

Archaeology Wales

Bryn Hirfaen, Ffarmers, Ceredigion/Carmarthenshire

Archaeological Watching Brief



By
Jerry Bond

Report No. 1587


Archaeology Wales

Bryn Hirfaen, Ffarmers, Ceredigion/Carmarthenshire

Archaeological Watching Brief

Prepared For: Western Power Distribution (SW)


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June 2017

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NON TECHNICAL SUMMARY

In January 2017 Archaeology Wales Ltd (AW) carried out an archaeological watching brief during the excavation of electricity pole foundation sockets on land between Bryn-Hirfaen near Ffarmers to Trawsnant, near Cellan, Ceredigion. The work was undertaken on the recommendation of Dyfed Archaeological Trust – Development Management. The local planning authority is Ceredigion County Council, the planning application number is A160638.

No finds, features or deposits of archaeological significance were encountered during the monitoring of the ground works. The natural mudstone bedrock was revealed, overlain by a series of naturally-occurring subsoils and a peaty-loam topsoil. The area into which the poles were erected was of upland pasture with scrub vegetation and bog, criss-crossed by a series of field boundary banks and fence lines from the post-industrial period.

This watching brief was undertaken to the standards set in the ClfA's Standards and Guidance for an archaeological watching brief (2014) and current Health and Safety legislation.

1. Introduction

- 1.1 In December 2016 Archaeology Wales Ltd (AW) was commissioned by Western Power Distribution (SW) to undertake an archaeological watching brief during development works. The development comprised the erection of a series of electricity poles to carry an overhead line, along a route that runs from the vicinity of Bryn-Hirfaen (SN 62368 46618, Figure 1) near Ffarmers close to the Carmarthenshire-Ceredigion border, northwest towards Trawsnant, near Cellan in Ceredigion (Henceforth – the site). The local planning authority is Ceredigion County Council (CCC), the planning application number is A160638.
- 1.2 Dyfed Archaeological Trust – Development Management (Henceforth – DAT-DM), in its capacity as archaeological advisors to the local planning authority, recommended that an archaeological watching brief be undertaken during any groundworks associated with the development. The purpose of the work was to provide CCC with the information they subsequently requested in respect of the development, the requirements for which are set out in Planning Policy WALES, March 2002, Section 6.5, and Welsh Office Circular 60/96 (now replaced by Technical Advice Note 24: The Historic Environment 2017). The work was to record any remains of potential archaeological interest to ensure that they were fully investigated and recorded if they were disturbed or revealed as a result of any activities associated with the development.
- 1.3 Prior to the works commencing a Specification for the Archaeological work was prepared by Philip Poucher, Project Manager, Archaeology Wales Ltd

(Henceforth - AW) at the request of Western Power Distribution (SW). It provided information on the methodology which was employed by AW during the archaeological watching brief. This Specification was approved by DAT-DM.

- 1.4 The watching brief was undertaken in January 2017. The AW project number for the work is 2489 and the site code is BLC/16/WB. The project details are summarised on the Archive Cover Sheet. All work was undertaken by a suitably qualified archaeologist and in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014).

2 Site description

- 2.1 The line of new poles starts in the vicinity of Bryn-Hirfaen, close to the Carmarthenshire/Ceredigion border, connecting to an existing power line at SN 62368 46618 (Figures 1 & 2). The route then runs in a north-westerly direction for approximately 1.1km to connect to an existing line near Trawsnant at SN 61773 47520. The small settlements of Cellan lies 2km to the north, Ffarmers 3km to the southeast, with the larger settlement of Lampeter 4km to the west.
- 2.2 The landscape is one of enclosed upland with regular fields of semi-improved pasture enclosed largely in stone walling alongside post-and-wire fencing. Areas of rough ground, and some dispersed woodland, are also features of the local landscape. The settlement pattern is one of small dispersed farmsteads. The landscape undulates between around 290mOD to 350mOD, rising to the south.
- 2.3 The underlying geology of the area consists of interbedded mudstone and sandstone of the Rhuddnant Grits Formation, formed approximately 428 to 436 million years ago in the Silurian Period. This is overlain by areas of glacial till, largely along local stream valleys (BGS 2016).
- 2.4 This area is notable for prehistoric archaeological remains. Close to the start of the line of posts lies PRN 10742, a pair of standing stones on a slight mound in the centre of a field. Standing stones are often considered to be sites of ritual, and sometimes funerary, activity during the Bronze Age (2300 BC – 700 BC). This particular example however shares some characteristics of a chambered tomb, a funerary monument, dating more typically to the earlier Neolithic period (4400 BC – 2300 BC).
- 2.5 To the southwest the remains of a Bronze Age round barrow was recorded in 1975 (PRN 1927), although no visible above-ground remains are now apparent. These round barrows are also funerary monuments, often with a central burial and sometimes attracting a number of later peripheral burials. Further examples have also been recorded to the northwest, close to the route of the proposed development. One such site (PRN 1925) lies within an area of

forestry plantation, although again no surface traces of this monument now survive. Another possible site is recorded nearby (PRN 9479), although the provenance of this feature is complicated by the presence of a number of later post-medieval field clearance cairns that also dot the landscape.

- 2.6 The presence of these monuments serves to highlight the potential for archaeological remains to be present within the development area, particularly related to prehistoric funerary and ritual monuments.

3 Aims and Objectives

- 3.1 The primary objective of the watching brief, as defined by the ClfA (2014) are:
- To allow a rapid investigation and recording of any archaeological features that were uncovered during the proposed groundworks within the application area.
 - To provide the opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief were not sufficient to support the treatment to a satisfactory or proper standard.

4 Watching Brief Methodology

- 4.1 The archaeological watching brief was undertaken by Jerry B Bond BA (Hons) ACIfA, using current best practice and following the ClfA Standard and Guidance for an archaeological watching brief (2014). The overall management of the project was undertaken by Philip Poucher.
- 4.2 The groundworks comprised the excavation of areas for the installation of the poles and any stays (typically in holes around 1m wide x 2m long x 1.8m in depth). The mechanical excavation was undertaken by a 360° tracked excavator using a combination of toothed and toothless ditching bucket dependent on the nature of the ground conditions. In a number of the foundation sockets a pecker equipped machine was used to excavate through the bedrock to attain the required depth.
- 4.3 Any exposed features and deposits were recorded on drafting film using recognised conventions and scales (1:10, 1:20, 1:50, as appropriate). All areas were photographed using high resolution (12mp) digital photography. All the deposits encountered were recorded by means of a continuous context numbering system and recorded on pro-forma context sheets. A register of all contexts and photographs was also made.
- 4.4 No finds were retrieved during the course of the watching brief. No deposits suitable for environmental sampling were encountered.

- 4.5 A project archive will be prepared in accordance with the National Monuments Record (Wales) agreed structure, as laid out in the WSI (Appendix II).

5 The report on the watching brief

5.1 Introduction

- 5.1.1 The work started on Tuesday 3rd January, and lasted until Friday 6th January and was monitored by Jerry B Bond BA (Hons) ACIfA.
- 5.1.2 The work took place during the winter and as might be expected, the weather was cold and damp with some occasional light snow. Most of the site was very wet and waterlogging was commonplace throughout.
- 5.1.3 The work comprised the excavation by a mechanical excavator of twenty foundation sockets for the insertion of fifteen new electricity poles and six associated retaining/support stays.
- 5.1.4 The developers used a letter series to differentiate between the foundation sockets and this was retained for the recording, starting at A and finishing at N (Figure 2).
- 5.1.5 All the foundation sockets were of approximately the same size, being 2m in length, 1m in width and to a depth of 1.8m and were excavated using a mechanical excavator. In a number of cases the full depth could only be achieved by the use of a second machine equipped with a “pecker” to break through the underlying geological natural bedrock. The excavations started TP A at the southernmost end of the line and extended from there toward the Northwest, ending with TP N and its two stay holes.
- 5.1.6 A continuous sequence of unique context numbers was assigned to each layer or deposit encountered during the ground works.

5.2 The results

- 5.2.1 **TP A** was located at the South-Eastern end of the line of poles and was the first to be excavated. It was excavated on a north facing slope adjacent to an extant field bank wall, to the required size and depth (Photos 1 – 5, Figure 3).
- 5.2.2 Three layers were encountered, the lowest and earliest was the geological natural bedrock layer (102), a mottled grey-brown and red-brown mudstone with significant ferrous oxide staining, which was greater than 1.5m in thickness. Above was (101), a natural subsoil layer of a firm pale yellow-brown silty-clay considered to be degraded/weathered from the underlying mudstone bedrock, which was 0.1m in thickness. Above was the extant topsoil horizon (100), a dark brown acidic loam with occasional small and medium sized rounded natural stones, which was 0.2m in thickness.

- 5.2.3 Adjacent to TP A was an extant field boundary (103)/[104] comprising of a low earth and rubble hedge bank topped by a modern post and wire fence line. This boundary feature is typical of the area and dates from the post-medieval/modern period and must have stood to a greater height in the past, now only being *circa* 0.3m in height and 1m in width.
- 5.2.4 A stay hole, (TP A SH#1) was excavated 5m to the Southeast of TP A and was identical in size and shape, and contained the exact same sequence of layers and horizons.
- 5.2.5 **TP B** was located in a relatively level area of bog which appeared to form a natural hollow or bowl and was excavated to the site specification (Photo 6, Figure 3).
- 5.2.6 The lowest layer (108) was a geological natural horizon derived from the mudstone bedrock. It was a very firm pale blue-grey clay and fragmented mudstone deposit greater than 1m thick, probably degraded from the mudstone by the action of waterlogging. Above was (109) a loose pale grey-brown silty-clay of 0.15m thickness. Overlying was the extant top soil horizon (108), a very dark brown silty-loam with peaty material from part rotted bog plants. It was 0.2m thick.
- 5.2.7 A stay hole (TP B SH#1) was excavated 8m to the Southeast of the test pit and contained an identical sequence to that from the test pit, TP B.
- 5.2.8 **TP C** was further to the Northwest and was initially excavated in the wrong location within the same hollow as TP B, but was recorded as TP C (I) with the following results (Photos 7 & 8, Figure 3).
- 5.2.9 Its lowest layer (107) was the geological bedrock of a mottled grey and brown mudstone of at least 1.45m thick. Above was (106) a subsoil layer of a loose pale grey-brown silty-clay of 0.15m thickness. Overlying was (105), the extant topsoil layer, a very dark brown clayey-peaty loam.
- 5.2.10 **TP C (II)** was relocated to its correct location and was further to the Northwest on a slight rise (Photo 9, Figure 3). It contained only two layers, the lower being (112), the geological natural bedrock, a mottled grey and rust red-brown mudstone which became firmer toward its lower depths with less ferrous staining of greater than 1.65m. Above was (111) the extant topsoil horizon, a loose very dark brown peaty-loam of 0.15m thickness.
- 5.2.11 **TP D** was located to the Northwest and was on the north facing slope over the other side of the slight rise (Photos 10-11, Figure 3). From here on the

ground fell away toward the river valley to the north. It contained only two layers and was very similar to TP C (II). The lower layer (114) was considered to be the same as (112), a very firm mottled red-brown and grey mudstone forming part of the natural geological bedrock of more than 1.6m thickness. Above was (113) the extant topsoil horizon, a very dark brown loose peaty-loam of 0.2m thickness and noted as being very waterlogged.

