NEW CAR PARK, ST TUDNO'S ROAD, GREAT ORME, LLANDUDNO, CONWY

GAT Project no. G2049

Report No. 757

Prepared for Conwy County Borough Council
November 2008

By J Kenney

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NEW CAR PARK, ST TUDNO'S ROAD, GREAT ORME
AN ARCHAEOLOGICAL WATCHING BRIEF

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Cover: Ridge and furrow (part of PRN 797) with works in background

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NEW CAR PARK, ST TUDNO'S ROAD, GREAT ORME

Archaeological Watching Brief (G2049)

Summary
Gwynedd Archaeological Trust conducted an archaeological watching brief during ground-works for the construction of a car park on the Great Orme. The car park was designed as an alternative to cars parking on preserved surface remains of an ancient field system (ridge and furrow). A trench 106m in length and 7.2m wide was dug to provide the foundations for the car park. A 2.4m square soak-away was also excavated. These revealed the depth of the ridge and furrow, the nature of the subsoil and enabled the identification and recording of a small pit with a layer of charcoal in its base.

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by Conwy County Borough Council to conduct an archaeological watching brief during the ground-works for the construction of a new car park on St Tudno's Road on the Great Orme, Llandudno, Conwy (NGR SH 7692 8355; Figure 1).

There has been informal off-road grass parking in this area of the Great Orme for many years. Running across this area are a series of narrow, shallow ridges known as 'ridge and furrow', which are the physical remains of past agricultural landuse. The cars had caused erosion of these ridges, especially in the recent wet summers. The issue of the erosion was raised by Gwynedd Archaeological Trust's 'Great Orme Management Plan' (GAT 2000) and has been discussed by the Great Orme Country Park Working Party. Various methods to halt the erosion have been tried over the years but none has been successful. It was decided that the best approach to preserve the archaeology would be to create a permanent car park on the edge of the area and prevent further parking on the grass.

The location of the proposed car park had previously been disturbed by construction of the road and had suffered most from erosion (plates 1 and 2), so the loss of well preserved archaeological remains would be minimal. To confirm this a geophysical survey (Hopewell 2007) was carried out. The possibility remained that slight buried features of archaeological significance might be present so a watching brief by an archaeologist was necessary during ground-works. This would enable any significant features to be identified and either recorded during the works or proposed for full excavation. The works were to include the construction of several parking spaces surrounded by an earth bund with a soak-away for drainage.

2 SPECIFICATION AND PROJECT DESIGN

A brief was provided for this work by Gwynedd Archaeological Planning Service (ref.: D1211) that recommended an intensive watching brief of non-archaeological ground-works (see appendix I). A Project Design (see appendix II) was prepared by Gwynedd Archaeological Trust for an archaeological watching brief to be carried out according to the standards set out in the Institute of Field Archaeologists (IFA) *Standard and Guidance for an archaeological watching brief* (2001).

3 METHODS AND TECHNIQUES

Gwynedd Archaeological Trust under took the watching brief between 29th September and 8th October 2008. The bund was inspected during construction 1st November and when completed on 14th November.

The reduction of the car park area to the required level was monitored continually. The reduction was undertaken by a 13 tonne tracked excavator with a toothless ditching bucket. The baulks were inspected and representative samples were recorded by section drawing and photographs. Excepting the ridge and furrow, two features were identified. One was a modern pit and the other was a small, possibly ancient pit, which could be adequately recorded during the works. The modern pit was located on the plan and part of the adjacent baulk was recorded as the upcast from the pit had preserved part of a cultivation ridge. The ancient pit was excavated where it survived in the trench. It was planned and its

section was drawn, photographs were taken and a sample of the charcoal layer in its base was recovered in order to undertake further analysis and potentially a radiocarbon date.

The excavation of a soak-away was also monitored. A narrow pipe trench, 0.5m wide, ran between the car park and the soak-away. Excavation of the northern end of this was monitored, but most of the rest ran across the road where archaeological deposits were unlikely to survive. There was a short section to the south-west of the road but no features had been seen in the car park area adjacent to this and none had been present in the soak-away. It was therefore decided that it was highly unlikely that archaeological features would be found in this short section of a narrow trench, and it was not monitored.

A small test pit to the north-west of the car park was dug prior to the current watching brief. This was dug on 29th August 2008 and was monitored by Roland Flook, the archaeological advisor for the Countryside Service.

The creation of the bund next to the car park did not involve the disturbance of archaeological deposits. The deposition of the material for the bund was monitored and the final landscaping of the bund was inspected to ensure that it did not extend beyond the agreed area. When inspected it was seen that there had been some spreading of material and the project engineer was informed of this and requested to remind the contractors that this should be avoided and the excess spoil should be removed carefully. On completion it was seen that some scaring of the turf had occurred during the removal of the excess spoil, but this was restricted to the area of poorly preserved ridges. None of the better preserved ridges were affected.

Throughout the works it was made clear to the contractors that they must not drive plant across the grass and risk causing further erosion to the ridge and furrow. This was adhered to when the monitoring archaeologist was present, although lorries bringing stone for the car park had to impinge slightly on the already disturbed edge of the grass, as there was no other means of them turning in the restricted space available.

The ground-works were undertaken by KM Construction (NW) Ltd.

The photographic record was maintained using a Nikon D40 DSLR.

