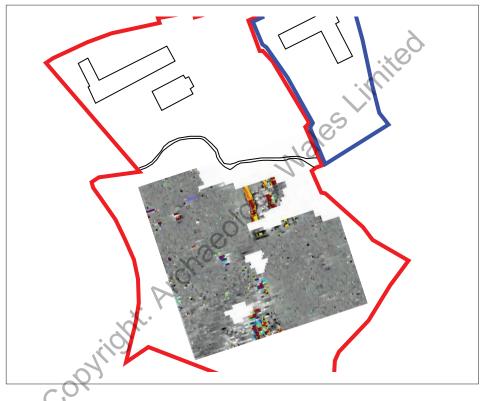
Archaeology Wales

Land Adjacent to Hafod Elfyn & Bryn Adda, Ffordd Penrhos Bangor, Gwynedd

Desk Based Assessment & Geophysical Survey



By Chris E Smith BA (Hons) MA MIFA Report No. 1033

Archaeology Wales

Land Adjacent to Hafod Elfyn & Bryn Adda, Ffordd Penrhos, Bangor, Gwynedd

Desk Based Assessment and Geophysical Survey

On Behalf of: Watkin Jones Homes

Edited by: Signed:

Position:

Date:

Authorised by:

Signed:

Position:

Date:

By Chris E Smith BA (Hons) MA MIFA
Report N

Date: July 2011

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Non-Technical Summary

This report results from work undertaken by Archaeology Wales Ltd (AW) for Mr Goronwy Owen of Watkin Jones Homes. This report draws upon the results gained by a desk based assessment, site visit and geophysical survey on land to the rear of Hafod Elfyn, Ffordd Penrhos, Bangor, Gwynedd, as part of the submission of a planning application for the construction of residential dwellings. A search of the regional HER revealed only a single recorded event within the assessment area itself, the recovery of a Roman tool implement. The map regression analysis showed that little had changed within the assessment area since 1768. The geophysical survey, carried out using dual fluxgate gradiometers, revealed the presence of two distinct linear features of uncertain date or function.

Introduction

1.1 Location and scope of work

- 1.1.1 In July 2011 Archaeology Wales Ltd (AW) carried out a desk based assessment and geophysical survey on land to the rear of Hafod Elfyn, Ffordd Penrhos, Bangor, Gwynedd, at the request of their client, Mr Goronwy Owen of Watkin Jones Homes. The site is located across 2.37 hectares centred on NGR SH 56407051 (Fig 1).
- 1.1.2 A brief (Ref: D1542) for the works was drawn up by the Gwynedd Archaeological Planning Service (GAPS). A specification was then drawn up by Mark Houliston (AW) which was subsequently approved by Jenny Emmett (GAPS). The planning application reference no. is C11/0112/11/LL.

1.2 Geology and topography

- 1.2.1 The underlying solid geology of the area is comprised of undifferentiated Lower Cambrian Rocks, including interbedded sandstone and conglomerate (Geological Survey Map, 2001).
- 1.2.2 The site is located in a residential district towards the south-western edge of Bangor, Gwynedd. Bangor is the principal settlement in Gwynedd and is located on the northwest coast of Wales, overlooking the Menai Straits.
- 1.2.3 The site comprises two parcels of land, the northern occupied by the Hafod Elfyn offices and grounds, while the southern, divided by a minor watercourse, is former agricultural land that is now unmanaged. The northern part of the site is bounded by

- Ffordd Penrhos and existing residential development, and the southern by agricultural land.
- 1.2.4 The site lies at approximately 80.52m OD at the southern boundary, sloping to 67.2m OD midway along the eastern boundary, and rising again northwards towards Ffordd Penrhos.
- 1.2.5 The current planning application pertains to the proposed development of the site for 37 new dwellings with associated landscaping, services and access provision. The scheme also entails the partial demolition of the Grade II listed Hafod Elfyn office building.

1.3 Archaeological and Historical Background

- 1.3.1 The following are extracts from Samuel Lewis' 1833 Topographic Dictionary of Wales concerning Bangor:
- 1.3.2 "BANGOR, a city, port, and parish, in the hundred of ISGORVAI, county of CARNARVON, NORTH WALES, 9 miles (N. E.) from Carnarvon, and 243 (N. W. by W.) from London, on the great road to Holyhead, containing 4751 inhabitants. The origin of this small, but ancient, city is involved in very great obscurity. Leland, on the authority of the Chronicle of John Harding, states that, prior to the establishment of Christianity in Britain, Condage, a prince of the early Britons, erected in this place a temple, which he dedicated to Minerva. Upon the correctness of this testimony alone rests the supposition of its having existed during the continuance of the Roman empire in Britain, and the sole evidence of its having been occupied by the Romans is derived from a hewn block of gritstone, three feet four inches in length, and eighteen inches broad, found at Tycoch, a short distance from the city, bearing a Latin inscription of undoubted antiquity, and which is the only relic of the Romans known to have been discovered in the neighbourhood.
- 1.3.3 The earliest authentic account of this place occurs in the history of the first religious establishment founded here, which, according to some authorities, originated with Deiniol, or Daniel, son of Dynawd, or Dunothus, abbot of the monastery of Bangor Iscoed, in the county of Flint, who is said to have built a college for the instruction of youth, and for the support of the clergy, in this part of North Wales, about the year 525. This college continued to be dependent on the parent establishment at Bangor Iscoed, from which it is supposed to have derived its name, till the year 550, when Maelgwyn Gwynedd, King of North Wales, called by Gildas "Maglocunus," endowed it with lands and divers privileges, and erected it into a see, of which Daniel was consecrated first

bishop, by Dubricius, Archbishop of Caerleon. Daniel died about four years after his consecration, and was buried in Ynys Enlli, or Bardsey isle, at that time the usual place of interment for men of distinguished sanctity. According to other authorities, it appears that Dunothus, abbot of Bangor Iscoed, who, in the year 597, headed a deputation of seven bishops and a great number of learned men, to meet St. Augustine, whom Pope Gregory had sent into Britain to propagate the Christian faith, founded a small establishment on or near the site occupied by the present cathedral, as a cell to the abbey of Bangor Iscoed, and placed in it monks from that establishment. This small monastery afterwards became the asylum of the few brethren that escaped the subsequent massacre of the monks of Bangor Iscoed, by Ethelfrith, King of Northumberland, who, in 607, advancing to Caerlleon ar Ddyvrdwy, now Chester, against the Britons, whose army he defeated in a decisive battle, fell with fury upon the monks of Bangor Iscoed, who had assembled near that place to assist their countrymen with their prayers, and put twelve hundred of them to death. About fifty only saved themselves by flight into the mountains, and afterwards united with the brethren at this place in forming a religious establishment, to which they transferred the name of their ancient monastery, then reduced to ruins, and which afterwards, from its increasing importance, obtained the appellation of Ban cor the "chief society," or Bon cor, the " good choir."

