION

- 5.1 The Scheduled Monuments of the Roman fort (the identification of which has been called into question by Wilson (2002, 448)) and adjacent prehistoric settlement are visible 450m to the south-west (Plate 1), but arguably unaffected by the proposed development. The Roman road and those items associated with the turnpike road are equally unaffected or will have been removed by the upgrading of the present highway in the near future.
- 5.2 The primary concern for any proposed development must lie in the three fields to the north and east of the existing quarry. OS field 8925, which will be directly impacted by the proposed quarry extension, is presently under cultivation and it is not possible to see any signs of archaeological activity on aerial photographs (beyond that noted above) or on the ground. However, the possibility exists that ridge and furrow in OS field 8925 is masking earlier remains. OS field 2035, it will be noted, contains cropmarks which are suggestive of prehistoric settlement activity, which may well have extended to the south-west.
- 5.3 Of secondary importance is the fact that the quarry extension will alter the existing quarry (Plate 2) while the access road will directly impact upon the earthwork of the original access track (Plate 3) and will affect the remains of Porter Lodge (Plate 4).

6.0 MITIGATION

- 6.1 In the first instance, a predetermination programme of a 50% sample geophysical survey is recommended within the field directly affected by the proposed development (OS field 8925). This would then allow a decision to be made as to whether any further geophysical survey is considered appropriate and, ultimately, whether evaluatory trenching may be required.
- 6.2 The existing topographic survey of the quarry area should be enhanced into an earthwork survey prior to the commencement of construction in order to record the existing quarry and trackway. The access road will remove the Porter Lodge, so a Level 2 survey of the remains of the structure (likewise before construction begins) would be desirable in order to record it before it is removed (EH 2006, 13–14).
- 6.3 The scale and scope of any further evaluation of the site area, and subsequent mitigation, would be agreed with the Heritage Unit of North Yorkshire County Council (archaeological advisors to Richmondshire District Council).

Northern Archaeological Associates

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for The Land and Development Practice
on behalf of Mr D.J. Harrison

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a) Publications

- Breeze, A. (2005) 'Where were Bede's Uilfaresdun and Paegnalaech?' *Northern History* **42:1**, 189–91
- Department of the Environment (1990) *Planning Policy Guidance 16: Archaeology and Planning*
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- Margary, I.D. (1973) *Roman Roads in Britain*, 3rd edition, London
- Northern Archaeological Associates (2000) *A66 Improvements: Archaeological Trial Trenching Carkin Moor to Scotch Corner, North Yorkshire. Final Report*, NAA **00/21**
- Wilson, P.R. (2002) *Cataractonium: Roman Catterick and its Hinterland. Excavations and Research, 1958–1997. Part II*. CBA Research Report **129**