4 TOPOGRAPHY

The Great Orme is a Carboniferous limestone headland located on the coast of North Wales, at the mouth of the River Conwy. It rises to a height of 207m by a series of tiered sea cliffs and limestone grasslands and covers an area of 291 hectares. It forms the north-west end of the Creuddyn Peninsula, and is connected to the mainland by an isthmus of alluvium and sand on which Llandudno is built. The headland is covered by a thin deposit of glacial till on which have developed brown earth soils of the Pentraeth series. Where the bedrock is close to the surface the soils are calcareous soils of the Gower series. The Pentraeth series soils are valuable for both arable crops and pasture (GAT 2000).

The site of the new car park lies c.250m south of St Tudno's Church on the north slopes of the Great Orme at a height of between 148 and 143m OD (Figure 1). The works involve a c.763m² strip of land adjacent to the south-west side of St Tudno's Road, with a soak-away to the north-east of the road (Figure 2).

5 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

The Great Orme is an outstanding archaeological landscape containing several hundred archaeological sites of all periods. These range from the Upper Palaeolithic through to recent times and include funerary, settlement and industrial sites.

The area around the new car park is covered by the remains of the Pant yr Eglwys field system (PRN 797). This is defined by low, narrow ridges with shallow furrows between, as well as some field boundaries. It is associated with house platforms below the summit of the Orme to the south. There are

two groups of platforms huddled at the base of a crag. Together these comprise PRN 643, which includes PRN 4598, 4599, 4600 and 4601. The platforms are well-preserved earthworks with traces of wall foundations and over look the fields running down the slope to the north. The ridge and furrow in this area is very straight and narrow and runs nearly north-south, with another field to the north with ridges running nearly perpendicularly.

There were other areas of ridge and furrow across the Great Orme, recorded on RAF aerial photographs in 1947, but many of these have now been largely ploughed away. The Pant yr Eglwys remains, however, are still very well preserved. The ridges are narrow, only about 2.7m between the centres of the furrows (see front cover), and there has been a suggestion that they might have been made by the spade rather than the plough, but Aris (1997, 72) has recognised the distinctive reversed-S curve at the end of the ridges typical of ploughing with an ox team. The associated house platforms are of a late medieval form (Aris 1997, 72), but the fields may pre-date them. There is also some documentary evidence that parts of the fields remained in use into the nineteenth century (Aris 1997, 73).

The ridge and furrow extended into the area proposed for the car park but it had been disturbed by the construction of the road, previous attempts to create some hard standing along the road edge, and by vehicle erosion.

Bell pits from eighteenth/early nineteenth century or earlier mining reach to within about 50m of the new car park but no traces were visible within the grass area previously used for parking.

The geophysical survey carried out by Gwynedd Archaeological Trust (Hopewell 2007) to assess the suitability of this area for use as a car park detected the ridges and furrow but only where it was visible on the surface. It clearly showed the disturbed zone next to the road (anomaly 7). This was 8-9m wide and covered the width of the proposed new car park. Some of the anomalies detected (4, 5 and 6) corresponded to mounds visible in the grassed area. Anomalies 4 and 5 had stone on the surface suggesting outcrops of bedrock, but the results of the watching brief suggested that anomaly 6 could be the result of recent pit digging. The survey identified a linear feature (anomaly 2) running at a slight angle to the ridges and an amorphous feature (anomaly 3), which was interpreted as a possible cairn. No other features were identified.

6 RESULTS OF THE WATCHING BRIEF

Car park area (Figure 2 and plate 3)

Although the excavation process was rapid the machine driver was very competent and produced a clean, flat surface. Within the ploughsoil and the silt layer below any features present would have been visible if their fills were sufficiently different to the general layer. The boulder layer was stony and a clean surface was impossible to achieve so small features would probably have been missed but large pits or ditches would have been visible. The area reduced for the car park was 106m in length and 7.2m wide. Its depth varied due to the hill slope but was up to 0.8m deep.

There was a 2m wide zone of hard standing adjacent to the road but the rest of the of the disturbance shown in the geophysical survey (anomaly 7) could not be attributed to any specific features on the ground. It is likely to have been largely the result of compaction. However there were some isolated dumps of modern material in this area including one adjacent to anomaly 3. The trench was not wide enough to investigate this anomaly, but it is possible that it is the result of a spread of modern material. Anomaly 2 was not identified within the trench.

The edge of the trench was inspected for remains of the ridge and furrow. The plough soil was seen as a layer of firm, slightly clayey, reddish-brown silt (context 002), up to 0.3m deep where protected under a dump of later material. Elsewhere it rarely reached 0.2m thick. A representative section 9m long was drawn with the vertical scale twice the horizontal scale to accentuate the remains of ridge and furrow (Figure 3). This and comparisons with the furrows as seen in plan showed that the undulations in the natural were unrelated to the furrows and that these did not significantly penetrate the natural sub-soil.

In places the ploughsoil directly overlay a red-brown stony boulder clay (context 003), but this undulated considerably and over much of the trench a red-brown or yellowish-brown clayey silt layer (context 004) lay between them (Figures 3 and 4, and plates 4 and 5). This had not been mixed by ploughing and the interface between it and 002 was often quite sharp. Context 004 is interpreted as the B horizon of the soil, developing since the last ice age by gradual soil forming processes from the boulder clay substrate.

The boulder clay itself (003) was very variable (plates 4 and 5). In places it was very rocky with pieces of limestone raised up through the clay by frost action towards the end of the last glaciation. There were also lenses and pockets of yellow-brown gravely clay and finer lenses of silt, some of which had been stained black by mineral precipitation.