In 1071, the city suffered material injury, and the cathedral was destroyed, by an 1.3.4 English army which invaded this part of the principality; and about the year 1080, Hugh Lupus, Earl of Chester, in order to assist his descent upon the Isle of Anglesey, and to secure the conquests which he had already made in North Wales, erected a castle, about a quarter of a mile to the north of the city, on the ridge of hills which bounds the vale. Of this castle, no particular event is recorded in the history of the principality: probably, after the restoration of Grufydd ab Cynan to the throne from which the earl had expelled him, it was either destroyed immediately, or suffered to fall gradually into ruins. The city recovered from its devastation, but the cathedral remained in a ruinous state till 1102, when a synod was held at Westminster, for the reformation of the church, at which Anselm, Archbishop of Canterbury, presided, assisted by Girard, Archbishop of York, Roger, Bishop of Salisbury, and others, and at which also Herve, or Herveus, Bishop of Bangor, the first Welsh prelate that had ever attended a council in England, and who was consecrated in 1093, by Thomas, Archbishop of York, was present. The members of this synod, lamenting the decay of religion in this part of North Wales, which they attributed in a great degree to the destruction of the cathedral, gave large sums of money towards its restoration.

- 1.3.5 Giraldus, who accompanied Baldwin, Archbishop of Canterbury, in his circuit to preach the crusades through Wales, relates in his Itinerary, that they visited Bangor in 1188, and were well received by the bishop of that diocese, with whom they remained one night; and on the following day, after the celebration of mass by the Archbishop of Canterbury, Guianus, Bishop of Bangor, was compelled by his importunity to take the cross, to the infinite regret of all his people.
- 1.3.6 From this time Bangor appears to have remained in a flourishing state till the year 1211, When King John, invading North Wales, encamped his forces on the banks of the river Conway, and detached a portion of his army to burn the city, which they accomplished; and, entering the cathedral, took Robert the bishop (who had succeeded to the see upon the death of the prelate elected in place of Giraldus, who declined the office) from before the high altar, and made him prisoner, but afterwards liberated him, on the payment of a heavy ransom. During this reign, Bangor suffered great devastation in the wars that were carried on between King John and Llewelyn; and, in the reign of Henry III., it was dreadfully ravaged by the continued struggles for empire between that monarch and David ab Llewelyn, whom Richard, at that time bishop of Bangor, and a partisan of the King of England, excommunicated. In these wars, the cathedral was again destroyed, and the bishop, taking refuge in England, was honourably entertained for nearly twenty years in the monastery of St. Alban's.
- On the final invasion of Wales by Edward. I., the neighbourhood of Bangor became the 1.3.7 scene of several engagements, and, in particular, of that disastrous conflict in which fifteen knights, thirty-two esquires, and one thousand soldiers, were slain by the Welsh forces under Richard ab Walwyn, after crossing the Menai strait, at low water, by a bridge of boats. At this time Anian, Bishop of Bangor, being in high favour with Edward, obtained from that monarch the restoration of its various endowments, which had been confiscated during the preceding reign, together with many additional grants and extended privileges: he procured also a grant of Bangor House, in Shoe-lane, London, as a town residence for the prelates, when attending their duties at court. For the better maintenance of the episcopal dignity, he obtained by letters patent from the crown the return of all writs, with all waifs and estrays, in his several manors, and also in the villages of Tregaian, Abydon, and Bodychan. In 1284, having had the honour of baptizing the young prince Edward, who was born that year in. Carnarvon castle, he received a grant of the ferries of Porthaethwy and Cadnant, and the manors of Bangor, Castell-Mawr, and Garthgogo in the county of Carnarvon, with the cantred of Trefos, in the Isle of Anglesey, and, two years afterwards, a confirmation to himself and his

- successors of a third part of the tithes issuing out of the king's demesnes, mills, and lead mines, in England and Wales. When Edward I. made his extent, or survey, of the revenues of the Prince of Wales, the Bishop of Bangor procured a commission from Chancery, to enquire into the tenures of his see, which survey, called the Bishop's Extent Book, is still preserved among the Harleian Manuscripts in the British Museum.
- 1.3.8 During the civil commotions in the reign of Charles I., the city became the scene of great desolation; the services of the church were suspended, and the cathedral was used as a stable for the horses of the parliamentarian troops; the monuments, shrines, and other decorations of this venerable structure were defaced and mutilated, and the revenue of the see was alienated and appropriated to the use of the parliament. It was, however, restored to the see after the interregnum; and, in the first of James II, Humphrey Lloyd, bishop of the diocese, obtained an act of parliament for augmenting the revenues of the see, providing for the repair of the cathedral, and for the maintenance of the choir. The same act annexes to the bishoprick the archdeaconries of Bangor and Anglesey, and to the chapter the sinecure rectory of Llanrhaiadr yn Kinmerch and two-thirds of the comportionate rectory of Llandinam. The celebrated Bangorian Controversy originated in this city, from which it took its name, between Dr. Benjamin Hoadley, who presided over the see from 1715 to 1721, when he was translated to Salisbury, and Dr. Thomas Sherlock, who succeeded him in this diocese, and was also translated to Salisbury in 1738, on the advancement of Dr. Hoadley to the see of Winchester.
- 1.3.9 Bangor; which is a member of the port of Beaumaris, carries on little or no trade of importance: coal and the common necessaries of life are the only goods brought to it, and are landed from the ships upon the coast, and conveyed away in carts at low water, without the aid of quays or wharfs. The coast is accessible to ships of three hundred tons' burden, which can enter the bay at all states of the tide; and all vessels, however large, can ride securely in the channel, well sheltered from storms, except in violent easterly gales, to which only they are exposed: steam-packets ply regularly between Bangor and Liverpool.
- 1.3.10 A house of friars preachers was founded here prior to the year 1276, and was probably enlarged or rebuilt about the year 1299, by Tudor ab Gronow, Lord of Penmynydd and Trecastle, who, from that circumstance has been commonly regarded its founder, and who was interred in the chapel of that establishment, in 1311: in the seventh of Edward VI., the site was granted to Thomas Brown and William Breton, and it subsequently

became the property of Dr. Geoffrey Glynn, who bequeathed it, with other possessions, as above related, for the endowment of the free grammar school.

2 Aims and Objectives

2.1 Desk Based Assessment

- 2.1.1 The Desk Based Assessment was undertaken to:
 - Gain an understanding of the likely archaeological features and their distribution within the assessment area
 - To place the results of the work in their historic context.

2.2 Geophysical Survey

- 2.2.1 The geophysical survey was undertaken to:
 - To assess the presence/absence of subterranean archaeological remains within the assessment area.
 - To determine the extent and location of any archaeological remains present.
 - To inform the approach to any possible trench locations should an evaluation phase be deemed necessary.

3 Methodology

3.1 Desk Based Assessment

- 3.1.1 As part of the desk based assessment, the following repositories were searched for readily available information:
 - A search of the regional HER database for the locations of all known archaeology (Monuments, Events) within a 500m radius of the assessment area was undertaken.
 - The Royal Commission for Ancient & Historical Monuments (Wales) in Aberystwyth was consulted for aerial photography coverage. This included the Welsh assembly air photo collection.