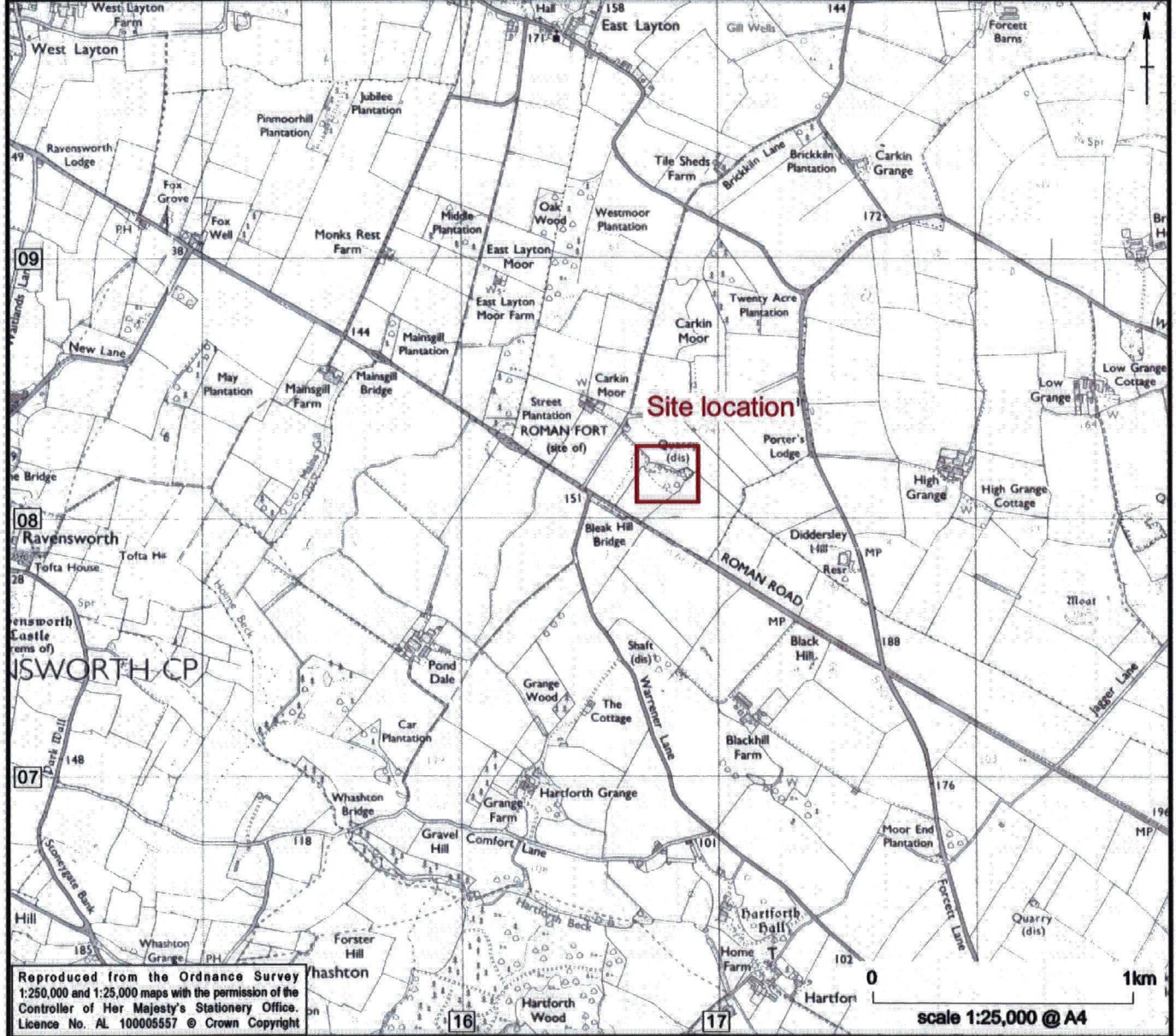