A roughly rectangular modern pit (cut 007) had been dug through the ridge and furrow towards the south-eastern end of the trench (Figure 2). This was partly filled by tarmac fragments and broken bottles. The clay from digging this pit had been dumped on its north-western edge to form a mound (context 005, plate 6), and it is possible that at least anomaly 6 on the geophysics survey is another of these mounds next to a modern pit as it has no obvious bedrock outcrop in the surface. The mound 005 preserved the ploughsoil to a greater depth than elsewhere but did not reveal any further information about the ridge and furrows (Figure 4).

About 14.5m from the south-east end of the trench against the south-western baulk was found the only ancient feature (Figure 2). No other features were noted in this area. This feature was a small pit (cut 010) 0.7m across and half obscured under the baulk (Figures 5 and 6, and plate 7). It was not visible until the boulder clay had been reached so the machine took part of it away but enough survived for a quarter to be excavated by hand. In its base was a thin lens of charcoal (009) and this was collected. The main fill (008) was a mid brown clayey silt with some fragments of charcoal and a lens of red-brown clay towards the top. The charcoal lens suggests this may have been a fire pit or oven, and this was supported by faint traces of burning on the pit sides.

A retouched chert flake and another possibly knapped piece were recovered from the main fill (008). The pit was sealed beneath the ploughsoil and so pre-dates the ridge and furrow, but the chert suggests it may be very much older. The chert piece is undiagnostic so it is possible only to suggest that the pit was prehistoric in date. The soil sample taken from the charcoal layer 009 should contain suitable material for radiocarbon dating, which could establish a more precise date for this feature.

Soak-away (Figure 2 and plate 8)

The soak-away was dug on the north-east side of the road and measured 2.4m square. It was 1.7m deep and a trench 0.5m wide and 1m deep was dug on its western side. The topsoil and ploughsoil together were 0.2m deep from the ground surface. The B horizon below (004) was a further 0.2m deep, then the boulder clay continued to the base of the soak-away. Towards the bottom the boulder clay became very stony but no *in situ* bedrock was seen. No archaeological features were identified and although the ridge and furrow runs across this area the trench gave no new information on these. The hole was too deep and unstable to allow access so the trench sides were not cleaned to inspect whether furrows were clearly visible, but as the soak-away was located only 2m from the road edge preservation was unlikely to be good.

7 CONCLUSION AND RECOMMENDATIONS FOR FURTHER WORK

The watching brief allowed the depth of the ridge and furrows to be recorded. It identified modern disturbance in the form of pit digging and revealed a single ancient pit.

This pit (010) could have been a fire pit or oven associated with small scale occupation activity, but it is equally possible that it is isolated. A chert flake recovered from the pit suggests a prehistoric date, but it cannot be more precisely dated without a radiocarbon date. It would help to interpret this feature and potentially to inform future work in the area if the soil sample was wet sieved and suitable material was chosen for radiocarbon dating. It would be recommended that two dates were obtained as a single date cannot identify the presence of contamination and disturbance of a deposit. Gwynedd

Archaeological Planning Service recommends that this work be carried out and that the radiocarbon dates are obtained if suitable material proves to be present in the sample.

8 BIBLIOGRAPHY

Aris, M., 1997. Aerial photography and historic landscape on the Great Orme, Llandudno, in Edwards, N. (ed.) *Landscape and Settlement in Medieval Wales*, Oxford, 71-78

GAT 2000. The Great Orme Archaeological Management Plan. GAT report number 399

Hopewell, D., 2007. Great Orme, St Tudno's Road: proposed changes to parking area, geophysical survey. GAT report number 692

APPENDIX I: Design Brief for Archaeological Mitigation

Gwynedd Archaeological Planning Service

Site: Land at St Tudno's Road, Great Ormes Head, Llandudno
Applicant/Company: Conwy County Borough Council

Date: 15th September 2008

Planning reference: 0/34843

National Grid Reference: 276918, 383552

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This design brief is only valid for six months after the above date. After this period Gwynedd Archaeological Planning Service should be contacted.

It is recommended that the contractor appointed to carry out the archaeological work visits the site of the proposed development and consults the Regional Historic Environment Record (HER) for north-west Wales before completing their specification. Gwynedd Archaeological Planning Service cannot guarantee the inclusion of all relevant information in the design brief.

Key elements specific to this design brief have been highlighted.

1.0 Site Location and Description

1.1 For the purposes of this brief the site comprises a plot of land c.250m south of St Tudno's Church on the north slopes of The Great Orme.

1.2 The works involve a c.700m² strip of land adjacent to St Tudno's Road (as illustrated on CCBC Proj Ref. PLE0801C Draw No. 2).

1.3 The Great Orme forms a peninsula with the coastal resort town of Llandudno, Conwy.

2.0 Archaeological Background

2.1 The Great Orme has evidence of early human activity dating back to the Upper Palaeolithic (c.12000 BP) and is home to some of the most important cave deposits in Wales.

2.2 Archaeological sites in the area date from the prehistoric periods though to the Second World War.

2.3 Several later prehistoric hut circle settlements survive within 100m of the proposed development plot known as Pant Yr Eglwys.

