

**NEW BRIDGE CONSTRUCTION WORKS AT PONT NEWYDD
(CD174), HAFOD, CEREDIGION
ARCHAEOLOGICAL WATCHING BRIEF
(SN77047361)**



Prepared by DAT Archaeological Services
for the Hafod Trust



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Gan / By

Menna Bell

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**NEW BRIDGE CONSTRUCTION WORKS AT PONT NEWYDD (CD174),
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**NEW BRIDGE CONSTRUCTION WORKS AT PONT NEWYDD (CD174)
HAFOD, CEREDIGION
ARCHAEOLOGICAL WATCHING BRIEF**

SUMMARY

DAT Archaeological Services were commissioned by the Hafod Trust to undertake an archaeological watching brief during the construction of a new timber footbridge at Pont Newydd at Hafod, Ceredigion. Pont Newydd and the Nant Peiran Cascade are designated as a Scheduled Monument (CD174) and are situated within the Grade I listed Registered Historic Park and Garden of Hafod (PGW (Dy)50 (CER)).

Cadw awarded the Hafod Trust an Ancient Monument Grant towards the construction of the new bridge. The grant offer included a number of conditions including the requirement that an archaeological watching brief was undertaken during the works.

The proposed works on the bridge included the excavation of the existing earth fill to form pits to receive end of new bridge, remediation works to the outer faces of the bridge abutments within the Nant Peiran stream channel, construction of a ramp up to the footbridge and construction of dwarf stone walls.

This watching brief was undertaken over two days from 3rd-4th August 2017. The work was undertaken with due care and diligence so as not to un-necessarily damage the monument.

A single large pit was excavated in the existing fill of each abutment. The existing masonry of the front facing elevations of the abutments was reduced by around 0.4m to accommodate the new bearing beams and concrete slabs. The width of the remaining abutment walls were partially dismantled to enable the concrete pads to key into the existing masonry and to spread the load of the new bridge down through the walls of the abutments.

The excavations removed between 1.0m and 1.2m depth of deposits from the centre of the abutments. These were found to comprise an orange, shattered mudstone, clayey-silt subsoil overlain with around 0.2m of compacted grey gravel which constituted the former carriage-ride surface. Owing to the camber of the carriage-ride and general weathering of the monument, these deposits petered out at the edges of the abutments. Consequently less material was excavated in these areas and only between 0.4m and 0.5m of deposits were removed below the height of the existing masonry.

Although the watching brief during the planned works did not document any unexpected phasing or significant archaeological features associated with the abutments, it did allow for the rare opportunity to record the methods used in the bridge's construction.

1 INTRODUCTION

1.1 Project Proposals and Commission

- 1.1.1 DAT Archaeological Services were commissioned by the Hafod Trust to undertake an archaeological watching brief during the construction of a new timber footbridge at Pont Newydd at Hafod, Ceredigion (SN77047361; Figure 1). Pont Newydd and the Nant Peiran Cascade are designated as a Scheduled Monument (reference CD174) and are situated within the Registered Historic Park and Garden of Hafod (reference PGW (Dy)50 (CER), Grade I).
- 1.1.2 Cadw awarded the Hafod Trust an Ancient Monument Grant towards the construction of the new bridge. The grant offer included a number of conditions including the requirement that an archaeological watching brief is undertaken during the works. The condition stated that: *"written confirmation that a suitably qualified archaeologist will be appointed and who shall be responsible for monitoring the works, amending plans as necessary and undertaking where any ground disturbance is required"*. DAT Archaeological Services were appointed to undertake the watching brief and written confirmation of this was sent to Cadw. These conditions are also part of the Scheduled Monument Consent (SMC) that is granted as part of the Ancient Monument Grant.
- 1.1.3 The condition also stated the necessity for a photographic record of the monument before, during and after the works to be undertaken by the Hafod Trust and their architects. A photographic record of watching brief works, including general shots of the area was to be maintained by DAT Archaeological Services. In addition it stipulated that a digital copy of the watching brief report should be submitted to Cadw within three months of the completion of the works.
- 1.1.4 The proposed works on the bridge are stated in the Scope of Work produced by the architects James and Nicholas (drawings are reproduced in Appendix 1) and are described as the following:

"Excavate existing earth fill to form pits to receive end of new bridge. This work will be undertaken by hand or mini excavator under the supervision of an Archaeologist employed on a watching brief."
- 1.1.5 Further proposed works included remediation works to the outer faces of the bridge abutments within the Nant Peiran stream channel, construction of a ramp up to the footbridge and construction of dwarf stone walls.
- 1.1.6 A small evaluation was undertaken by DAT Archaeological Services in early 2017 on either side of the north-western bridge abutment in advance of vegetation clearance works carried out by Natural Resources Wales (Day and Enright, 2017). The evaluation exposed a former leat which once fed the Nant Peiran Cascade prior to the construction of Pont Newydd. The evaluation indicated that the north and southern faces of the bridge abutments were of dry-stone construction but the construction of the interior of the abutment was unknown. However, it was apparent that the bridge had been constructed across the leat, blocking this earlier feature.

1.2 Scope of the Project

1.2.1 A written scheme of investigation (WSI) for a watching brief was prepared by DAT Archaeological Services prior to the commencement of the works, which was approved by Dyfed Archaeological Trust-Development Management (DAT-DM) in their capacity as advisors to the local planning authority, prior to the commencement of the works (Appendix 2). The project objectives were:

- Provision of a written scheme of investigation to outline the methodology by which DAT Archaeological Services will undertake the watching brief;
- To establish, where possible, the state of preservation, character, extent and date range for any archaeological deposits disturbed;
- To ensure that no unnecessary damage or disturbance occurs to the area of the Scheduled Monument CD174;
- To produce an archive and report of any results.

1.2.2 The overall work was summarised as: *"The implementation of an archaeological watching brief during groundworks associated with the construction of a new footbridge across the Nant Peiran Cascade, utilising the extant abutments of the original footbridge. Appropriate investigation and recording of any significant archaeological remains will be undertaken if revealed. A report and archive of the results of the works will be prepared."*

1.3 Report Outline

1.3.1 This report describes the location of the development works along with its archaeological background, and provides a summary and discussion of the archaeological watching brief and its results.

1.4 Abbreviations

1.4.1 Sites recorded on the regional Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Sites recorded on the National Monument Record (NMR) held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) are identified by their National Primary Record Number (NPRN); Scheduled Monument (SM). Altitude is expressed to Ordnance Datum (OD). References to cartographic and documentary evidence and published sources will be given in brackets throughout the text, with full details listed in the sources section at the rear of the report.

1.5 Illustrations

1.5.1 Photographic images are to be found within the report. Printed map extracts are not necessarily reproduced to their original scale.

1.6 Timeline

1.6.1 The following timeline is used within this report to give date ranges for the various archaeological periods that may be mentioned within the text.

Period	Approximate date	
Palaeolithic –	c.450,000 – 10,000 BC	Prehistoric
Mesolithic –	c. 10,000 – 4400 BC	
Neolithic –	c.4400 – 2300 BC	
Bronze Age –	c.2300 – 700 BC	
Iron Age –	c.700 BC – AD 43	
Roman (Romano-British) Period –	AD 43 – c. AD 410	Historic
Post-Roman / Early Medieval Period –	c. AD 410 – AD 1086	
medieval Period –	1086 – 1536	
post-medieval Period ¹ –	1536 – 1750	
Industrial Period –	1750 – 1899	
modern –	20 th century onwards	

Table 1: Archaeological and historical timeline for Wales

¹ The post-medieval and industrial periods are combined as the post-medieval period on the Regional Historic Environment Record as held by Dyfed Archaeological Trust