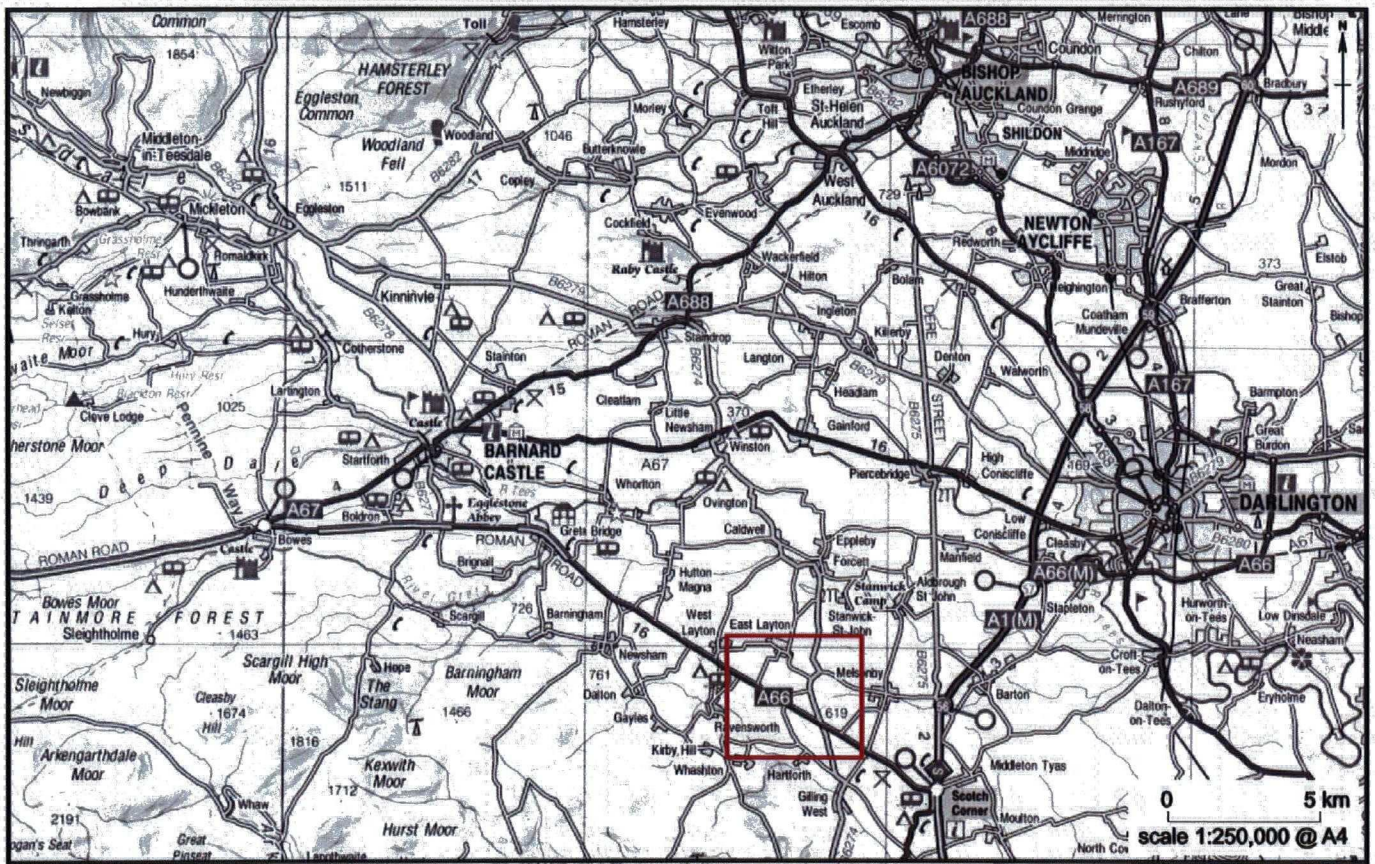
b) Maps and plans