5.1.12 **TP E** was located further down the hill on a relatively flat spot lying within another small hollow or bowl and was noted as being very waterlogged (Photo 12, Figure 3). It contained three layers, the lowest being (117), a firm grey clay with both small and larger rounded stones and boulders within it, and was greater than 1.1m thickness. Above was (116) the subsoil horizon, being a soft pinkish-brown and grey clay of 0.2m thickness. Overlying all was the extant topsoil horizon (115) a very dark brown peaty-loam with mosses, sphagnum and bog grasses. It was noticeably thicker in this location than elsewhere being 0.5m thick.

5.1.13 **TP F** was located to the west of a long linear earth and stone bank/wall [144] forming a major field boundary running for some distance toward the Northwest (Photo 13, Figure 4). The foundation was excavated tight up against the field boundary, without impacting upon it. This foundation contained three layers, the lowest being (120) the geological bedrock consisting of a very firm and solid deposit of mudstone, mottled grey and red-brown in colour and being greater than 1.4m thick. Above was (119) a firm deposit of degraded mudstone, being mottled red-brown and grey in colour with ferrous staining, 0.2m thickness. Overlying was (118) the extant topsoil, a loose, very dark brown peaty-loam with mosses, sphagnum and bog grasses of 0.2m thickness.

5.1.14 **TP G** was further to the Northwest and alongside the same field boundary [144] as TP F (Photos 14 & 15, Figure 4), which produced the exact same sequence of layers as that from TP F. The lowest was (123) a mottled red-brown and grey deposit of mudstone of greater than 1.4m thickness. Above was (122) a subsoil layer of degraded mudstone and being a mottled grey and red-brown in colour with noticeable ferrous staining and of 0.2m thickness. Overlying was (121) the extant topsoil horizon, a loose very dark brown peaty-loam with considerable boggy vegetation cover.

5.1.15 **TP H** was also located next to the same long running field boundary [144] and was further to the Northwest (Photo 16, Figure 4). It contained three deposits, the lowest being a very hard deposit of solid bedrock (126) that needed the pecker to excavate it to its full depth of 1.8m. It was the same as

that encountered in a number of the other foundation sockets, being a mottled grey and red-brown mudstone of greater than 1.4m thickness. Above was (125) a subsoil layer of a pale reddish-brown (with ferrous staining) sandy-clay with frequent small angular stones within, which was of 0.15m thickness. Overlying was (124) the extant topsoil horizon, a dark red-brown silty-loam, of 0.25m thickness.

5.1.16 **TP I** was located to the Northwest and alongside the same field boundary [144] (Photo 17, Figure 4). It contained only two layers, the lower (128) was the geological mudstone bedrock, mottled grey and brown and was very firm and needed the pecker to excavate it to its full depth. It was greater than 1.65m thick. Above was the extant topsoil horizon (127), a dark reddish-brown silty loam of 0.15m thickness.

5.1.17 **TP J** was located centrally within a field on relatively level ground (Photo 18, Figure 5). It contained two layers, the lower being (130) a very firm and stony natural subsoil layer of red-brown ferrous-stained mudstone, showing signs of weathering, which was of greater than 1.6m thickness. Above was the extant topsoil horizon (129) a dark grey-brown clay-loam of 0.2m thickness.

5.1.18 **TP K** was located next to a low earth and rubble field bank [145] which was overgrown with grass and mosses, it was *circa* 1m wide and survived to a height of 0.6m, (Photos 19-20, Figure 5). Three layers were noted in this foundation socket, the lowest being (133) a relatively loose pale-grey degraded mudstone deposit derived from the underlying bedrock, which was greater than 1.2m thickness. Above was a subsoil (132), being a firm mottled pale red-brown and pale blue-grey clay of 0.5m thickness. Overlying was the extant top soil horizon (131), a very dark brown peaty-clay loam which was noted as being waterlogged.

5.1.19 **TP L** was located in a very wet area of the site being located near to a ditch, field boundary and a trackway between fields (Photo 21, Figure 5). It had a stay hole excavated 8m to the west of and in association with it. The foundation socket and the stay hole both had very similar sequences of layers within them, the basal layer (137) was a very firm pale blue-grey mudstone bedrock of greater than 0.9m thickness. Above was a subsoil layer (136) a firm pale blue-grey clay of 0.4m thickness. Above was another subsoil horizon (135), a soft pale brown peaty-clay of 0.25m thickness. Overlying was the extant topsoil horizon (134) a very dark brown, peat-rich clay-loam of 0.25m thickness, noted as being waterlogged.

5.1.20 **TP M** was located near to two hedge rows forming a small field near to the farm of Trawsnant, and an associated stay hole was located to 6m to the west of it. It was located on the other side of the western hedge row which divides the small field from the un-named minor road running Northwest-Southeast past the farm (Photo 22, Figure 5). Both the foundation socket and the stay hole contained identical sequences of deposits within them. The lowest layer was (140) a very firm deposit of the local bedrock of pale grey mudstone, which needed the use of a pecker to achieve the required depth. It was greater than 1.1m thickness. Above was (139) a subsoil layer, being a loose, mottled pale red-brown and grey-brown sandy-clay of 0.5m thickness. Overlying was (138) the extant topsoil horizon, a loose, very dark brown peaty-loam of 0.2m thickness. In the Stay Hole there were a number of large roots from the adjacent hedge row and both it and the foundation socket were waterlogged.

5.1.21 **TP N** was located within the small field of the farm at Trawsnant and was directly adjacent to post and fence boundary, it had two stay holes in association with it (Photo 23, Figure 5). The two stay holes were both located to the east of the post and fence line, SH #1 was 7m to the East and SH#2 was 7m to the North. All three excavated areas had identical sequences of layers within them. The basal layer (143) was the geological bedrock, being a very firm pale grey mudstone of greater than 1.1m thickness. Above was (142) a loose pale red-brown and pale grey sandy-clay subsoil of 0.5m thickness and overlying was the extant topsoil (141), a very dark brown loose peaty-loam of 0.2m thickness.

6 Discussion and Conclusions

- 6.1 An archaeological watching brief was undertaken in January 2017 during groundworks associated with the erection of a series of electricity poles to carry an overhead line in the vicinity of Cellan and Ffarmers on the Carmarthenshire/Ceredigion border (SN 62368 46618). The work was undertaken on the advice of Dyfed Archaeological Trust – Development Management. The local planning authority is Ceredigion County Council (CCC), the planning application number is A160638.
- 6.2 During the course of the monitoring of the ground works for the erection of the electricity poles and their associated features, no finds, features or deposits of archaeological interest were encountered.
- 6.3 The development area contained several boundary features used to divide the area up into a number of smaller fields and areas of pasture for rough grazing of sheep. It is considered that all these boundary features would date from the post-medieval or modern period.

- 6.4 The subsoil layers encountered across the site were largely very similar, with a geological bedrock layer of grey mudstone of varying degrees of hardness ubiquitous to all the foundation sockets and stay holes. Above the bedrock there was a small variation in the natural subsoils, though all were derived from natural processes affecting the underlying geological layer and the overlying topsoil layers. In a number of the foundation sockets and stay holes, further subsoil horizons were noted and these tended to be located within the flatter areas of the site where a build-up over time had created the additional horizons.
- 6.5 In a number of cases, the bedrock was directly overlaid by the extant topsoil horizon, which was again largely the same across the whole of the site, though some small variations were noted. It was almost always a loam, quite often with peat being present and in some cases a sandier element was noted.
- 6.6 No evidence of any use other than pasture was noted across all of the site, with no obvious relict plough soils being encountered. Waterlogging was common across all of the site, with only minor variations being noted except in three locations where it was particularly wet.

7 Bibliography & References:

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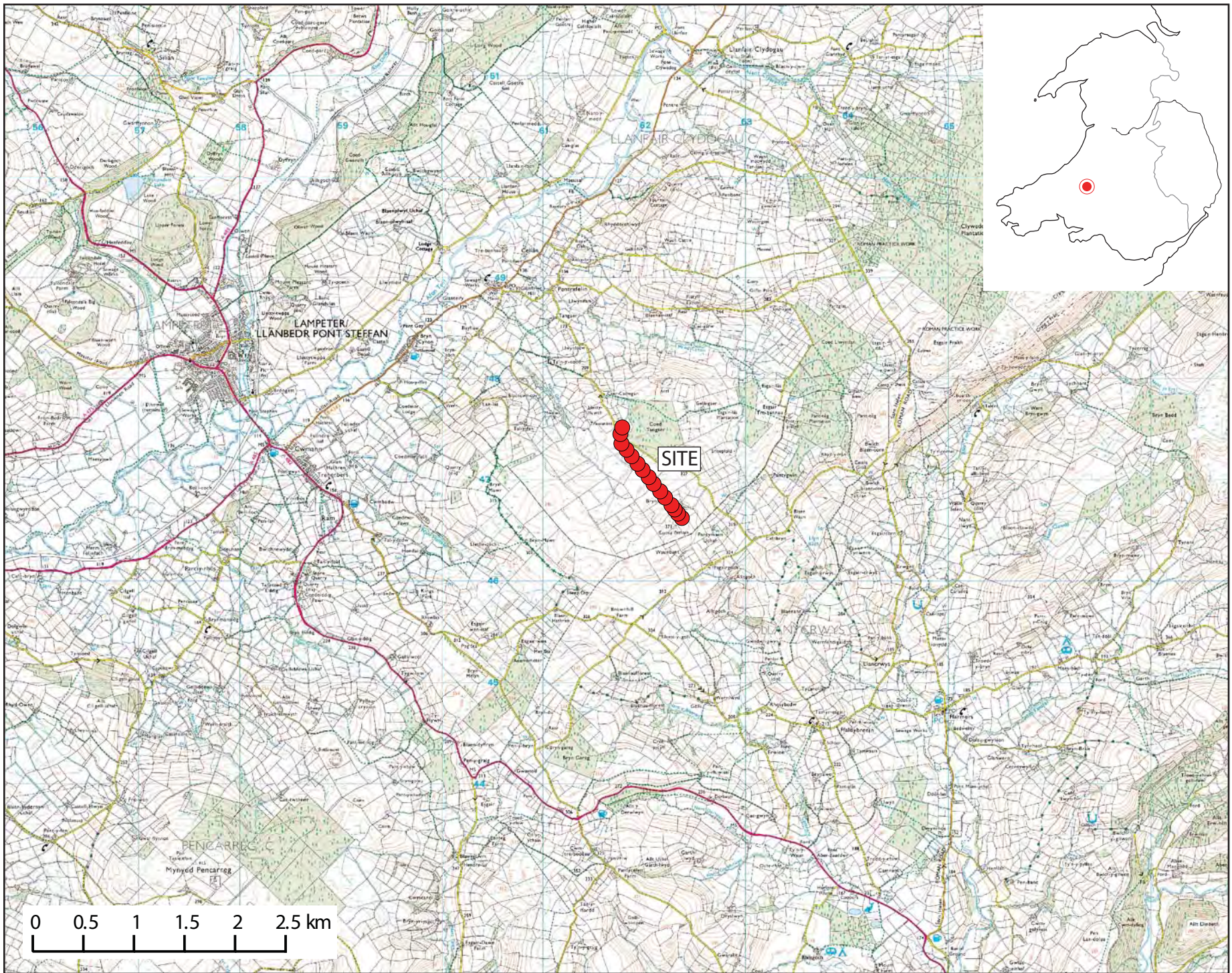