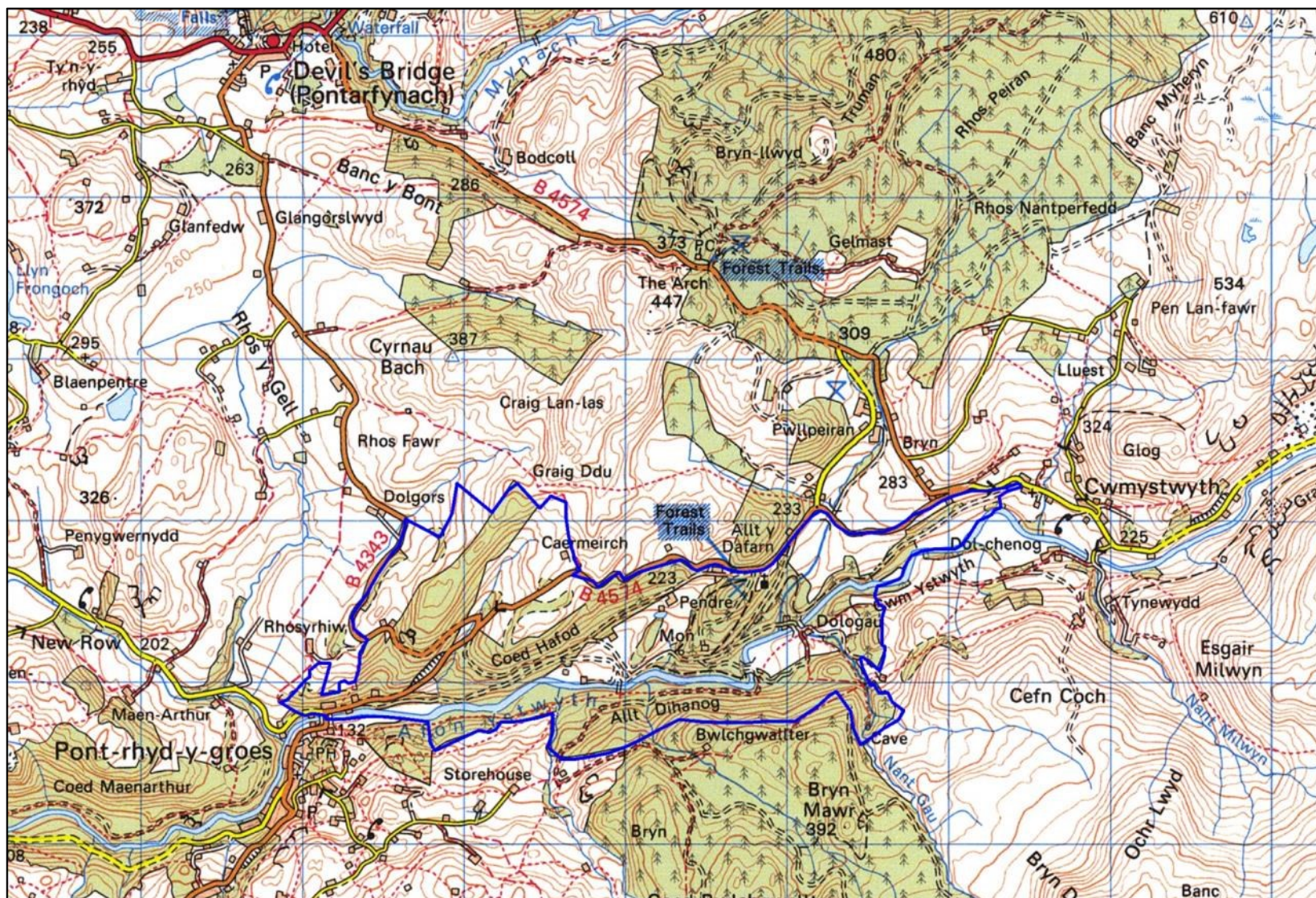


Figure 1: Location map showing the location of Hafod Estate Registered Historic Park and Garden (Ref: PGW (DY) 50 (CER), Grade I); outlined in blue).
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2 SITE LOCATION AND TOPOGRAPHY

- 2.1 The Hafod estate is located approximately 3km south-east of Devil's Bridge (Pontarfrynach) and is roughly equidistant between Pont-rhyd-y-groes to the south-west and Cwmystwyth to the north-east (Figure 1). Pont Newydd and the Nant Peiran Cascade (CD174) are located towards the north-eastern end of the estate, some 0.4km or so north-east of the Nant Peiran's confluence with the River Ystwyth which flows through the centre of the estate (Figure 2). Nant Peiran cuts a steep sided gorge as it charges to meet the Ystwyth, plunging over the dramatic geology to create the spectacular Nant Peiran Falls situated just south of Pont Newydd. Pont Newydd itself now constitutes the remains of the bridge which once crossed over the Nant Peiran, allowing the continued passage of the carriage-ride which cleverly navigated through the picturesque landscape of the Hafod Estate. The carriage-ride serviced Hafod Mansion, demolished during the mid-twentieth-century, which was situated around 1.2km south-west of the bridge.
- 2.2 At present only the stone bridge abutments survive of Pont Newydd. These straddle the exposed rock beds of the gorge, once bridging the steep sides of the valley that are now extensively planted with conifers, masking the original deciduous plantings of the picturesque landscape.
- 2.3 The underlying solid geology is interbedded Mudstone and Sandstone of the Devil's Bridge Formation. This is Sedimentary Bedrock which formed approximately 428 to 444 million years ago during the Silurian Period (Source: British Geological Survey).
- 2.4 Natural Resources Wales own the majority of the Hafod Estate and maintain a partnership with the Hafod Trust who manages the conservation and restoration of the estate through private and public funding (www.hafod.org).

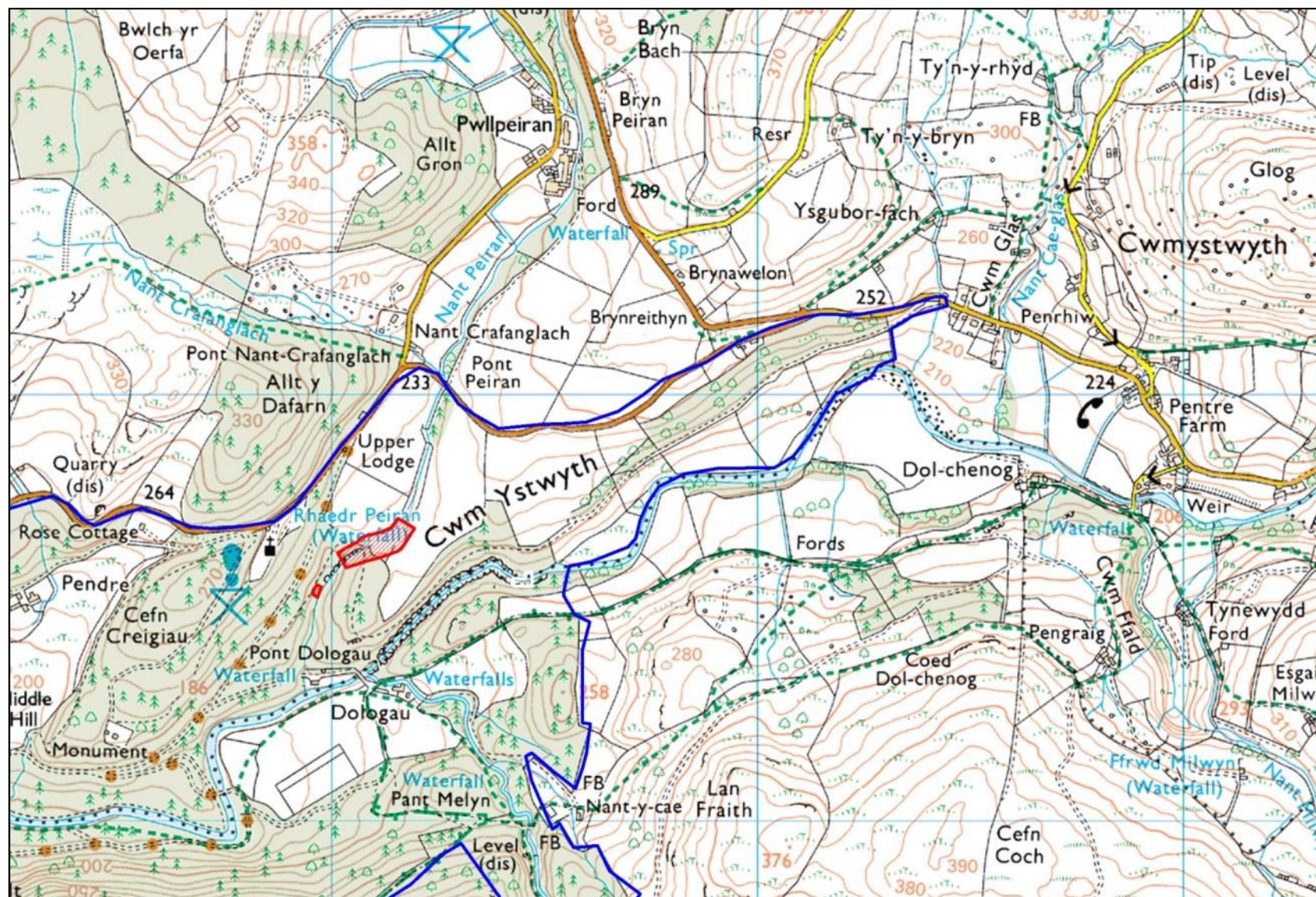


Figure 2: Map showing the scheduled areas of Pont Newydd and the Nant Peiran Cascade (CD174; shaded in red) situated at the north-eastern end of the Hafod Estate (outlined in blue).

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3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 The Historic Landscape

- 3.1.1 The Hafod Estate is a Registered Historic Park and Garden (reference PGW (Dy)50 (CER), Grade I) which is also a designated Landscape Character Area (HLC 120) recorded on the Register of Landscapes of Landscapes, Parks and Gardens of Special Historic Interest in Wales: Carmarthenshire, Ceredigion and Pembrokeshire (Cadw, 2002). It is the most important picturesque landscape in Wales and ranks with Downtown, Hawkestone and Hacfall in England and the Hermitage and Falls of Bruar in Scotland (Cadw, *ibid*). The following extract provides a comprehensive description of this HLC area:

GRID REFERENCE: SN 784743
AREA IN HECTARES: 401.6

Historic Background

- 3.1.2 In the Medieval Period, this part of the Ystwyth valley lay in Strata Florida's Grange of Cwmystwyth (Williams 1990, 57). By 1513 Hafod Uchdryd was leased as a farm, and a rent roll of 1545-50 indicates that all farms of the former grange were leased out and farmed as individual units (Morgan 1991, 5-7). This suggests that by the later Middle Ages the land was not farmed by monks, but was perhaps run along similar lines to later secular estates. Included in this area is the site of Peiran Mill (Macve 1998). The Herbert family acquired part of the grange of Cwmystwyth, including Hafod Uchdryd -later just Hafod - in the mid-16th century (Morgan, 1997, 28). A nucleus of a small estate was thus formed. It was not until 1783 when Thomas Johnes took up residence that the name Hafod became synonymous with the naturalistic picturesque movement. Johnes set about transforming the estate. More land was purchased or exchanged, a mansion constructed, gardens laid out and walks linking natural and built attractions constructed, which became the main reason for Hafod's fame. Vast tracts of upland were planted with trees and experimental farms established. No tourist journey to Wales in the late 18th or early 19th century was complete without a visit to the wonders of Hafod. Artists and writers were also attracted by Hafod's fame. The mansion and other attractions were painted or drawn by many artists. Of particular note are the set of paintings by John 'Warwick' Smith and the view of the mansion by J M W Turner, though is debatable whether the latter ever visited Hafod (Macve 1993, 3-7). George Cumberland's 1796 celebrated description of Hafod is well known. Hafod has continued to attract the attention of artists and writers: John Piper visited and painted several views before World War Two, and there is a wealth of contemporary literature. Of particular note are Elisabeth Inglis-Jones's Peacocks in Paradise, and many notes and articles in the Friends of Hafod Newsletter. The Duke of Newcastle purchased the estate in 1835 (Evans 1995). Later in the 19th century it was acquired by the Waddinghams. These later owners ran the estate on more conventional lines, and many of the gardens, walks and summerhouses so beloved of Johnes fell into disuse. In the 1950s the Forestry Commission bought the estate and embarked upon a programme of afforestation. Also included in this area is the historic garden of Cae'r Meirch.