2.4 The most distinctive and visible remains in the locality are the extensive earthworks associated with the medieval period. These consist of a number of hut platforms and a complex of cultivation ridges or *ridge and furrow*. This evidence of medieval agricultural practice is visible as a series of linear earthworks running north-south across the level ground to the south west of St Tudno's Road.

2.5 Aerial photographic evidence taken by the RAF (1947) shows that these earthworks continue in part to the north east of St Tudno's Road. However thick vegetation across much of this area means that the potential here is unknown.

2.6 Gwynedd Archaeological Trust (GAT report no. 692, September 2007) undertook a geophysical survey of part of this field system to determine the extent to which below ground archaeological deposits survive at the site. The report found that the medieval surface remains are well preserved and that an earlier prehistoric cairn may also survive.

2.7 The portion of the site which runs parallel to St Tudno's Road has been used as a car park for several years and the extent to which this has damaged or destroyed any below ground archaeological remains has not been determined.

2.8 The proposed development has the potential to impact on both upstanding archaeological remains and potential below ground deposits.

2.9 Documentation:

Davidson, A. & Jones, S. 2001. The Great Orme Archaeological Management Plan. Gwynedd Archaeological Trust (GAT), Report No. 399. Unpublished report held by the regional Historic Environment Record, north-west Wales, Gwynedd Archaeological Trust.

Hopewell, D. 2007. Great Orme St Tudno's Road geophysical survey. Gwynedd Archaeological Trust (GAT), Report No. 692. Unpublished report held by the regional Historic Environment Record, north-west Wales, Gwynedd Archaeological Trust.

3.0 The nature of the development and archaeological requirements

3.1 The proposed work comprises plans to extend and formalise a car park on St Tudno's Road. This will include the construction of a number of parking spaces and a surrounding earth bund, the installation of drainage and a soakaway (CCBC Proj Ref. PLE0801C Draw No. 2).

3.2 This is a *design brief* for a programme of archaeological works to **mitigate** the impact of the development to be undertaken in accordance with guidelines set out in Welsh national planning guidance (*Planning Policy Guidance Wales 2002*) and Welsh Office Circular 60/96 (*Planning and the Historic Environment: Archaeology*).

3.3 This programme of archaeological works will comprise a programme of archaeological monitoring during ground works, commonly known as a ***watching brief*** (see 4.0 for detail).

3.4 The contractor must ensure that the construction of the earth bund does not impact upon upstanding earthworks / archaeological remains and that the movement of plant, personnel and machinery is **restricted** to the existing roadways at all times.

3.5 This *design brief* should be used by the archaeological contractor as the basis for the preparation of a detailed written archaeological *specification*. The specification must be submitted to the Gwynedd Archaeological Planning Service for approval before the work commences.

3.6 The *specification* should contain, as a minimum, the following elements:

- Non-technical summary.
- Details of the proposed works as precisely as is reasonably possible, indicating clearly on a plan their location and extent.
- A research design which sets out the site-specific objectives of the archaeological works.
- Reference to the relevant legislation.
- Health and Safety considerations.
- Monitoring procedures.
- Field methodology.
- Methods of recording, including the collection and disposal strategy for artefacts and ecofacts.
- Arrangement for immediate conservation of artefacts.
- Post-fieldwork methodology.
- The level and grade of all key project staff.
- Details of all specialists.
- A timetable for the proposed works including contingency costs (if appropriate).
- The intended method of publication.
- Archive deposition.

4.0 Programme of archaeological works: watching brief detail

4.1 The programme of archaeological works to **mitigate** the impact of the development will consist of an **intensive watching brief**, to comprise:

- Intensive observation of non-archaeological excavation works including grading, landscaping and bund construction, drainage and soakaway installation.
- A drawn, written and photographic record of any archaeological structures and deposits that may be revealed.
- Preparation of full archive report.

4.2 The monitoring of works is to be undertaken in a manner that allows for the immediate cessation of development for the recording of archaeological evidence. Agreement must be reached between the archaeologist and developer in order that this is achieved.

4.3 All machine excavation **must** be undertaken using a toothless ditching bucket.

4.4 The programme of works must not adversely affect the surrounding upstanding earthworks.

4.5 Recording methodology must be in accordance with Institute of Field Archaeologists guidance (see general requirements below). Recording will comprise appropriate plans, elevation and photographs.

4.6 The archaeological contractor will ensure that sufficient resource is made available for a post-excavation programme to result in an archive report.

4.7 The report should specifically include the following:

a) a copy of the design brief and agreed specification,

b) a location plan,

c) all located sites plotted on an appropriately scaled plan of the development,

d) a gazetteer of all located sites, including full dimensional and descriptive detail, a full bibliography of sources consulted.

5.0 Results

5.1 The archaeological contractor must ensure that sufficient resource is made available for any post-excavation programme to result in an archive report.

5.2 The results must be presented in a report and should be detailed and laid out in such a way that data and supporting text are readily cross-referenced.

5.3 **The HER Officer should be contacted to ensure that any sites or monuments not previously recorded in the HER are given a Primary Recognition Number (PRN) and that data structure is compatible with the HER**.

5.4 A deposit model should be presented graphically in plan and, where appropriate, in profile and at a scale that is commensurate with subsequent use as a working document.

5.5 The archaeological report should specifically include the following:

e) a copy of the design brief and agreed specification,

f) a location plan,

g) all located sites plotted on an appropriately scaled plan of the development,

h) a gazetteer of all located sites, including full dimensional and descriptive detail,

i) a full bibliography of sources consulted.