Figure 1: Location map, 1:50,000 @ A4

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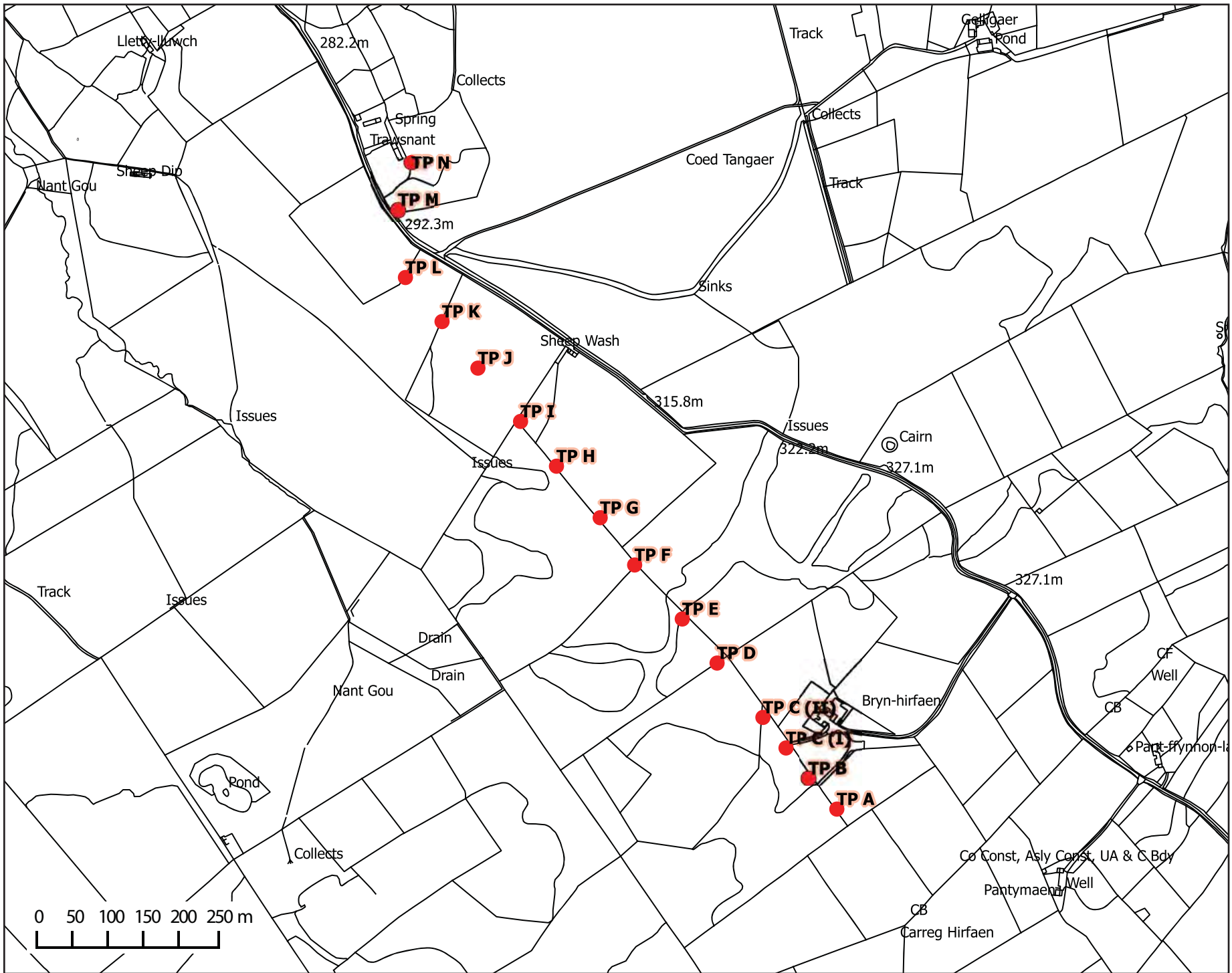
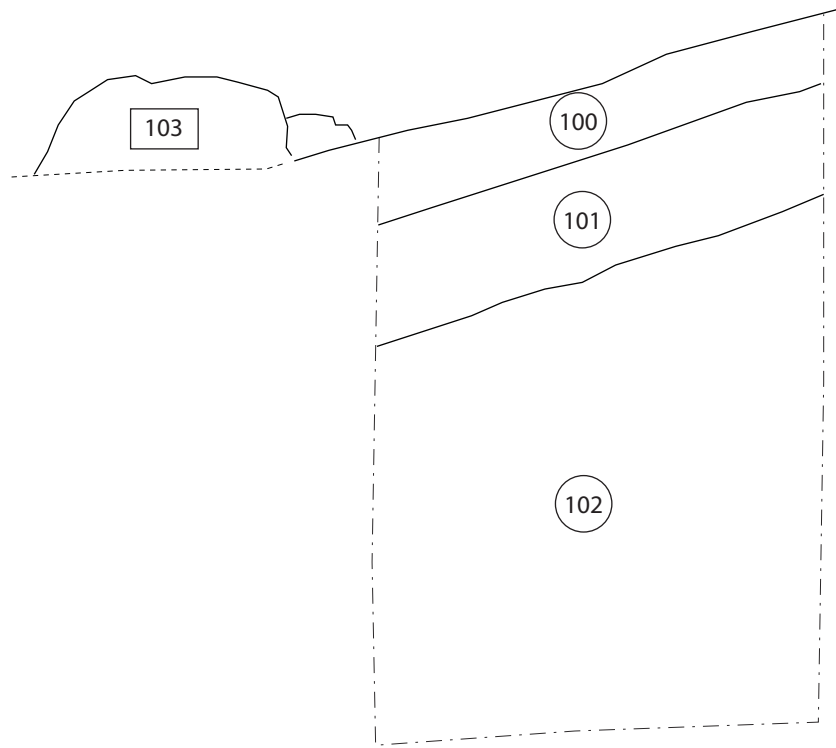


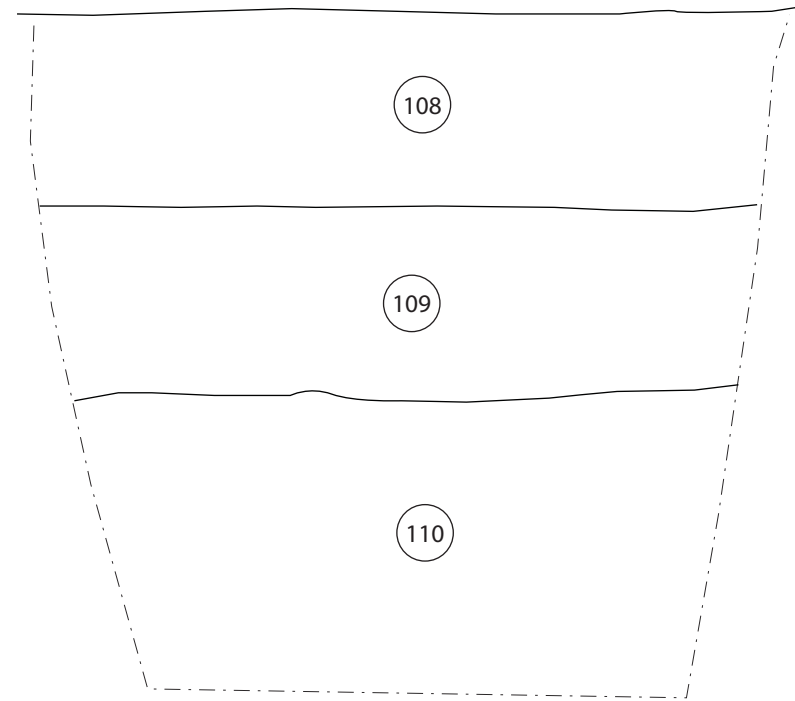
Figure 2: Location of excavated post foundations in red, labelled by reference in main text.

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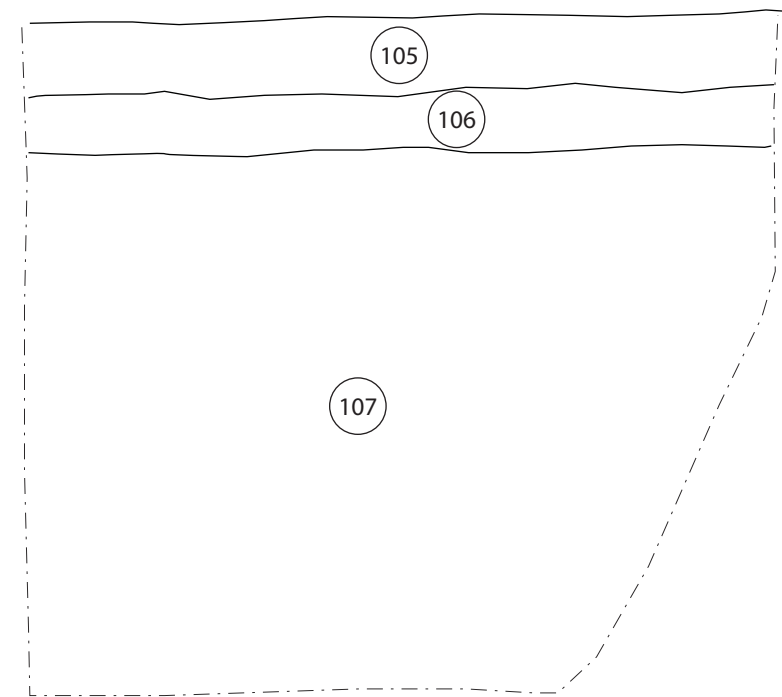
TP A: West Facing Section