- 1847 Tithe map of the township of Carkin (NYCRO Carkin T(PR/GIL) 3/6 = MIC 1790/211–16)
- 1857 Ordnance Survey, 1st edition 6-inch Yorkshire Sheet 25
- 1913 Ordnance Survey, 25-inch Yorkshire Sheet 25.9
- 1977 Institute of Geological Sciences, Geological Survey Ten Mile Map, North Sheet
- 1978 British Geological Survey, Tyne-Tees Sheet 54N 02W Solid Edition

c) Aerial Photographs

- 1945 RAF/106G/UK/1046 Frame 5005

- 1945 RAF/106G/LA/286 Frame 2186
- 1951 RAF/540/567 Frames 4007, 4008
- 1956 RAF/58/2034 Frame 0052
- 1973 OS/73422 Frame 033
- 1974 MAL/74058 Frame 119



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Figure 1 Carkin Moor Quarry: site location



Figure 2 Carkin Moor Quarry: archaeological sites in the vicinity

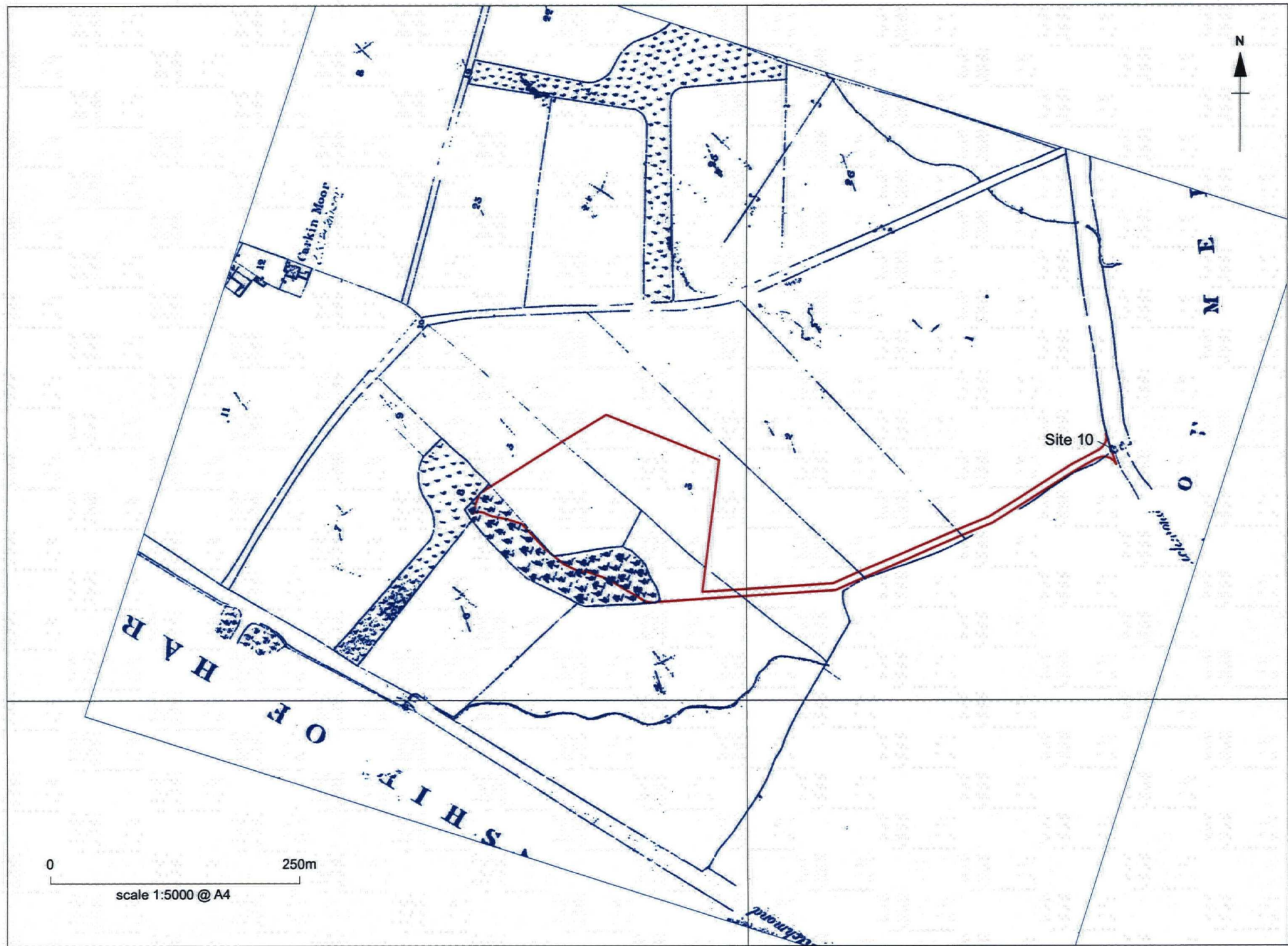


Figure 3 Carkin Moor Quarry: area of proposed development overlain on 1847 tithe map (Carkin T(PR/GIL) 3/6)



Plate 1 Carkin Moor Quarry: the site of Carkin Moor Roman fort (Site 1, on the crest of the hill in the middle distance to right of centre) from the existing quarry, looking west



Plate 2 Carkin Moor Quarry: the existing quarry (Site 8) from the former access trackway, looking west



Plate 3 Carkin Moor Quarry: the former access trackway (Site 9), looking north-east



Plate 4 Carkin Moor Quarry: the ruinous Porter Lodge (Site 12) with Diddersley Hill in the background, looking south-east