

**Davies, Nichola (SF - Culture & Sport - Cadw)**

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**From:** Roberts, Kathryn (DH - CADW)  
**Sent:** 21 August 2013 11:02  
**To:** Hughes, Mair (LS)  
**Cc:** Grant, Fiona (DH - CADW); Hughes, Gwilym (DH - CADW); Whiting, Suzanne (DH - CADW); Kevern, Richard (DH - CADW)  
**Subject:** Land at Plas Offa Farm, Whitchurch Pentre, Chirk

Dear Mair

Thank you for the update.

The damage to Offa's dyke (RD138) is now subject to a police investigation which I understand will include an examination of the sales process since the new owners have told us that they were not aware of the scheduled status of the earthwork. Fiona Grant and I met with the new owners at the site yesterday along with representatives from North Wales police. The new owners are cooperating fully with Cadw and the police. At the meeting they provided the police with a bundle of paperwork which they said was all of the information which they had been given by the solicitors. The police are going to copy and review it as evidence.

**Dr Kate Roberts**

Uwch-arolygydd Henebion ac Archaeoleg  
/ Senior Inspector of Ancient Monuments and Archaeology  
Cadw  
Llywodraeth Cymru / Welsh Government  
Plas Carew, Uned/Unit 5-7 Cefn Coed, Parc Nantgarw,  
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[Kathryn.Roberts@Cymru.gsi.gov.uk](mailto:Kathryn.Roberts@Cymru.gsi.gov.uk)

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**From:** Hughes, Mair (LS)  
**Sent:** 21 August 2013 08:51  
**To:** Halfpenney, Ian (DH - CADW); Roberts, Kathryn (DH - CADW)  
**Cc:** Grant, Fiona (DH - CADW); Hughes, Gwilym (DH - CADW); Davies, Will (DH - Cadw); Whiting, Suzanne (DH - CADW); Kevern, Richard (DH - CADW); Low, Jennifer (PPCS - Property Division)  
**Subject:** FW: Land at Plas Offa Farm, Whitchurch Pentre, Chirk

Ian/Kate

As I hadn't received a response from GHP Legal to my previous emails I chased this morning and have just received the email below.

I will keep you updated.

Thanks  
Mair

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Mair Hughes  
Cyfreithwraig/Solicitor  
Gwasanaethau Cyfreithiol Masnachol /Commercial Legal Services  
Llywodraeth Cymru/ Welsh Government

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**From:** Nicholas Kennan [<mailto:Nicholas.Kennan@ghplegal.co.uk>]  
**Sent:** 21 August 2013 08:42  
**To:** Hughes, Mair (LS)  
**Cc:** Richard Lloyd  
**Subject:** RE: Land at Plas Offa Farm, Whitchurch Pentre, Chirk

Dear Miss Hughes,

This matter is now with the senior partner, Mr Richard Lloyd, and I have passed your enquiry to him. However, Miss Hibbert is not contactable on leave and Mr Lloyd may be unable to respond until such time as Miss Hibbert returns.

Regards,

Nicholas Kennan

	<p>Nicholas Kennan   Solicitor 37-39 Willow Street   Oswestry   SY11 1AQ T 01691 659194 F 01691 652755 DX 26605 W <a href="http://www.ghplegal.co.uk">www.ghplegal.co.uk</a></p>	  <small>Practice Management Standard Law Society Accredited</small>
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**From:** Hughes, Mair (LS) [<mailto:Mair.Hughes@Wales.GSI.Gov.UK>]  
**Sent:** 21 August 2013 08:06  
**To:** Nicholas Kennan  
**Cc:** Halfpenney, Ian (DH - CADW)

**Subject:** FW: Land at Plas Offa Farm, Whitchurch Pentre, Chirk  
**Importance:** High

Dear Mr Kennan

I write further to my email below and would be grateful to receive a response urgently please.

Your client's application to register the transfer is still pending at the Land Registry therefore if you are at least able to provide a copy of the transfer to confirm ownership of the land in question at this stage I would be extremely grateful.

I look forward to hearing from you.

kind regards  
Mair Hughes

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**From:** Hughes, Mair (LS)  
**Sent:** 15 August 2013 11:57  
**To:** 'Nicholas Kennan'  
**Subject:** RE: Land at Plas Offa Farm, Whitchurch Pentre, Chirk

Dear Mr Kennan

Many thanks for your email.

I understand that representatives of Cadw met with your client on site this morning to explain the position.

Unfortunately Mr Roberts expressed to Cadw that he was unaware of the fact that part of the land he has acquired is scheduled and is consequently subject to the provisions of the Ancient Monuments and Archaeological Areas Act 1979.

I would therefore be grateful if you could please confirm that:

- (a) this was revealed in your local authority search and/or replies to enquiries from the previous owners.
- (b) your client was made aware of the scheduled status of the site

Many thanks for your help.



Kind regards  
Mair

---

Mair Hughes  
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## **Davies, Nichola (SF - Culture & Sport - Cadw)**

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**From:** Roberts, Kathryn (DH - CADW)  
**Sent:** 04 June 2014 14:55  
**To:** Roberts, Kathryn (DH - CADW)  
**Subject:** FW: Mapped area

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**From:** Roberts, Kathryn (DH - CADW)  
**Sent:** 21 August 2013 16:56  
**To:** 'Thomas, Eleri (Sgt 1708)'; 'richard.burgess@nthwales.pnn.police.uk'  
**Subject:** Mapped area

De138 - Offa's Dyke - land transfer and Scheduled area.

Our legal section has received a copy of the title transfer deeds which have now been registered with the Land Registry and which includes a map showing the area which has been sold. We have mapped this onto our GIS system and printed it out superimposed against the scheduled area (marked in red). This confirms that the full extent of the land which was purchased lies within the scheduled area and is therefore protected under the Ancient Monuments and Archaeological Areas Act 1979 and unsuitable for development.











**Davies, Nichola (SF - Culture & Sport - Cadw)**

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**From:** Roberts, Kathryn (DH - CADW)  
**Sent:** 04 June 2014 14:52  
**To:** Roberts, Kathryn (DH - CADW)  
**Subject:** FW: Plas Offa (cost of remedial works)

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**From:** Hughes, Mair (LS)  
**Sent:** 22 August 2013 07:14  
**To:** Roberts, Kathryn (DH - CADW)  
**Subject:** Plas Offa (cost of remedial works)

Kate

I've reviewed the relevant provisions of the Ancient Monuments and Archaeological Areas Act 1979 and in respect of any remedial works under section 5 Cadw has the right to enter the site of a monument to carry out any works required urgently for the preservation of a scheduled monument after giving the owner not less than 7 days' notice in writing.

Where works are required in order to repair any damage to a scheduled monument Cadw would be entitled to the benefit of any compensation order previously made by a court or any future compensation order that may be made in respect of that damage under s130 of Powers of Criminal Courts (Sentencing) Act 2000.

A court may order compensation to be payable by a person convicted of an offence for any loss or damage resulting from that offence. Where a court decides not to make a compensation order (but it has the ability to do so) it needs to give reasons why it has decided not to.

The level of compensation payable shall be determined by the court as being the appropriate level, having regard to any evidence and any representations that are made by or on behalf of the prosecutor. The court will also have regard to the person's means when determining the level of compensation payable.

Where the court considers that it would be appropriate both to impose a fine on a convicted person and to make a compensation order but the person has insufficient means to pay both, the court is required to give preference to compensation (although it may impose a fine as well).

This is obviously, however, dependant on a successful prosecution of the owner under the 1979 Act.

If you like, I can also ask for advice from a litigator in respect of any civil remedies that may be available in respect of recouping the cost of the works outside of the 1979 Act in the event that a prosecution either isn't pursued or subsequently fails?

I hope this helps but please let me know if you require any further information.

Thanks  
Mair

---

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CPAT Report No 1224

# Offa's Dyke De138, Chirk, Wrexham Survey, Excavation and Recording



Llywodraeth Cymru  
Welsh Government



THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

*Client name:* Cadw  
*CPAT Project No:* 1901  
*Project Name:* Offa's dyke De138  
*Grid Reference:* SJ 2812 4054  
*County/LPA:* Wrexham

*Report Title:* Offa's Dyke De138, Chirk, Wrexham: Survey, Excavation and Recording  
*CPAT Report No:* 1224  
*Report status:* Final  
*Confidential:* No

*Revised Report*

*Prepared by:* I Grant  
*Completion date:* 10 January 2014

*Position:*  
Project Archaeologist  
10 January 2014

*Checked by:* N W Jones  
*Checked on:* 10 January 2014

*Position:*  
Senior Project Archaeologist  
10 January 2014

*Signed:*

*Approved by:* R J Silvester  
*Approved on:* 7 February 2014

*Position:*  
Head of Field Services  
7 February 2014

*Signed:*

*Bibliographic reference:*

Grant, I., 2014. *Offa's Dyke De138, Chirk, Wrexham: Survey, Excavation and Recording*. Unpublished report. CPAT Report No. 1224.



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## Summary

Following reports of significant damage to a scheduled section of Offa's Dyke (SAM De138) near Chirk, Wrexham, Cadw commissioned the Clwyd-Powys Archaeological Trust (CPAT) to undertake a survey of the affected area, recording the surviving earthworks and the extent of the damage. Subsequently, a separate phase of work investigated the damaged area through archaeological excavation and recording.

The results of the survey and excavation have demonstrated that an estimated 125m<sup>3</sup> of material have been removed from the bank of Offa's Dyke, causing significant damage to the south-western part of the site. However, the removal of topsoil along the line of the ditch appears to have had a limited impact upon the underlying archaeological deposits.

The excavation afforded the opportunity to record a number of sections, revealing the depositional sequence of the dyke's construction. The earliest phase of activity consisted of a discrete dump of large stones lying below the base of the bank, the function and date of which is unknown. It was evident that the bank had been constructed directly on the surface of the natural subsoil, suggesting that turf had been stripped from the area, perhaps for later use in consolidating the bank. Initially, material upcast from the ditch was deposited immediately adjacent to its eastern edge, forming a low bank around 1m high and 1.6-2.0m wide, constructed from deposits of clay and rounded stones, with further material subsequently added on top and to the rear.

A sampling strategy was developed throughout the excavation, targeting the recovery of material from sealed and secure deposits within the make-up of the dyke. An assessment of the samples has been determined that each contains material suitable for radiocarbon dating, although the overall palaeoenvironmental potential is low. Four charcoal samples from basal layers within the bank have been submitted for dating which, although clearly within redeposited material, have the potential for providing a *terminus post quem* for the construction of the dyke.

## 1 Introduction

- 1.1 In August 2013 the Clwyd-Powys Archaeological Trust was commissioned by Cadw to survey and record a scheduled section of Offa's Dyke (SAM De138) which had been damaged by unauthorised excavation. The site was located near Chirk, Wrexham, at SO 28075 40455.
- 1.2 On or around 10-11 August 2013 a mechanical excavator had been used to create a track along the western base of the Dyke, partly removing a 40m-long section of the linear earthwork's bank and spreading the resulting material over the adjacent infilled ditch over a length of approximately 120m.
- 1.3 The project was conducted in two phases, commencing with a detailed total station survey of the affected area, recording the surviving earthwork and the extent of the damage on 22-23 August 2013. The second phase investigated the damaged area through archaeological excavation and recording on 16-20 September 2013.

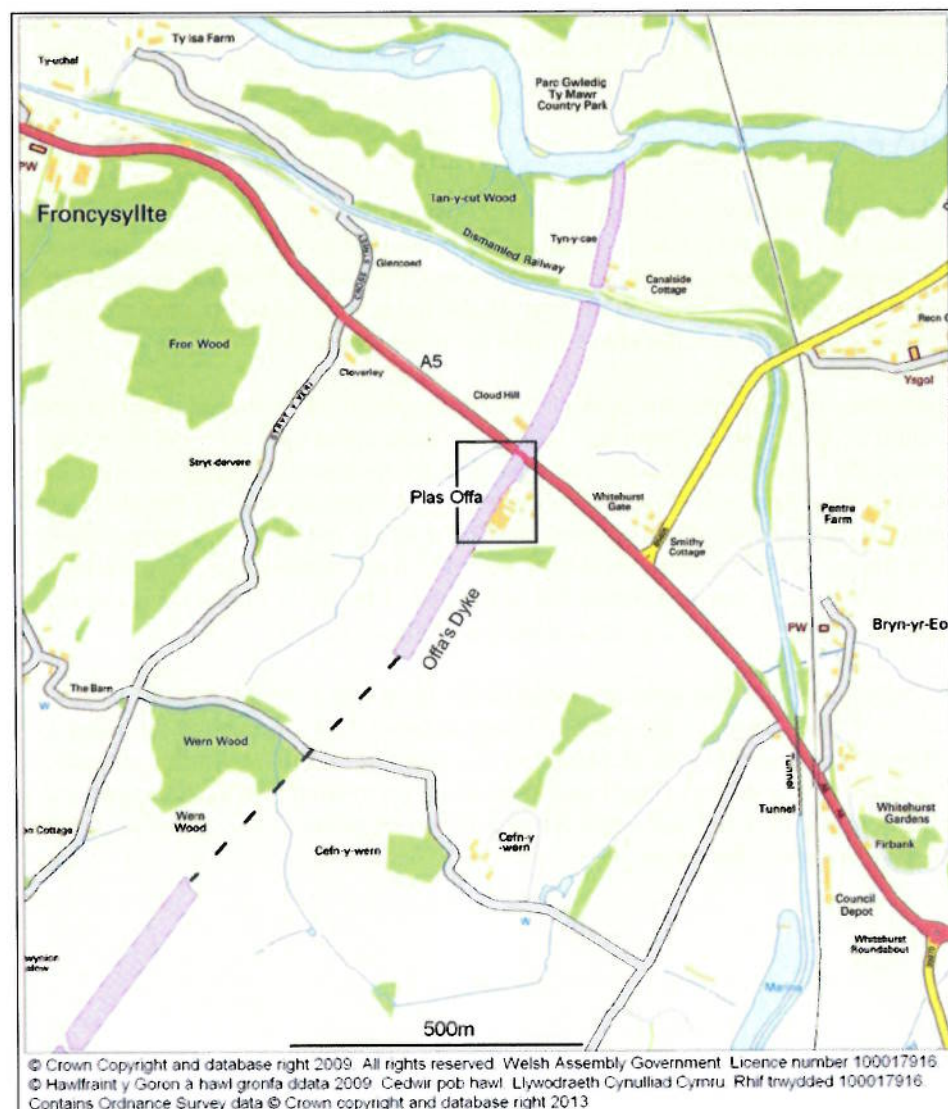


Fig. 1 Location of the damaged scheduled section of Offa's Dyke (De138).