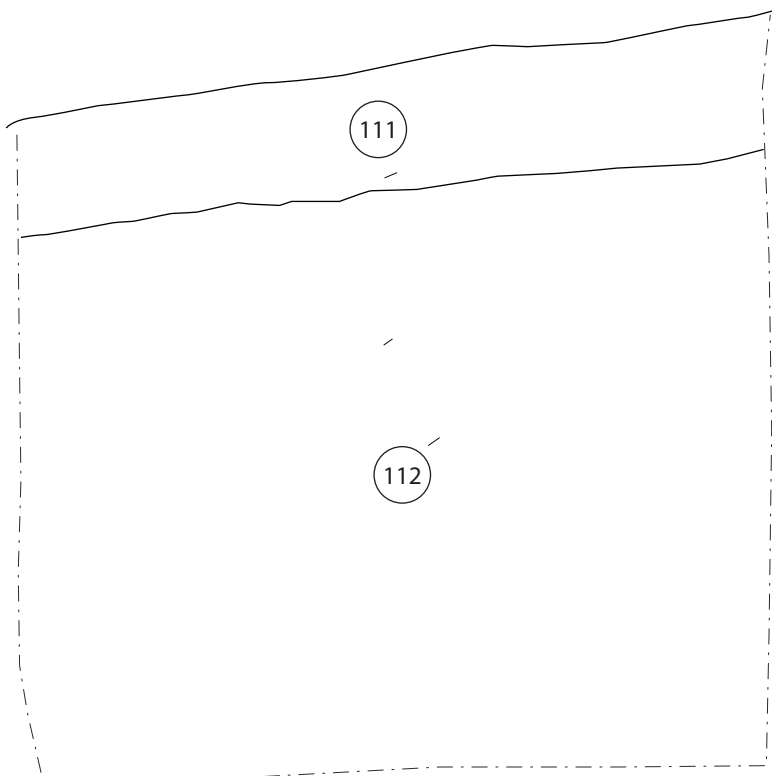
TP B: West Facing Section



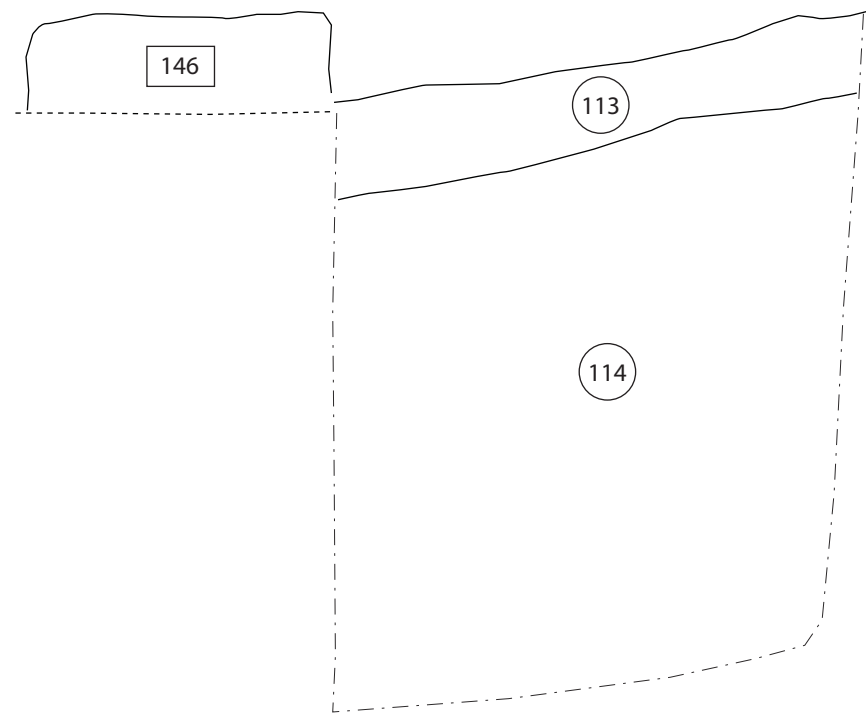
TP C(I): West Facing Section



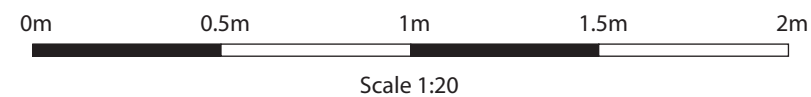
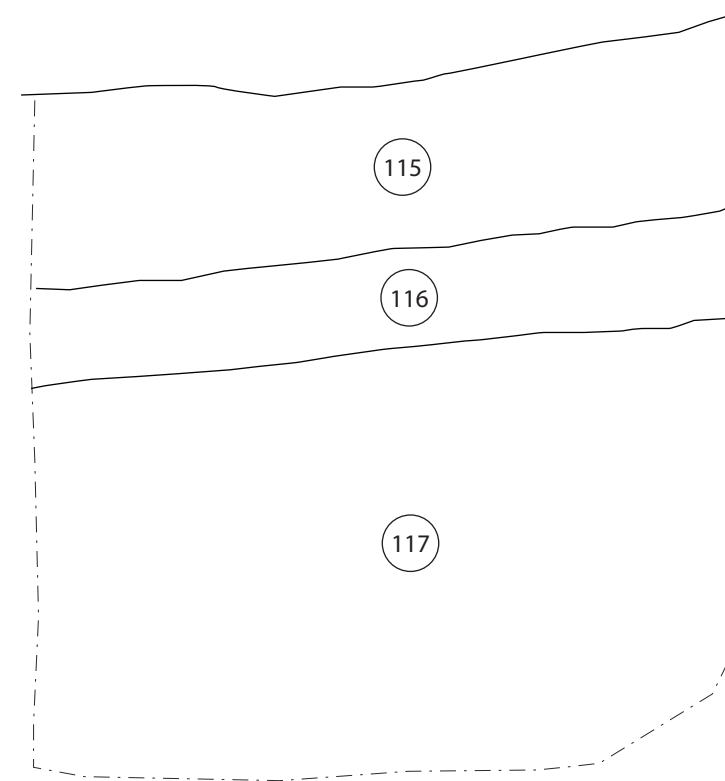
TP C(II): West Facing Section



