

ARCHAEOLOGICAL WATCHING BRIEF REPORT:

LAND OFF MANOR DRIVE, PASTON, PETERBOROUGH, CAMBRIDGESHIRE

Planning Reference: 11/01981/FUL
NGR: TF 1931 0328
AAL Site Code: PAMD 13
OASIS Reference Number: allenarc1-147766



Report prepared for Prospect Archaeology
On behalf of Linden Homes

By
Allen Archaeology Limited
Report Number 2013034

April 2013



Allenarchaeology



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Executive Summary

- Allen Archaeology Limited was commissioned by Prospect Archaeology on behalf of Linden Homes, to carry out an archaeological watching brief during the excavation of a drainage trench through the Car Dyke Scheduled Monument.
- The Car Dyke is a linear monument which runs along the fen edge from just south of Lincoln to the east side of Peterborough. The monument is largely thought as Roman in origin and interpretations include use as a drainage system, watercourse or boundary.
- The watching brief recorded layers of dumped clay bank make-up, which appears to have been partially levelled at a later date. At the base of the sequence, a peat layer was encountered which was heavily disturbed by root intrusion and as such provided no useful environmental evidence. No finds were recovered during the groundworks.

1.0 Introduction

- 1.1 Allen Archaeology Limited was commissioned by Prospect Archaeology Limited on behalf of Linden Homes to carry out archaeological observation and recording during the construction of a drainage outfall pipe through a section of the Scheduled Monument of the Car Dyke on land off Manor Drive, Paston, Peterborough.
- 1.2 The excavation, recording and reporting conformed to current national guidelines, as set out in the Institute for Archaeologists '*Standard and guidance for an archaeological watching brief*' (IfA 1994, revised 2008) as well as a specification prepared by Prospect Archaeology (Field 2013). All relevant English Heritage guidelines on archaeological best practice were also followed.
- 1.3 The documentary archive will be deposited with Peterborough Museum within six months of the submission of this report for long-term curation.

2.0 Site Location and Description

- 2.1 The development site lies on the northeast fringes of the suburb of Paston, approximately 4.5km north of central Peterborough. The central National Grid Reference of the development area is TF 1931 0328. The site lies at approximately 7m above Ordnance Datum.
- 2.2 The local bedrock geology consists of Oxford Clay formation with no superficial deposits recorded (http://maps.bgs.ac.uk/geologyviewer_google.html).

3.0 Planning Background

- 3.1 Planning permission was granted by Peterborough City Council for *Construction of 52 dwellings and associated works – Phase 4* (application ref. 11/01981/FUL). The scheme itself had no archaeological condition, although a section of drainage outfall pipe was proposed to be laid through a section of the Car Dyke Scheduled Monument (SM 35725, HA 1021133). Scheduled Monument Consent was granted with the condition that a programme of archaeological work be carried out (Scheduled Monument Consent S00019348).
- 3.2 This approach is consistent with the guidelines that are set out in the National Planning Policy Framework (NPPF) (Department for Communities and Local Government 2012). Subsequently, a written scheme of investigation was produced by Prospect Archaeology (Field 2013).

4.0 Archaeological and Historical Background

- 4.1 The outfall pipe runs across the southern bank of the Car Dyke into the drain of the Car Dyke itself. The Car Dyke is a linear monument which runs along the fen edge from just south of Lincoln to the east side of Peterborough. The monument is largely thought to be Roman in origin and interpretations of its use are debatable with usage as a drain the most prevalent, although use as a boundary or for transport have also been mooted (Simmons and Cope-Faulkner 2004, 162-165).

- 4.2 The Car Dyke has been investigated in nearly 20 locations along its route. The profiles of the monument are broadly similar, comprising a flat-bottomed central channel with gently sloping sides, flanked by banks up to 12m wide and 2m in height. Peat has often been found in the basal fills of the dyke (Simmons and Cope-Faulkner 2004).
- 4.3 An archaeological evaluation was carried out in 2006 on the site of the development (Fletcher 2007). The works revealed no archaeological evidence from the Phase 4 development area, although Roman ditches were uncovered further south (*ibid.*)
- 4.4 Previous excavations through the Car Dyke have revealed the potential for the survival of organic remains within the channel and buried soils beneath the bank. Yet secure dating has been difficult to come by, with the greatest potential being for dating of *in-situ* organic remains that may be contained within peat sealed beneath the banks (Simmons and Cope-Faulkner 2004, 174).