6.0 General requirements

6.1 The archaeological mitigation must be undertaken by an appropriately qualified individual or organisation, fully experienced in work of this character.

6.2 Details, including the name, qualifications and experience of the project director and all other key

project personnel (including specialist staff) should be communicated to the development control archaeologist and all written work attributed to an author (s).

6.3 Contractors and subcontractors are expected to conform to standard professional guidelines, including the following:-

- English Heritage's 1991 Management of Archaeological Projects (MAP2).
- Richards, J. & Robinson, D. 2000. Digital Archives from Excavation and Fieldwork: *Guide to Good Practice*. Second Edition. The Archaeology Data Service Guide to Good Practice. Oxbow Books. http://ads.ahds.ac.uk/project/goodguides/excavation/
- The Institute of Field Archaeologists 1985 (revised 2006) Code of Conduct.
- The Institute of Field Archaeologists 1990 (revised 2002) Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.
- The Institute of Field Archaeologists 1994 (revised 2001) Standard and Guidance for Archaeological Watching Briefs.
- The Institute of Field Archaeologists 1994 (revised 2001) Standard and Guidance for Archaeological Desk-Based Assessment.
- The Institute of Field Archaeologists 1994 (revised 2001) Standard and Guidance for Archaeological Field Evaluation.
- The Institute of Field Archaeologists 1994 (revised 2001) Standard and Guidance for an Archaeological Watching Brief.
- The Institute of Field Archaeologists 1995 (revised 2001) Standard and Guidance for Archaeological Excavation.
- The Institute of Field Archaeologists 1996 (revised 2001) Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures.
- The Institute of Field Archaeologists 2001 Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.

6.4 Many people in North Wales speak Welsh as their first language, and many of the archive and documentary references are in Welsh. Contractors should therefore give due consideration to their ability to understand and converse in Welsh.

6.5 Where relevant, specialist studies of environmental, economic and historical data must include a *statement of potential*. All specialist reports used in the preparation of this study must be reproduced **in full** in the desk-based study.

6.6 A full archive including plans, photographs, written material and any other material resulting from the project should be prepared. All plans, photographs and descriptions should be labelled, cross-referenced and lodged in an appropriate place (to be agreed with the archaeological curator) within six months of the completion of the project.

6.7 Care must taken in the siting of offices and other support structures in order to minimise the impact on the environment. Extreme care must also be taken in the structure and maintenance of spoil heaps for the same reasons and to facilitate a high quality reinstatement. This is particularly important in relation to pasture land and near upstanding archaeological earthworks or remains.

6.8 The archaeological contractor must satisfy themselves that all constraints to groundworks have been identified, including the siting of live services, Tree Preservation Orders and public footpaths. Gwynedd Archaeological Planning Service bears no responsibility for the inclusion or exclusion of such information within this brief.

6.9 Any changes to the specifications that the archaeological contractor may wish to make after approval by this office should be communicated to Gwynedd Archaeological Planning Service and approved.

6.10 Care must be taken in dealing with human remains and the appropriate environmental health regulations followed. Gwynedd Archaeological Planning Service and the local Coroner must be informed immediately human remains are discovered.

6.11 Arrangements for the long-term storage and deposition of all artefacts must be agreed with the landowner and Gwynedd Archaeological Planning Service before the commencement of investigation.

6.12 A full archive including plans, photographs, written material and any other material resulting from the project should be prepared in accordance with standard guidance. All plans, photographs and descriptions should be labelled, cross-referenced and lodged in an appropriate place (to be agreed with Gwynedd Archaeological Planning Service) within six months of the completion of the project.

6.13 Two copies of the bound report must be sent to the address below, one copy marked for the attention of the Development Control Archaeologist, the other for attention of the HER Officer, who will deposit the copy in the HER.

6.14 The involvement of Gwynedd Archaeological Planning Service should be acknowledged in any report or publication generated by this project.

7.0 Glossary of terms

7.1 The project will be monitored by the development control archaeologist at Gwynedd Archaeological Planning Service to ensure the fulfilment of the brief and specifications. The development control archaeologist will normally inspect site works and review the progress of excavation reports and archive preparation. The archaeological contractor must inform Gwynedd Archaeological Planning Service in writing of the proposed start dates for the project.

8.0 Glossary of terms

8.1 *Archaeological Contractor* A professionally qualified individual or an organisation containing professionally qualified archaeological staff, able to offer an appropriate and satisfactory treatment of the archaeological resource, retained by the developer to carry out archaeological work either prior to the submission of a planning application or as a requirement of the planning process.

8.2 *Archaeological Curator* A person, or organisation, responsible for the conservation and management of archaeological evidence by virtue of official or statutory duties. In north-west Wales the archaeological advisor to the Local Planning Authorities is the development control archaeologist, who works to the Welsh Archaeological Trust's Curators' Code of Practice.

8.3 *Archive* An ordered collection of all documents and artefacts from an archaeological project, which at the conclusion of the work should be deposited at a public repository, such as the local museum.

8.4 *Assessment* A desk-based archaeological assessment (also known as a *desk-top assessment*) is a detailed consideration of the known or potential archaeological resource within a specified area or site (land-based, intertidal or underwater), consisting of a collation of existing written and graphic information in order to identify the likely character, extent, quality and worth of the known or potential archaeological resource in a local, regional or national context as appropriate.