TP D: West Facing Section



TP E: West Facing Section



Job Title: Bryn Hirfaen, Ffarmers

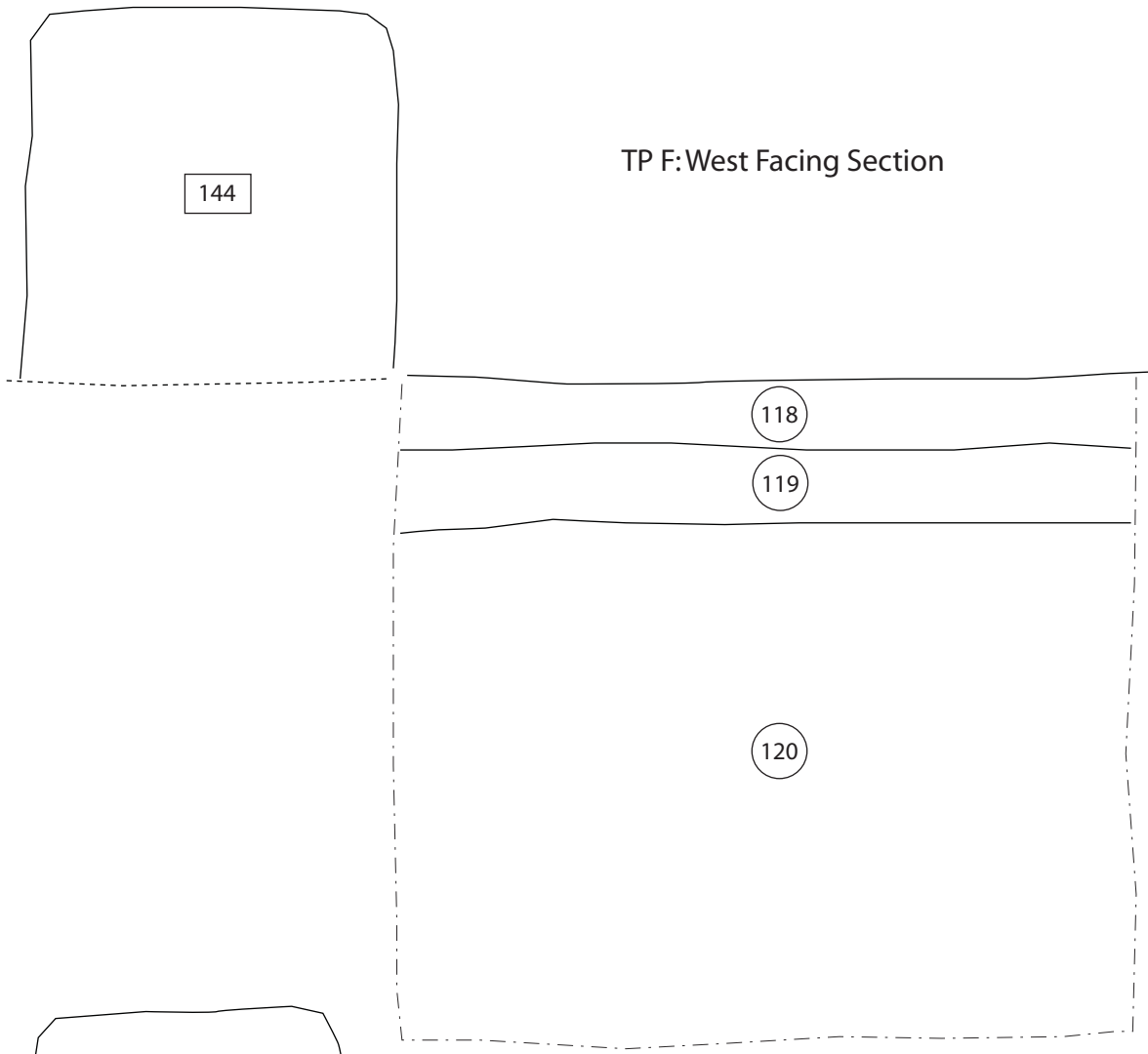
Figure 3: Site sections

Date: June 2017

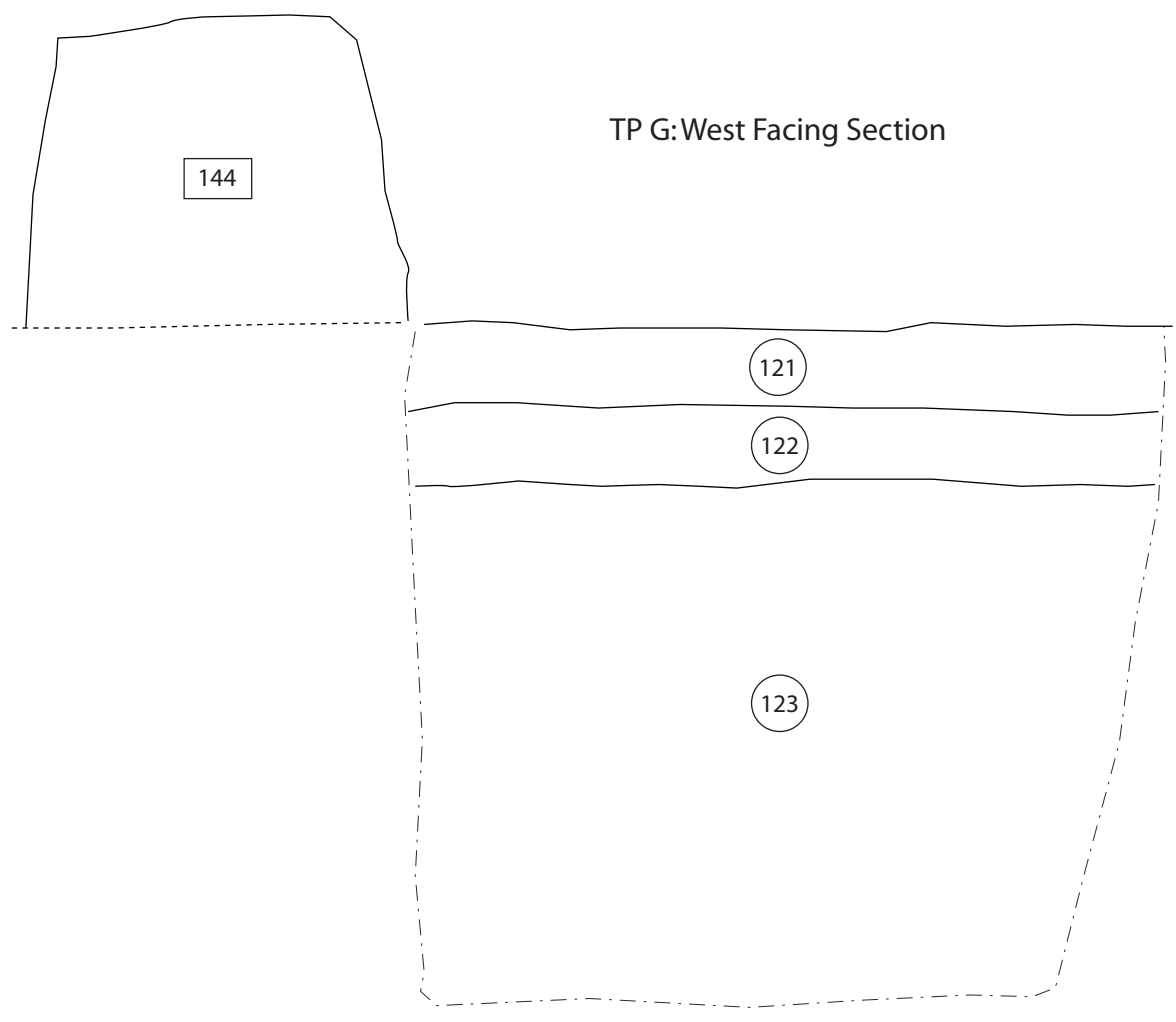
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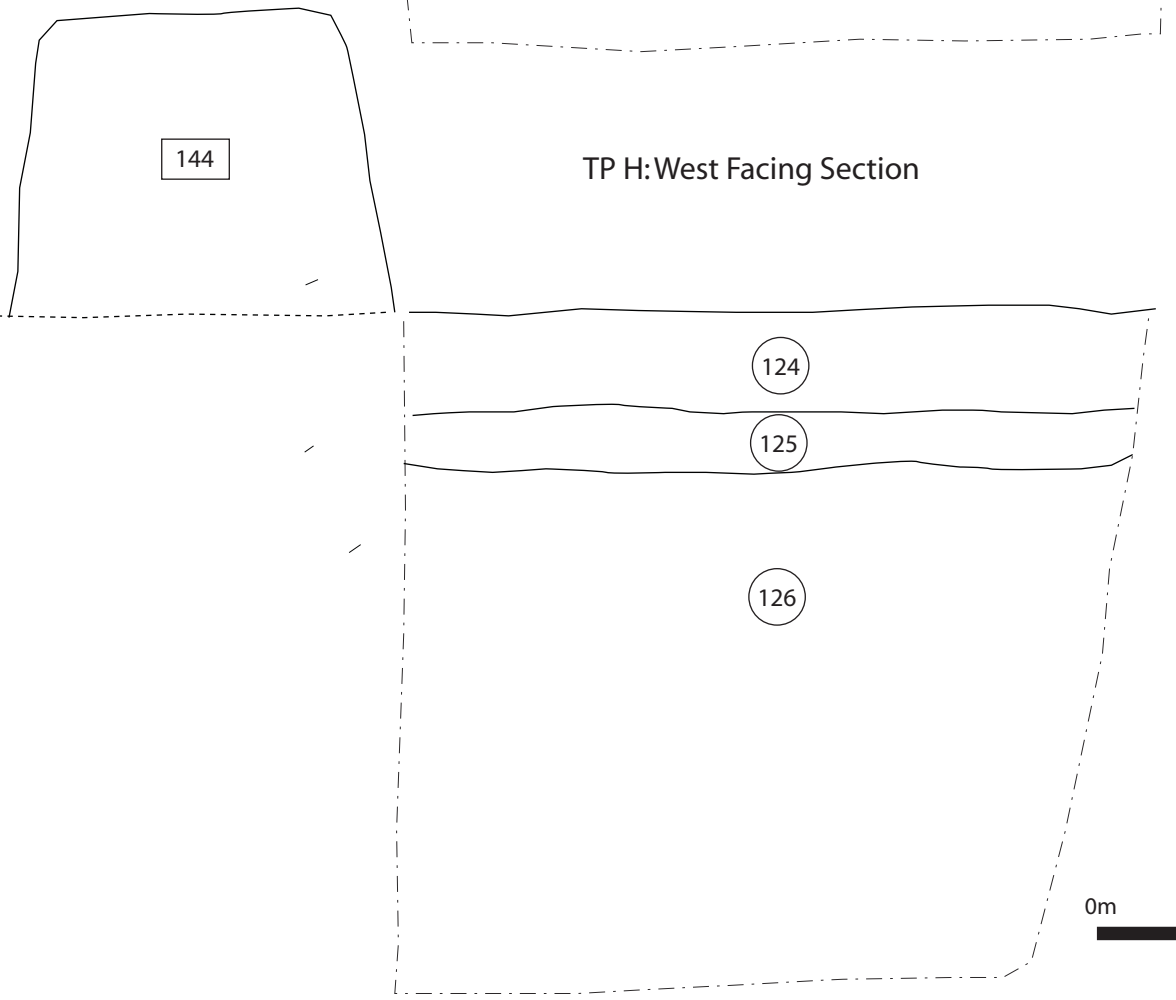