5.0 Methodology

- 5.1 The groundworks entailed the excavation of a 35m long trench up to 3m deep, and archaeological monitoring was carried out by Mike Jarvis for Allen Archaeology Limited on the 28th and 29th January 2013. Machine excavation was undertaken using a tracked excavator fitted with a toothless bucket. During the groundworks, where access was possible, all exposed plan and section surfaces were inspected for archaeological features and deposits to determine the stratigraphic sequence.
- 5.2 A full written record of the archaeological deposits was made on standard Allen Archaeology Limited context recording sheets. Sections recorded were marked with string and nails and allocated an individual drawing number. A comprehensive record of all drawings was maintained, and the location of every section drawing plotted onto the site master plan and correctly referenced. All sections were drawn at an appropriate scale.
- 5.3 Each deposit or layer was allocated a unique three digit identifier (context number), and accorded a written description, a summary of these are included in Appendix 2.
- 5.4 All archaeological deposits and features were recorded by full colour photography, with an identification number board, north arrow and appropriate metric scales. General site shots were also taken to show the location of the groundworks and the stratigraphic sequence.

6.0 Results

- 6.1 The works revealed a sequence of deposits representative of ditch upcast and make-up deposits forming the southern bank of the Car Dyke.
- 6.2 The natural geology 005, consisted of a very dark grey/brown clay with a laminated structure and was observed at a depth varying between 0.5m and 1.7m below the existing ground level. The natural surfaced sloped downwards from south to north.
- 6.3 The earliest deposit sealing the natural was a peat layer, 010, which was 0.25m thick and occurred only in the northern end of the trench, adjacent to the existing dyke. This layer directly overlay the natural and was sealed by a sequence of bank deposits, and as such it had

the potential to be contemporary with the early use of the Car Dyke. Environmental sampling was undertaken however, which revealed severe modern root intrusion and the integrity of the deposit is likely to have been compromised.

- 6.4 Partly overlying the peat, and also restricted to the northern end of the trench, was a 0.2m thick layer of silty clay with organic inclusions, 011. This again was sampled for environmental evidence, although proved to be too disturbed by modern root intrusion to be of archaeological interest.
- 6.5 Overlying this was a layer of yellow brown clay silt, 007, the upper limits of which merged into the overlying orange yellow clay 006. These layers extended across the whole area of the excavated trench and were up to 1.75m thick, thinning towards the northern end of the site. These layers formed the bulk of the bank deposits and appear to consist mainly of re-deposited clays.
- 6.6 The uppermost deposits in the sequence consisted of a heavily root disturbed silty deposit, 009, overlain by topsoil, 008.
- 6.7 Towards the southern end of the excavated trench, a portion of the bank deposits had been truncated by machine prior to monitoring. At the south end of the trench, a steep sided cut for a modern manhole was observed, [003], cutting through bank layer 007, and sealed by a dump of modern made ground 004.
- 6.8 No finds were recovered during the watching brief.

7.0 Discussion and Conclusions

- 7.1 The excavation revealed a sequence of deposits relating to the bank on the southern side of the Car Dyke. In this area the bank is made up of a number of dumped clay deposits to form a low wide bank rather than a high narrow bank as observed on the northern side of the existing dyke. The bank survived to a maximum height of 1.7m high from the natural ground level at its highest and extended for a distance of 20m from the watercourse. It is probable that the bank here has been levelled to a certain extent and is of similar dimensions to that observed at Thurlby, which had also been partially flattened (Simmons and Cope-Faulkner 2004, 68).
- 7.2 Although a number of soil horizons were exposed that appeared to predate the Car Dyke, the extent of modern root intrusion limited the archaeological potential and significance of these deposits.

8.0 Effectiveness of Methodology

- 8.1 The archaeological watching brief methodology was appropriate to the nature and extent of the proposed development. It has enabled the recording of a profile of the Car Dyke.

9.0 Acknowledgements

- 9.1 Allen Archaeology Limited would like to thank Prospect Archaeology and their client, Linden Homes, for this commission and the groundworkers for their cooperation during the fieldwork.