- 1.4 This section of the dyke was described by Cyril Fox (1955,55) as follows:

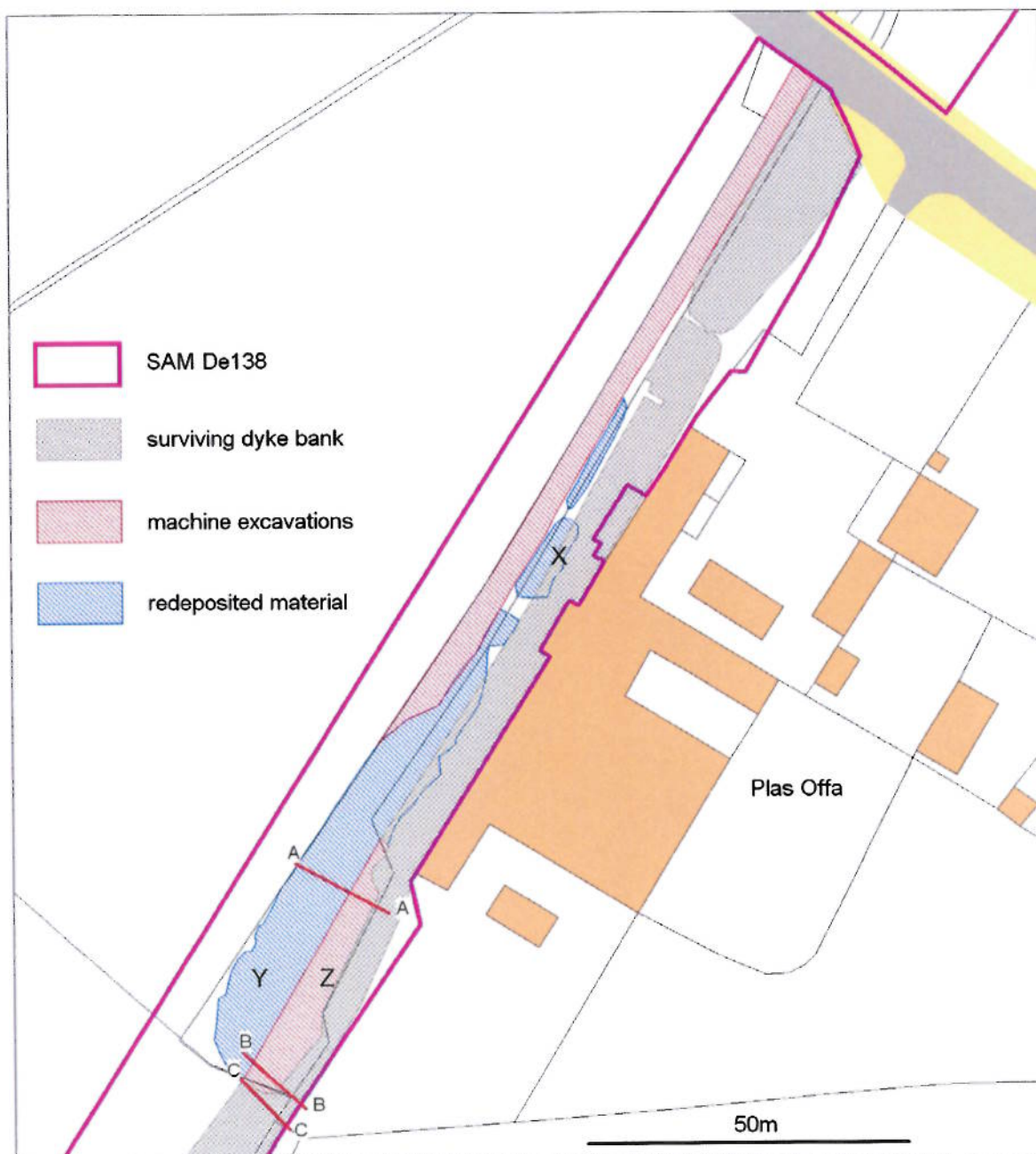
*'... The modern highway to Llangollen cuts through the Dyke; an older (but probably not original) opening is present on the north side of this road. From the road to the southern boundary ... the Dyke is well marked, the ditch forming a water channel; it is damaged in the neighbourhood of Plas Offa, a modern farmstead, and there is a modern gap on the south side of the steading; but beyond this it is very fine, with old oaks on its bank.'*

- 1.5 The 'ditch forming a water channel' has now been partially infilled as a result of the machine excavations. The 'modern gap on the south side of the steading' is still evident and is the subject of further discussion in this report (see 3.9).
- 1.6 There is no record of any past investigation of the dyke adjacent to Plas Offa, although a section was excavated across an eroded end of the dyke in 1976, on the opposite side of the A5 (SJ 282 406). The dyke survived there as a truncated bank, 2m high, although the ditch had been largely infilled and levelled. The recorded section showed a low bank 'containing large boulders – occurring towards the centre of the bank' and at the time of excavation the authors considered the possibility of a 'marking out bank laid down before the construction of the bank proper' (Hill and Worthington 2003; Site 33).

## 2 Survey

- 2.1 The survey was conducted on 22 and 23 August using a Leica TC500 in conjunction with Penmap survey software and the data were processed using proprietary software. The resulting illustrations were produced by Nigel Jones of CPAT using Mapinfo and Adobe Illustrator. The survey recorded the damaged section of the dyke, and related it both to the boundary of the scheduled area and recently erected field boundaries (Fig. 3).
- 2.2 The survey revealed that the upper 0.1-0.2m of topsoil had been removed for about 140m across a width of 4m to 5m between the base of the bank and a new post and wire fence erected to the west of the dyke. The material was subsequently re-deposited along the west-facing base of the bank (Fig. 4). Removal of the topsoil exposed the uppermost fill of the ditch, while a stony clay spread along the central and eastern area of the newly created track represents material removed from the bank. 140m south-west of the A5 the track widened to form a levelled area that had been fashioned by the partial removal of the dyke bank for a further 40m; some stratigraphy was exposed within the truncated core of the bank (Figs 5 and 6).
- 2.3 It is estimated that the machine excavations have had a direct impact on 206m<sup>2</sup> of the bank, while a further 58m<sup>2</sup> of the bank has had material dumped against it. Material had also been redeposited across an area of 680m<sup>2</sup> of the ditch, while some limited ground disturbance has affected a further 445m<sup>2</sup>. Based on the profiles surveyed across the damaged section of the bank (Figs 2 and 3) it is estimated that around 125m<sup>3</sup> of material may have been removed, and then redeposited across the ditch.





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Fig. 2 Survey showing the damaged section of Offa's Dyke. The letters X-Z indicate the positions from which text photographs (Figs 4-6) were taken.

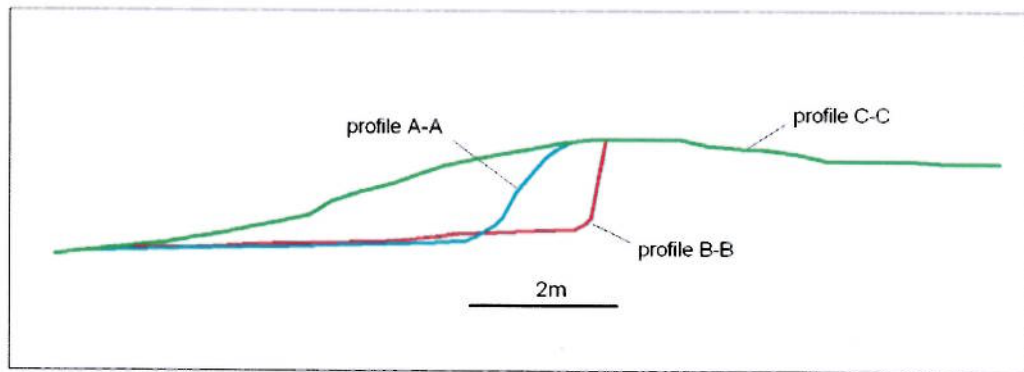


Fig. 3 Comparative profiles (A-A and B-B) through the damaged portion of the dyke and an adjacent undamaged portion (C-C) (see Fig. 2 for profile locations)



Fig. 4 Redeposited topsoil along the west-facing base of the dyke, viewed from the north-east. (X in Fig. 2). Photo CPAT 3677-0019





Fig. 5 Redeposited material on top of the ditch, viewed from the south-west (Y in Fig. 2).  
Photo CPAT 3677-0022



Fig. 6 The levelled area created by the partial removal of c.40m of dyke bank, viewed from the south-west (Z in Fig. 2). Photo CPAT 3677-0008



Fig. 7 The exposed section of bank was protected by sheeting to prevent erosion prior to the commencement of the archaeological excavation (Z in Fig. 2). Photo CPAT 3677-0035

### 3 Excavation and Recording

- 3.1 The limited excavation and recording was undertaken between 16 and 20 September 2013 to investigate the damaged section of the dyke, collect information about the extent of the damage and assess the survival and archaeological potential of what remained of this length of the earthwork.
- 3.2 All spoil and disturbed material resulting from the unauthorised machining was removed from five locations along the main axis of the dyke. These areas, subsequently cleaned and excavated by hand, are here termed sondages and are labelled A to E (as on Fig. 8); they were designed to establish the extent of re-deposited material and where possible record the stratigraphy of the original bank where this was exposed. Adjacent sondages were excavated where the bank had been removed in order to observe any surviving stratigraphy relating to the earthwork and in particular to pick up the inner edge of its ditch. As a by-product, modern disturbances that included a farm trackway and drainage channels were also recorded. Each of the sondages provided a vertical section which to avoid any confusion in the report are also labelled A-E (see Figs 11-16).
- 3.3 A sampling strategy was developed to recover material from secure, sealed deposits within the bank which were thought to offer potential for both radiocarbon dating and palaeoenvironmental analysis. A list of samples, together with their contexts, is given in Appendix 1 (Tables 1 and 2).
- 3.4 A written, drawn and photographic record was maintained throughout the work, in accordance with the *IfA Standard and Guidance for Archaeological Excavation* (2013), details of which are



included in Appendix 1. Context numbers are shown on the illustrations in this report, and are given in brackets in the text.

- 3.5 The archive generated by the work will be deposited with the Clwyd-Powys Historic Environment Record in Welshpool.