- The National Library in Aberystwyth and local archives in Bangor were also consulted for readily available historic maps of the assessment area.
- 3.1.2 All works were undertaken in accordance with the IFA's *Standards and Guidance: for an archaeological desk based assessment.*

3.2 Geophysical Survey

- 3.2.1 Two Fluxgate Gradiometers were used to undertake the survey. Previous research has shown that fired, or cut and backfilled archaeological features such as kilns and hearths, ditches and pits often have an anomalously higher magnetic susceptibility than the surrounding subsoil due to burning and biological processes. Differences in magnetic susceptibility within the subsoil and archaeological features can be detected as changing magnetic flux by an instrument such as a fluxgate gradiometer. Data from this may be mapped at closely spaced regular intervals, to produce an image that may be interpreted to locate buried archaeological features (Clarke 1990).
- 3.2.2 The machines used for the survey were Geoscan Research FM256 fluxgate gradiometers using the double speed dual gradiometer survey mode. Detailed surveys were carried out in grids of 20m x 20m along parallel traverses spaced at 2m intervals, recording data points spaced at 0.25m intervals to a maximum instrument sensitivity of 0.1nT in accordance with English Heritage Guidelines (EH 2008). The grids were surveyed in the 'zigzag' style (traverses walked alternately south-north/north-south). At regular intervals the data was downloaded to a laptop computer for storage and assessment.
- 3.2.3 The location of the survey area was then surveyed using a Topcon GTS 725 total station

3.3 Data Processing and Presentation

- 3.3.1 Following the completion of the detailed surveys, processing and analysis took place using Geoscan Research's Geoplot v.3.00k software. The most typical method of visualising the data is as a greyscale image. In a greyscale, each data point is represented as a shade of grey, from black to white at either extreme of the data range. A number of standard operations were carried out to process the data. The gradiometer data was mathematically adjusted to account for instrument drift over time. The mean level of each traverse of data was reduced to zero and all grids matched so that there were no differences between background levels. The data was then analysed using a variety of parameters and styles and the most useful of these were saved as a *JPEG image and manipulated using Adobe Illustrator software. The results of the survey were then overlaid onto a digital map of the study area. This was then used to produce the interpretation figures.
- 3.3.2 All works were undertaken in accordance with both the IfA's *Standards and Guidance:* for a geophysical survey and current Health and Safety legislation.

3.3.3 Project Manager Chris E Smith (MIFA) and Project Assistant Rob Blackburn undertook the geophysical survey.

Desk Based Assessment Results

HER Data 4.1

4.1.1 A search of the regional HER revealed a total of 2 known and recorded archaeological sites within a 500m radius of the assessment area (Fig 3). The sites are listed by PRN number below.

4.1.2 Monuments

- les limited PRN 1541 – Findspot, Roman stone implement
- PRN 11392 Road, Post-medieval

HER Data Summary 4.2

- The monuments and events data retrieved from the local HER shows a relative lack of 4.2.1 recorded sites within the assessment area and the surrounding 500m.
- A total of two listed buildings are located within 500m of the assessment area. These 4.2.2 are listed and described below:
- LB 4144: Tros-y-Canol Grade II listed. Building located on the boundary of Penrhos 4.2.3 Garnedd with Bangor Community Council, and set slightly back from the road in a line of suburban development.
- LB 87611: Hafod Elfyn Grade II listed. Designed by S. Colwyn Foulkes, architect of 4.2.4 Colwyn Bay and constructed in 1959. Built for the Nature Conservancy Council in Wales, it is named after Professor R. Elfyn Hughes (1915 - 2007) who was its first and only director. Formed in the 1950s it functioned for twenty years until 1974, designating National Nature Reserves and Sites of Scientific Interest as well as undertaking research into the natural sciences. In 1972, at a time of expansion an extension was constructed to the rear and linked to the main building with a glazed gantry walkway. A further similar single storey office was built later in the C20 downs lope and to the east (The full listing details for Hafod Elfyn are contained within Appendix 3).
- 4.2.5 The nearest Scheduled Ancient Monument to the assessment area is the Goetre Uchaf round barrow located some 1.1km to the south west.

4.3 **Historic Maps**

- 4.3.1 The following historic maps (Figs 4-9) were consulted as part of the desk based assessment:
 - 1836 1st Series OS Map
 - 1840s Tithe Map
 - 1888 1:10560 1st Ed OS Map
 - 1903 1:10560 2nd Ed OS Map
 - 1925-48 Land Utilisation Map
 - 1945 New Popular Edition OS Map

4.4 Map Regression

- 4.4.1 1836 1st Series OS Map. This map is produced at too small a scale for any useful detail to be visible. The area of the site is shown however, and appears to be blank.
- 4.4.2 1840s Tithe Map. The assessment area is shown in much greater detail than on the previously studied map, although it still appears blank. The outline of the assessment area is shown though the tithe apportionment describes the area as being only 'rough ground'.
- 4.4.3 1888 1:10560 1st Ed OS Map. This map shows clearly the assessment area in its entirety. No features are shown as being located within it apart from the small water course.
- 4.4.4 1903 1:10560 2nd Ed OS Map. This map has the same coverage as the previous two and shows no change in features in or around the assessment area.
- 4.4.5 The 1925-48 Land Utilisation map shows the assessment area and has it marked as a mix of allotments/housing (Purple) and unclassified (White) land use. The allotments/housing appears to relate to the front of the plot adjacent to the road. The adjacent plot, to the east, is marked as being heath/moorland/commons and rough pasture.
- 4.4.6 The 1945 New Popular Edition OS map shows the assessment area, though in very small detail. No features are noted.
- 4.4.7 None of the historic maps consulted as part of the desk based assessment show any significant change to the assessment area over the last 170 years. Slight changes are

seen in the surrounding area such as the expansion of structures at Bryn Adda sometime before 1951. No changes to the actual assessment area are noted however.

4.5 **Aerial Photographs**

- 4.5.1 The assessment area was generally well covered by aerial photography. Those aerial photographs studied dated from between 1945 and 1996 (Plates 1-3) (Sortie list and AP no's contained within bibliography). No changes to the assessment area were evident from any of the aerial photographs. The expansion of the structures at Bryn Adda was noted as taking place between 1947 and 1948. No further changes to the assessment area were noted.
- 4.5.2 The aerial photographs, dating from between 1945 1996, all appear to show the area as undulating rough ground.

4.6 Desk Based Assessment Summary

- 4.6.1 The summary of the desk based assessment is that very little in terms of archaeological features is recorded within the assessment area apart from a single find of possible Roman date.
- 4.6.2 Little change to the southern half of the assessment area is evident over the past 170 years. However, the construction of the Hafod Elfyn building and associated access roads and outbuildings in 1959 has obviously radically altered the northern half of the assessment area.
- 4.6.3 The construction of said buildings is the only significantly visible change to the assessment area noted within the desk based assessment.

4.7 Site Visit

- 4.7.1 The site was visited (Plates 4-6) prior to the geophysical survey being carried out. It was found to be, as marked on the 1840s tithe apportionment, rough ground. Although appearing generally flat on the cartographic sources, the site is characterised by steep gradients in places with exposed bedrock visible.
- 4.7.2 Past clearance of overgrowth on the site appeared to have resulted in the cleared plants being piled into two vast heaps within the middle of the site.
- 4.7.3 Pieces of ceramic were evident within the topsoil across the majority of the site. All the ceramic was seemingly 19th century in date and is likely to represent dumping from

nearby houses. A small copper alloy buckle was located within the ditch forming the western site boundary.