10.0 References

Department for Communities and Local Government, 2012, *National Planning Policy Framework*. London, Department for Communities and Local Government

Field, N. 2013, *Section of the Car Dyke, between Whitepost Rod and Fen Bridge, Paston, Peterborough, Written Scheme of Investigation*. Prospect Archaeology, unpublished report

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IfA, 2008, *Standards and Guidance for an archaeological watching brief*, Institute for Archaeologists, Reading

Simmons, B. B. and Cope-Faulkner, P. 2004, *The Car Dyke, Past Work, Current State and Future Possibilities*, Lincolnshire Archaeology and Heritage Reports Series, No. 8. Heritage Trust of Lincolnshire, Sleaford

Appendix 1: Colour Plates



Plate 1: General shot of the Car Dyke, showing the end of the drainage trench marked out in blue, looking northwest



Plate 2: View of the section through the bank, looking east, showing topsoil layers 008 and 009, over bank deposits 006 and 007. Scale is 2m



Plate 3: View of the peat layer 011, looking east. Scale is 2m

Appendix 2: Environmental Archive

By Val Fryer

Introduction and method statement

Excavations across the Car Dyke at Paston were undertaken by Allen Archaeology Ltd. Samples for the retrieval of the plant macrofossil assemblages were taken from fills within the Dyke, and two were submitted for assessment.

3 litre sub-samples of each sample were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed below in Table 1. Nomenclature within the table follows Stace (1997). With the exception of a single, small charcoal fragment, all plant remains were de-watered.

Results

Both assemblages are almost entirely composed of modern fibrous and woody roots. Such severe intrusion within the feature has almost certainly compromised the deposits and, therefore, it is impossible to state whether any of recorded plant remains are contemporary with the Dyke itself. For this reason, it has been decided that none of the macrofossils are suitable for dating. However, individual de-watered seeds/fruits, including specimens of sedge (*Carex* sp.) and bramble (*Rubus* sect. *Glandulosus*) are recorded, along with small wood fragments and arthropod remains. Water flea eggs (Cladoceran ephippia) and a single shell of *Anisus leucostoma* (a common marsh snail) are also present within the assemblage from sample 2 (context [011]).

Conclusions and recommendations for further work

It would appear that in this immediate area, the Dyke fills have been severely compromised by the intrusion of modern roots, almost certainly precluding the archaeological potential of the deposits, and no further work is recommended on the samples.

Reference

Stace, C., 1997 *New Flora of the British Isles*. 2nd edition. Cambridge University Press

Sample No.	1	2
Context No.	010	011
<i>Carex</i> sp.	xw	
<i>Rubus</i> sect. <i>Glandulosus</i> Wimmer & Grab		xw
Charcoal >2mm	x	
De-watered wood frags.	xx	x
De-watered stem	xx	
Cladoceran ephippia		x
<i>Anisus leucostoma</i>		x
De-watered arthropod remains	x	
Sample volume (litres)	3ss	3ss
Volume of flot (litres)	0.2	0.2
% flot sorted	50%	50%

Table 1. Plant macrofossils and other remains from Manor Drive, Paston

Key to Table

x = 1 – 10 specimens xx = 11 – 50 specimens w = de-watered ss = sub-sample

Appendix 3: Context Summary List

Context No.	Type	Description	Interpretation
001		Manhole. Contained within cut [003]	Manhole
002	Fill	Firm to friable mid-dark brown clay with very frequent brick and rubble. Sealed by 004	Backfill of manhole construction cut
003	Cut	Manhole construction cut. Cuts 007, contains 001, 002	Cut of Manhole
004	Layer	Firm light yellow brown clay, seals 002	Levelling deposit
005	Layer	Compact grey brown clay, laminated with frequent marine shell, sealed by 010	Natural clay
006	Layer	Compact orange yellow clay with occasional small rounded pebbles, seals 007, sealed by 009	Bank make-up
007	Layer	Compact light yellow brown clayey silt, seals 011, sealed by 006	Bank make-up
008	Layer	Loose mid-dark brown sandy silt with light organic content, seals 009	Topsoil
009	Layer	Firm mid brown silty clay with occasional pebbles and frequent root activity, seals 006, sealed by 008	Root disturbed topsoil
010	Layer	Compact organic peat, seals 005, sealed by 011	Alluvial deposit
011	Layer	Compact mid-dark grey silty clay, seals 010, sealed by 007	Bank make-up