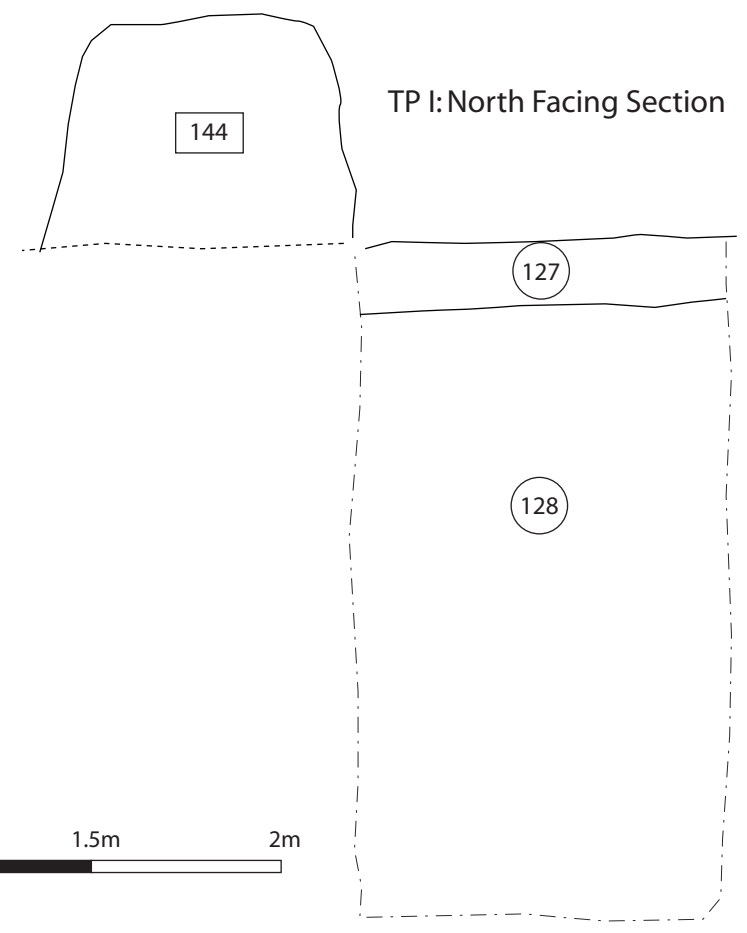
TP F: West Facing Section



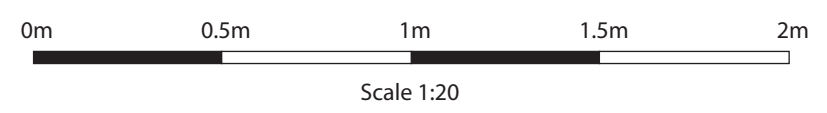
TP G: West Facing Section



TP H: West Facing Section



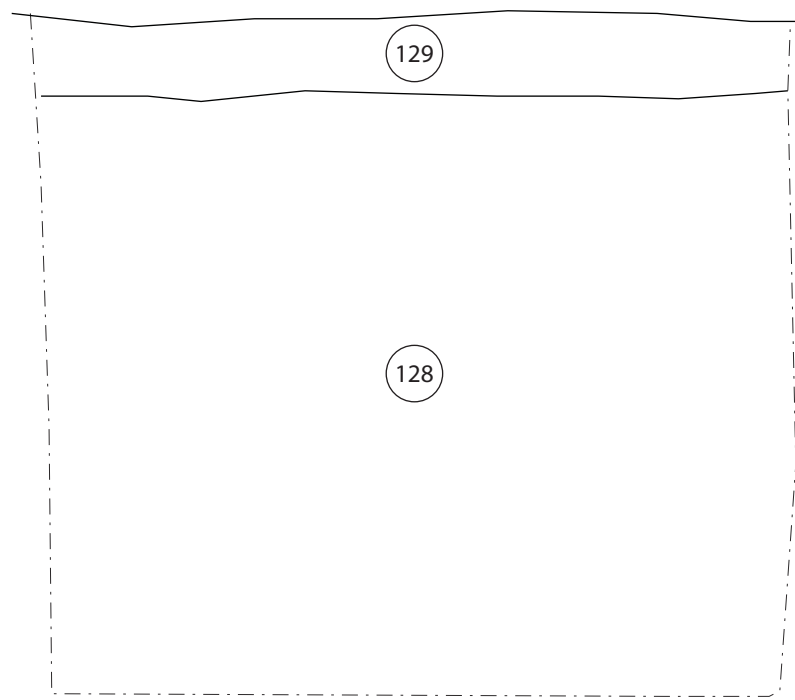
TP I: North Facing Section



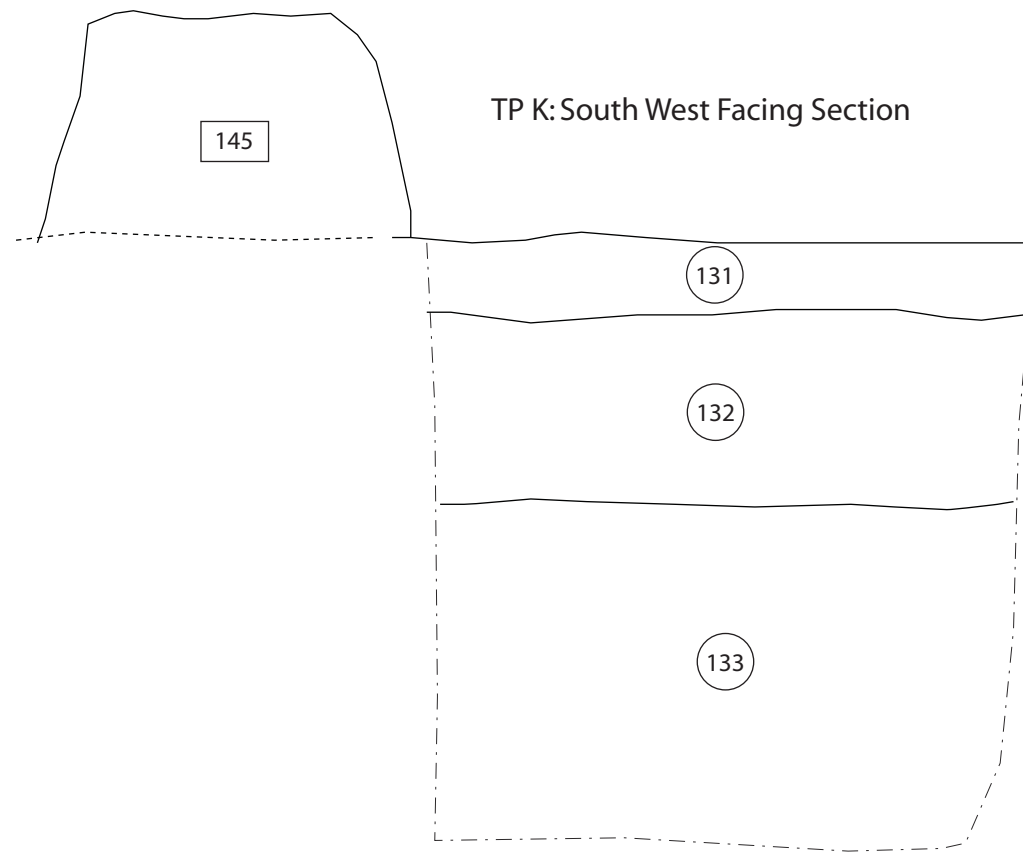
Job Title: Bryn Hirfaen, Ffarmers
Figure 4: Site sections
Date: June 2017
Drawn By: PP
Scale: 1:20



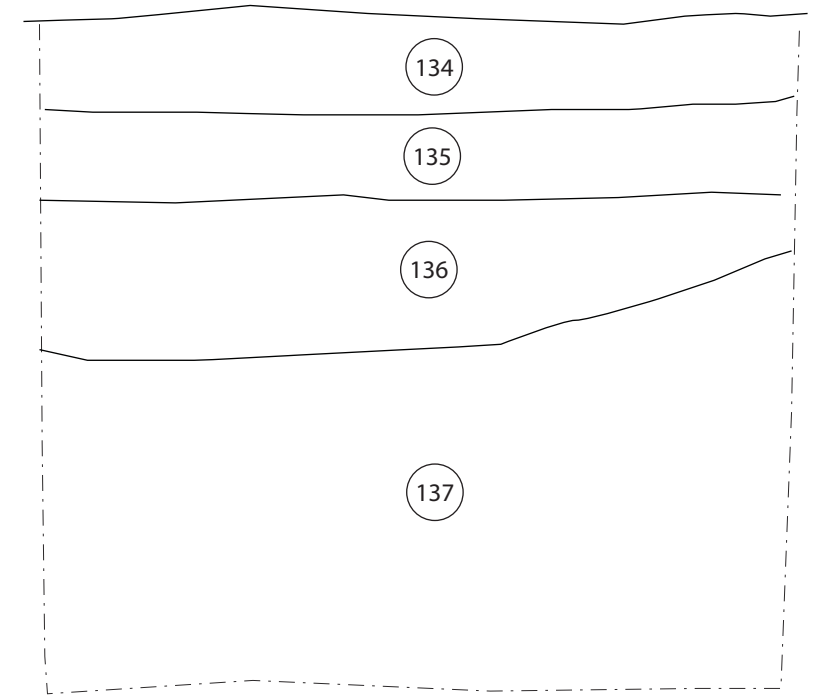
TP J: South West Facing Section



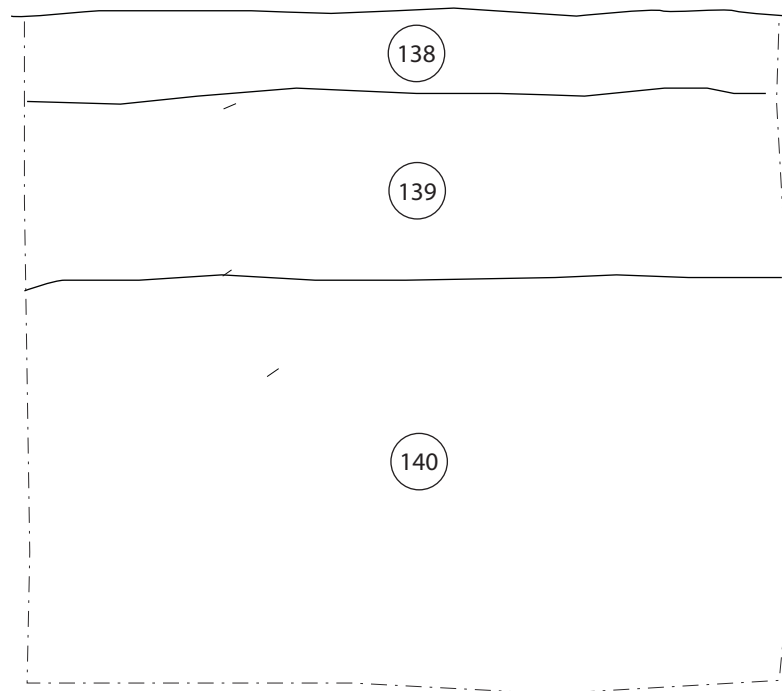
TP K: South West Facing Section



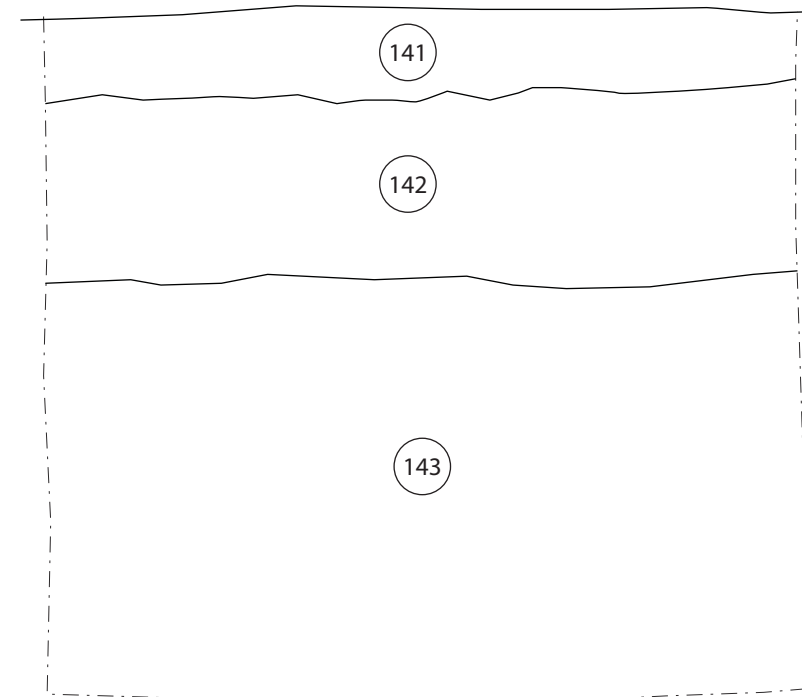
TP L: West Facing Section



TP M: West Facing Section



TP N: West Facing Section



0m 0.5m 1m 1.5m 2m

Scale 1:20

Job Title: Bryn Hirfaen, Ffarmers

Figure 5: Site sections

Date: June 2017

Drawn By: PP

Scale: 1:20





Photo 1: General view eastward from TP A.



Photo 2: General view Northeast from TP A looking towards Bryn Hirfaen.



Photo 3: TP A, looking North. 2m & 1m scales.



Photo 4: TP A Stay Hole, looking Southwest. 2m & 1m scale.



Photo 5: TP A Stay Hole, looking North to TP A (infilled) and TP B. 1m scale.



Photo 6: TP B, looking Northeast. 2m scale.



Photo 7: TP C (I), looking North. 2m & 1m scale.



Photo 8: General view looking North from TP C (I) towards TP A. 2m scale.



Photo 9: TP C (II), looking North. 2m & 1m scale.



Photo 10: TP D, looking East. 2m & 1m scale.



Photo 11: General view looking North-northwest from TP D. 2m scale.



Photo 12: TP E, looking Southeast. 2m & 1m scale.



Photo 13: TP F, looking North. 2m & 1m scale.



Photo 14: TP G, looking East. 2m & 1m scale.



Photo 15: General view looking Southeast from TP G, showing field boundary [144].



Photo 16: TP H, looking Northeast. 2m & 1m scale.



Photo 17: TP I, looking East. 2m & 1m scale.



Photo 18: TP J, looking Northeast. 2m & 1m scale.



Photo 19: TP K, looking West. 2m & 1m scale.



Photo 20: General view looking Southwest, showing field boundary [145].