4.7.4 In summary the site visit found the site to be largely waste ground characterised by overgrowth, steep gradients and exposed bedrock.

5 Geophysical Survey Results

5.1 Soils and Ground Conditions

5.1.1 The survey was undertaken after particularly wet weather when the ground was sodden. The presence of tree branches projecting from the site boundaries as well as metal fences bounding the site to the north, east and west rendered survey close to these areas impossible. The presence of discarded metal objects across the site also hindered the survey, though only in a small way.

5.2 Grids

5.2.1 The survey was composed of 22 full and partial grids each measuring 20x20m. These were laid out, and their locations recorded, using a total station and datalogger.

5.3 Survey results

- 5.3.1 The survey results (Figs 10-11) show a reasonably blank area for the majority of the assessment area. A group of high readings to the south of the survey area is likely to represent bedrock as this is located at the top of a steep gradient where bedrock is visible. Occasional high readings are scatted across the site and are likely to represent metal objects.
- 5.3.2 Two linear features were identified running approximately north-south in the north eastern corner of the surveyed area. The linear features both run parallel with one another for some 25m. Topographically they appear to run up to the top of a narrow ridge. The top of the ridge was not suitable to survey so this is their assumed start/termination point. The readings for the linear features appear quite high compared to the background readings for the site. Whilst it is possible these linear features represent buried archaeological remains, the high nature of the readings would suggest a metallic response, such as buried cabling/wire/fencing.

5.4 Geophysical Survey Summary

- 5.4.1 The lack of features shown on the historic maps is continued by an apparent lack of buried features. The survey did not appear to show any significant results with the possible exception of the parallel linear features in the north eastern corner.
- 5.4.2 The two linear features do not appear to represent anything previously marked on an historic map and are not visible on any of the aerial photographs.

6 Discussion and Interpretation

6.1 Overall interpretation & Archaeological Potential

- 6.1.1 The overall interpretation gained from the work carried out is that very little in terms of archaeological features can be attributed to the assessment area based on the results of the desk based assessment and the geophysical survey.
- 6.1.2 Though a find of a Roman stone tool is recorded in the HER as being recovered from within the assessment area, this represents the only firm archaeological evidence.
- 6.1.3 The desk based assessment has shown that the HER holds only two records (the Roman find and the Tros-y-Canol listed building) within a 500m radius of the assessment area.
- 6.1.4 Similarly the maps and aerial photographs show no visible features within the assessment area.
- 6.1.5 Evidence of 19th ceramics within the topsoil is likely to represent dumping, possibly from nearby residences, onto what is, and has been for some time, essentially rough ground.
- 6.1.6 The buckle recovered from the surface of the ditch on the western edge of the site appears to be of late 19th or 20th century date (Bailey, 2004).
- 6.1.7 Evidence from local place names can be a useful tool when assessing past land use of an area. The two recurring names visible on the cartographic sources are 'Coed Mawr' and 'Bryn Adda'.
- 6.1.8 'Coed' translates from Welsh as 'trees' whilst 'Mawr' translates as 'big, large or great'.

 The name Coed Mawr presumably then relates to the area once being substantially more wooded and may therefore be of some antiquity.
- 6.1.9 'Bryn' translates from Welsh as 'hill'. 'Adda' is a Welsh version of the biblical 'Adam' (Jones, Pers comm). 'Bryn Adda' can be taken to mean Adams hill.

- 6.1.10 Whilst both place names are descriptive, only 'Coed Mawr' is suggestive of past land use.
- 6.1.11 Given the lack of features identified by the HER, the desk based assessment and the geophysics, the sites undulating topography and rough ground and place name evidence suggesting the site was wooded in antiquity, it is felt that the archaeological potential of the area is low.

6.2 **Recommendations**

- 6.2.1 Given that the work carried out at Ffordd Penrhos revealed only the two linear features identified on the geophysical survey, recommendations for further work are thus limited.
- 6.2.2 An evaluation trench crossing the two linear features may be worthwhile.

7 Acknowledgements

7.1.1 Thanks are due to; Robert Blackburn for his on-site assistance and research, to the staff of Watkin Jones Homes and to the staff of GAT & GAPS for their assistance.

Bibliography and references

British Geological Survey. 2001, 4th Edition. Solid Geology Map, UK South Sheet.

Bailey, G. 2004. Buttons and Fasteners 500BC-AD1840. Greenlight Publishing, Essex

Clarke, 1990. Seeing Beneath the Soil. BT Batsford Ltd

Lewis, S. 1833 Topographic Dictionary of Wales

Aerial Photographs by Sortie/Frame/Date

ti. Archaeology Wales Limited 106G/UK/655 – 4027 to 4030, 16,000' – 13th August 1945

CPE/UK/1939 – 3169, 16,400' – 20th January 1947

541/178 – 3184-5, 16,600' – 8th October 1948

CPE/UK/1996 - 2310-13, 23,000'

OS SH 47/57

71-284	162
94-045	0071
84-076	026
84-108	049
93-033	007
93-035	007
95-583	237
01-111	051
04-035	308
71-102	132