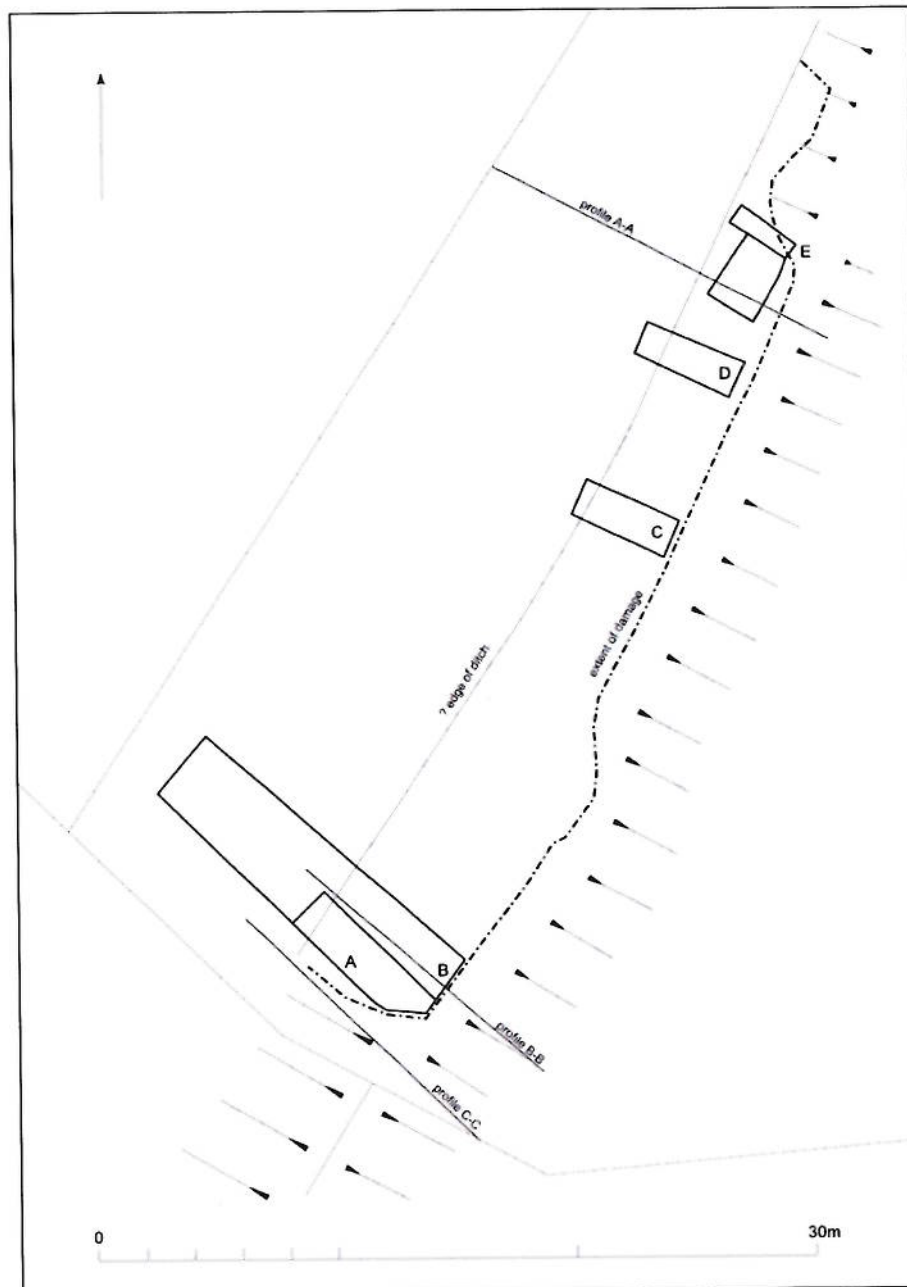


Fig. 8 The location of the sondages and sections (A – E) and recorded profiles.



### Sondages A and B

- 3.5 Two contiguous sondages were located at the south-western corner of damaged area (Fig. 8), which recorded both a partial cross-section through the earthwork on its western side (A; Figs 9 and 11), and a short longitudinal section through the deposits in the core of the bank (B; Figs 10 and 11). In both sections at least eight layers could be identified within the bank (01-08).
- 3.6 The dyke had been constructed directly on the surface of the natural subsoil (10) which here consisted of a firm, pale, grey, mottled silty clay; there was no evidence for a buried turf layer surviving below the bank. The basal layer (08), a fine compacted orange silty clay up to 0.44m thick, contained numerous charcoal flecks, and in places incorporated what appeared to be individual blocks of redeposited turf (09) which also contained flecks of charcoal. Differences in the overlying stratigraphy (01-07) were slight; the colour of the clay varied from grey to yellow, and layers were characterised by variations in the quantity and size of the stones included in the clay. Nevertheless, there was evidence that an initial stage in the construction consisted of a low bank of rounded cobbles and clay around 1m high and 1.6-2m wide (deposits 07 – 05). This was then heightened (deposits 04 – 02), shifting the crown of the Dyke about 1.5m further to the east.
- 3.7 Bulk soil samples were collected from two layers, 08 and 09 (Find nos 100 and 101), the positions of which are indicated in Fig. 11. Considerable care was taken during this process to isolate all material from potential cross-contamination resulting from bio-disturbance (i.e. animal burrows and tree roots).
- 3.8 A sondage (A) exposed the inner edge of the infilled dyke ditch (22), lying approximately 5m to the west of the longitudinal section through the surviving bank. A modern drain (24) had been inserted along this edge and another modern drainage feature was evident in the centre of the damaged area where the earthwork had been breached by a former farm track. It is probable that some of the material removed from this breach had been dumped in the ditch to create a crossing point to adjacent fields. In addition a rough stone surface containing post-medieval artefacts lay on top of the upper ditch fill near the field entrances.



Fig. 9 Section A, viewed from the north-east. Photo CPAT 3697-0031.



Fig. 10 Section B viewed from the north west. The drawn section is to the left of the scale.  
Photo CPAT 3697-0036.

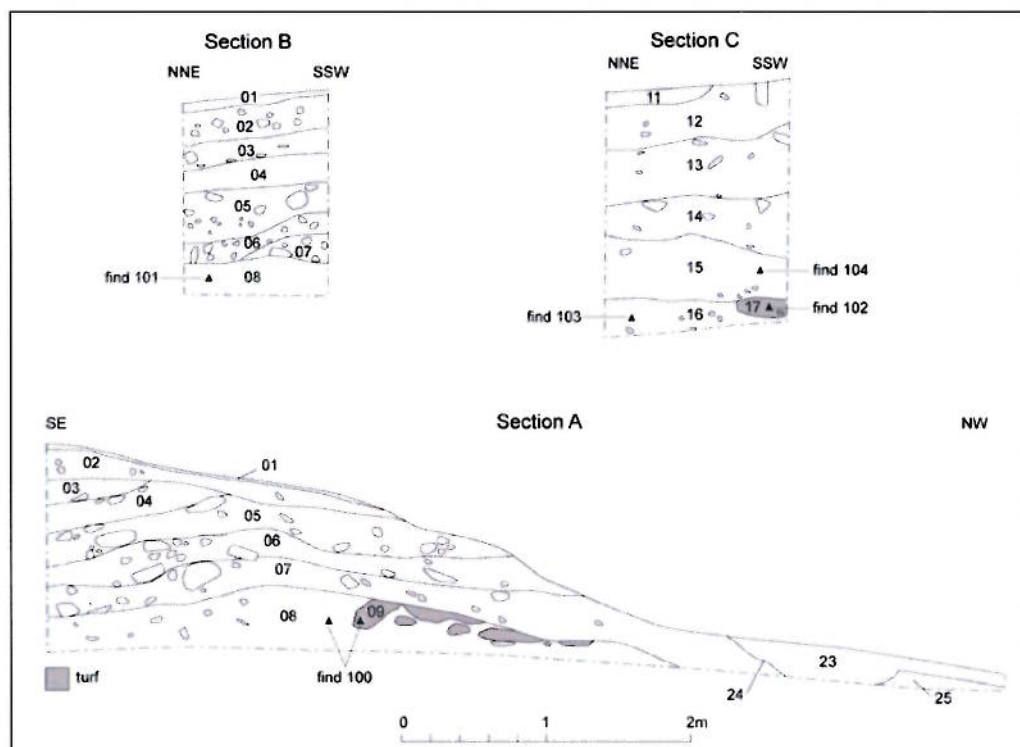


Fig. 11 Sections A – C



### Sondages C and D

- 3.9 Sondages C and D together with their respective sections (Figs 11, 12 and 13), were located 6m apart in the central part of the damaged area where the remaining bank of the bank survived to a height of about 1.4m. Both sections revealed a succession of deposits (14–11) which was similar to the upper deposits (04–02) in Sections A and B. However, the initial dump of stony clay forming the low bank in sections A and B was not present; conceivably it could have been removed during the earlier machining, but it was not possible to confirm that this was the case. As in sections A and B the basal layer (16) contained patches of redeposited turf (17). Bulk soil samples were taken from both these contexts as well as from one of the construction layers (15) within the bank (Find nos 102, 103 and 104).

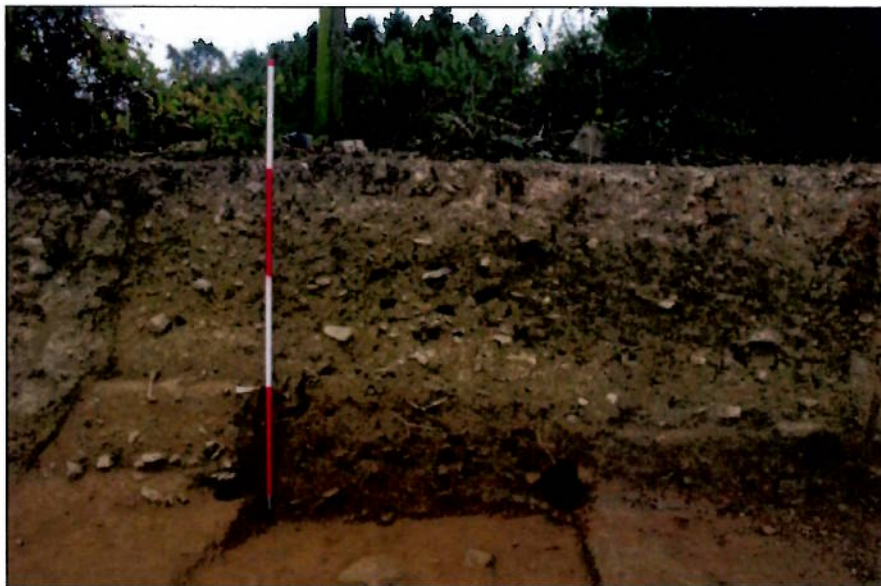


Fig. 12 Section C viewed from the north-west. Photo CPAT 3697-0095



Fig 13. Sondage and section D viewed from the north-west. The scale within the sondage marks the inner edge of the ditch. Photo CPAT 3697-0081

- 3.10 The inner edge of the ditch was identified in sondages C and D, approximately 5m to the west of the face of the remaining bank (Figs 8 and 13). Both sondages revealed the uppermost ditch fill as a dark bluey grey silt (21) containing fragments of 19<sup>th</sup>-century brick and pottery, and part of an underlying layer of orange brown silt-clay (20).

### Sondage E

- 3.11 Sondage E (Figs 15 and 16) was positioned at the north-eastern end of the damaged area. At this point the bank survived to a height of around 1m and consisted of three layers, a basal layer of charcoal-flecked reddish brown silty-clay (28) and two upper layers (26 and 27). All of these were comparable with similar layers encountered in Sections A - D.
- 3.12 The ground surface in the vicinity of sondage E was strewn with rounded stones of varying sizes. Initially this was thought to be similar to the material encountered at the base of the bank in the south-western corner of the damaged area (see paragraph 3.6). However, further investigation exposed a spread of large stones (29) at least 0.3m thick lying beneath the base of the bank and spreading for approximately 2.5m within the excavated area, but obviously extending beyond it (see Figs 14 and 15). The stone clearly represented an earlier phase of activity, pre-dating the construction of the earthwork. Bulk soil samples were recovered from within the stone spread (Find nos 106-7), along with a sample from the base of the bank (28) (Find no. 105).

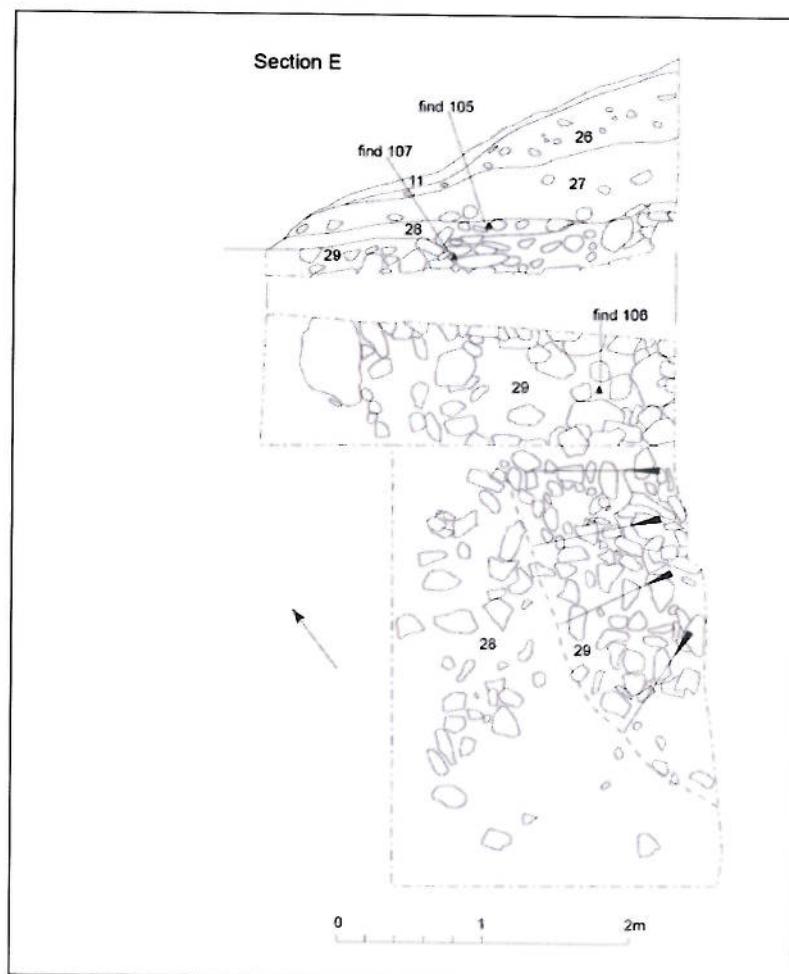


Fig. 14 Plan of the stone spread (29) and Section E.