Description and essential historic landscape components

- 3.1.3 This is the core area of the Hafod estate. Cataracts and a narrow gorge characterise the Ystwyth valley at the eastern end of the area, and at the western end is a narrow flood plain in a steep-sided valley. The river falls by about 60m within this area down to a minimum of 140m. The valley sides rise to over 300m.

Rapidly flowing streams descend the valley sides in a series of waterfalls before meeting the Ystwyth. Valley sides are heavily cloaked in 20th century broadleaf and coniferous plantations with just a few stands of Johnes's planting - mostly beech - surviving. Open areas are few and consist of meadows around the site of the former mansion and improved (ADAS experimental grassland) pasture on a river terrace near Dologau farm, and occasional fields of improved grazing on the periphery of the area.

- 3.1.4 Prior to afforestation, enclosed land was confined to the higher, less-steep valley sides and terraces alongside the Ystwyth and tributary streams. It was generally not present on the steeper slopes. Dry-stone walls with capstones set at 45 degrees are a distinctive boundary type. Broadleaf trees, now mature, have been planted at regular intervals of 12 -15m alongside some of these walls. Both construction of the walls and tree planting were the work of Thomas Johnes. Other boundaries consist of earth banks or earth and stone banks, both topped with hedges. The hedges are in varying degrees of preservation; some are maintained and stock-proof, other have all but disappeared. All are supplemented with wire fences. Roadside, mortared stone walls, possibly the work of post-Johnesian estate owners can be found in a few locations.
- 3.1.5 Hafod mansion was demolished in 1957, but its site (now rubble), outbuildings and terraces marking former gardens, are prominent features of the landscape. There are several listed buildings at Hafod, mostly estate built dwellings and other structures such as a lodge and gates, a late 19th century haybarn, late 19th century stables, two cottages, a walled kitchen garden, an icehouse, a monument and a pair of imposing late 19th century dressed stone dwellings by Pont-rhyd-y-Groes bridge. Other buildings include two 19th century farmsteads (no longer working farms) with houses in the typical late 19th century Georgian vernacular style - gable end chimneys, central front door, and two windows either side of the door. One of the above has vernacular traits including low eaves, small windows and one chimney larger than the other. The stone-built outbuildings of these farms consist of one or two small ranges. There are also a few semi-detached late 19th century two storey worker houses.
- 3.1.6 Other Johnesian built elements are less obvious, but nevertheless comprise important landscape components, and include walks laid as earthwork terraces on valley sides and as rock-cut shelves on cliffs and rocky outcrops. The estate drive system has been overlain and incorporated into forestry drives, except in one instance.
- 3.1.7 The recorded archaeology consists almost entirely of elements of the 18th and 19th century picturesque and agricultural landscape. Apart from a Medieval mill site, no time-depth to the landscape is provided by the archaeology.
- 3.1.8 The borders of this area are well defined. To the south and north is unenclosed land, forestry or high ground consisting of large enclosures. To the west and east is un-forested enclosed land.

Nant Peiran Cascade Scheduled Monument (CD174)

- 3.1.9 Scheduled monument CD174 encompasses two areas (Figures 2& 3); the Rustic Alcove (PRN 26541) and the Nant Peiran Cascade and Bridge (PRN 19761, NPRN 275661).
- 3.1.10 The following description is from the Cadw Scheduled Monuments Report:
the monument consists of a garden building, known as the Rustic Alcove, and associated features. The Peiran Cascade, a natural waterfall, was the destination

of the Ladies Walk laid out by Thomas Johnes in c. 1790. The impact of this natural feature was heightened by various man-made structures. The path climbs steeply towards the cascade which is hidden by the Rustic Alcove. This survives as two rubble stone walls, one partly blocking the path, one beyond which revetted the hillside. Recent excavation has shown these were associated with platforms or seats from which to take the first view of the waterfall. Boulder work at the base of the cascade may have been partly contrived. Astride the top of the cascade are the massive rubble stone abutments of Pont Newydd built in 1813-14 on the line of the new carriage drive. The northern abutment straddles the end of a leat running down the Peiran Valley from a mill pond c. 1.2km higher up. The leat turns below the bridge to empty into the cascade. Water could presumably be released from the pond and run down the leat to 'improve' the cascade when visitors took the Ladies Walk.

The monument is of national importance for its potential to enhance our knowledge of the use of gardens, parks, and urban spaces. It retains significant archaeological potential, with a strong probability of the presence of associated archaeological features and deposits. Hafod is registered as Grade 1 on the Cadw/ICOMOS Register of Parks and Gardens of Special Historic Interest in Wales. The scheduled area comprises the remains described and areas around them within which related evidence may be expected to survive

3.2 Archaeological Background

- 3.2.1 The locations of known archaeological sites within close vicinity of Pont Newydd Bridge are shown in Figure 3. Details of the sites are listed in Table 2. The majority of these sites comprise elements of the eighteenth and nineteenth-century picturesque landscape with the exception of the earthwork remains of a mill-pond (PRN 105375). This is associated with a medieval corn mill (PRN 14802; NPRN 24757) situated somewhere north of the Nant Peiran falls; whose exact location is unknown.
- 3.2.2 Pont Newydd (PRN 19761) and associated leat (PRN 33045) were previously investigated during an archaeological evaluation and subsequent watching brief (Day and Enright, 2017). The results of this work revealed that the stone abutments of Pont Newydd truncate and blocked the leat, preventing ingress into the Nant Peiran Cascade. Further upstream it was noted that a bank had been constructed across the leat preventing the intake of water from the mill pond. A little beyond this bank it appeared that a channel had been dug to divert water from the northern end of the leat into the Nant Peiran Stream. The dammed leat had subsequently silted up but a steady trickle of water still persisted through the masonry of the north-western abutment of Pont Newydd.
- 3.2.3 Dredging of the leat revealed that the leat was much deeper than originally anticipated and that there was no culvert present beneath the north-western bridge abutment (*ibid*). However, the exposed masonry on the southwestern façade of the north-western abutment revealed three stones which did not conform to the horizontal laying of the rubble stone construction. These stones had the appearance of what could be interpreted as the start of a springing arch laid directly on the western bank of the leat. However, no further evidence of an infilled arch could be seen on the north-eastern elevation and so it was considered more likely that these stones represented a patched repair rather than the remnants of a former arch (*ibid*). Had there been a former arch it would have been of some considerable size, quite excessive as a culvert and would have allowed a substantial volume of water to have been discharged from the leat into the cascade. Indeed Cadw, in their description of the Scheduled Monument

CD174, postulate the idea that prior to the damming of the leat and construction of Pont Newydd, that water could have been released from the mill pond into the leat to improve the cascade.

- 3.2.4 The leat is considered to have been constructed during the eighteenth-century and Pont Newydd is known to have been built by Johnes in 1813-14 on the line of the new carriage drive. The bridge is described in 1815 by Henry Thomas Payne following his tour of the Hafod estate after which he describes a "two-arched bridge over the stream" whereby the "water has been diverted to a higher level, so that it may tumble over a higher rock". A water colour sketch by J Parker painted in around 1831 shows two stone arches, one above the other, possibly built in imitation of the Devil's Bridge in Pontarfrynach, located some 3km to the north-west (taken from PRN 19761 description by K, Murphy, 2012). A timber superstructure recorded as being in poor condition in 1991 no longer survives. It is not known when this timber structure replaced the two arches but it is considered likely to be the work of John Waddingham who owned the estate in the later nineteenth-century (Murphy, 2002 HER description).