Photo 21: TP L, looking Northeast. 2m & 1m scale.



Photo 22: TP M, looking Southwest. 2m & 1m scale.



Photo 23: TP N, looking Southeast. 2m & 1m scale.

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APPENDIX I: Context List

Context Descriptions

Context Number	Context Type	Description	Dimensions (Length x width x thickness)
TP A			
100	Layer	<ul style="list-style-type: none"> • Topsoil • Loose, dark-brown silt-clay loam • Common, small-medium rounded stone • No finds 	Beyond excavated area, 0.2m thick
101	Layer	<ul style="list-style-type: none"> • Natural subsoil • Fairly compact, light yellow-brown silty-clay • No finds 	Beyond excavated area, 0.1m thick
102	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area, >1.8m thick
103	Deposit	<ul style="list-style-type: none"> • Field boundary bank material • Compact, mid grey-brown clayey-silt • Abundant medium-large sub-angular stone, rubble-stone facing material • No finds 	Length not recorded, 1m wide, 0.3m high
104	Structure	<ul style="list-style-type: none"> • Field boundary bank • Linear in plan, orientated northwest - southeast • Compacted earth and stone core, faced on either side with unworked local stone, random rubble. Topped by post and wire fencing. 	Length not recorded, 1m wide, 0.3m high
TP B			
108	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown silty-peaty-loam • No finds 	Beyond excavated area, 0.5m thick
109	Layer	<ul style="list-style-type: none"> • Natural subsoil • Loose, light grey-brown silty-clay • No finds 	Beyond excavated area, 0.5m thick
110	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area, >1.8m thick
TP C (I) & C (II)			
105	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown silty-peaty-loam • No finds 	Beyond excavated area, 0.2m thick
106	Layer	<ul style="list-style-type: none"> • Natural subsoil • Loose, light grey-brown silty-clay • No finds 	Beyond excavated area, 0.15m thick
107	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area

111	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown silty-peaty-loam • No finds 	Beyond excavated area, 0.15m thick
112	Layer	<ul style="list-style-type: none"> • Geological natural • Mixed grey and reddish-brown mudstone/shale bedrock • No finds 	Beyond excavated area
TP D			
113	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown peaty- loam • Waterlogged • No finds 	Beyond excavated area, 0.2m thick
114	Layer	<ul style="list-style-type: none"> • Geological natural • Mixed grey and reddish-brown mudstone/shale bedrock • No finds 	Beyond excavated area
146	Structure	<ul style="list-style-type: none"> • Field boundary bank • Linear in plan, orientated southwest - northeast • Compacted earth and stone core. Topped by post and wire fencing 	Length not recorded, 1m wide, 0.3m high
TP E			
115	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown peaty-loam with moss, sphagnum & bog grass covering • No finds 	Beyond excavated area, 0.5m thick
116	Layer	<ul style="list-style-type: none"> • Natural subsoil • Moderate, light reddish-grey clay • No finds 	Beyond excavated area, 0.2m thick
117	Layer	<ul style="list-style-type: none"> • Natural subsoil • Fairly compact, light grey clay • Abundant, medium – very large sub-rounded stone/boulders • No finds 	Beyond excavated area
TP F			
118	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown peaty-loam with moss, sphagnum & bog grass covering • No finds 	Beyond excavated area, 0.2m thick
119	Layer	<ul style="list-style-type: none"> • Natural subsoil (degraded bedrock) • Fairly compact, mid reddish-brown fragmented bedrock • No finds 	Beyond excavated area, 0.2m thick
120	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area, >1.4m thick
144	Structure	<ul style="list-style-type: none"> • Field boundary bank • Linear in plan, orientated NNE - SSW 	Length not recorded, 1m wide, up to 1.1m high

		<ul style="list-style-type: none"> • Compacted earth and stone core, faced on either side with unworked local stone, random rubble. 	
TP G			
121	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown peaty-loam with moss, sphagnum & bog grass covering • No finds 	Beyond excavated area, 0.2m thick
122	Layer	<ul style="list-style-type: none"> • Natural subsoil (degraded bedrock) • Fairly compact, mid reddish-brown fragmented bedrock • No finds 	Beyond excavated area, 0.2m thick
123	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area, >1.4m thick
144	Structure	<ul style="list-style-type: none"> • Field boundary bank • Linear in plan, orientated NNE - SSW • Compacted earth and stone core, faced on either side with unworked local stone, random rubble. 	Length not recorded, 1m wide, up to 1.1m high
TP H			
124	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark reddish-brown silty-loam • Common, small-medium rounded stone • No finds 	Beyond excavated area, 0.25m thick
125	Layer	<ul style="list-style-type: none"> • Natural subsoil • Fairly compact, light reddish-brown sandy-clay • Abundant, small sub-angular stone • No finds 	Beyond excavated area, 0.15m thick
126	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area
144	Structure	<ul style="list-style-type: none"> • Field boundary bank • Linear in plan, orientated NNE - SSW • Compacted earth and stone core, faced on either side with unworked local stone, random rubble. 	Length not recorded, 1m wide, up to 1.1m high
TP I			
127	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark reddish-brown silty-loam • Common, small-medium rounded stone • No finds 	Beyond excavated area, 0.15m thick
128	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area, >1.65m thick
144	Structure	<ul style="list-style-type: none"> • Field boundary bank • Linear in plan, orientated NNE - SSW 	Length not recorded, 1m wide, up to 1.1m high

		<ul style="list-style-type: none"> • Compacted earth and stone core, faced on either side with unworked local stone, random rubble. 	
TP J			
129	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark grey-brown clay-loam • Common, small-medium rounded stone • No finds 	Beyond excavated area, 0.2m thick
130	Layer	<ul style="list-style-type: none"> • Natural subsoil • Fairly compact, mid reddish-brown degraded bedrock • No finds 	Beyond excavated area, >1.6m thick
TP K			
131	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown peaty-clay loam • Waterlogged • No finds 	Beyond excavated area, 0.2m thick
132	Layer	<ul style="list-style-type: none"> • Natural subsoil • Compact, mottled light reddish-brown and light blue-grey clay • No finds 	Beyond excavated area, 0.5m thick
133	Layer	<ul style="list-style-type: none"> • Geological natural • Loose, degraded mudstone/shale solid bedrock • No finds 	Beyond excavated area, >1.1m thick
145	Structure	<ul style="list-style-type: none"> • Field boundary bank • Linear in plan, orientated NNE - SSW • Compacted earth and stone core, faced on either side with unworked local stone, random rubble. 	Length not recorded, 1m wide, 0.6m high
TP L			
134	Layer	<ul style="list-style-type: none"> • Topsoil • Moderate, dark-brown peaty-clay loam • Waterlogged • No finds 	Beyond excavated area, 0.25m thick
135	Layer	<ul style="list-style-type: none"> • Natural subsoil • Moderate, light brown clay • No finds 	Beyond excavated area, 0.25m thick
136	Layer	<ul style="list-style-type: none"> • Natural subsoil • Moderate, light blue-grey clay • No finds 	Beyond excavated area, 0.4m thick
137	Layer	<ul style="list-style-type: none"> • Natural subsoil • Fairly compact, light blue-grey clay • Abundant, medium-large sub-angular stone • No finds 	Beyond excavated area, >1.1m thick
TP M			
138	Layer	<ul style="list-style-type: none"> • Topsoil • Loose, dark-brown peaty-loam • No finds 	Beyond excavated area, 0.2m thick

139	Layer	<ul style="list-style-type: none"> • Natural subsoil • Loose, mottled light reddish-brown and mid grey-brown sandy-clay • No finds 	Beyond excavated area, 0.5m thick
140	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area, >1.1m thick
TP N			
141	Layer	<ul style="list-style-type: none"> • Topsoil • Loose, dark-brown peaty-loam • No finds 	Beyond excavated area, 0.2m thick
142	Layer	<ul style="list-style-type: none"> • Natural subsoil • Loose, mottled light reddish-brown and mid grey-brown sandy-clay • No finds 	Beyond excavated area, 0.5m thick
143	Layer	<ul style="list-style-type: none"> • Geological natural • Compact, mudstone/shale solid bedrock • No finds 	Beyond excavated area, >1.1m thick

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APPENDIX II: Specification

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Written Scheme of Investigation
for an Archaeological Watching Brief at
at Bryn Hirfaen, Ffarmers
Carmarthenshire/Ceredigion

Prepared for:
Western Power Distribution (SW)

Date: December 2016

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NON TECHNICAL SUMMARY

This Specification details a proposal for an archaeological watching brief on the excavation of electricity pole stands on land near Bryn-Hirfaen, Cellan, Ceredigion. It has been prepared by Archaeology Wales Limited for Western Power Distribution (SW).

1. Introduction

The planned development is to erect a series of electricity poles to carry an overhead line, along a route that runs from the vicinity of Bryn-Hirfaen (SN 62368 46618, Figure 1), near Ffarmers close to the Carmarthenshire-Ceredigion border, northwest towards Cellan in Ceredigion (Henceforth – the site). The groundworks will comprise the installation of fifteen new upright poles (Figure 2), for which holes will be dug measuring approximately 1m square. Similar sized holes will also be dug for stays on three poles. The local planning authority is Ceredigion County Council (CCC), the planning application number is A160638.

This Specification has been prepared by Philip Poucher, Project Manager, Archaeology Wales Ltd (Henceforth - AW) at the request of Western Power Distribution (SW). It provides information on the methodology which will be employed by AW during an archaeological watching brief. The watching brief will be undertaken during ground-breaking activity associated with the planned works.

Dyfed Archaeological Trust – Development Management (Henceforth – DAT-DM), in its capacity as archaeological advisors to the local planning authority, have recommended that an archaeological watching brief be undertaken during any groundworks. The purpose of the proposed work is to provide CCC with the information they are likely to request in respect of the development, the requirements for which are set out in Planning Policy WALES, March 2002, Section 6.5, and Welsh Office Circular 60/96. The work is to record any remains of potential archaeological interest to ensure that they are fully investigated and recorded if they are disturbed or revealed as a result of any activities associated with the development.

This Specification will be approved by Dyfed Archaeological Trust – Development Management (Henceforth DAT-DM), who act as archaeological planning advisors to CCC, prior to site work commencing.

All work will be undertaken by suitably qualified staff and in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014).

2 Site description

The line of new poles starts close to Bryn-Hirfaen, close to the Carmarthenshire/Ceredigion border, connecting to an existing power line at SN 62368 46618. The route then runs in a north-westerly direction for approximately 1.1km to connect to an existing line near Trawsnant at SN 61773 47520. The small settlements of Cellan lies 2km to the north, Ffarmers 3km to the southeast, with the larger settlement of Lampeter 4km to the west.