Fig. 15 Section E viewed from the north-west showing stone spread (29). Photo CPAT 3697-0104



Fig. 16 Section E viewed from the south-west, showing stone deposit (29) within the sondage.  
Photo CPAT 3697-0108



#### **4 Palaeoenvironmental assessment and charcoal identification** by Lorne Elliot, Archaeological Services Durham University

- 4.1 Eight bulk soil samples were submitted to Archaeological Services to assess the palaeoenvironmental potential of the samples, establish the presence of suitable radiocarbon dating material, and provide appropriate recommendations.

##### **Methods**

- 4.2 The bulk samples were manually floated and sieved through a 500 $\mu$ m mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification for charred and waterlogged botanical remains using a Leica MZ7.5 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997). Habitat classifications follow Preston *et al.* (2002).
- 4.3 Selected charcoal fragments were identified in order to provide material suitable for radiocarbon dating. The transverse, radial and tangential sections were examined at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990) and Hather (2000), and modern reference material held in the Environmental Laboratory at Archaeological Services Durham University.
- 4.4 The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Caseldine 2004; Edwards *et al.* 2011; Huntley 2010).

##### **Results**

- 4.5 Small quantities of charcoal occurred in all of the samples from Offa's Dyke. Alder and oak were the most frequently recorded species with ash, hazel, willow/poplar, cherry family, Maloideae and dogwood also noted. Generally the charcoal was in relatively good condition apart from some of the heavily mineralised alder and oak charcoal recovered from the residues of (29). Some of the alder fragments from (28) and (29) comprised narrow vessels and slight vitrification, which may reflect the burning of damp wood or high temperatures.
- 4.6 The few charred plant macrofossils present were in poor condition. These included a hexaploid type wheat grain (08), hazel nutshell fragments (16, 28, 29), a tuber and an indeterminate fruitstone. The results are presented in Tables 1-3.

##### **Recommendations**

- 4.8 Material suitable for radiocarbon dating is available for all of the samples from Offa's Dyke. The flots should be retained as part of the physical archive of the site. The residues were discarded following examination.
- 4.9 Following the assessment four samples (101, 102, 103 and 104), from deposits at the base of the bank, including redeposited turf (context 17, sample 102), have been submitted to SUERC in East Kilbride for AMS dating.

Table 1: Data from the palaeoenvironmental assessment

Find No.	100	101	102	103	104	105	106	107
Context	08/09	08	17	16	15	28	29	29
Material available for radiocarbon dating	□	□	□	□	□	□	□	□
Volume processed (l)	8	2	8	4	1	9	4	9
Volume of flot (ml)	150	70	130	40	30	70	20	40
Residue contents								
Charcoal	-	-	-	-	-	(+)	+	+
Flot matrix								
Charcoal	++	+	++	++	++	++	++	+
Fly puparia	-	-	+	-	-	-	-	-
Roots (modern)	+++	++	+++	++	++	++	++	++
Uncharred seeds	-	-	-	-	-	++	-	++
Charred remains (total count)								
(c) <i>Triticum</i> sp (Wheat Hexaploid grain)	1	-	-	-	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel) nutshell frag.	-	-	-	1	-	1	-	1
(t) Indeterminate fruitstone	-	-	-	-	1	-	-	-
(x) Indeterminate tuber	-	-	-	-	-	1	-	-

[c-cultivated; t-tree/shrub; wide niche. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant]

Table 2: Material available for radiocarbon dating (those in *italics* have been submitted for dating)

Find No.	Cont	Single Entity 1	Weight	Single Entity 2	Weight	Single Entity 3	Weight	Notes
100	08/09	Charred wheat grain	9mg	Alder charcoal	69mg	Alder charcoal	57mg	Maloideae and hazel charcoal noted. All charcoal in relatively good condition.
101	08	<i>Hazel charcoal</i>	91mg	Hazel charcoal	51mg	Cherries charcoal	25mg	All charcoal in relatively good condition.
102	17	<i>Hazel charcoal</i>	175mg	cf. Cherries charcoal	47mg	Alder charcoal	20mg	All charcoal in relatively good condition. Ash, alder and vitrified oak also noted.
103	16	Charred hazel nutshell	9mg	<i>Hazel charcoal</i>	101mg	Hazel charcoal	69mg	All charcoal in relatively good condition. Ash (82mg), Maloideae and oak noted.
104	15	<i>Alder charcoal</i>	77mg	Alder charcoal	64mg	Willow/poplar charcoal	21mg	All charcoal in relatively good condition. Oak noted.
105	28	Alder charcoal	48mg	Alder charcoal	27mg	Maloideae charcoal	34mg	All charcoal in relatively good condition. Ash, oak, cherries and dogwood noted.
106	29	Alder charcoal	47mg	Alder charcoal	35mg	Alder charcoal	34mg	Charcoal from the residue is more mineralised than hand-recovered charcoal. Some of the charcoal is slightly vitrified or has narrow vessels
107	29	Charred hazel nutshell	6mg	Cherries charcoal	62mg	Cherries charcoal	42mg	Oak and alder charcoal fragments comprising greater level of mineralisation than the cherries charcoal.

[Cherries – blackthorn, wild and bird cherry; Maloideae – hawthorn, apple, whitebeams]



Table 3: Data from charcoal assemblages

Find No.	100	101	102	103	104	105	106	107
Context	08/09	08	17	16	15	28	29	29
Alder	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ash	-	-	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-
Cherries (Blackthorn, wild and bird cherry)	-	<input type="checkbox"/>	<input type="checkbox"/>	-	-	<input type="checkbox"/>	-	<input type="checkbox"/>
Dogwoods	-	-	-	-	-	<input type="checkbox"/>	-	-
Hazel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	-	-	-
Maloideae (hawthorn, apple, whitebeams)	<input type="checkbox"/>	-	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-
Oak	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
Willow/poplar	-	-	-	-	<input type="checkbox"/>	-	-	-

[☐ presence]

## 5 Conclusions

- 5.1 It is clear that the machine works of August 2013 have had a significant impact on this length of the scheduled earthwork. We estimate that around 206m<sup>2</sup> of the bank has been affected by the machine operations, removing in the region of 125m<sup>3</sup> of material which has then been redeposited across the ditch. A further area of 680m<sup>2</sup> of the ditch has been affected by redeposition, with in places some material dumped against the bank. Furthermore, ground disturbance has affected a further 445m<sup>2</sup> of the ditch. It is, however, difficult to determine precisely how much material was removed from the bank since there is no accurate record of the dimensions of the earthwork before the damage occurred and it is clear, too, that there had already been some historic disturbance to this area, alluded to by Fox (1955, 55). We would emphasise therefore that the cubic calculation given above can only be an estimate. Notwithstanding, the survey provides an accurate record of the damage and also presents information which may assist any reinstatement.
- 5.2 The unauthorised works and damage to the monument have necessitated archaeological investigation which have generated evidence of the nature of this section of Offa's Dyke and, perhaps more significantly, the palaeoenvironment in which the earthwork was thrown up and the possibility of radiocarbon dating of deposits within and below the bank.

### Earlier activity

- 5.3 Evidence from sondage E indicates an earlier phase of activity, predating the construction of Offa's Dyke. A spread of large stones (29) lay below the base of the bank, extending for at least 2.5m wide and with a thickness of over 0.3m. Its date is completely unknown. The stone could have been an immediate prelude to the dyke, or it could have been there for many years before the dyke was planned.

### The Bank

- 5.4 The sequence of deposits within the bank was not consistent along the length of investigation, although there were points of similarity. Within section A at least eight layer were identified, whereas in section E only three were apparent. The excavations produced no evidence for a buried turf layer beneath the bank, from which it might be inferred that the area had been stripped in advance of construction, possibly with the intention of using the turf torevet the bank upon completion. However, in several places blocks of redeposited turf lay within the basal material of the bank, presumably having been derived from the cutting of the ditch.

- 5.5 The initial build of the earthwork consisted of a low bank around 1m high and 1.6-2m wide, constructed from clay containing rounded stones. This was particularly evident in section A, a feature of similar type having been noted during excavations elsewhere along the line of the earthwork and interpreted as part of its setting out, prior to the main phase of construction (Hill and Worthington 2003, 122). It seems more likely, however, that in this length of the earthwork at least the clay was simply a primary dump of material derived from the digging of the ditch. As the ditch was dug out further, the spoil was dumped on top of the initial material and against its rear edge, shifting the crown of the bank away from the ditch.
- 5.6 Charcoal was apparent throughout the lower and basal deposits of the bank, and several samples were recovered from stratified deposits including the redeposited turf.

### **The Ditch**

- 5.7 The inner edge of the ditch was identified within each of the sondages. At the south-western end of the damaged area (Section A) a modern drain had been inserted along the edge of the ditch and similar modern features were also encountered in the centre of the area investigated, specifically where the dyke had been breached by a former farm track. It is likely that some of the material removed from this breach had been redeposited to form a rough stone surface on top of the ditch.
- 5.8 The unauthorised machine excavations of August 2013 appear to have had only a slight impact on the upper ditch fill adjacent to the 40m-long section where the bank had been removed, but elsewhere material from the bank had been redeposited on top of the ditch. The outer edge of the ditch was not affected, lying beyond the recently established property boundary, although within the scheduled area.

### **Dating and palaeoenvironmental potential**

- 5.9 An assessment of the bulk soil samples has determined that most contain material suitable for radiocarbon dating, although the overall palaeoenvironmental potential is low. At the time of writing four charcoal samples from basal layers within the bank have been submitted for dating which, although clearly from within contexts that represent redeposited material, have the potential for providing a *terminus post quem* for the construction of the dyke.

## **6 Acknowledgements**

Fieldwork was undertaken by Ian Grant and Sophie Watson with the assistance of Chris Addison, Ian Davies and Irene Milhench. Post-excavation assessment and reporting has been undertaken by Ian Grant and Nigel Jones.

CPAT would like to thank Will Davies and Fiona Grant (Cadw) for their support during the project. Thanks are also due to Margaret Worthington for giving access to her students' field notes on the excavations undertaken across the Dyke within the locality (Hill and Worthington 2003, Site 33); and to the landowner Mr Danny Roberts for permission to undertake the site work.



## 7 Sources

### Published sources

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- Stace, C., 1997 *New Flora of the British Isles*. Cambridge.

### Unpublished sources

- Elliot, L., 2014. *Offa's Dyke, Chirk: Charcoal identification and C14 preparation*. Archaeological Services Durham University report no. 3323.
- Hill, D., Wilson, D. and Worthington, M., 1972 onwards. *Offa's and Wat's Dyke Project Archive*.

**APPENDIX 1****PROJECT ARCHIVE  
CPAT PROJECT No 1901****Site records**

29 context record forms

Context Register

Drawing Register

Finds Register

01 A3 site drawing

02 A4 site drawing

122 digital photographs, CPAT film 3697

47 digital photographs, CPAT film 3677

Photographic register

EDM digital survey and plan

**Table 1: Finds Register**

Find No	Section	Context	Material	No. of 10ltr tubs	Comment
100	A	08/09	Soil Sample	2	Basal layer of the bank. Includes redeposited turf (09). South section.
101	B	08	Soil Sample	1	Basal layer of the bank. South section.
102	C	17	Soil Sample, includes foil sachet of charcoal	1	Basal layer of the bank. Includes redeposited turf. Mid section.
103	C	16	Soil Sample, includes foil sachet of charcoal	1	Basal layer of the bank. Mid section.
104	C	15	Soil Sample	1	Secondary deposit within the bank. Mid section.
105	E	28	Soil Sample	1	Basal layer of the bank. North section.
106	E	29	Soil Sample, includes foil sachet of charcoal	1	Stone deposit underlying the Dyke. North section.
107	E	29	Soil Sample	1	Stone deposit underlying the Dyke. North section.