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Figures

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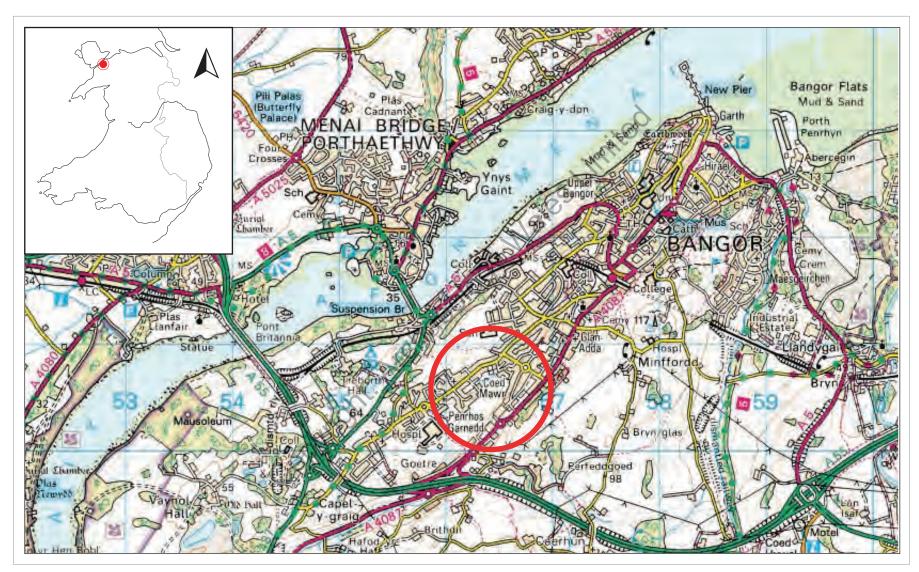
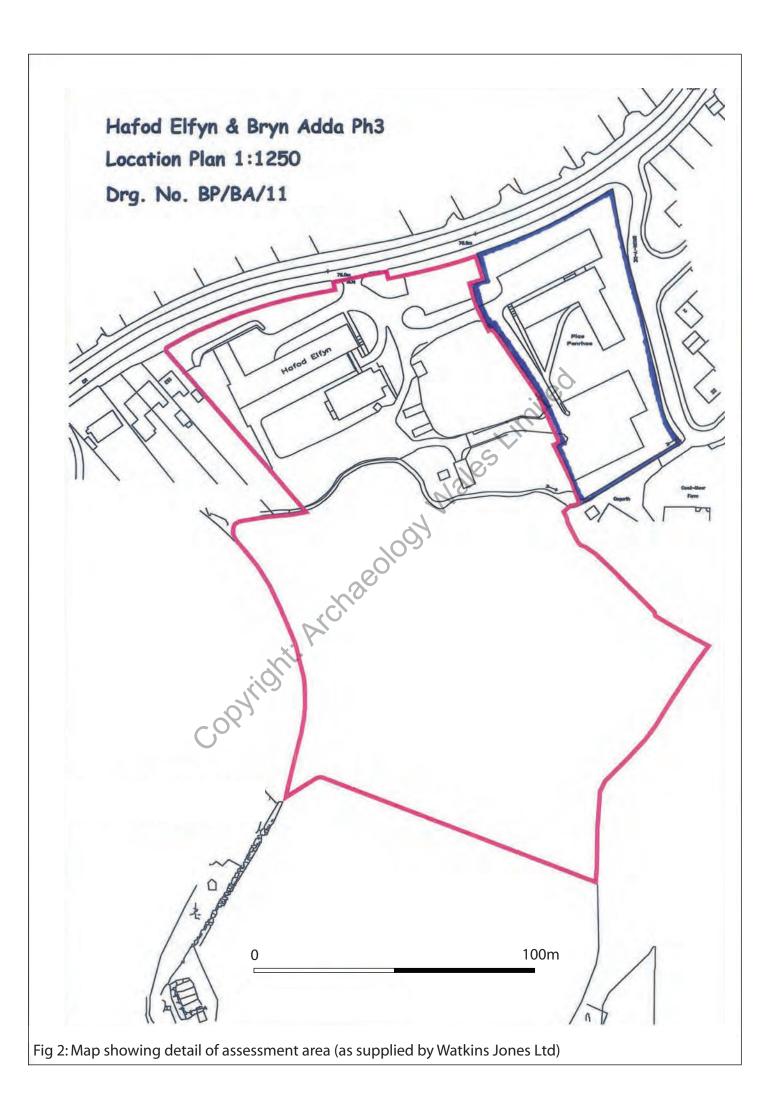


Fig 01: Map showing location of assessment area



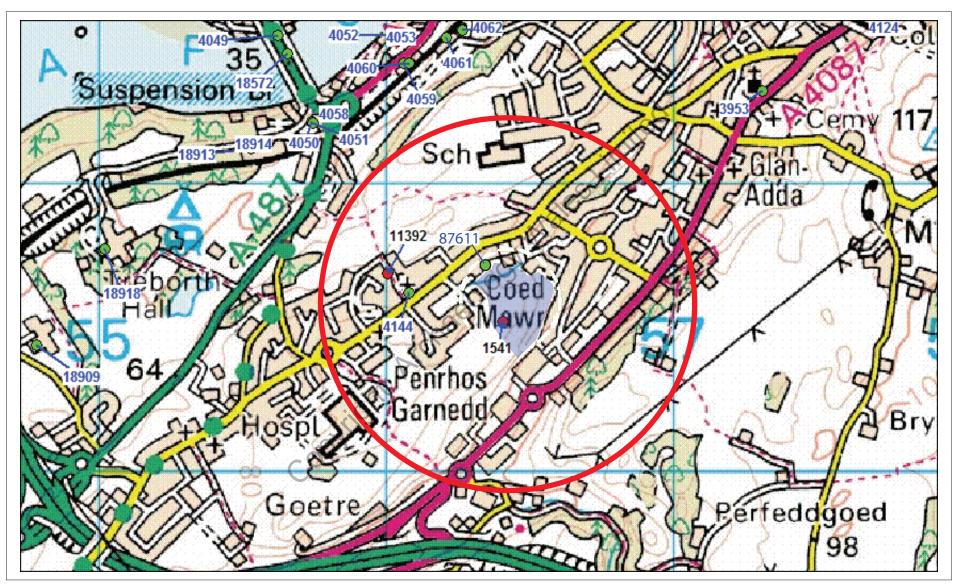


Fig 3: GIS data map showing distribution of listed buildings (green) and HER data points (red) in relation to assessment area (blue)