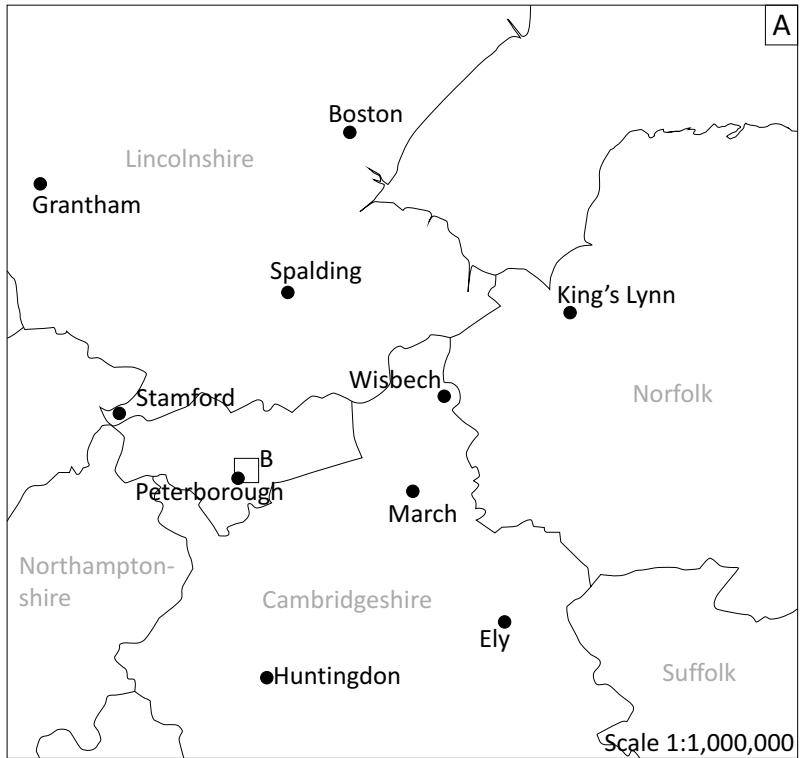
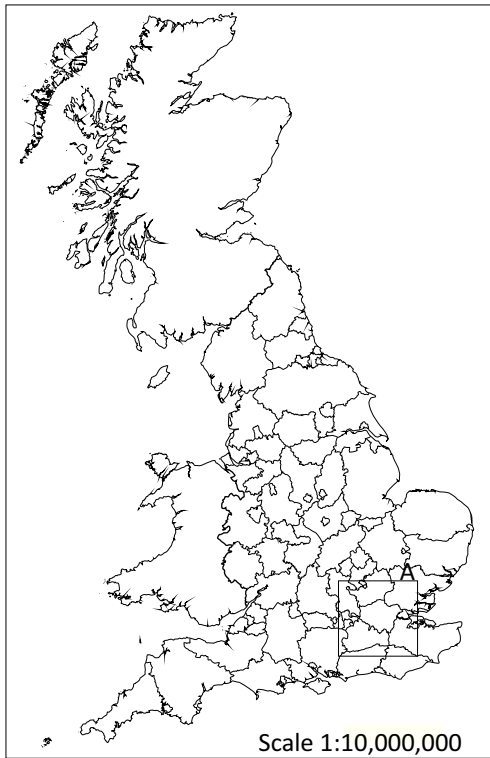