**Table 2: Context Register**

Cont	Section	Drawing	Comment
01	A, B	01,02	Bank deposit – topsoil.
02	A, B	01,02	Bank deposit – compacted yellow silt/clay & iron panning, some charcoal flecking, below 01
03	A, B	01,02	Bank deposit – pale grey silt/clay, fine and compacted, below 02
04	A, B	01,02	Bank deposit – pale brown silt/clay and very fine, small stone, below 03
05	A, B	01,02	Bank deposit – pale brown silt/clay, fine, more stone than 04. Upper layer of initial bank construction, below 04
06	A, B	01,02	Bank deposit – fine pale grey silt/clay. Stony, mid layer of initial bank construction, below 05
07	A, B	01,02	Bank deposit – pale orange/grey silt/clay. Occasional large stone. Primary layer of initial bank construction. Below 06, above 08 & 09
08	A, B	01,02	Bank deposit – compacted, charcoal flecked fine orange silt/clay. Basal construction layer. Below 07
09	A, B	01	Bank deposit – pale grey, iron panned turf deposits, within 08. Below 07
10	A, B	01	Deposit – natural undisturbed subsoil. Pale grey silty clay, mottled with patches of orange clay. Below 08.
11	C,E	03,04	Bank deposit – topsoil.
12	C	03	Bank deposit – compacted yellow/reddish-orange clay, charcoal flecked, similar to 02. Below 01.
13	C	03	Bank deposit – pale yellow/grey clay, mottled with iron panning. Below 12.
14	C	03	Bank deposit - pale yellow/grey clay, mottled with iron panning. Large angular stones, below 13.
15	C	03	Bank deposit – compacted fine orange/brown silt/clay, some charcoal flecking. Similar to 08. Below 14.
16	C	03	Bank deposit – compacted fine reddish-orange brown silt/clay, charcoal flecked. Below 15
17	C	03	Bank deposit – pale grey, iron panned turf deposits, within 16. Below 15.
18	C	03	Deposit – thin layer of bright orange silt/clay – possible interface between basal bank layer (16) and natural subsoil (19). Below 16.
19	C	03	Deposit – natural undisturbed subsoil – same as 10 but grittier. Below 18.
20	C	03	Fill – soft dirty orange/brown silt/clay, charcoal flecked, occasional stone. Fill of ditch (22).
21	C	03	Fill – soft blue/grey gleyed silt/clay. Late post-medieval ditch (22) fill.
22	C	03	Ditch of Offa's Dyke located to the west of the bank. Internal edge only.
23	A	01	Fill – soft dark-grey silt/clay. Fill of drain (24).
24	A	01	Cut – modern water pipe (blue plastic).
25	A	01	Fill – compacted re-deposited yellow clay, mottled and dirty. Upper fill of Dyke ditch (24).
26	E	04	Bank deposit – compacted yellow clay, mottled with iron panning. Stony. Below 11, above 27
27	E	04	Bank deposit - compacted yellow clay, mottled with iron panning. Less stone than 26 but stones much larger. Below 26
28	E	04	Bank deposit – soft fine reddish-brown silt/clay, some shale & rounded stone, charcoal flecked. Early deposit within bank. Below 27
29	E	04	Deposit – predating construction of the Dyke. Stone rubble and grey clay. Below 28. Possible localised feature.



## APPENDIX 2

### PROJECT DESIGN

#### 1 OFFA'S DYKE De138

#### 2 Location: NGR, Community, SAM no/HER no

A section of Offa's Dyke north-west of Plas Offa, Chirk, SJ 2812 4054. SAM: De138; PRN 106782.

The part of the scheduled area affected by the current works comprises all that part of Area B, from the A5 southwestwards c.180m to the fenceline crossing the dyke southwest of the farm out-buildings.

#### 3 Summary of proposals in current/forthcoming year

Detailed total station survey of an area of recent damage to the dyke, possibly followed by hand excavation and recording.

#### 4 Description of the site(s), area, material etc and assessment of archaeological importance

A significant amount of damage occurred on 10-11 August 2013 when a mechanical excavator was used to create a track along the western base of the bank of the dyke, overlying the associated in-filled ditch. The upper 0.1-0.2m of topsoil was removed to a width of 4-5m between the base of the bank and a post and wire fence in the west. This exposed the uppermost fill of the ditch, while a stony clay spread along the central and eastern area of the track probably represents remnant bank material. At a point c.140m south-west of the A5 the track widens to form a levelled area which has been created by the partial removal of c.40m of dyke bank. The exposed sections appear to reveal some stratigraphy within the makeup of the bank.

The initial aim of the project is to provide a detailed total station survey of the affected area, recording the surviving earthworks and the extent of the damage such that an estimate can be made of the volume of material which has been removed from the dyke. The survey will also produce comparative profiles across surviving and damaged sections. A number of wooden pegs will be positioned within the scheduled area to act as permanent survey stations. Following the completion of the survey the exposed section will be protected by a series of tarpaulins, held in place by steel or plastic pegs, as appropriate.

Subsequently, a separate phase of work will be undertaken to investigate the damaged area through archaeological excavation and recording. As a minimum this might involve cutting back the exposed sections as appropriate and the hand cleaning and recording of exposed cross and longitudinal sections, together with hand investigations at the base of the bank in order to identify and record any potential buried ground surface beneath the bank. The investigations may also include hand cleaning the base of 40m-long section cut into the bank, as well as limited excavation and recording to determine the width and position of the ditch. In addition to the research objectives noted below (see section 6), the purpose of this work is to determine the quality of the archaeological resource in order to inform possible future legal action.

#### 5 Nature of threat, the likely extent of timing and destruction

Recent damage which may lead to weathering of exposed surfaces.

#### 6 Research objectives

Enhancement of the regional HER with the potential for assisting with regional research objectives and the future management of this section of the dyke.



**7 Proposed work programme****1 Administration**

Project Management; AMI monitoring; Financial statements; Audited statement; CPAT Committee Reports; Half-Year/Annual Reports.

**2 Total station survey and report**

Detailed survey of the affected section of Offa's Dyke. Production of a detailed plan and sections of the dyke, together with a written report in the CPAT report series describing the survival of and recent damage to the dyke at this point. The survey will include the positioning of a number of wooden pegs as permanent survey stations within the scheduled area.

**3 Monument protection**

Protection of exposed surfaces of the dyke using a series of tarpaulins to be held in place with an appropriate number and size of pegs.

**4 Excavation and recording**

Hand-cleaning and recording of the affected area of the dyke, including appropriate cutting back of the exposed sections. Enhancement of the report produced following the total station survey to produce a detailed report in the CPAT report series.

**5 Specialist requirements**

The need for any palaeoenvironmental reporting and dating will be determined on completion of the fieldwork.

**6 Proposed timing of work programme**

Total station survey and monument protection to be completed by 23<sup>rd</sup> August 2013  
Excavation and recording to be completed during September 2013

**7 Presentation of results**

See section 11

**8 End products****a During the coming financial year**

Report in the CPAT series  
Note in Archaeology in Wales

**b Year by year until the completion of the project**

Not applicable

**9 Progress**

Not applicable

**10 Project supervisor****a Name**

Nigel Jones

**b Qualifications**

BA, MifA

**c Position in organisation**

Senior Project Archaeologist



## **Davies, Nichola (SF - Culture & Sport - Cadw)**

---

**From:** Roberts, Kathryn (DH - CADW)  
**Sent:** 31 March 2014 16:31  
**To:** Davies, Will (SF - Culture & Sport - Cadw)  
**Cc:** King, Alex (SF - Culture & Sport - Cadw)  
**Subject:** RE: Offa's Dyke Pentre commissioning e mail

Will

This work is an important prerequisite for repairs to the damaged section of Offa's Dyke. I am content for you to complete the commissioning and get Opus to prepare the report.

### **Dr Kate Roberts**

Uwch-arolygydd Henebion ac Archaeoleg  
/ Senior Inspector of Ancient Monuments and Archaeology  
Cadw  
Llywodraeth Cymru / Welsh Government  
Plas Carew, Uned/Unit 5-7 Cefn Coed, Parc Nantgarw,  
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---

**From:** Davies, Will (SF - Culture & Sport - Cadw)  
**Sent:** 31 March 2014 15:42  
**To:** Roberts, Kathryn (DH - CADW)  
**Cc:** King, Alex (SF - Culture & Sport - Cadw)  
**Subject:** FW: Offa's Dyke Pentre commissioning e mail

Alex – on Kate's request. She's coming now to explain.

---

**From:** Paul H. Evans [<mailto:Paul.Evans@opusinternational.co.uk>]  
**Sent:** 31 March 2014 14:08  
**To:** Davies, Will (SF - Culture & Sport - Cadw)  
**Subject:** RE: Offa's Dyke Pentre commissioning e mail

Will,

I have just put some numbers to this and for the production of a report with recommendations plus specifications with enough information to reinstate the earthwork will be £2045 : 00 excluding vat.  
This does not include for further visits, which if required will be charged at £675:00 per visit. I don't see another visit is necessary prior to the completion of the report so I will include this in the overall costs for the reinstatement.  
I have also assumed that you will be able to provide us with enough topographical information so that we can produce the necessary sketches or cross sections to include in the report.

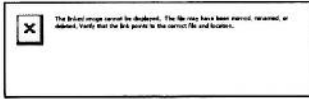
I hope this is ok.

Regards,



Paul.

ps Yes it was good to meet up – I see the wheels have come off a bit for the County.



**Paul Evans CEng MStructE** | Principal Engineer | Opus International Consultants (UK) Ltd  
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---

**From:** Davies, Will (SF - Culture & Sport - Cadw) [<mailto:Will.Davies@Wales.GSI.Gov.UK>]  
**Sent:** 31 March 2014 12:40  
**To:** Paul H. Evans  
**Cc:** Roberts, Kathryn (DH - CADW)  
**Subject:** Offa's Dyke Pentre commissioning e mail

Paul,

Thank you for meeting on site last Thursday – it was good to put a face to a name.

Following our discussions I can confirm that Cadw would like to commission Opus to prepare a brief report providing a solution(s) for the reinstatement of the destroyed section of the bank to match the profile of the adjacent undisturbed sections. This should include itemised outline costs for the implementation of this work as it will be used to give the owners as accurate an indication as possible of the expenses that they are likely to incur.

Whilst I appreciate that this is very short notice, if you are in the office today would it be possible for you to send an e mail by close of play confirming that this is possible and providing a quote to cover the costs of the site visit and the production of the report?

Best wishes,

Will

Will Davies

Arolygydd Rhanbarthol Henebion ac Archaeoleg (Gogledd-ddwyrain Cymru)  
Regional Inspector of Ancient Monuments and Archaeology (North East Wales)  
Historic Environment Branch / Cangen Amgylchedd Hanesyddol  
Cadw  
Llywodraeth Cymru / Welsh Government  
Cadw, Plas Carew, Uned / Unit 5/7 Cefn Coed, Parc Nantgarw, Caerdydd / Cardiff, CF15 7QQ  
Ffôn / Tel 01443 336010  
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E-mail: [will.davies@wales.gsi.gov.uk](mailto:will.davies@wales.gsi.gov.uk)

## Davies, Nichola (SF - Culture & Sport - Cadw)

---

**From:** Davies, Will (SF - Culture & Sport - Cadw)  
**Sent:** 08 April 2014 14:56  
**To:** 'Paul.Evans@opusinternational.co.uk'  
**Cc:** Roberts, Kathryn (DH - CADW)  
**Subject:** Re: Offa's Dyke Pentre commissioning e mail

Paul,

Just to confirm that the below price is acceptable and that Cadw are happy for Opus to proceed with this work.

I will ask CPAT to provide CAD drawings / plans etc.

Best wishes,

Will

---

**From:** Paul H. Evans [mailto:Paul.Evans@opusinternational.co.uk]  
**Sent:** Monday, March 31, 2014 02:08 PM GMT Standard Time  
**To:** Davies, Will (SF - Culture & Sport - Cadw)  
**Subject:** RE: Offa's Dyke Pentre commissioning e mail

Will,

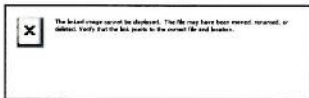
I have just put some numbers to this and for the production of a report with recommendations plus specifications with enough information to reinstate the earthwork will be £2045 : 00 excluding vat.  
This does not include for further visits, which if required will be charged at £675:00 per visit. I don't see another visit is necessary prior to the completion of the report so I will include this in the overall costs for the reinstatement.  
I have also assumed that you will be able to provide us with enough topographical information so that we can produce the necessary sketches or cross sections to include in the report.

I hope this is ok.

Regards,

Paul.

ps Yes it was good to meet up – I see the wheels have come off a bit for the County.



**Paul Evans CEng MStructE** | Principal Engineer | Opus International Consultants (UK) Ltd  
Phone +44 29 2053 5532 | Fax +44 29 2036 3797 | Email [Paul.Evans@opusinternational.co.uk](mailto:Paul.Evans@opusinternational.co.uk)  
Unit 2 Fountain Court, Fountain Lane, St Mellons, Cardiff, CF3 0FB

Visit us online: [www.opusinternational.co.uk](http://www.opusinternational.co.uk)



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Reg Office: Willow House Brotherswood Court Great Park Road Bristol BS32 4QW

**From:** Davies, Will (SF - Culture & Sport - Cadw) [mailto:Will.Davies@Wales.GSI.Gov.UK]  
**Sent:** 31 March 2014 12:40  
**To:** Paul H. Evans  
**Cc:** Roberts, Kathryn (DH - CADW)  
**Subject:** Offa's Dyke Pentre commissioning e mail

Paul,

Thank you for meeting on site last Thursday – it was good to put a face to a name.