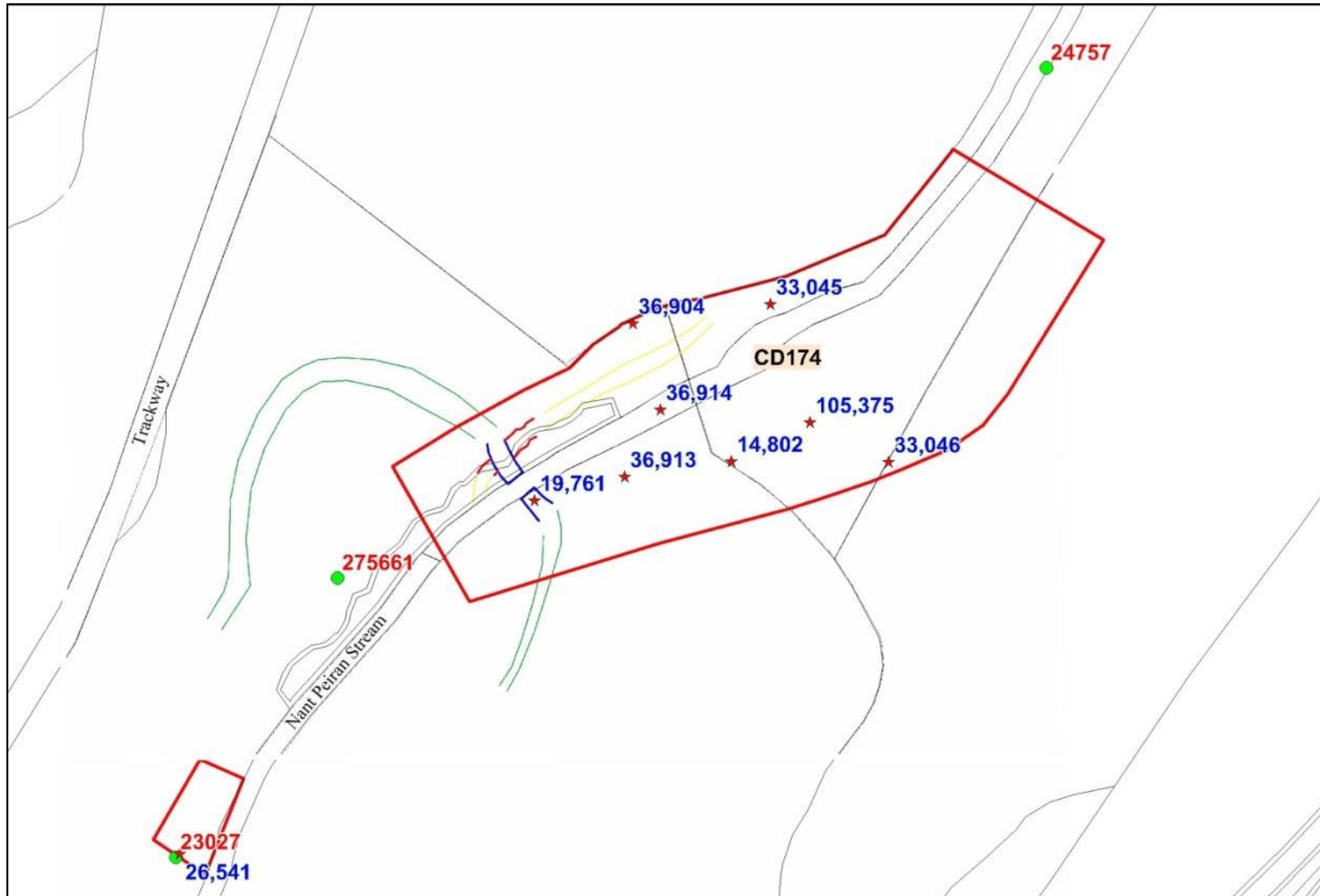


Figure 3: A schematic map showing the HER points (red stars) and NPRNs (green circles) within the vicinity of scheduled area CD174. The two bridge abutments of Pont Newydd (PRN 19761) and the course of the former carriage-ride are depicted in the south-west of the scheduled area (after Day and Enright, 2017).

PRN	NPRN	Site Name	Site Type	Period	Description	NGR
14802	24757	RHAEADR PEIRAN - PEIRAN MILL	Mill, Corn Mill	Medieval	Site of medieval corn mill belonging to the Strata Florida Grange of Cwmystwyth, located by the side of Nant Peiran. Thought to have closed down by the 18th century. No structural remains but earthworks of associated mill-pond (PRN 105375) and Mill-race (PRN 105376) are preserved. SM CD174	SN77107363
19761		PONT NEWYDD	Bridge	Post-medieval	Built By Thomas Jones on his Hafod Estate. Originally constructed in 1814, Pont Newydd was the point where the New Drive crossed Nant Peiran. SM CD174	SN77057362
26541	23027	RUSTIC ALCOVE; MOSSEY SEAT	Summerhouse	Post-medieval	Built by Thomas Jones by 1795 as part of his picturesque landscape at Hafod. This was a favourite location on the Lady's Walk for visitors to rest and admire the Peiran Falls some 50m upstream. Located at a narrow point in a steep-sided and narrow point in a steep-sided and narrow valley, the Rustic Alcove was carefully located to ensure that the walker approaching from the south would not obtain a full view of the falls until this feature had been reached. SM CD174	SN76967353
33045		PEIRAN LEAT	Leat	Post-medieval	A late 18th century leat defined and separated from the stream by a 2m wide, 1m high stone-built bank. The N abutment of Pont Newydd has been built across this leat. Its purpose seems to have been to divert the course of the stream so that it entered the top of the Peiran Falls in a different fashion. KM DAT 1996 SM CD174	SN77117367
33046		PONT NEWYDD	Trackway	Post-medieval	There is no clear surface evidence for this track. Its course is marked on the 1796 Blake map and the OS 1:2500 1st Ed. It links with track 33042 and would have provided access to the E of Nant Peiran prior to the construction of Pont Newydd. KM DAT 1996 SM CD174	SN77147363
36904		CAE'R WAIN	Boundary Bank	Post-medieval	Low stony bank, 0.3m high with a shallow ditch on west side. SM CD174	SN7707573665
36913		PWLL PYRAN	Building	Post-medieval	A building was shown approximately in this position on a 1781 estate map. There is no trace of it now. SM CD174	SN7707373626
36914		PEIRAN MILL FOOTBRIDGE	Bridge	Post-medieval	A footbridge was recorded by a written description and a painting in this location in the early 19th century. There is no trace of it now. SM CD174	SN7708273643
105375		RHAEADR PEIRAN - PEIRAN MILL	Mill Pond	Medieval	Mill-pond associated with the site of medieval Peiran Mill (PRN 14802) (M.Ings, 2013) SM CD174	SN77127364
	275661	HAFOD: PEIRAN CASCADE, PONTRHYDYGROES	Garden Structure	Post-medieval	This is an almost entirely natural feature, though enhanced by a man-made waterway feeding it from above. This is not evident on the Ordnance Survey 25-inch maps of Cardiganshire XII, sheet 13 (1888 and 1905). C.S.Briggs 18.10.05	SN770736

Table 2: Known archaeological and historic sites within the vicinity of Pont Newydd (CD174) as recorded on the Dyfed Historic Environment Record and the RCAHMW's Coflein (Figure 3)

3.3 Historic Mapping

Llanfihangel-y-Creuddyn 1877 tithe map

- 3.3.1 The Llanfihangel-y-Creuddyn tithe map of 1877 shows the carriage-ride looping over the Nant Peiran although Pont Newydd (PRN 19761) is unmarked and the leat is not depicted (Figure 4).

1st edition Cardiganshire Ordnance Survey map of 1888

- 3.3.2 The 1st edition 1"2500 Cardiganshire Ordnance Survey map of 1888 shows little variation from the earlier tithe map. Pont Newydd (PRN 19761) is named but the leat is still not depicted. It is interesting to note that the tree plantings in this northern area of the estate are shown to be largely coniferous (Figure 5).

2nd edition Cardiganshire Ordnance Survey map of 1905

- 3.3.3 The 2nd edition 1"2500 Cardiganshire Ordnance Survey map of 1905 is identical to the 1st edition (Figure 6).



Figure 4: An extract from the Llanfihangel-y-Creuddyn tithe map of 1877 showing the carriage-ride crossing the Nant Peiran. The scheduled area of CD174 is shown in red.

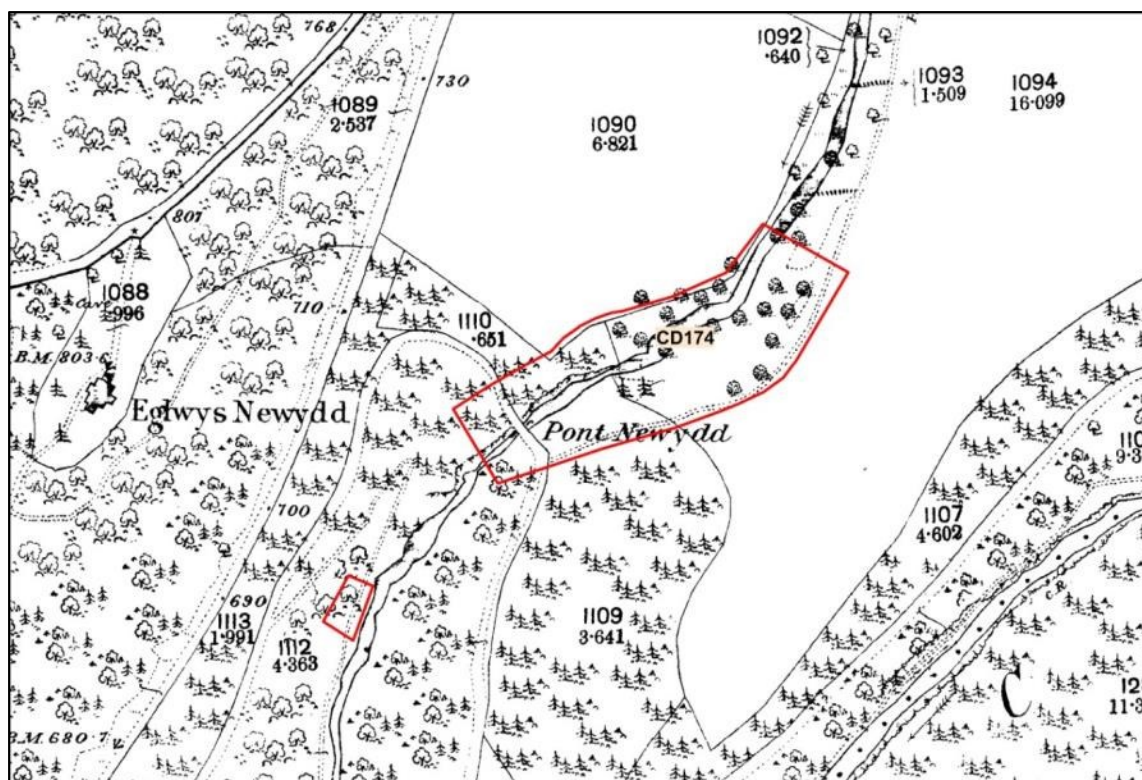


Figure 5: An extract from the 1888 1"2500 1st edition, Cardiganshire Ordnance Survey map showing the carriage-ride crossing Pont Newydd (scheduled area CD174 shown in red)