8.5 *Brief* The Association of County Archaeological Officers (1993) defines a *brief* as an outline framework of the planning and archaeological situation which has to be addressed, together with an indication of the scope of works that will be required.

8.6 *Evaluation* A limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site; and, if present, defines their character and extent, and relative quality. It enables an assessment of their worth in a local, regional, national or international context, as appropriate. The programme of work will result in the preparation of a report and archive.

8.7 *Historic Environment Record (HER)* A documentary record of known sites in a given area. In north-west Wales the HER is curated by the curatorial division of the Gwynedd Archaeological Trust.

8.8 *Specification* The Association of County Archaeological Officers (1993) defines a *specification* as a schedule of works outlined in sufficient detail to be quantifiable, implemented and monitored.

8.9 *Watching brief* A formal programme of observation during non-archaeological excavation works in order to identity, investigate and record any Archaeological Remains which may be present, in accordance with the Archaeological Standards.

9.0 Further information

9.1 This document outlines best practice expected of an archaeological assessment but cannot fully anticipate the conditions that will be encountered as work progresses. If requirements of the brief cannot be met they should only be excluded or altered after gaining written approval of the Gwynedd Archaeological Planning Service.

9.2 Further details or clarification of any aspects of the brief may be obtained from the Development Control Archaeologist at the address below.

Ashley Batten
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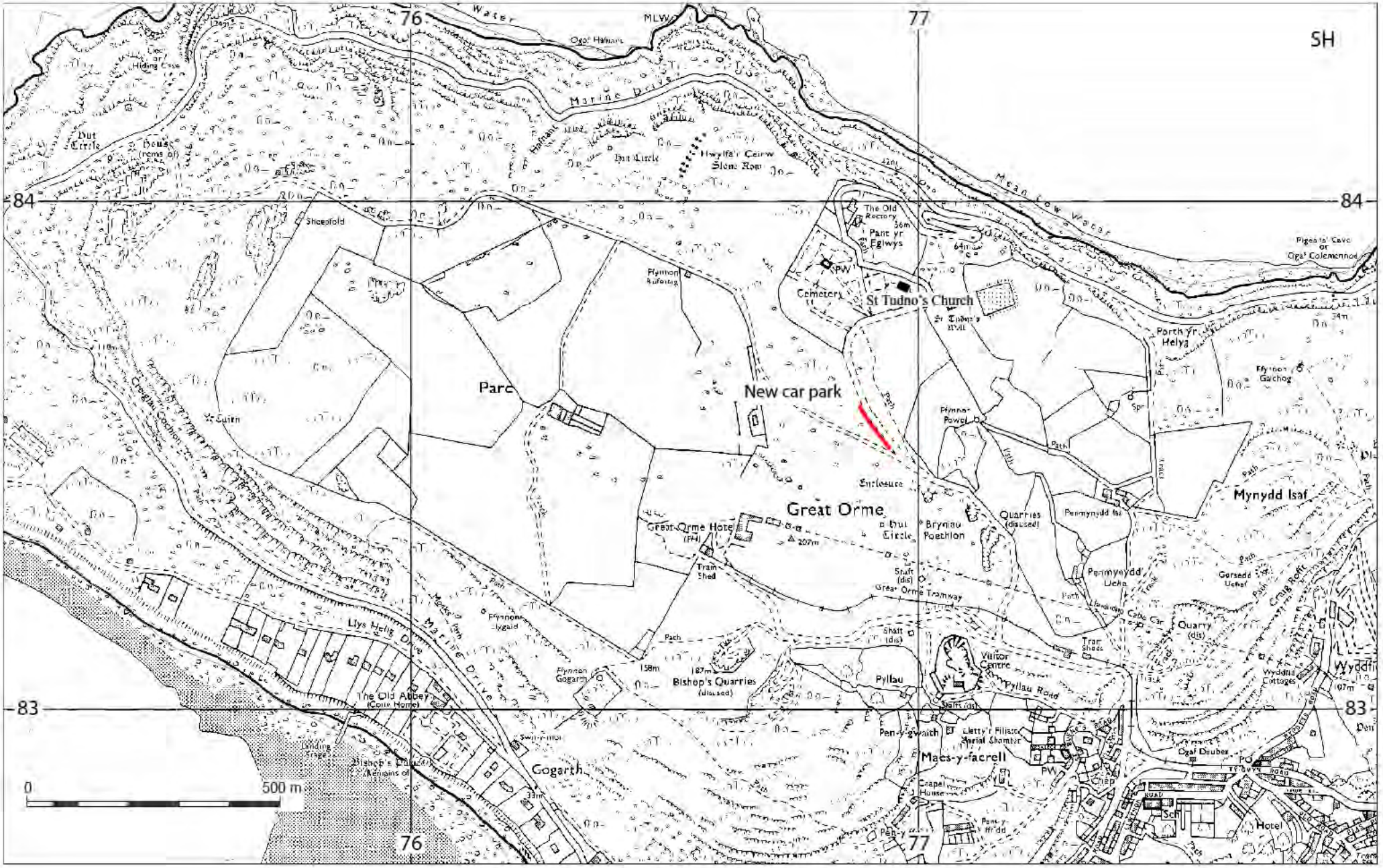