Following our discussions I can confirm that Cadw would like to commission Opus to prepare a brief report providing a solution(s) for the reinstatement of the destroyed section of the bank to match the profile of the adjacent undisturbed sections. This should include itemised outline costs for the implementation of this work as it will be used to give the owners as accurate an indication as possible of the expenses that they are likely to incur.

Whilst I appreciate that this is very short notice, if you are in the office today would it be possible for you to send an e mail by close of play confirming that this is possible and providing a quote to cover the costs of the site visit and the production of the report?

Best wishes,

Will

Will Davies

Arolygydd Rhanbarthol Henebion ac Archaeoleg (Gogledd-ddwyrain Cymru)  
Regional Inspector of Ancient Monuments and Archaeology (North East Wales)  
Historic Environment Branch / Cangen Amgylchedd Hanesyddol  
Cadw  
Llywodraeth Cymru / Welsh Government  
Cadw, Plas Carew, Uned / Unit 5/7 Cefn Coed, Parc Nantgarw, Caerdydd / Cardiff, CF15 7QQ  
Ffôn / Tel 01443 336010  
Ffacs / Fax 01443 336001  
E-bost: [will.davies@cymru.gsi.gov.uk](mailto:will.davies@cymru.gsi.gov.uk)  
E-mail: [will.davies@wales.gsi.gov.uk](mailto:will.davies@wales.gsi.gov.uk)

Dylai unrhyw ddatganiadau neu sylwadau a wneir uchod gael eu hystyried yn rhai personal ac nid yn rhai gan Lywodraeth Cynulliad Cymru, unrhyw ran ohoni neu unrhyw gorff sy'n gysylltiedig â hi.

Any of the statements or comments made above should be regarded as personal and not those of the Welsh Assembly, any constituent part or connected body.

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Cofrestrwch ar gyfer ein cylchlythyr misol i gael y wybodaeth ddiweddaraf am newyddion, digwyddiadau a chynigion arbennig Cadw <http://bit.ly/NhfxHW> I Join our monthly newsletter to stay up to date with the latest Cadw news, events and special offers <http://bit.ly/T4vO2n>



Helpwch yr amgylchedd - peidiwch ag argraffu hon os nad oes gwir raid

Help our environment - only print this if really necessary.



23

## Davies, Nichola (SF - Culture & Sport - Cadw)

---

**From:** Paul H. Evans <Paul.Evans@opusinternational.co.uk>  
**Sent:** 29 April 2014 15:41  
**To:** Davies, Will (SF - Culture & Sport - Cadw)  
**Subject:** RE: Offa's Dyke Pentre  
**Attachments:** CD-V-C8000.31-100-R0 Site Plan.pdf; CD-V-C8000.31-101-R0 Sections.pdf; OFFAS DYKE, DE 138 CHIRK.pdf

Will,

Have a look at these and let me have your comments please, especially the note about trafficked access.

Regards,

Paul.

Paul Evans CEng MStructE | Principal Engineer | Opus International Consultants (UK) Ltd Phone +44 29 2053 5532 |  
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Park Road Bristol BS32 4QW

-----Original Message-----

**From:** Davies, Will (SF - Culture & Sport - Cadw) [mailto:Will.Davies@Wales.GSI.Gov.UK]  
**Sent:** 29 April 2014 15:12  
**To:** Paul H. Evans  
**Subject:** RE: Offa's Dyke Pentre

Hi Paul,

Unless we look at exorbitantly expensive temporary surfacing (Glyndyfyrdwy wasn't cheap if I recall) a wet weather restriction might be the best we can do. He'll also need an NRW license, which isn't too difficult as I recently applied for one for one of our sites.

Will

-----Original Message-----

**From:** Paul H. Evans [mailto:Paul.Evans@opusinternational.co.uk]  
**Sent:** 29 April 2014 12:15  
**To:** Davies, Will (SF - Culture & Sport - Cadw)  
**Subject:** RE: Offa's Dyke Pentre

Thanks Will - I'll give them a ring later.

We've pretty much completed the drawing and spec now but a thought occurred to me - how is our friend going to get the fill from the road to the placing area. Don't particularly want kit churning up the track, and it was pretty wet when we were there.

Any comments? Do we just stick a note on the drawing restricting him to placing the material after/in dry weather?

Regards,

Paul.

Paul Evans CEng MIStructE | Principal Engineer | Opus International Consultants (UK) Ltd Phone +44 29 2053 5532 |  
Fax +44 29 2036 3797 | Email Paul.Evans@opusinternational.co.uk  
Unit 2 Fountain Court, Fountain Lane, St Mellons, Cardiff, CF3 0FB Visit us online: [www.opusinternational.co.uk](http://www.opusinternational.co.uk)  
Registered in England & Wales Company Reg. No: 2847568 Reg Office: Willow House Brotherswood Court Great  
Park Road Bristol BS32 4QW

-----Original Message-----

From: Davies, Will (SF - Culture & Sport - Cadw) [mailto:Will.Davies@Wales.GSI.Gov.UK]  
Sent: 29 April 2014 11:19  
To: Paul H. Evans  
Subject: FW: Offa's Dyke Pentre

Morning Paul,

As you may have worked out, my blackberry is dying a death. Please see below e mail from my Wrexham contact. I've just spoken to Paul who is very approachable and may well have what is needed here. He is happy for you to get in touch to discuss the various permutations. Were the CPAT drawings OK?

At the best,

Will

Was getting a bit worried about County at one point. They were dreadful when I went to see them against Porstmouth.

-----Original Message-----

From: Anna Irwin [mailto:Anna.Irwin@wrexham.gov.uk]  
Sent: 15 April 2014 14:45  
To: Davies, Will (SF - Culture & Sport - Cadw)  
Subject: RE: Offa's Dyke Pentre

No sooner said than done....3000 tonnes coming your way Mr Davies!

You will need to speak to our engineer Paul Fairclough to discuss delivery, license etc and ensure it is up to scratch: 01978 729730 or email [paul.fairclough@wrexham.gov.uk](mailto:paul.fairclough@wrexham.gov.uk)

He's waiting for your call!

Anna

-----Original Message-----

From: Davies, Will (SF - Culture & Sport - Cadw) [mailto:Will.Davies@Wales.GSI.Gov.UK]  
Sent: 15 April 2014 14:38  
To: Anna Irwin  
Subject: RE: Offa's Dyke Pentre

Awesome. Thanks Anna,

Will

-----Original Message-----

From: Anna Irwin [mailto:Anna.Irwin@wrexham.gov.uk]  
Sent: 15 April 2014 14:19  
To: Davies, Will (SF - Culture & Sport - Cadw)  
Subject: RE: Offa's Dyke Pentre

I'm on it. Leave it with me.

Anna

-----Original Message-----

From: Davies, Will (SF - Culture & Sport - Cadw) [mailto:Will.Davies@Wales.GSI.Gov.UK]  
Sent: 09 April 2014 15:40  
To: Anna Irwin  
Subject: Offa's Dyke Pentre

Anna,

As garbled out earlier I have commissioned Opus to produce a geotechnical report with options for the reinstatement of the bulldozed section of the dyke. It appears following our initial meeting that this will be a relatively straightforward process but will entail importing a considerable amount of material to the site. What we backfill with doesn't really matter as it will match the original once covered with topsoil and grassed over.

In order to avoid a massive outlay on buying gravel or rubble I wonder if Wrexham's highways dept would have any 'crushed clean demolition material' available? We've reached similar arrangements with Powys CC, who were keen to avoid the landfill costs... The only real issue on our part is ensuring that the material isn't contaminated.. I applied for an NRW disposal license last year, which wasn't a problem.

I'd be very grateful if you could have an ask around..

All the best,

Will

Take a look - you can pay, report, request, have your say and find information online at [www.wrexham.gov.uk](http://www.wrexham.gov.uk).

Save paper - think before you print!

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Mae'r neges e-bost hon ac unrhyw atodiadau wedi eu bwriadu ar gyfer yr unigolyn neu'r sefydliad y?i cyfeirir atynt yn unig. Am yr amodau llawn ynglyn a chynnwys a defnyddio'r neges e-bost hon ac unrhyw atodiadau, cyfeiriwch at [http://www.wrecsam.gov.uk/top\\_navigation/disclaimersw.htm](http://www.wrecsam.gov.uk/top_navigation/disclaimersw.htm). ??



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## **Offas Dyke, De 138 Chirk**

**29 April 2014**

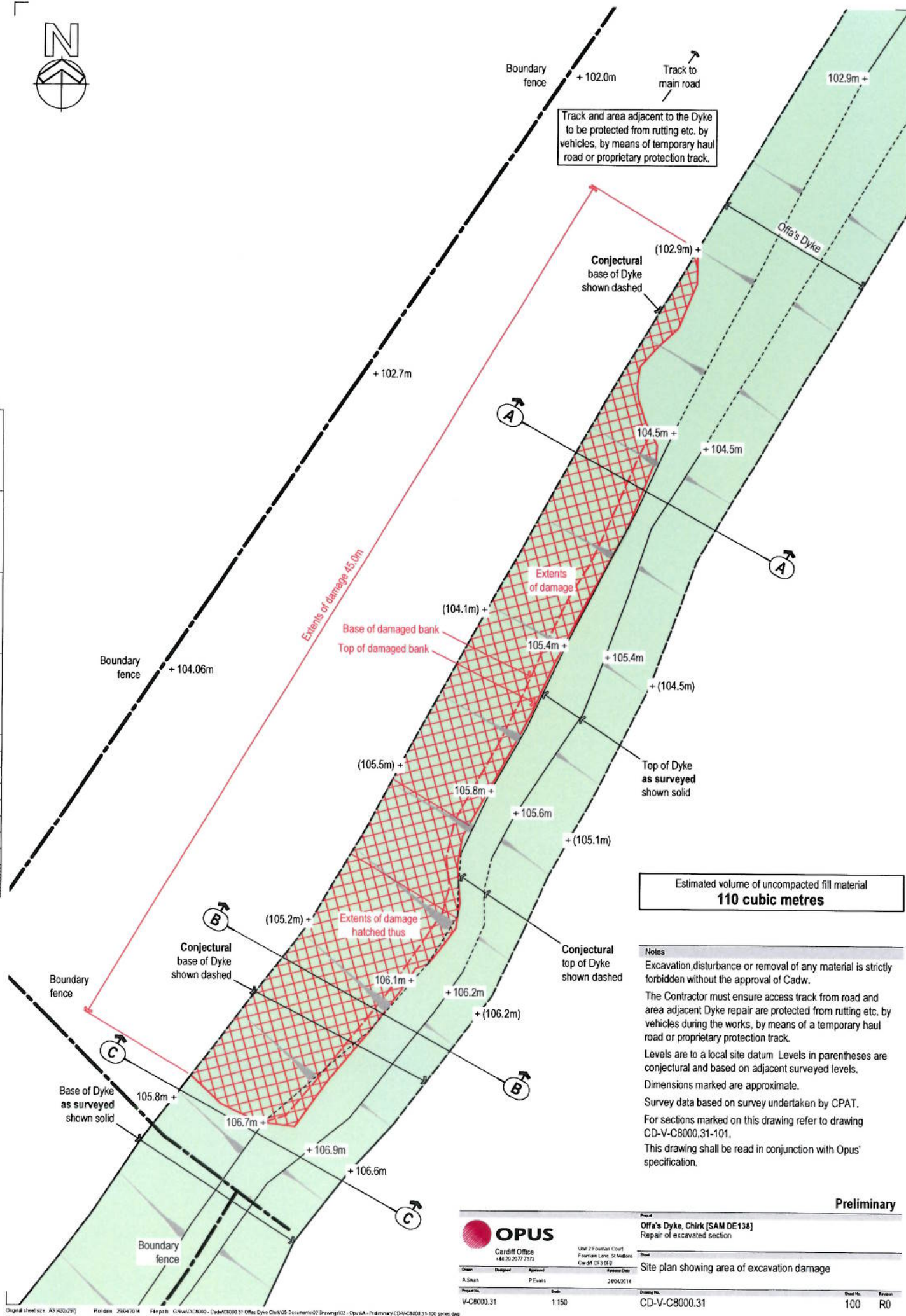
## Table of Contents

Title		Page
D	Groundwork	3
D20	Excavating and filling	5
Q	Paving/Planting/Fencing/Site furniture	8
Q28	Topsoil and soil ameliorants	10





100 m  
50 m  
0 m



Original sheet size: A3 (420x297) Plot date: 24/04/2014 File path: G:\Work\CD8000 - Cadw\CD8000 31 Offa's Dyke Chirk\CD8000 31 Documents\CD8000 31-100 series.dwg