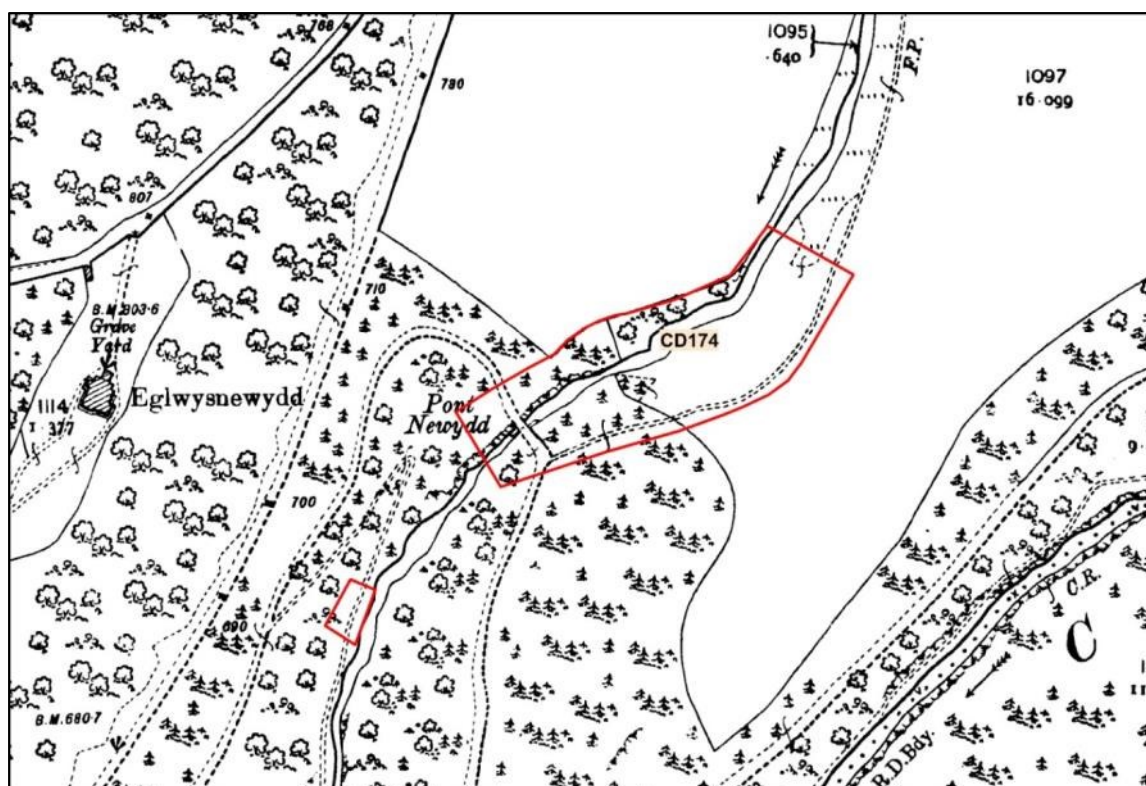


Figure 6: An extract from the 1905 1"2500 2nd edition Cardiganshire Ordnance Survey map overlaid with the scheduled area of Dale Fort (PE336; outlined in red).

4 WATCHING BRIEF METHODOLOGY

4.1 Fieldwork

- 4.1.1 This watching brief was undertaken in accordance with the Chartered Institute of Archaeologists' (CIfA) *Standard and Guidance for an Archaeological Watching Brief* (2014).
- 4.1.2 A written scheme of investigation was prepared by DAT Archaeological Services detailing the proposed archaeological works, which was approved by DAT-Development Managers in their capacity as advisors to the local planning authority.
- 4.1.3 Recording of all archaeological features or deposits conformed to best current professional practice and was carried out in accordance with the Recording Manual² used by DAT Archaeological Services. A written, drawn and photographic record was maintained throughout this watching brief, a summary of which is presented in Appendix 3. All contexts encountered during this watching brief were recorded and assigned a unique context number. These numbers are enclosed in brackets in the following text.
- 4.1.4 Excavation of the pits in the existing fills of the bridge abutments was undertaken by a tracked, mini excavator equipped with a 0.6m toothless bucket. The dismantling and partial excavation of the existing masonry was undertaken by hand. All archaeological deposits revealed during the groundworks were examined and recorded to an appropriate level.

4.2 Timetabling of Fieldwork

- 4.2.1 This watching brief took place on the 3rd and 4th of August 2017 during a combination of wet, windy, dry and fine weather conditions. Two visits were made in total.

4.3 Post-Fieldwork Reporting and Archiving

- 4.3.1 All data recovered during the fieldwork will be collated into a site archive structured in accordance with specifications in *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2011), and the procedures recommended by the National Monuments Record, Aberystwyth.
- 4.3.2 The results of the fieldwork have been assessed in local, regional and wider contexts. The report includes a desk-based research element to ensure that the site is placed within its wider archaeological context.

5 RESULTS AND DISCUSSION

- 5.1 This watching brief monitored the mechanical excavation of a number of large pits in the existing fill of Pont Newydd (PRN 19761; CD174) bridge abutments and the partial dismantling and excavation of a section of the abutment walls. The pits were dug in preparation for the construction of concrete pads which will form the footings for the new footbridge.
- 5.2 A scaffolding platform bridging the two abutments had been erected prior to the start of the watching brief to enable safe working around the monument (Photo 1).

² DAT Archaeological Services have adopted the Recording Manual developed by English Heritage Centre for Archaeology. A copy will be available on-site for inspection if required.



Photo 1: The scaffolding platform erected around Pont Newydd abutments. View facing north (DAT Photo 110511_0021)

- 5.3 Work began first on the south-eastern abutment. The scaffolding platform enabled access to three sides of the top of the abutment which measured approximately 4.3m wide (Photo 2). A thick swathe of moss and leaf litter capped the western end of the structure but the south-western cap stone was visible, indicating the top of the masonry. The stonework in the southern elevation was visible and appeared to be coursed mudstone with no traces of mortar giving the appearance of being dry stone walled. Roughly dressed quoins were visible below the capstone which appeared to be the terminus for a number of capping stones along the southern wall. These overlapped the wall slightly, creating a short ledge c.0.1m over the top of the wall.
- 5.4 The majority of the masonry on the northern elevation had collapsed and there were no surviving capstones along this side. Approximately 0.3m of wall had been lost. Only a small section of the north-western corner masonry was visible from the scaffolding platform but there did not appear to be any quoins at this side of the abutment.



Photo 2: The south-eastern bridge abutment prior to works (DAT Photo 110511_0001).

- 5.5 Excavation of the abutment fill was undertaken in careful spits and encompassed an area measuring 3.2m in length from the external face of the western elevation and roughly 3.40m wide (including approximately 0.3m intrusion into the southern wall). Around 0.2m of humic soils and leaf litter (101) was removed to reveal compacted grey, medium gravel (102) which is likely to have been the road surface of the carriage-ride (Photo 3). A test pit previously undertaken by the Hafod Trust to determine the nature of the abutment fill was revealed in the centre of the abutment (see Photo 3).
- 5.6 Removal of deposit (102) revealed that this material partially overlapped the masonry of the southern wall of the abutment, the full width of which was revealed at this level (Photo 4). This overlaid a bright orange, shattered mudstone and clay-silt subsoil (103) fill of the abutment. This deposit formed a slight camber, dipping away at the sides of the carriage-ride, butting the abutment walls. Two iron objects, likely to be components from the former timber superstructure, were retrieved from the detritus of this fill (Photo 5). The removal of this material from the surface of the western abutment wall was done by hand so as not to cause any unnecessary damage to the monument. This revealed an inset in the wall masonry for a timber bearing beam (Photo 6). This measured 0.2m wide, 0.12m deep and 2.0m in length and would have supported a square cut timber of similar dimensions.



Photo 3: Removal of the surface deposits revealed the former carriage-ride surface. This had been truncated by a test pit in the centre of the abutment (DAT Photo 110511_0006)



Photo 4: The internal wall line of the southern wall of the south-eastern abutment was revealed after removing the compacted grey deposit (102). A remnant of this is still visible to the right of the ranging pole (DAT Photo 110511_0009).

- 5.7 The architect's scope of works outlined the necessity for approximately 0.3m of the western wall masonry to be reduced below the level of the capstone to accommodate the concrete slab. Further to this it was necessary to dismantle between 0.3m and 0.5m width of the each of the walls (depending on how sound they were) to enable the liquid concrete to key into the existing masonry so as to spread the weight of the load down the walls of the existing structure. Owing to the condition of the structure, the western wall was reduced in height by around 0.4m. The dismantling of the walls was done by hand to limit un-necessary damage to the monument. These excavations revealed that the southern wall was quite substantial, measuring between 1.4m – 1.5m thick and was actually lime mortared with a rubble core (Photos 7 & 8). This returned from the western wall which also retained lime mortar and a rubble core but measured only 0.9m wide (Photo 9). The returning northern wall measured approximately 0.8m and was in very poor condition. It seemed that this wall had suffered the brunt of the elements for the lime mortar had weathered out or was much degraded. Consequently, the horizontally bedded mudstone masonry had lost its structural integrity causing it to slump and collapse into voids in the rubble core (Photo 10). This is the likely cause for the collapse and loss of masonry on this side of the monument.



Photo 5: The two iron objects removed from the detritus of the abutment fill (DAT Photo 110511_0022).



Photo 6: The insert for the bearing beam on the western face of the south-eastern abutment. The height of this wall was reduced by hand (DAT Photo 110511_0014).



Photo 7: Overview of the final extent of the excavation in the south-eastern abutment. The extent of the southern wall is shown in the left side of the photograph (DAT 110511_0029)



Photo 8: The partially dismantled internal face of the southern wall of the south-eastern abutment (DAT Photo 110511_0026)



Photo 9: The partially dismantled western wall and southern return wall of the south-eastern abutment (DAT Photo 110511_0028)



Photo 10: An overview of the final extent of the excavations in the south-eastern abutment showing the partially dismantled western and northern walls of the abutment (DAT Photo 110511_0030)



Photo 11: The section of the abutment infill and the reduced walls at the end of the excavations of the south-eastern abutment (DAT Photo 110511_0024).

- 5.8 Overall, the excavated pit, including the partial dismantling of the abutment walls, measured roughly 3.2m long and 3.1m wide and revealed a section through the abutment fill measuring approximately 1m in depth (Photo 11). In this section around 0.4m of surface deposits (101 & 102) and 0.6m of the orange subsoil (103) were removed. The depth of the excavation from the top of the capstone on the south-eastern corner was approximately 0.5m.
- 5.9 The excavation of the north-western abutment followed a very similar process. Much like its partner, the abutment was topped by a thick carpet of moss and leaf litter. A large beach tree with a significant girth leaned heavily against the south-eastern corner of the abutment. The eastern elevation of the abutment measured 4.85m wide. Around 1.1m along the northern elevation, the abutment dog-legged some 0.3m and created an inset along this side of the monument (Photo 12).