Fig 4: 1836 1st Series OS Map showing Assessment Area



Fig 5: 1840s Tithe Map showing assessment area

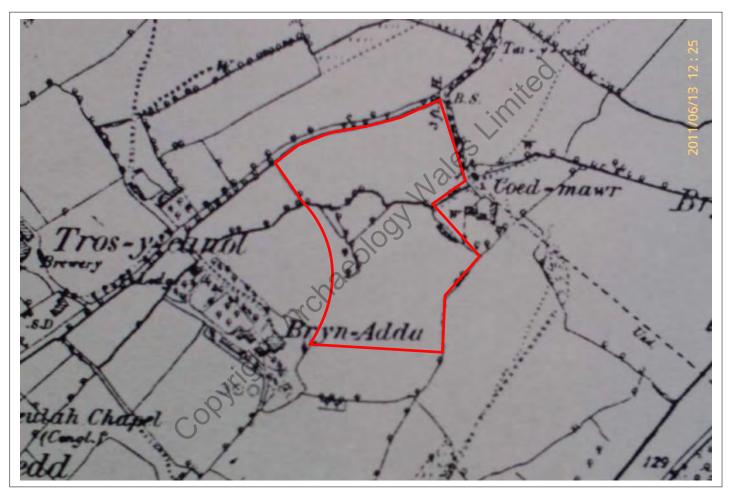


Fig 6: 18881st Ed 6 Inch OS Map showing assessment area

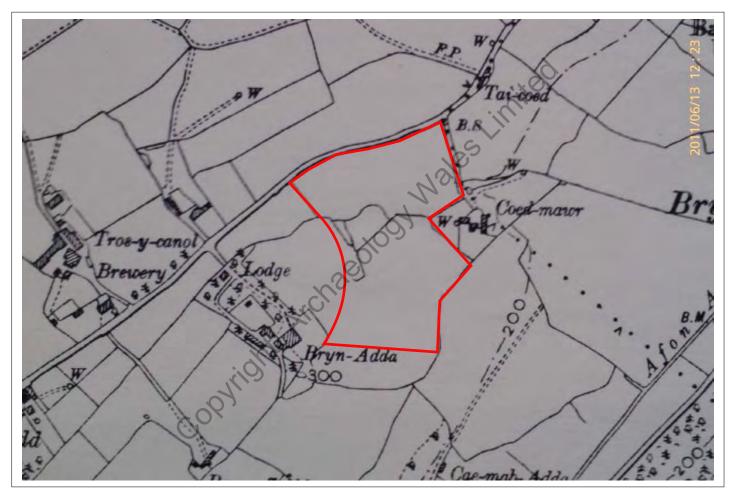


Fig 7: 1903 2nd Ed 6 Inch OS Map showing assessment area

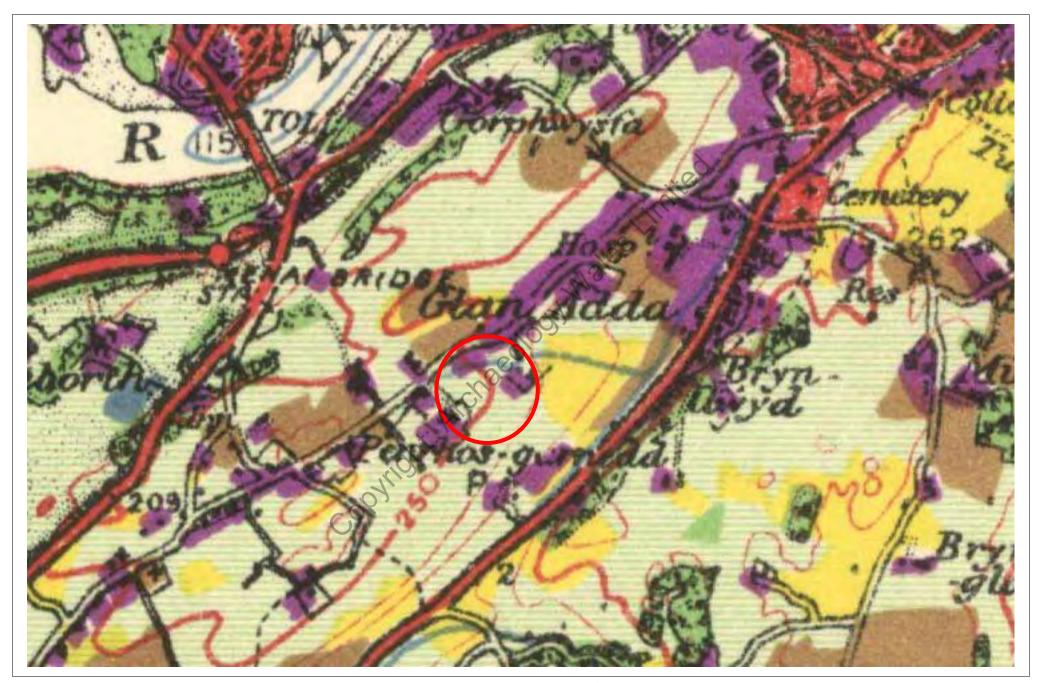


Fig 8: 1925 - 48 Land Utilisation map. Assessment area is shown as Housing and Unclassified

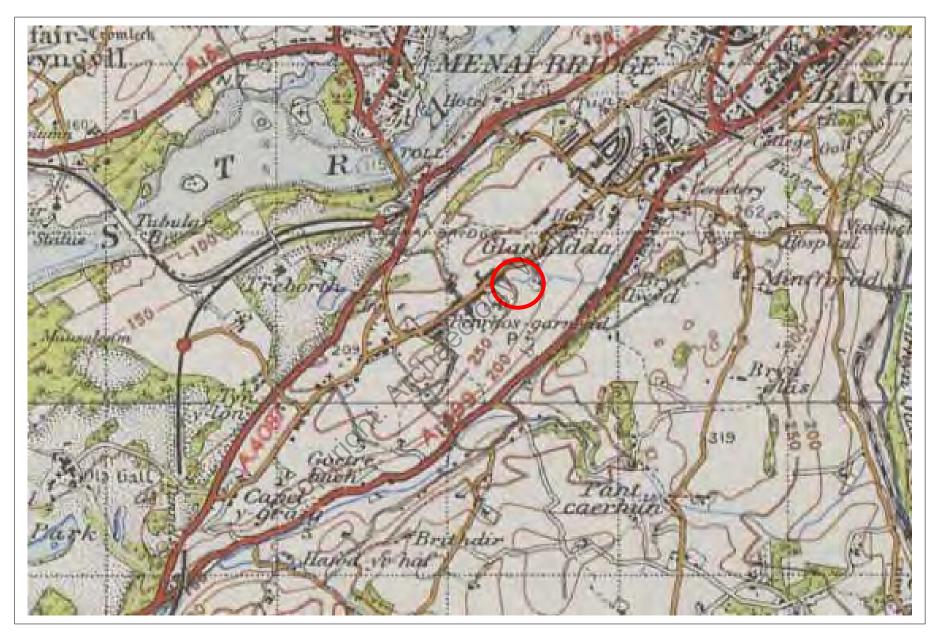
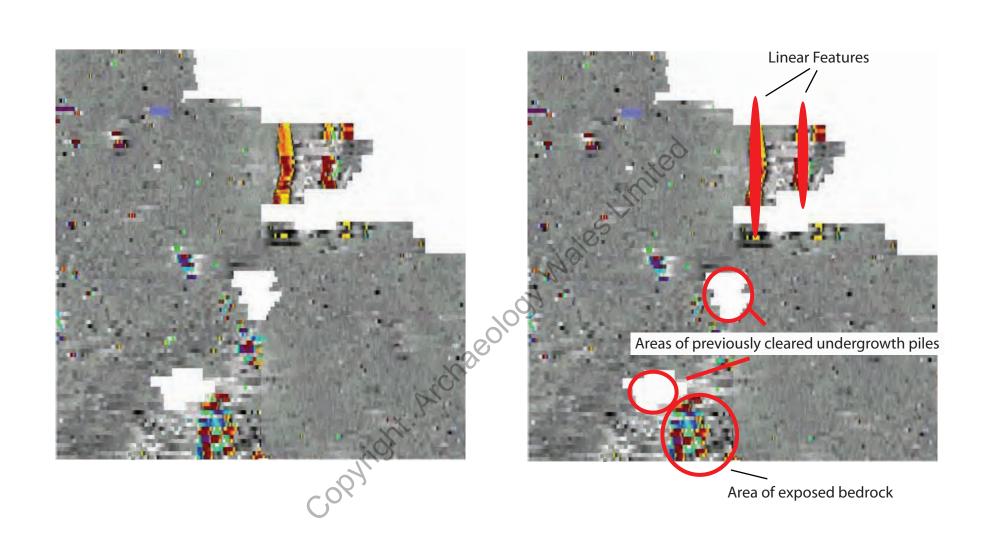
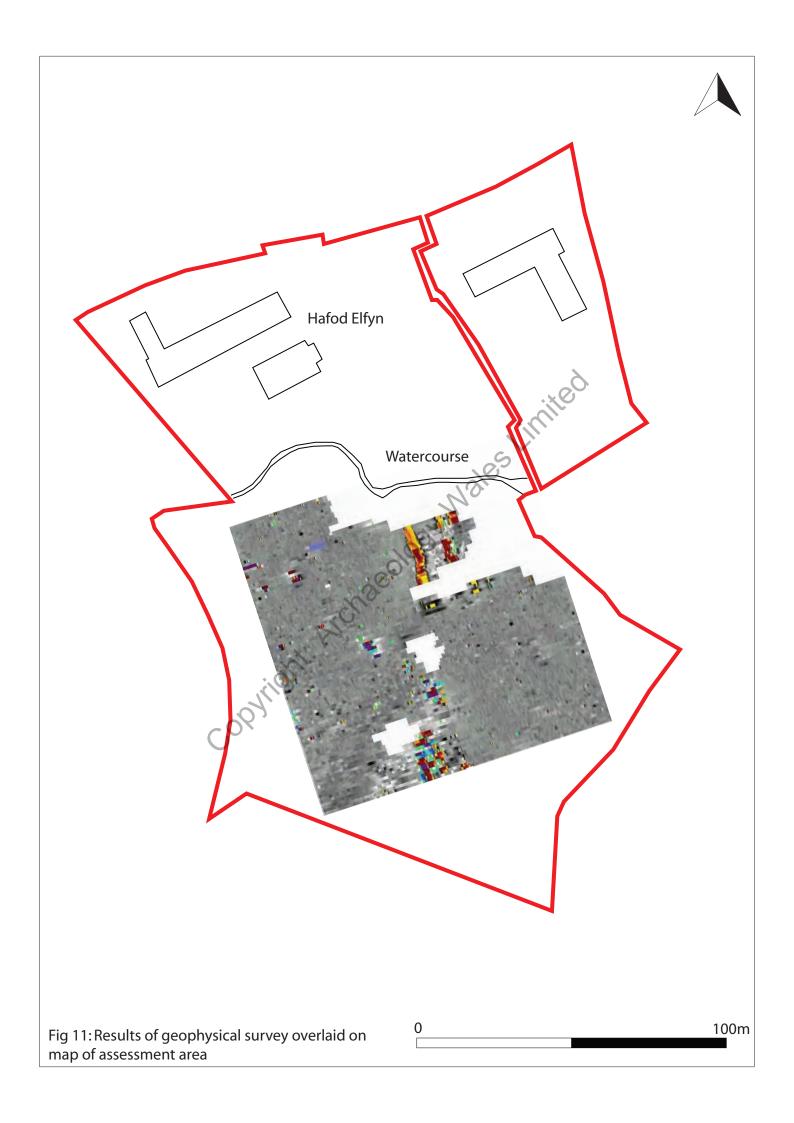