**OPUS**  
Cardiff Office  
+44 (0) 2077 7373

Unit 2 Fountain Court  
Fountain Lane, St Mellons  
Cardiff CF3 5EB

Drawn: A. Smith Designer: P. Evans

Issue Date: 24/04/2014

Project No: V-C8000.31 Scale: 1:150

Project: Offa's Dyke, Chirk [SAM DE138]  
Repair of excavated section

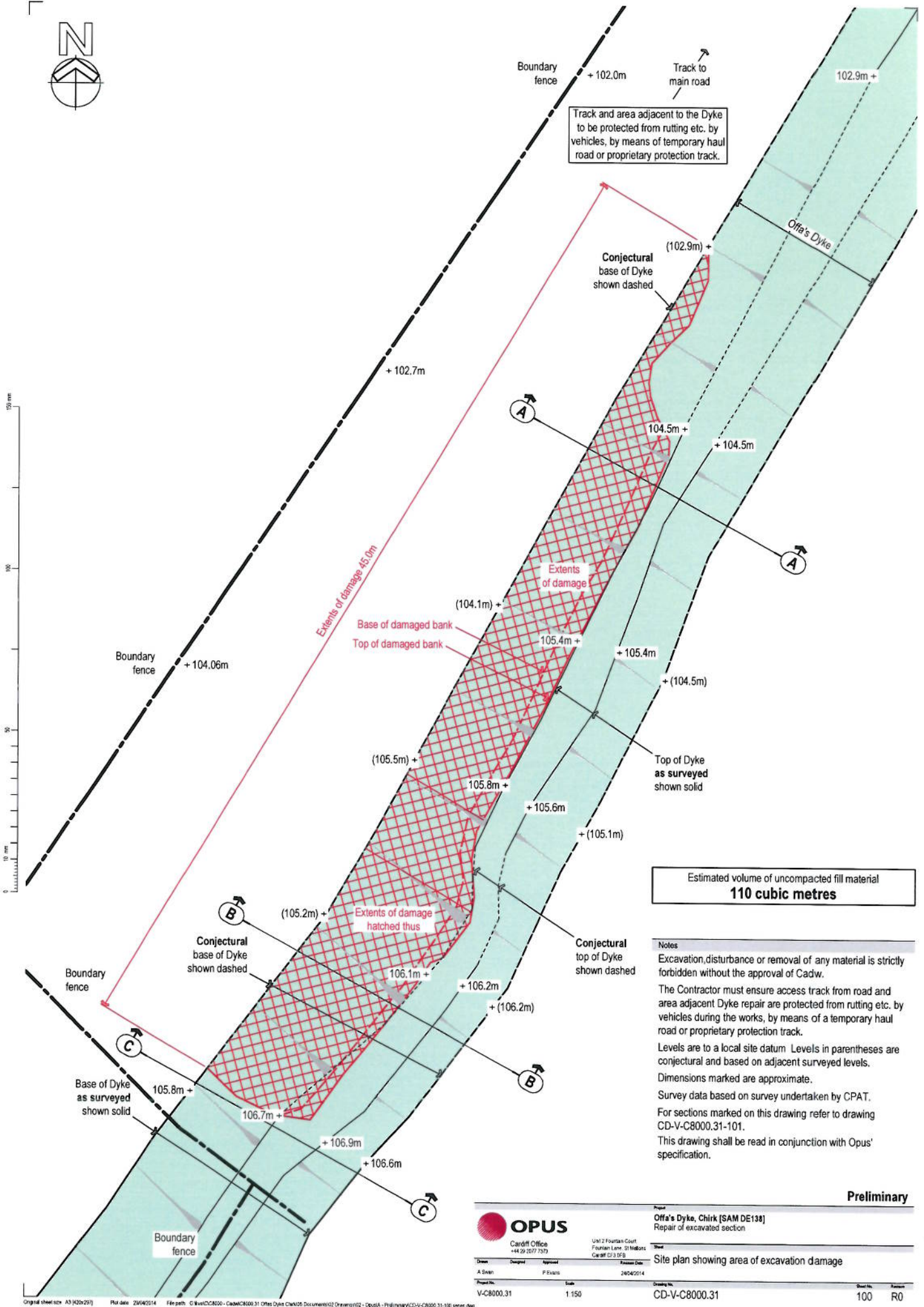
Sheet: Site plan showing area of excavation damage

Drawing No: CD-V-C8000.31

Preliminary

Sheet No: 100  
Revision: R0





Estimated volume of uncompacted fill material  
**110 cubic metres**

#### Notes

Excavation, disturbance or removal of any material is strictly forbidden without the approval of Cadw.

The Contractor must ensure access track from road and area adjacent Dyke repair are protected from rutting etc. by vehicles during the works, by means of a temporary haul road or proprietary protection track.

Levels are to a local site datum. Levels in parentheses are conjectural and based on adjacent surveyed levels.

Dimensions marked are approximate.

Survey data based on survey undertaken by CPAT.

For sections marked on this drawing refer to drawing CD-V-C8000.31-101.

This drawing shall be read in conjunction with Opus' specification.

**Preliminary**



Cardiff Office  
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Unit 12 Fountain Court  
Fountain Lane, St Mellons  
Cardiff CF3 1FB

Drawn: A. Srin, Designed: P. Evans, Approved: P. Evans, Project No: V-C8000.31, Scale: 1:150, Drawing No: CD-V-C8000.31, Sheet No: 100, Revision: R0

Project: Offa's Dyke, Chirk [SAM DE138] Repair of excavated section

Drawn: A. Srin, Designed: P. Evans, Approved: P. Evans, Project No: V-C8000.31, Scale: 1:150, Drawing No: CD-V-C8000.31, Sheet No: 100, Revision: R0

Project: Offa's Dyke, Chirk [SAM DE138] Repair of excavated section

Drawn: A. Srin, Designed: P. Evans, Approved: P. Evans, Project No: V-C8000.31, Scale: 1:150, Drawing No: CD-V-C8000.31, Sheet No: 100, Revision: R0

Project: Offa's Dyke, Chirk [SAM DE138] Repair of excavated section

Drawn: A. Srin, Designed: P. Evans, Approved: P. Evans, Project No: V-C8000.31, Scale: 1:150, Drawing No: CD-V-C8000.31, Sheet No: 100, Revision: R0

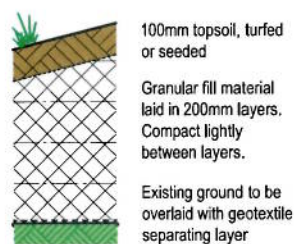
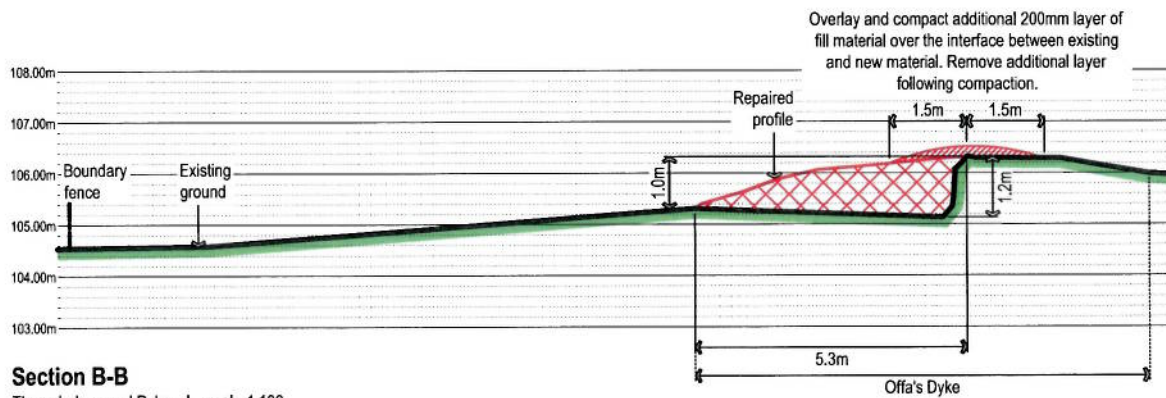
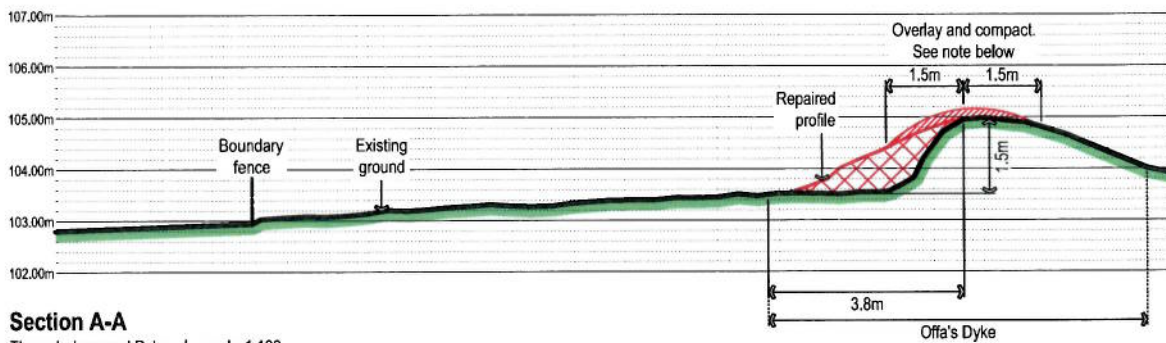
Project: Offa's Dyke, Chirk [SAM DE138] Repair of excavated section

Drawn: A. Srin, Designed: P. Evans, Approved: P. Evans, Project No: V-C8000.31, Scale: 1:150, Drawing No: CD-V-C8000.31, Sheet No: 100, Revision: R0

Project: Offa's Dyke, Chirk [SAM DE138] Repair of excavated section

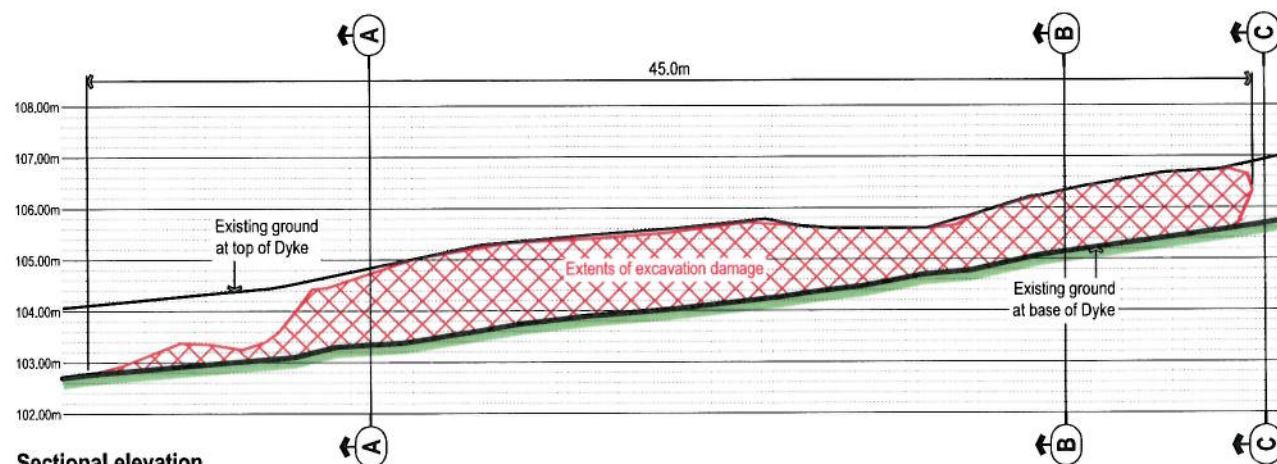
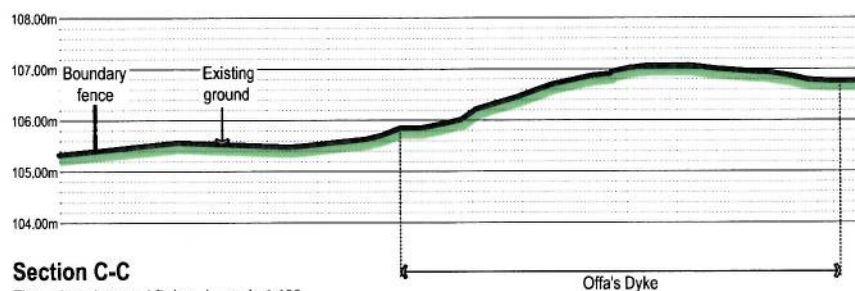






**Typical repair**  
scale 1:25

**Section C-C**  
Through undamaged Dyke | scale 1:100



#### Notes

Excavation, disturbance or removal of any material is strictly forbidden without the approval of Cadw.

The Contractor must ensure access track from road and area adjacent Dyke repair are protected from rutting etc. by vehicles during the works, by means of a temporary haul road or proprietary protection track.

Levels are to a local site datum. Levels in parentheses are conjectural and based on adjacent surveyed levels.

Dimensions marked are approximate.

Survey data based on survey undertaken by CPAT.

For sections marked on this drawing refer to drawing CD-V-C8000.31-101.

This drawing shall be read in conjunction with Opus' specification.

**Preliminary**



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Cardiff CF3 0FB

Project  
Offa's Dyke, Chirk [SAM DE138]  
Repair of excavated section

Drawn

Designed

Approved

Revision Date

Project No.