Photo 12: The north-western abutment prior to the start of works. Note the dogleg inset along the northern wall of the abutment (DAT Photo 110511_0031).

- 5.10 The superficial humic deposits (201) were removed and revealed a deposit of grey, gravel (202); the former carriage-ride (Photo 13). Evidence of another test pit was noted here and the excavation continued with the removal of the bright orange, shattered mudstone, clayey-silt subsoil (203) abutment infill (Photo 14). The widths of the walls were revealed including a corresponding inset for a bearing timber along the eastern wall which measured 0.18m wide, 0.15m deep and 2m long (Photo 15).



Photo 13: The grey deposit (202) revealed during the early stage of excavation of the north-western abutment (DAT Photo 110511_0033).



Photo 14: The orange subsoil infill (203) revealed in the north-western abutment (DAT Photo 110511_0034).

5.11 In contrast to the other abutment, the northern wall was found to be far more substantial and measured between 0.8m and 1.2m wide (including the width of the dogleg inset) and retained its lime mortar and coursing (Photo 16). It returned from the eastern wall of the abutment which measured 0.8m wide and was also lime mortared with a rubble core

(Photo 17). The southern wall had been significantly damaged by roots and was considerably narrower than the corresponding wall on the other abutment measuring only 0.7m wide (Photo 18).



Photo 15: The bearing beam inset revealed on the eastern wall of the north-western abutment (DAT Photo 110511_0035).



Photo 16: The substantial northern wall of the north-western abutment (DAT Photo 110511_0046).



Photo 17: The corner of the northern and western walls of the north-western abutment (DAT Photo 1105511_0043).



Photo 18: The root damaged southern wall of the north-western abutment (DAT Photo 110511_0041)

- 5.12 Around 0.35m of the eastern wall was reduced in height and roughly 0.3m was dismantled from the width of each wall to accommodate the concrete slab. The excavated pit measured approximately 3.0m long and 3.2m wide and created a section through the abutment fill measuring a total of 1.2m depth of road deposits ((201) & 202) and orange, shattered mudstone subsoil (203) (Photos 19 & 20). The depth of the excavation below the level of the existing masonry at the north-eastern corner of the abutment was approximately 0.4m.
- 5.13 Upon completion of the excavation an informal meeting between the contractors and Hafod Estate Manager and the attending archaeologist, concluded that future remediation works would not include disturbing the monument further. According to the contractors, the excavations on the north-western abutment would not be as extensive as had been anticipated thus removing the requirement for a ramp up to the footbridge. The front facing elevations and the northern wall of the south-eastern abutment were to be reconstructed using locally sourced stone and lime mortared. It was agreed that the Hafod Estate Manager would contact DAT Archaeological Services in the event of any changes in the development plans.



Photo 19: An overview of the final extent of excavations in the fill of the north-western abutment (DAT Photo 110511_0049).



Photo 20: The section of the abutment infill and the reduced walls at the end of the excavations of the north-western abutment (DAT Photo 110511_0038).

6 CONCLUSIONS

- 6.1. This watching brief monitored the groundworks associated with the construction of a new footbridge utilizing the existing stone bridge abutments of Pont Newydd (PRN 19761; CD 174). A single large pit was excavated in the existing fill of each abutment. The surviving masonry of the front facing elevations of the abutments was reduced by around 0.4m to accommodate the new bearing beams and concrete slabs. The widths of the remaining abutment walls were partially dismantled to enable the concrete pads to key into the existing masonry and to spread the load of the new bridge down through the walls of the abutment.
- 6.2. The excavations removed between 1.0m and 1.2m depth of deposits from the centre of the abutments. These were found to comprise an orange, shattered mudstone, clayey-silt subsoil overlain with around 0.2m of grey gravel which formed the carriage-ride surface. Owing to the camber of the carriage-ride and general weathering of the monument, these deposits petered out at the edges of the abutments and consequently only between 0.4m and 0.5m of deposits were removed in this area below the height of the existing masonry.
- 6.3. The watching brief during the works did not record any unexpected phasing or significant archaeological features associated with the abutments. The work was undertaken with due care and diligence so as not to un-necessarily damage the monument. It is understood that the new foot bridge will be constructed from timber and is of a sympathetic design. The reconstruction of the front facing elevations of the monument is to be done using locally sourced stone and will be lime mortared.

7. ACKNOWLEDGEMENTS

- 7.1 Fieldwork and reporting were undertaken by Menna Bell. The author would like to extend grateful thanks to Hafod Estate Manager David Newham and the contractor for their co-operation and patience.

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Cartographic

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Ordnance Survey; Cardiganshire 2nd edition 1:2500 1905

Database

Dyfed Archaeological Trust Historic Environment Record, housed with Dyfed Archaeological Trust in The Corner House, Llandeilo, Carmarthenshire, SA19 6AE

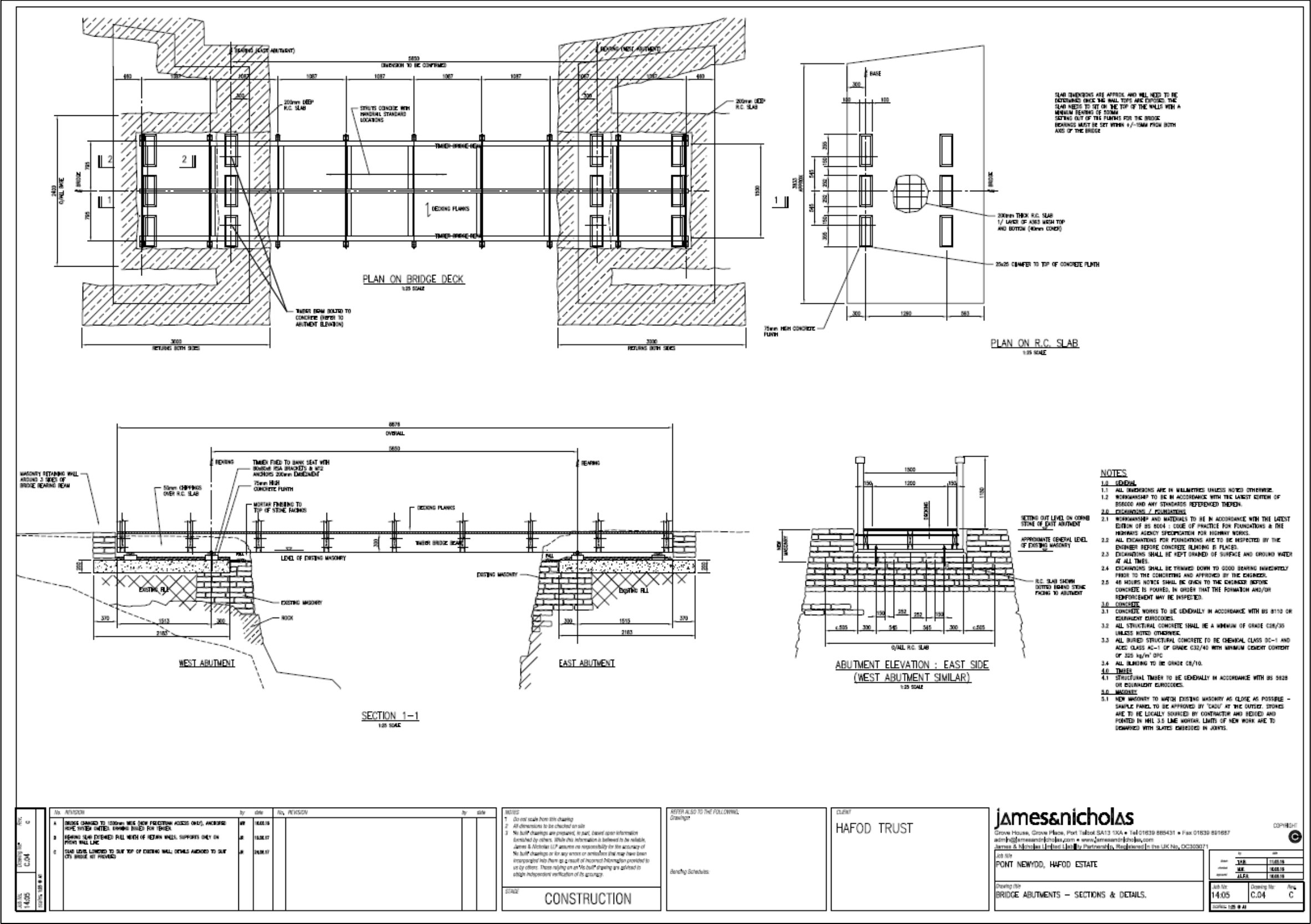
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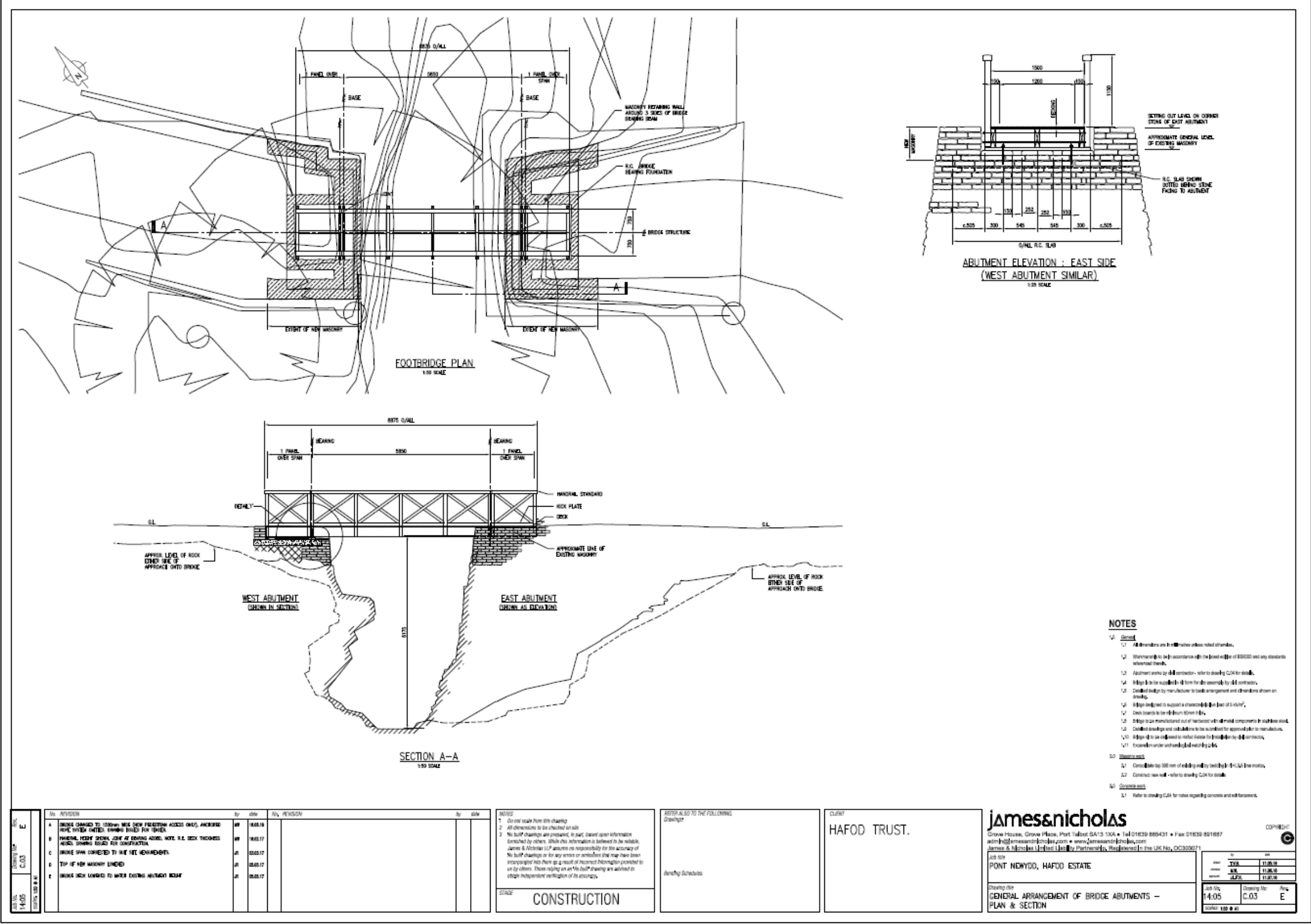
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The Hafod Conservation Partnership: www.hafod.org