Fig 9: 1945 New Popular Edition OS Map showing assessment area. Though a small scale, no features are visible





Archaeology Wales APPENDIX II: Plates Copyright: Archaeology Copyright: Arch

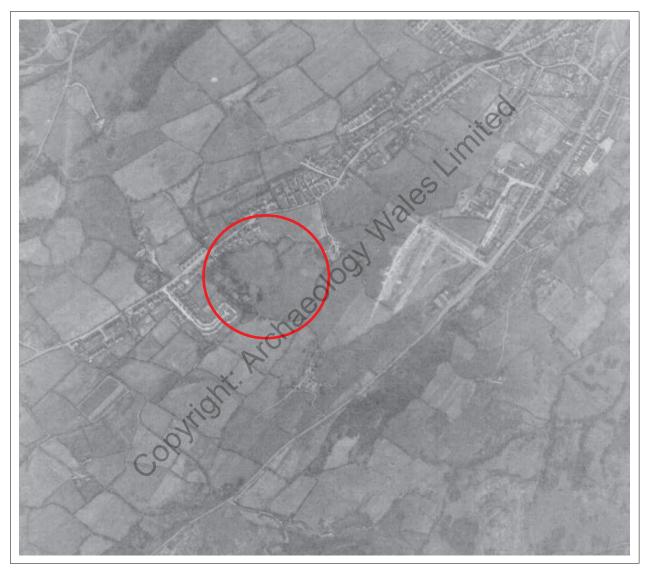


Plate 1:1947 AP showing assessment area

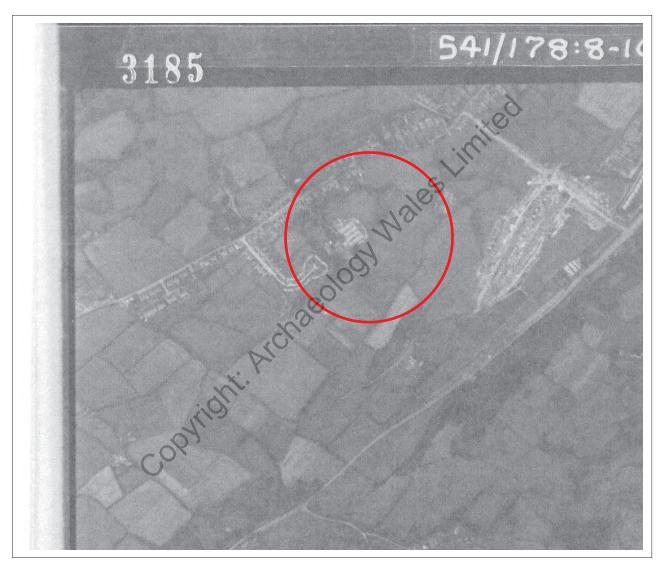


Plate 2: 1948 AP showing assessment area. Not expansion of structures at Bryn Adda

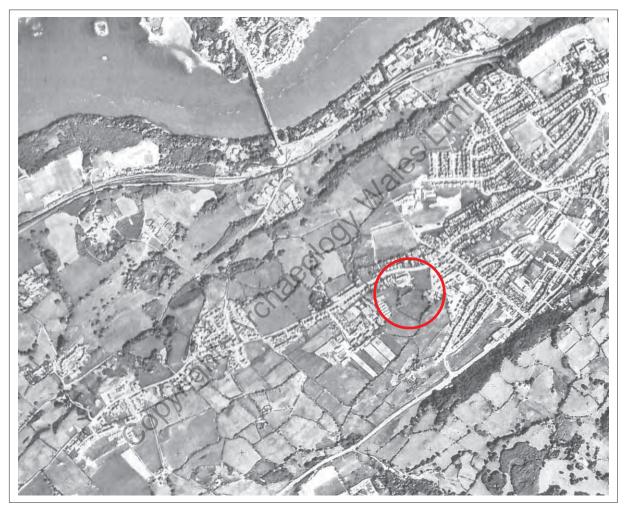


Plate 3: 1988 AP showing assessment area





Plate 5: View from within assessment area, looking SW



Plate 6: View from centre of assessment area looking north towards Hafod Elfyn

Archaeology Wales APPENDIX III: Hafod Elfyn Listing Details

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Cyfadran Adnoddau/Resources Directorate

Pennaeth Gweinyddol a Gwarchod y Cyhoedd Head of Administration and Public Protection

Dilys A Phillips

Gofynnwch am/Ask for: Mrs. L. S. Williams **☎**(01286) 679032

Ein Cyf / Our Ref: Eich Cyf / Your Ref: PRIVATE U.