Scale

Drawing No.

Sheet No.

Revision

101

R0

CD-V-C8000.31

1:100

101

R0

Sections showing damaged and repaired profiles





## **D**

### **Groundwork**

**D20**

**Excavating and filling**

## **D20 Excavating and filling**

### **GENERALLY/THE SITE**

#### **112 SITE INVESTIGATION REPORT**

- The Clwyd Powys Archaeological Trust (CPAT) Report No. 1224..

#### **150A EXISTING SERVICES, FEATURES AND STRUCTURES**

- To be read in conjunction with The Clwyd Powys Archaeological Trust (CPAT) Report No. 1224.
- Services: CAT scans to be carried out prior to commencement of the works to locate buried services.
- Site features to be retained: Refer to CPAT Report No. 1224.
- Structures: Refer to CPAT Report No. 1224.

#### **161 CLEARANCE/EXCAVATING**

- Clearance and excavating on the site will not be permitted.

#### **310A UNSTABLE GROUND**

- Generally: Ensure that the excavation remains stable at all times.
- Take action: If instability is likely to affect adjacent structures or roadways, take appropriate emergency action.

#### **330 UNRECORDED FEATURES**

- Give notice: If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

### **DISPOSAL OF MATERIALS**

- No existing excavated material is to be removed from site.

#### **450A WATER**

- Generally: Keep all excavations free from water until formations are covered.
- Drainage: Form surfaces of excavations and fill to provide adequate falls.

#### **454 GROUND WATER LEVEL, SPRINGS OR RUNNING WATER**

- Give notice: If it is considered that the excavations are below the water table.
- Springs/ Running water: Give notice immediately if encountered.

#### **457 PUMPING**

- General: Do not disturb excavated faces or stability of adjacent ground or structures.
- Pumped water: Discharge without flooding the site or adjoining property.
- Sumps: Construct clear of excavations. Fill on completion.
  - Locations: Submit proposals.



## FILLING

### 500 PROPOSED FILL MATERIALS

- Details: Submit full details of proposed fill materials to demonstrate compliance with specification, including:
  - Type and source of imported fill.
  - Proposals for processing and reuse of material excavated on site.
  - Test reports as required elsewhere.
- Timing: At least 10 working days before filling.

### 510 HAZARDOUS, AGGRESSIVE OR UNSTABLE MATERIALS

- General: Do not use fill materials which would, either in themselves or in combination with other materials or ground water, give rise to a health hazard, damage to building structures or instability in the filling, including material that is:
  - Frozen or containing ice.
  - Organic.
  - Contaminated or noxious.
  - Susceptible to spontaneous combustion.
  - Likely to erode or decay and cause voids.
  - With excessive moisture content, slurry, mud or from marshes or bogs.
  - Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.
  - Unacceptable, class U2 as defined in the Highways Agency 'Specification for highway works', clause 601.

### 512 LIMITATION OF SULFATE CONTENT IN FILL MATERIALS

- Test specification: To BS 1377-3.
- Sulfate content: Expressed as Expressed in terms of SO<sub>3</sub> or SO<sub>4</sub>.
  - Water soluble sulfate (maximum): 1500mg/L in 2;1 water/soil extract.
  - Total potential sulfate (maximum): 0.6%.
  - Oxidizable sulfides (maximum): No requirement.
- Certificates of test result: Submit.

### 520 FROST SUSCEPTIBILITY

- General: Except as allowed below, fill must be non frost-susceptible as defined in Highways Agency 'Specification for highway works', clause 801.8.
- Test reports: If the following fill materials are proposed, submit a laboratory report confirming they are non frost-susceptible:
  - Fine grained soil with a plasticity index less than 20%.
  - Coarse grained soil or crushed granite with more than 10% retained on a 0.063 mm sieve.
  - Crushed chalk.
  - Crushed limestone fill with average saturation moisture content in excess of 3%.
  - Burnt colliery shale.
- Frost-susceptible fill: May only be used:
  - At depths below the finished ground surface greater than 450mm.
  - Within the external walls of buildings below spaces that will be heated. Protect from frost during construction.
  - Where frost heave will not affect structural elements.

**525 TESTING OF SUITABILITY OF FILL MATERIALS BEFORE START OF FILLING**

- Laboratory: UKAS/NAMAS accredited laboratory.
- Submit report to: Opus International Consultants.
  - Timing: 10 working days before filling.
- Samples: Deliver to laboratory as required.
  - Additional requirements: None.
- Tests: Hardcore Filling.
- Frequency: As directed.

**525A TESTING OF SUITABILITY OF FILL MATERIALS BEFORE START OF FILLING**

- Laboratory: UKAS/NAMAS accredited laboratory.
- Submit report to: Structural Engineer:
  - Opus International Consultants (UK) Ltd, Unit 2 Fountain Court, Fountain Lane, St Mellons, Cardiff CF3 0FB.
  - Timing: 10 working days before filling.
- Samples: Deliver to laboratory as required.
  - Additional requirements: None.
- Tests: Hardcore Filling.
- Frequency: As directed.

**530 PLACING FILL**

- Surfaces of excavations and areas to be filled: Free from loose soil, topsoil, organic material, rubbish and standing water.
- Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
- Adjacent structures, membranes and buried services:
  - Do not overload, destabilise or damage.
  - Submit proposals for temporary support necessary to ensure stability during filling.
  - Allow 14 days (minimum) before backfilling against in situ concrete structures.
- Layers: Place so that only one type of material occurs in each layer.
- Earthmoving equipment: Vary route to avoid rutting.

**710A HARDCORE FILLING**

- Fill: Granular material, free from excessive dust, well graded, all pieces less than 75 mm in any direction, minimum 10% fines value of 50 kN when tested in a soaked condition to BS 812-111, and in any one layer only one of the following:
  - Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
  - Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
  - Crushed non-expansive slag.
  - Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
  - Well-burned non-plastic colliery shale.
  - Natural gravel.
  - Natural sand.
- Filling: Spread and level in 200 mm maximum layers. Lightly compact each layer.

**Q**

**Paving/Planting/Fencing/Site furniture**



**Q28**

**Topsoil and soil ameliorants**

## **Q28 Topsoil and soil ameliorants**

### **20A IMPORTED TOPSOIL TO REINSTATE EMBANKMENT**

- Quantity: Provide as necessary to make up any deficiency existing on site and to complete the work.
- Classification: Multi purpose .
  - Grade: Within the parameters of a 'sandy loam' textural class .
- Source: To be agreed .
  - Product reference: Multi purpose topsoil .

### **30 SPREADING TOPSOIL**

- Temporary roads or surfacing: Remove before spreading topsoil.
- Spreading: Spread when reasonably dry, maintaining crumb structure. Do not compact.
- Layers:
  - Depth (maximum): 150 mm.
  - Gently firm each layer before spreading the next.
- Depths after firming and settlement (minimum): 100mm.

**Davies, Nichola (SF - Culture & Sport - Cadw)**

---

**From:** Arnold, Clare (Con 1368) <Clare.Arnold@nthwales.pnn.police.uk>  
**Sent:** 01 May 2014 09:10  
**To:** Roberts, Kathryn (DH - CADW)  
**Subject:** Letter  
**Attachments:** Letter.doc

Kate as requested

Thanks  
Clare

TDC 1368 Clare Arnold  
Gorsaf Heddlu Wrecsam/ Wrexham Police Station  
Deialu Uniongyrchol/Direct Dial: 01352 708296  
Est/Ext: 08296 / 48364  
Ffacs/Fax: 01978 348353  
Symudol/Mobile: 07896172904  
Ebost/Email: [Clare.Arnold@nthwales.pnn.police.uk](mailto:Clare.Arnold@nthwales.pnn.police.uk)

Ni ddylid trin e-bost ar y rhyngrwyd fel dull diogel o gyfathrebu. Mae Heddlu Gogledd Cymru yn monitro'r holl negeseuon e-bost a drosglwyddir ar y rhyngrwyd yn ogystal â'u cynnwys.

Dim ond er sylw'r sawl y'i cyfeiriwyd hi ato/ati y bwriedir y neges hon. Os ydych yn derbyn y neges hon mewn camgymeriad, gadewch i'r sawl a'i gyrodd wybod a dilëwch hi oddi ar eich system. Gall defnyddio neu ddatgelu cynnwys y neges hon heb ganiatâd fod yn anghyfreithlon. Efallai nad yw'r farn a fynegir yn y ddogfen yn bolisi swyddogol. Diolch i chi am eich cydweithrediad.

Heddlu Gogledd Cymru

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North Wales Police





**Heddlu Gogledd Cymru**



**North Wales Police**

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Thursday 1<sup>st</sup> May 2014

**Senior Inspector of Ancient Monuments and Archaeology  
Welsh Government  
Unit 5-7 Cefn Coed  
Parc Nantgarw  
Nantgarw  
CF15 7QQ**

**Dear Dr Kate Roberts**

**In relation to the damage caused to Offa's Dyke, Chirk, Mr Mullen has been interviewed and a decision has been made that No further action will be taken. This is due to both parties solicitors not identifying Offa's Dyke and the fact that we cannot prove Mr Mullen knew that the area in question was Offa's Dyke as the map returned to you by him was not in depth enough.**

**Yours sincerely**

**Clare Arnold**

**TDC Clare Arnold  
Wrexham CID.**



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**Davies, Nichola (SF - Culture & Sport - Cadw)**

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**From:** Roberts, Kathryn (DH - CADW)  
**Sent:** 22 May 2014 10:01  
**To:** Pritchard, Matthew (Communications); Miller, Anna (Communications)  
**Subject:** Offa Press Statement May 2014.docx



Matthew

As per our conversation – here is a note explaining some of the background to the Offa's Dyke damage case. Out Minister John Griffiths was informed about the case last summer when the damage took place.

The sensitive element of the case is that the damage was carried out by a new owner who is a member of the traveller community and we believe that this is one of the reasons why it attracted press interest at the time (August 2013).

Please let me know if you need more background etc. I'm in the office all day

01443 336013





## **Offa's Dyke Scheduled Ancient Monument Damage Case**

North Wales Police are about to issue a Press Statement in response to queries from the Daily Mail regarding the outcome of their formal investigations of reports of damage to a section of Offa's Dyke that took place last August. This press statement is likely to result in Press inquiries to Welsh Government for a statement on the outcome. Background information and a draft suggested press statement is provided below.

### **BACKGROUND**

In August 2013 Cadw officials were informed that a section of Offa's Dyke located near Chirk, Wrexham had been damaged by a bulldozer.

Offa's Dyke is a 1200 year old linear earthwork which runs through the English/Welsh borders from Treuddyn (near Wrexham in north east Wales) to Sedbury Cliffs (on the Severn estuary, in southern Gloucestershire).

The Dyke consists of an earthen bank which can be up to 8 metres high, associated with a ditch to the west and is believed to have been constructed on the orders of King Offa of the Anglo-Saxon kingdom of Mercia in the 8<sup>th</sup> century AD to mark the frontier with the Welsh kingdoms to the west.

The surviving earthworks of Offa's Dyke are protected under law as a scheduled ancient monument including the stretch where the damage has taken place.

Cadw officials visited the site and carried out a damage assessment. This information was passed to the police to assist them with their investigation. This investigation has now been concluded and has identified that there is insufficient evidence to prove that the owners were aware of the protected status of the monument.

### **POLICE PRESS STATEMENT – to be issued 22<sup>nd</sup> May 2014**

The police have received inquiries from the Daily Mail and intend to issue the following statement:

"In August 2013 North Wales Police received a complaint that a section of the Offa's Dyke earthworks in Chirk near Wrexham has been deliberately damaged. An investigation by Wrexham CID commenced resulting in a local man being interviewed under caution in connection with the matter. As a result of the investigation there was insufficient evidence to prove any criminal offence and the matter is no longer being investigated by North Wales Police."

This may result in Press inquiries being received by Cadw/Welsh Government:

#### SUGGESTED RESPONSE to PRESS (if requested)

"Cadw officials have cooperated with the police in support of their investigation into the damage caused to a section of Offa's Dyke last year. This investigation has now been concluded and the police have communicated their findings to Cadw.

Since the damage was first reported to Cadw we have worked to minimise any further impact on the Dyke. We have funded archaeologists to carry out detailed investigations and recording of the damaged monument and a restoration plan has been developed. Our officials remain in contact with the owner and this summer we will be working to ensure that the Dyke is repaired and restored to its original form.

#### PROTECTION OF ANCIENT MONUMENTS

The Dyke is a designated scheduled ancient monument. The failure to prosecute highlights a failing in current legislation (Ancient Monuments and Archaeological Areas Act 1979) under which the monument is protected. This states that a criminal offence is undertaken when a person causes damage **knowing** that it is protected monument and with **intent** to destroy or damage. It is therefore a defence to demonstrate ignorance of the protected status. This is an issue that has recently been consulted upon for new heritage protection legislation. The Welsh Government is currently reviewing options with an aim to offering stronger protection in its future Bill.

Cadw Contact: Dr Kate Roberts    01443 336013    07968 609826