APPENDIX I



Architectural plans showing proposed design of new foot bridge using existing abutments of Pont Newydd (PRN 19761; CD174).
Drawing showing bridge abutments and sections.



Architectural plans showing proposed design of new foot bridge using existing abutments of Pont Newydd (PRN 19761; CD174).
Drawing showing general arrangement of bridge abutments; plan and section.

APPENDIX II

PONT NEWYDD, HAFOD, CEREDIGION – ARCHAEOLOGICAL WATCHING BRIEF DURING NEW BRIDGE CONSTRUCTION WORKS WRITTEN SCHEME OF INVESTIGATION

1 INTRODUCTION

- 1.1 This written scheme of investigation (WSI) or specification, has been prepared to detail the proposed archaeological watching brief that will be undertaken during the construction of a new footbridge at Pont Newydd at Hafod, Ceredigion (SN 7704 7361; Photo 1). This will reinstate a footbridge across the Nant Peiran Cascade, utilizing the existing bridge abutments that were used for the original foot bridge.
- 1.2 This WSI outlines the method by which DAT Archaeological Services (on behalf of the Hafod Trust) will undertake an archaeological watching brief during the construction works associated with the construction of the new footbridge. Pont Newydd and the Nant Peiran Cascade are designated as a Scheduled Monument (reference CD174). The features lie within the Registered Historic Park and Garden of Hafod (Reference PGW (Dy) 50(CER), Grade I).
- 1.3 The Hafod Trust has been awarded an Ancient Monument Grant for the works by Cadw. The grant offer includes a number of conditions including the requirement that an archaeological watching brief is undertaken during the works. The condition states: *'written confirmation that a suitably qualified archaeologist will be appointed and who shall be responsible for monitoring the works, amending plans as necessary and undertaking where any ground disturbance is required.'* DAT Archaeological Services have been appointed as the archaeologists to undertake the watching brief and written confirmation of this has been sent to Cadw. These conditions are also part of the Scheduled Monument Consent that is granted as part of the Ancient Monument Grant.
- 1.4 A photographic record of the monument before, during and after the works is also necessary and this will be undertaken by the Hafod Trust and their architects. DAT Archaeological Services will carry out a photographic record of the watching brief works, including general shots of the area.
- 1.5 The proposed works on the bridge that will require a watching brief are is stated within the Scope of Work produced by the architects James and Nicholas as being the following:

Excavate existing earth fill to form pits to receive end of new bridge. The work will be undertaken by hand or mini excavator under the supervision of an Archaeologist employed on a watching brief.
- 1.6 Further works are also proposed, including remediation works to the outer faces of the bridge abutments within the Nant Peiran stream channel. Other works will include the construction of a ramp up to the footbridge and construction of dwarf stone walls. It will be necessary for the attending archaeologist to discuss the works with the site contractors and determine which elements will require watching briefs where any ground disturbance is required.
- 1.7 Earlier in 2017 a small evaluation was undertaken by DAT Archaeological Services on either side of the northern bridge abutment in advance of vegetation clearance works carried out by Natural Resources Wales with the aim of exposing a former water leat that fed the Nant Peiran Cascade

prior to the construction of Pont Newydd. The evaluation indicated that the east and west faces of the north bridge abutment were of dry-stone construction. The construction of the interior of the abutments is not known. The bridge abutment had been constructed across and blocked the earlier leat.

- 1.8 This WSI details the methodology of the evaluation which will be undertaken and has been prepared in accordance with the *Standard and Guidance for an Archaeological Watching Brief* (CIfA³ 2014).
- 1.9 The evaluation will be undertaken by a Registered Organisation with the Chartered Institute for Archaeologists (CIfA).

³ *Chartered Institute for Archaeologists.*

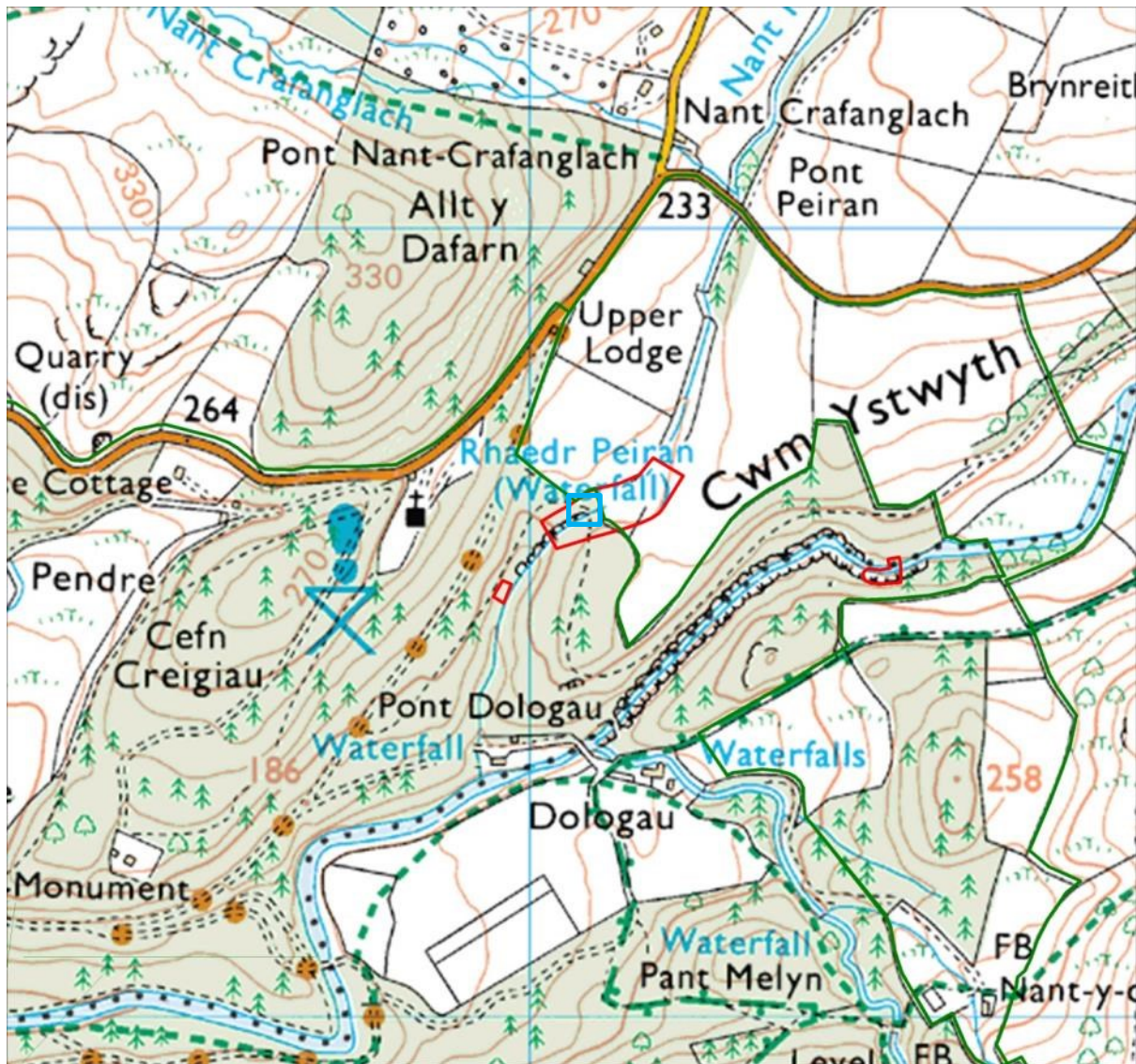


Figure 1: Hafod Gardens showing the location of SAM CD174 Nant Peiran Cascade (red boundary) with investigation area bounded in blue