Figure 1: Location of new car park on the Great Orme

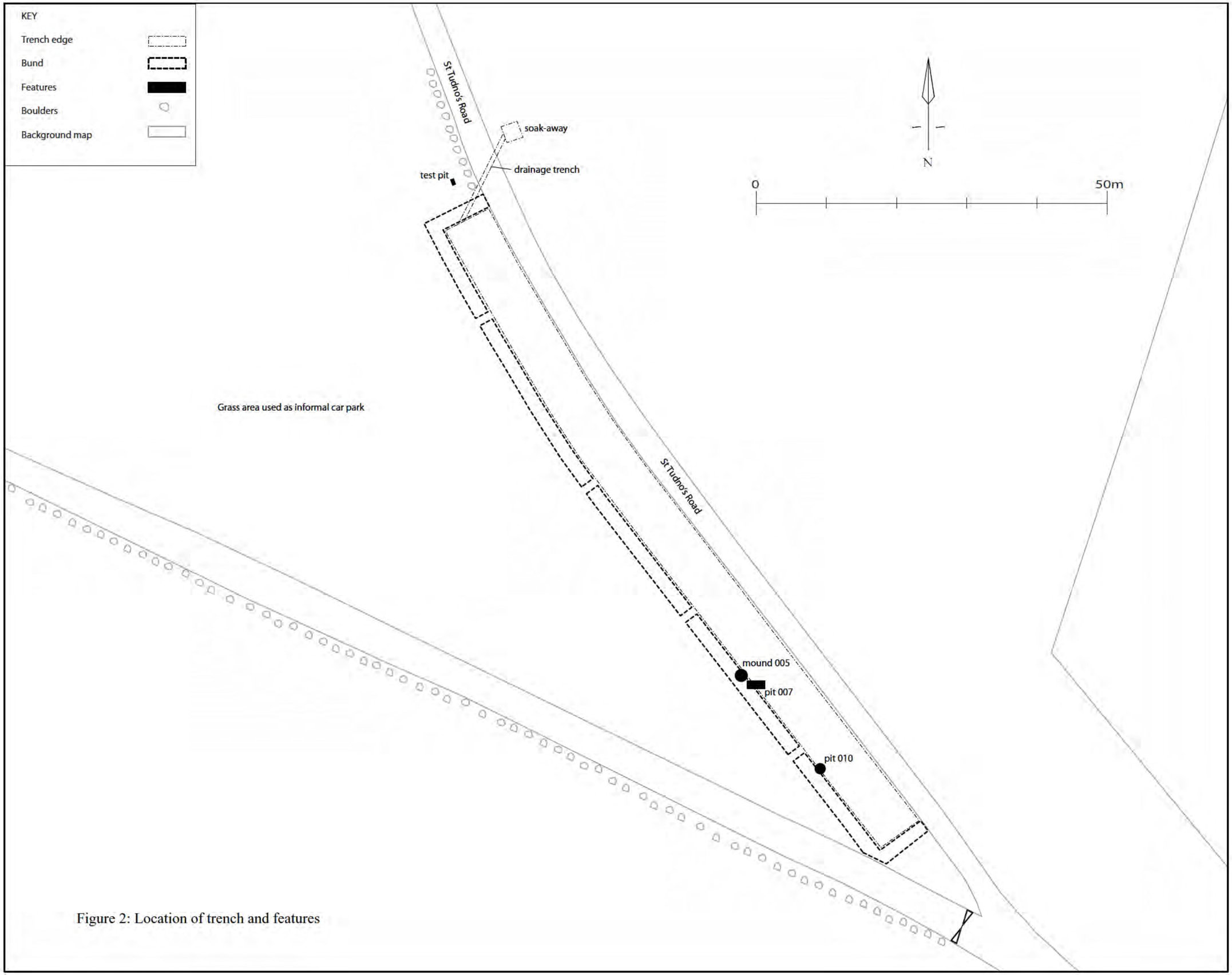


Figure 2: Location of trench and features

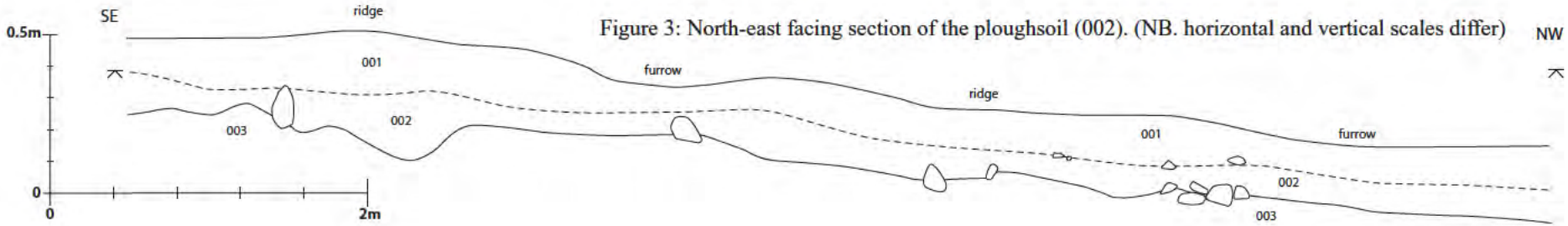


Figure 3: North-east facing section of the ploughsoil (002). (NB. horizontal and vertical scales differ)