The landscape is one of enclosed upland with regular fields of semi-improved pasture enclosed largely in stone walling alongside post-and-wire fencing. Areas of rough ground, and some dispersed woodland, are also features of the local landscape. The settlement pattern is one of small dispersed farmsteads. The landscape undulates between around 290mOD to 350mOD, rising to the south.

The underlying geology of the areas consists of interbedded mudstone and sandstone of the Rhuddnant Grits Formation, formed approximately 428 to 436 million years ago in the Silurian Period. This is overlain by areas of glacial till, largely along local stream valleys (BGS 2016).

This area is notable for prehistoric archaeological remains. Close to the start of the line of posts lies PRN 10742, a pair of standing stones on a slight mound in the centre of a field. Standing stones are often considered to be sites of ritual, and sometimes funerary, activity during the Bronze Age (2300 BC – 700 BC). This particular example however shares some characteristics of a chambered tomb, a funerary monument, dating more typically to the earlier Neolithic period (4400 BC – 2300 BC).

To the southwest the remains of a Bronze Age round barrow was recorded in 1975 (PRN 1927), although no visible above-ground remains are now apparent. These round barrows are also funerary monument, often with a central burial and sometimes attracting a number of later peripheral burials. Further examples have also been recorded to the northwest, close to the route of the proposed development. One such site (PRN 1925) lies within an area of forestry plantation, although again no surface traces of this monument now survive. Another possible site is recorded nearby (PRN 9479), although the provenance of this feature is complicated by the presence of a number of later post-medieval field clearance cairns that also dot the landscape.

The presence of these monuments serves to highlight the potential for archaeological remains to be present within the development area, particularly related to prehistoric funerary and ritual monuments.

3 Site specific objectives

The primary objective of the watching brief, as defined by the ClfA (2014) are:

- To allow a rapid investigation and recording of any archaeological features that are uncovered during the proposed groundworks within the application area.
- To provide the opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief are not sufficient to support the treatment to a satisfactory or proper standard.

The work will result in a fully illustrated report, which will provide a comprehensive record of all the work undertaken. It will include interpretive statements and provide an assessment of the regional context within which the site is located.

4 Watching Brief Methodology

General

The archaeological watching brief will be undertaken by AW staff using current best practice.

All work will be carried out by a suitably qualified archaeologist with relevant level membership of the Chartered Institute for Archaeologists (ClfA) and will follow the ClfA Standard and Guidance for an archaeological watching brief (2014).

Detailed

The Watching Brief will be carried out by a suitably qualified archaeologist during any groundworks associated with the development, this will comprise the excavation of areas for the installation of the poles and any stays (typically in holes around 1m square), where the sub-soil is likely to be exposed or cut into. The mechanical excavation will be undertaken by a machine using a toothless ditching bucket unless ground condition render this impossible.

If archaeological features, finds or deposits are uncovered, work will be stopped in the area of the exposed feature in order that the supervising archaeologist can clean and identify the extent, nature and significance of the feature and for recording to take place.

All archaeological deposits that are identified will be mapped (as outlined in '**Recording' below**), cleaned, recorded and fully excavated. The developer will provide a safe working area and sufficient time to record and excavate all features to the satisfaction of AW and DAT-DM. Full excavation of identified features will not be compromised by the construction programme.

Contingency Arrangements

In the event of significant archaeological features being discovered all activities in this area of the site can be temporarily suspended. This will allow a period of consultation with DAT-DM and if required the opinion of specialists.

Following such consultation, recommendations will be presented to the Developer and the Local Planning Authority.

Recording

Recording will be carried out using AW recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries. This can be achieved through measured triangulation from various points within the site boundary due to the proximity of field boundaries and agricultural buildings and their known locations. If required this could be further supplemented using a Topcon GTS725 total station or similar survey equipment.

Photographs will be taken in digital format with an appropriate scale, using a 10MP camera with photographs stored in Tiff format.

Artefacts

Archaeological artefacts recovered during the course of the excavation will be cleaned and labelled using an accession number, which will be obtained from a suitable museum. A single number sequence will be allocated to all finds. The artefacts will be stored appropriately until they are deposited with a suitable local museum. If no suitable local repository exists then attempts will be made to deposit the artefacts at the National Museum, Cardiff. In the interim any recovered artefacts will be stored in secure premises **at AW's offices**.

All finds of gold and silver will be removed to a safe place and the client, the local

Finds Liaison Officer and the local coroner informed, within the guidelines of the Treasure Act 1996.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (Phil Parkes at Cardiff University).

Human remains

In the event of burials or cremations being found all work will be halted in the area of the burials and their extent and nature established. The client, DAT-DM and the Ministry of Justice will be informed and a methodology of excavation agreed which will adhere to Ministry of Justice Guidelines.

Environmental and technological samples

Environmental samples will be taken where necessary when significant deposits are located. Technological samples will be taken where necessary when significant deposits are located.

Specialists

In the event of certain finds/features etc. being discovered, the site archaeologist may have to seek specialist opinion for assistance. Such specialists will be accessed either internally within AW itself or from an external source should any such analysis be deemed necessary. A list of specialists is given in the table below. Specialist reports will be added to the finished report as an addendum.

Type	Name	Tel No.
Flint	Amelia Pannett	02920 899509
Animal bone	Jen Kitch	07739 093712
CBM, heat affected clay, Daub etc.	Rachael Hall	01305 259751
Clay pipe	Hilary Major	01376 329316
Glass	Andy Richmond	01234 888800
Cremated and non-cremated human bone	Malin Holst	01759 368483
Metalwork	Kevin Leahy	01652 658261
Neo/BA pottery	Dr Alex Gibson	Bradford University
IA/Roman pottery	Jane Timby	01453 882851
Post Roman pottery	Mr Paul Blinkhorn	
Charcoal (wood ID)	John Carrot	01388 772167
Waterlogged wood	Nigel Nayling	University of Wales (Lampeter)
Molluscs and pollen	Dr James Rackham	01992 552256
Charred and waterlogged plant remains	Wendy Carruthers	01443 233466
Palaeoenvironmental sampling and analysis	Dr Martin Bates	University of Wales (Lampeter)

Monitoring

DAT-DM will be contacted at least one week prior to the commencement of site works, and subsequently once the work is underway.

Any changes to this WSI that AW may wish to make after approval will be communicated to DAT-DM for approval on behalf of the Planning Authority.

Representatives of DAT-DM will be given access to the site so that they may monitor the progress of the building recording and/or watching brief. DAT-DM will be kept regularly informed about developments, both during the site works and subsequently during the post-fieldwork programme.

If significant detail is discovered, all works will cease and a meeting will be convened with DAT-DM to discuss the most appropriate way forward.

5 Method statement for the production of an illustrated report and the deposition of the site archive

Conservation

After agreement with the client, DAT-DM and any identified landowner arrangements will be made for the long term conservation and storage of all artefacts in an appropriate local or national museum.

Archive

The site archive will be prepared in accordance with MAP 2, Appendix 3 (Historic England (formerly English Heritage) 1991). It will comprise all the data recovered during the fieldwork and shall be quantified, ordered and indexed and will be internally consistent. The archive will be deposited with the finds in a suitable local museum. A digital copy of the archive will be deposited with the National Monuments Record of Wales, held and maintained by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), Aberystwyth, in compliance with their guidelines. If no finds are recovered then the paper archive will also be deposited with the RCAHMW.

Report preparation

The report will contain the following:

- A fully representative description of the information gained from the watching brief, even if there should be negative evidence.
- A concise non-technical summary of the project results.
- At least one plan showing the sites location in respect to the local topography, as well as the position of all excavated areas.
- Plans indicating all archaeological features. All plans and sections should be related to Ordnance Datum.
- Written descriptions of all features and deposits excavated and their considered interpretation.

- A summary report on the artefactual and ecofactual assemblage and an assessment of its potential for further study, prepared by suitably qualified individuals or specialists.
- A statement of the local and regional context of the archaeological remains identified.
- Conclusions as appropriate
- Bibliography

A search of the regional Historic Environment Record (HER), held and maintained by Dyfed Archaeological Trust, may also be required to help place the findings of the archaeological work into context.

Copies of the report will be sent to the client, DAT-DM, and for inclusion in the HER. Digital copies will be provided in pdf format if required.

A summary report of the work will be submitted for publication to a national journal (e.g. *Archaeology in Wales*) no later than one year after the completion of the post-excavation work.

6 Resources and timetable

Standards

All stages of the project will be undertaken by AW staff using current best practice. All work will be undertaken to the standards and guidelines of the ClfA.

All work will be undertaken in accordance with the AW technical manual – Procedures for Excavation and Site Recording 2011.

Staff

The project will be undertaken by suitably qualified AW staff. Overall management of the project will be undertaken by Philip Poucher.

Equipment

The project will use existing AW equipment.

Timetable of archaeological works

The work is provisionally scheduled to start on Tuesday 3rd January, and is expected to last until Friday 6th January.

Insurance

AW holds Public Liability Insurance through Aviva Insurance Ltd, with a £5,000,000 Limit of Indemnity (expires 05/12/16), Employers Liability Insurance through Aviva Insurance Ltd, with a £10,000,000 Limit of Indemnity (expires 05/12/16) and Professional Indemnity Insurance through Hiscox Insurance Company Ltd, with a £1,000,000 Limit of Indemnity (expires 05/12/16).

Arbitration

In the event of any dispute arising out of this Agreement (including those considered as such by only one of the parties) either party may forthwith give to the other notice in writing of such a dispute or difference and the same shall be and is hereby referred for decision in accordance with the Rules of the Chartered Institute of **Arbitrators' Arbitration** scheme for the Institute for Archaeologists applying at the date of this Agreement.

Health and safety

All members of staff will adhere to the requirements of the *Health & Safety at Work Act, 1974*, and the Health and Safety Policy Statement of AW. A site-specific risk assessment will be compiled prior to attendance on site.

Bibliography:

British Geological Survey (BGS). 2016. *Geology of Britain Online Viewer* (accessed 19/12/16)

Chartered Institute for Archaeologists. 2014. *Standard and guidance for an archaeological watching brief*

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APPENDIX III:
Archive Cover Sheet

ARCHIVE COVER SHEET

Bryn Hirfaen, Ffarmers, Ceredigion/Carmarthenshire

Site Name:	Bryn Hirfaen
Site Code:	BLC/16/WB
PRN:	-
NPRN:	-
SAM:	-
Other Ref No:	-
NGR:	NGR SN 62368 46618
Site Type:	Installation of overhead electricity line
Project Type:	Watching Brief
Project Manager:	Philip Poucher
Project Dates:	January 2017
Categories Present:	Modern
Location of Original Archive:	AW
Location of duplicate Archives:	RCAHMW, Aberystwyth
Number of Finds Boxes:	-
Location of Finds:	N/A
Museum Reference:	N/A
Copyright:	AW
Restrictions to access:	None

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