Reproduced from the Ordnance Survey 1:25,000 scale Map with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright Dyfed Archaeological Trust Ltd., The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF. Licence No 100020930



Photo 1: View east showing both bridge abutments of Pont Newydd following tree clearance



Photo 2: The leat and the modern-built pathway over it, with a 1m scale, after excavation



Photo 3: North-eastern facade of the northern abutment exposed during the evaluation.
1m scale

2. WATCHING BRIEF

- 1.1 The definition of archaeological watching brief, taken from the Chartered Institute for Archaeologists Standards and Guidance: for Archaeological Watching Briefs (CifA S&G: AWB 2014) is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.
- 2.2 The purpose of a watching brief, as laid down in the CifA S&G AWB is:
- to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works;*
- to provide an 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 itself are not sufficient to support treatment.*
- 2.3 This document provides a scheme of works for:
- The implementation of an archaeological watching brief during groundworks associated with the construction of a new footbridge across the Nant Peiran Cascade, utilising the extant abutments of the original footbridge. Appropriate investigation and recording of any significant archaeological remains will be undertaken if revealed. A report and archive of the results of the works will be prepared.***
- 2.4 The following tasks will be completed:
- Provision of a written scheme of investigation to outline the methodology for the watching brief which DAT Archaeological Services will undertake (this document);
 - To establish, where possible, the state of preservation, character, extent and date range for any archaeological deposits disturbed;
 - To ensure that no unnecessary damage or disturbance occurs to the area of the Scheduled Monument CD174;
 - Production of a report and an archive of the results.

3. FIELDWORK

- 3.1 The watching brief would entail an archaeologist being present during all ground works where there is a potential for archaeological remains to be exposed, damaged or destroyed. This is especially important as the area is designated as a Scheduled Monument, CD 174.
- 3.2 It is essential coordination between the site contractor's and archaeologist is established at the outset to avoid any potential disturbance to the monument without an archaeologist being present, or unnecessary visits to the site when works are being carried out that do not require the presence of an archaeologist.
- 3.3 Adequate time must be made available to the visiting archaeologist to ensure that appropriate recording can be undertaken of any archaeological features or deposits exposed during ground works.
- 3.4 Recording of all archaeological features or deposits will conform to best current professional practice and be carried out in accordance with the Recording Manual⁴ used by DAT Archaeological Services. Significant archaeological features or deposits will be drawn at a suitable scale (no less than 1:20) and photographed in an appropriate format.
- 3.5 All archaeologically significant finds will be retained and, where possible, related to the contexts from which they derived. Finds will be temporarily stored by DAT Archaeological Services in stable conditions. All finds, except those deemed to be Treasure, will remain the property of the landowner.
- 3.6 Under the 1996 Treasure Act, "treasure" can be summarised as:
- Any object other than a coin containing at least 10% gold or silver and at least 300 years old;
 - Any prehistoric assemblage of base metal;
 - Coins found together which contain 10% gold or silver (but no single coins) and groups of at least 10 coins of other metals, provided they are at least 300 years old;
 - Any object found associated with treasure except unworked natural objects; and
 - Any object which would have been Treasure Trove before the 1996 Act but not covered above.
- 3.7 In the event that unforeseen archaeological discoveries are made during the development, or that archaeological remains of high significance are exposed, DAT Archaeological Services shall have the power to halt any ground works and shall inform the site agent/project manager and Cadw, and prepare a written statement with plan detailing the archaeological evidence. Following assessment of the archaeological remains by Cadw, DAT Archaeological Services shall, if required, implement on behalf of the Client a contingency scheme for salvage excavation of affected archaeological features. In these instances it would be necessary to

⁴ *DAT Archaeological Services have adopted the Recording Manual developed by English Heritage Centre for Archaeology. A copy will be available on-site for inspection if required.*

employ extra resources to record such features to an appropriate standard.

- 3.8 In the very unlikely event that human remains are encountered, the District Coroner's Office and the Police will be notified immediately. All human remains will, where possible, be left *in situ*. If preservation *in situ* is not possible all statutory permissions will be obtained in writing before removal begins.

4. POST-FIELDWORK REPORTING AND ARCHIVING

- 4.1 All data recovered during the evaluation will be collated into a site archive structured in accordance with the specifications in *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2011), and the procedures recommended by the National Monuments Record, Aberystwyth. The *National Standards for Wales for Collecting and Depositing Archaeological Archives* produced by the Federation of Museums and Art Galleries of Wales will also be adhered to. Digital archives will be collated using the Royal Commission on the Ancient and Historical Monuments of Wales systems (2015) and deposited with the RCAHMW.
- 4.2 The results of the fieldwork will be assessed in local, regional and wider contexts. The report will include a desk-based research element to ensure that the site is placed within its wider archaeological context, utilising research previously undertaken by Dyfed Archaeological Trust on the Hafod Estate and the results of the previous evaluation (and watching brief) on the site of the former leat feeding the Nant Peiran Cascade undertaken earlier in 2017. A report that is fully representative of the results of the fieldwork will be prepared and digital and hard copies will be sent to the client for dissemination to all relevant parties.
- 4.3 DAT Archaeological Services will arrange for the deposition of finds, and ascertain the costs of storage and deposition, with an approved body before the project commences and inform the curator of the arrangement which has been made (it is anticipated that the paper and digital archive will be deposited with the Royal Commission on the Ancient and Historical Monuments of Wales and any finds to Ceredigion Museum).
- 4.4 A summary of the project results, excluding any confidential information, may be prepared for wider dissemination (e.g. Archaeology in Wales and special interest and period-specific journals).
- 4.5 A digital copy and two bound copies of the reports will be produced for the client. Digital copies of the report will be supplied to Cadw and the Dyfed Archaeological Trust Historic Environment Record.

5. STAFF

- 5.1 This project will be managed by James Meek, Head of DAT Archaeological Services.
- 5.2 Archaeological attendance during the watching brief will be undertaken by staff drawn from the team of archaeologists employed by DAT Archaeological Services.

6. MONITORING

- 6.1 Cadw must be told when the commencement of works is anticipated so that they can arrange a monitoring visit if needed. The fieldwork may need to be monitored by the Head of DAT Archaeological Services. All parties should be provided with free access to the site at any time during the watching brief works.

7. HEALTH AND SAFETY

- 7.1 All DAT Archaeological Services staff are CSCS⁵ registered.
- 7.2 DAT Archaeological Services will carry out a health and safety risk assessment to ensure that all potential risks are minimised.
- 7.3 All relevant health and safety regulations must be followed.
- 7.4 All site inductions, H&S procedures and site rules of the site contractor will be made known to DAT Archaeological Services staff prior to them commencing work on-site.
- 7.5 Safety helmets, safety boots and high visibility vests are to be used by all site personnel as necessary. The site contractors will make all archaeological staff aware of any other PPE⁶ that may be required and provide them. Archaeological staff must not enter any area where there is a considered to be a health and safety risk that has not or is not being appropriately mitigated against.
- 7.6 DAT Archaeological Services staff must ensure that their presence on site is communicated to all relevant site staff, especially machine operators.
- 7.7 Pont Newydd is located on either side of the steep gorge that drops down to the Nant Peiran and as such there is a risk of falling. The attending archaeologist must ensure that they do not work close to the edge of the gorge.

⁵ *Construction Skills Certification Scheme (Health and Safety Tested)*

⁶ *Personal Protection Equipment*

APPENDIX III

Project Archive

Project Number: FS17_031

ERN:110511

2 Watching Brief Form

98 x Digital photographs; Film Number; 110511 (49 x JPEGs, 49 x TIFFs)

1x Photo catalogue

Context Register

Context	Trench	Description
101	Southeast abutment	Humic soils and leaf litter
102	Southeast abutment	Compacted grey, medium gravel - which is likely to have been the road surface of the carriage-ride
103	Southeast abutment	Bright orange, shattered mudstones, clay-silt subsoil
201	Northwest abutment	Humic soils and leaf litter
202	Northwest abutment	Compacted grey, medium gravel - which is likely to have been the road surface of the carriage-ride
203	Northwest abutment	Bright orange, shattered mudstones, clay-silt subsoil

NEW BRIDGE CONSTRUCTION WORKS AT PONT NEWYDD (CD174), HAFOD, CEREDIGION ARCHAEOLOGICAL WATCHING BRIEF

DYFED ARCHAEOLOGICAL TRUST

RHIF YR ADRODDIAD / REPORT NO. 2017/48
RHIF Y DIGWYLLIAD / EVENT RECORD NO. 110511

Awst 2017
August 2017

Paratowyd yr adroddiad hwn gan / This report has been prepared by:

Menna Bell

Swydd / Position: Archaeologist DAT Archaeological Services

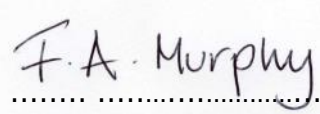
Llofnod / Signature  Date: 31/08/2017

Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith
This report has been checked and approved by

Fran Murphy

ar ran Ymddiriedolaeth Archaeolegol Dyfed Cyf.
on behalf of Dyfed Archaeological Trust Ltd.

Swydd / Position: Project Manager DAT Archaeological Services

Llofnod / Signature  Date: 10/10/2017

*Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau sydd
gennych ar gynnwys neu strwythur yr adroddiad hwn*

*As part of our desire to provide a quality service we would welcome any comments you
may have on the content or presentation of this report*