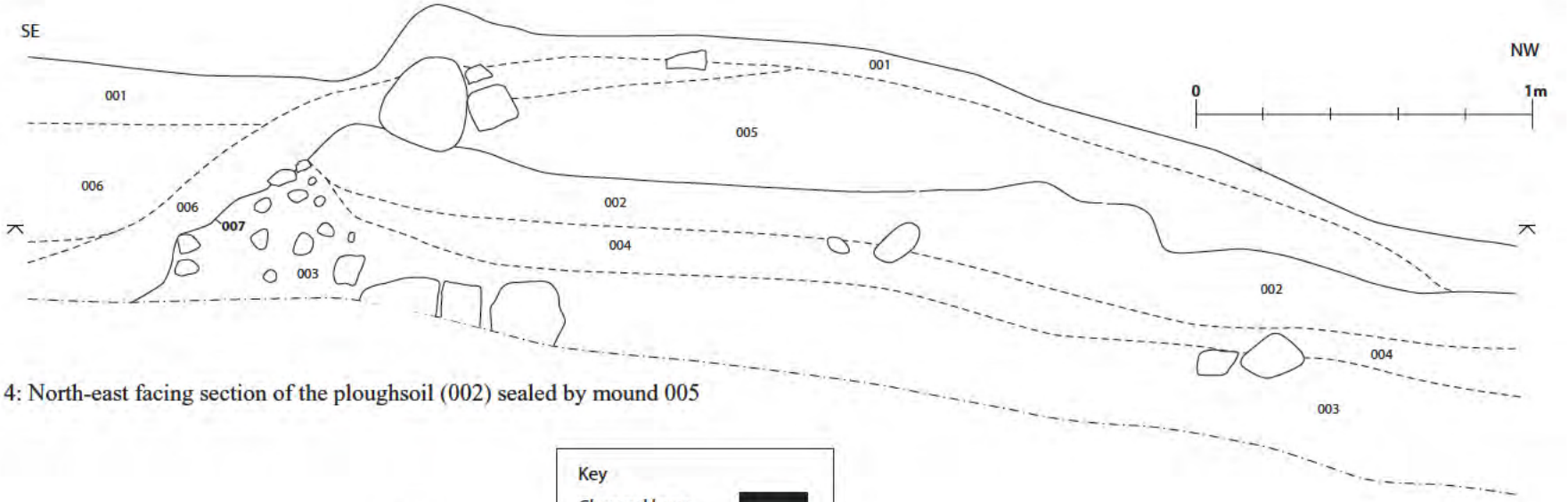


Figure 4: North-east facing section of the ploughsoil (002) sealed by mound 005

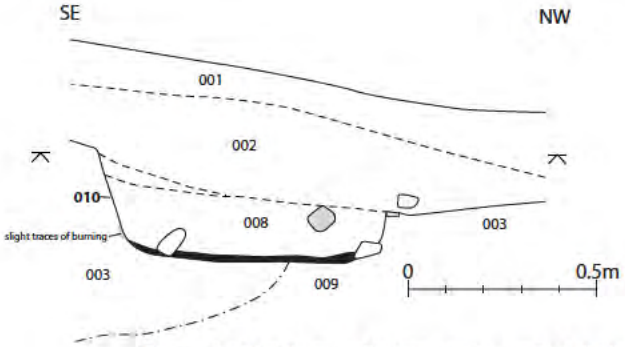
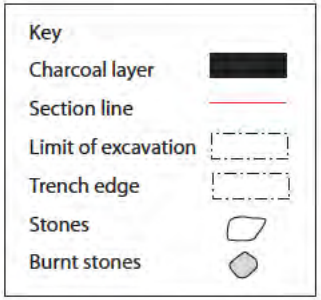


Figure 5: North-east facing section of pit 010



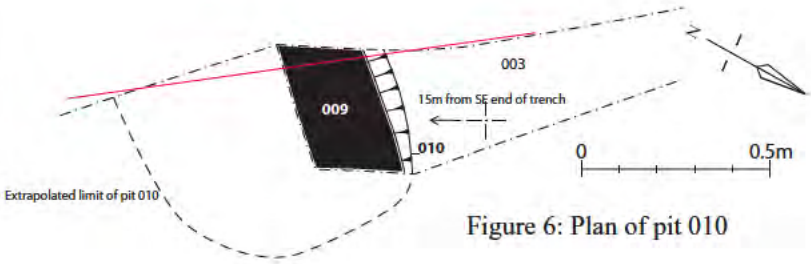
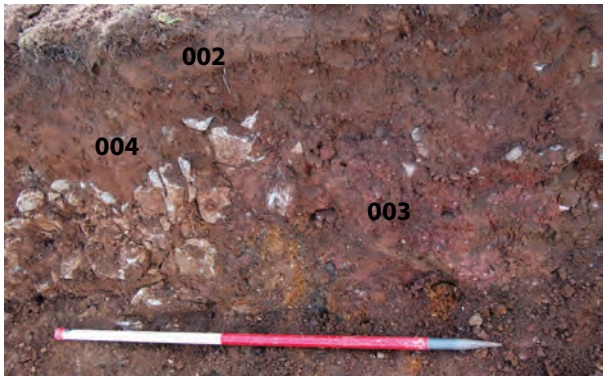


Figure 6: Plan of pit 010

Plate 1: Site of new car park before start of works, from SE

Plate 2: Erosion on site of new car park, from SE

Plate 3: Trench dug for car park foundations, from SE



Plates 4 and 5: Section showing variation in the natural boulder clay (003)

Plate 6: Section showing ploughsoil (002) preserved under mound (005)

Plate 7: Section of pit 010 showing fills 008 and 009

Plate 8: Soak-away from NE