Figure 1: Site location outlined in red

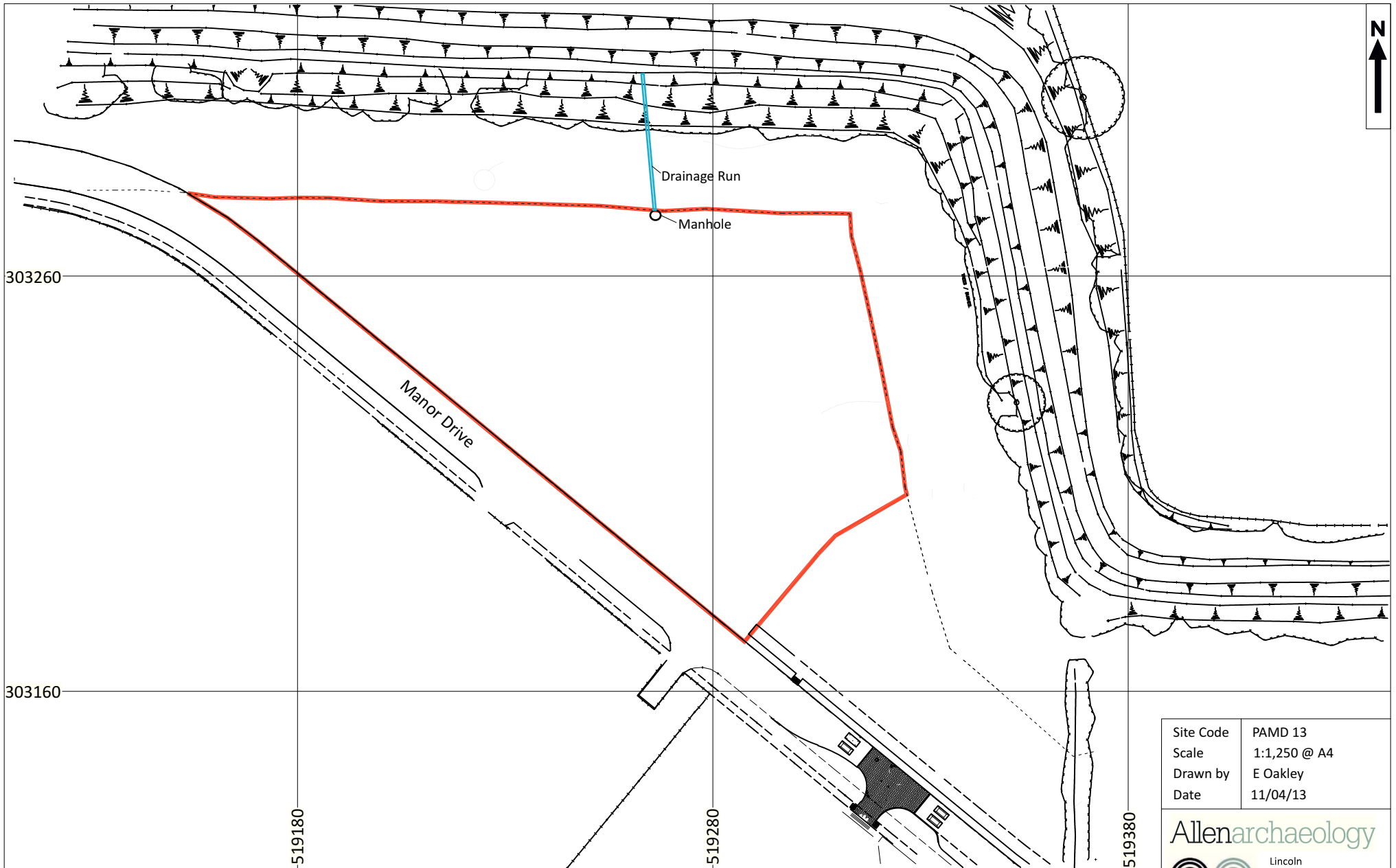
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Site Code	PAMD 13
Scales	1:10,000,000 1:1,000,000 1:25,000 @ A4
Drawn by	E Oakley
Date	11/04/13

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Site Code	PAMD 13
Scale	1:1,250 @ A4
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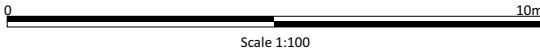
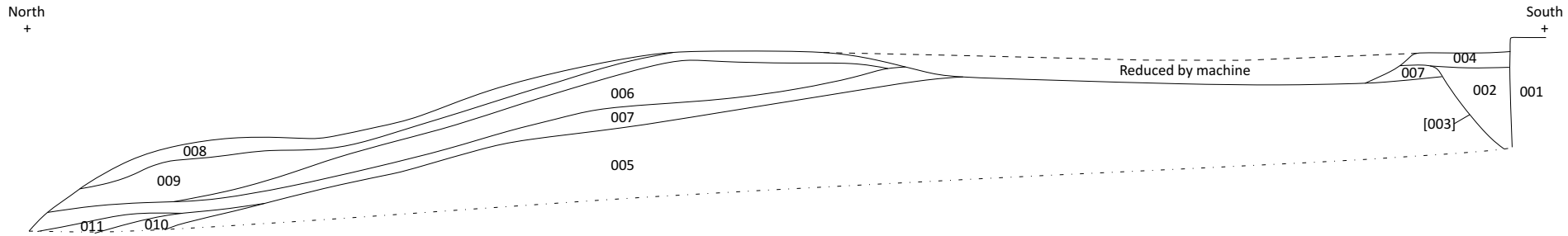
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Figure 2: Plan showing the location of the site marked in red and the location of the drainage trench marked in blue

West Facing Section



Site Code	PAMD 13
Scale	1:100 @ A3
Drawn by	E Oakley
Date	11/04/13

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Figure 3: West facing section of the drainage trench



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