1 5 JUL 2010

RECEIVE



14/07/2010

Prif Weithredwr / Chief Executive Cyngor Cefn Gwlad Cymru / Countryside Council for Wales Prif Swyddfa / Headquarters Maes y Ffynnon Penrhosgarnedd Bangor Gwynedd LL57 2DW

Annwyl Syr/Fadam,

ADEILAD RHESTREDIG - HAFOD ELFED, BANGOR

Ysgrifennaf i'ch hysbysu bod yr adeilad uchod wedi ei restru gan Cadw.

Amgaeaf copi o'r rhestriad a buasawn yn ddiolchgar petaech yn anfon y ffurflen cydnabod yn ol i mi.

Dear Sir/Madam,

LISTED BUILDING - HFOD ELFED, BANGOR

I write to inform you that the above building has been listed by Cadw.

Please find enclosed a copy of the listing and I would be grateful if you could return the acknowledgement form.

Yn gywir/Yours faithfully,

Lynne S. Williams

18 Williams

Swyddog Pridiannau Tir Lleol / Local Land Charges Officer

Enc.

Iynnesamuelwilliams@gwynedd.gov.uk DX 713560 CAERNARFON 5 Ffacs / Fax (01286) 673993 Swyddfa'r Cyngor Caernarfon Gwynedd. LL55 1SH 01286 672255 www.gwynedd.gov.uk

CYNGOR GWYNEDD COUNCIL

FFURFLEN CYDNABOD

Adeilad Rhestredig - Hafod Elfed, Bangor

Cadarnhaf fy mod wedi derbyn copi o'r rhestriad uchod ar
Arwyddwyd
Dyddiedig
ACKNOWLEDGEMENT FORM
Listed Building - Hafod Elfed, Bangor
I confirm that I have received a copy of the above listing on 19. 5014. 2010
Signed Bouilains
Dated .19.17.10

Anfonwch at / Forward to:

Lynne S. Williams Cyngor Gwynedd Council Pridiannau Tir Lleol / Local Land Charges Swyddfeydd y Cyngor / Council Offices Caernarfon Gwynedd LL55 1SH DEDDF CYNLLUNIO (ADEILADU RHESTREDIG AC ARDALOEDD CASWRAETH) 1990 – ADRAN 1
DIWYGIAD A GYHOEDDWYD GWYNEDD I RESTRU O ADEILADAU O DDIDDORDEB PENSAERNIOL NEW HANESYDDOL BWRDEISTREF SIRIOL 02/08/1998

1. O dan adran 1 o Ddeddf Cynllunio (Adeiladau Rhestredig ac Ardaloedd Cadwraeth) 1990 ("Deddf 1990"), mae'n ofynnol i'r Gweinidogion Cymru ffurfio rhestrau o adeiladau sydd o ddiddordeb pensaerniol neu hanesydol arbennig a gall **ddiwygio** unrhyw restri o'r fathsydd wedi'u llunio.

Gwneir hyn at ddibenion Deddf 1990 a gyda golwg ar gyfarwyddo awdurdodau cynllunio lleol wrth iddynt gyflawni eu swyddogaethau o dan Ddeddf 1990 mewn perthynas ag adeiladau o'r fath.

2. Yn dilyn ymgynghoriadau a phesonauy mae'n ymddangos o'r Gweinidogion Cymru ganddynt wybodaeth arbennig am adeiladau o'r fath, neu ddiddordeb arbennig ynddynt, mae'r Gweinidogion Cymru wedi dod i'r ccasgliad y dylid diwygio'r rhestr uchod ac yn rhinwedd eu pwerau o dan adran 1 o Ddeff 1990, mae'r Gweinidogion Cymru yn diwygio'r rhestr a enwyd fel y'i dis grifir yn yr Atodlen amgaeedig.

PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT 1990-SECTION 1

AMENDMENT TO THE LIST OF BUILDINGS OF SPECIAL ARCHITECTURAL OR HISTORIC INTEREST ON THE COUNTY BOROUGH OF GWYNEDD ISSUED ON 02/08/1988

1. Under section 1 of the Planning (Listed Buildings and Conservation Areas) Act 1990 ("the 1990 Act"), the Welsh Ministers are required to compile lists of buildings which appear to be of special architectural or historic interest and may <u>amend</u> any lists so compiled.

This is done for the purpose of the 1990 Act and with a view to the guidance of local planning authorities in the performance of their functions under the 1990 Act in relation to such buildings.

2. Following consultations with persons who appear to the Welsh Ministers as having special knowledge of, and interest in, such buildings, the Welsh Ministers have concluded that the above-mentioned list should be amended and, in pursuance of their powers under section 1 of the 1990 Act, the Welsh Ministers amend the said list as described in the attached schedule.



Detail Report



Authority Gwynedd Record No 87611

Date Listed 17/06/2010

Community Bangor Date Amended

Locality Penrhosgarnedd Date Delisted

Grid Ref 256368 370769

Grade 11

Name Hafod Elfyn (former Natural Environment Research Council Offices)

Street No, Name Penrhos Road

Location

On south side of Penrhos Road about 200m south-west of the junction with Coed Maws road

History

Designed by S. Colwyn Foulkes, architect of Colwyn Bay and constructed in 1959. Built for the Nature Conservancy Council in Wales, it is named after Professor R. Elfyn Hughes (1915 - 2007) who was its first and only director. Formed in the 1950s it functioned for twenty years until 1974, designating National Nature Reserves and Sites of Scientific Interest as well as undertaking research into the natural sciences. In 1972, at a time of expansion an extension was constructed to the rear and linked to the main building with a glazed gantry walkway. A further similar single storey office was built later in the C20 downslope and to the east.

Exterior

Office in vernacular revival style. Single storey 'C shaped plan with additional accommodation in the roof, main range parallel to and offset back from Penrhos Road. Roughcast walls, tall slate roof laid in diminishing courses with small hips, ridge finial and axial chimney to main range. Dormer windows to the rear roof slope. Metal casement windows to the ground floor and small pane sash windows to the attic floor in each gable. Main entrance is in the long elevation facing the road and is offset to the right, plain timber plank doors set within a deep pink sandstone moulded surround.

Interior

Not inspected but said to survive largely intact with original doors and brass fittings, including the main entrance doors and corridor doors with bevelled glass panels. A plaque is reportedly located inside the entrance which reads: 'This research building is named Hafod Elfyn in honour of Professor R. Elfyn Hughes for his contribution to nature conservation and research in Wales'.

Listed

Listed for its special architectural interest as a good example of a purpose built mid C20 office and research building designed by the architect S. Colwyn Foulkes, one of the leading Welsh architects of the C20. It is also important for its historical association with Professor Elfyn Hughes and the development of nature conservation in Wales.

Reference

The Buildings of Wales: Gwynedd, Haslam et al., p257 Information from the Countryside Council for Wales R Elfyn Hughes obituary, The Times, 7th November 2007 Dated: 17 June 2010

Signed by Laurence Burr under authority of the Minister for Heritage, one of the Welsh Ministers

Arence Burr
Head of Designations
Cadw
Welsh Assembly Government

Page 2

Listed Building

Hafod Elfyn (former Natural Environment Research Council offices)

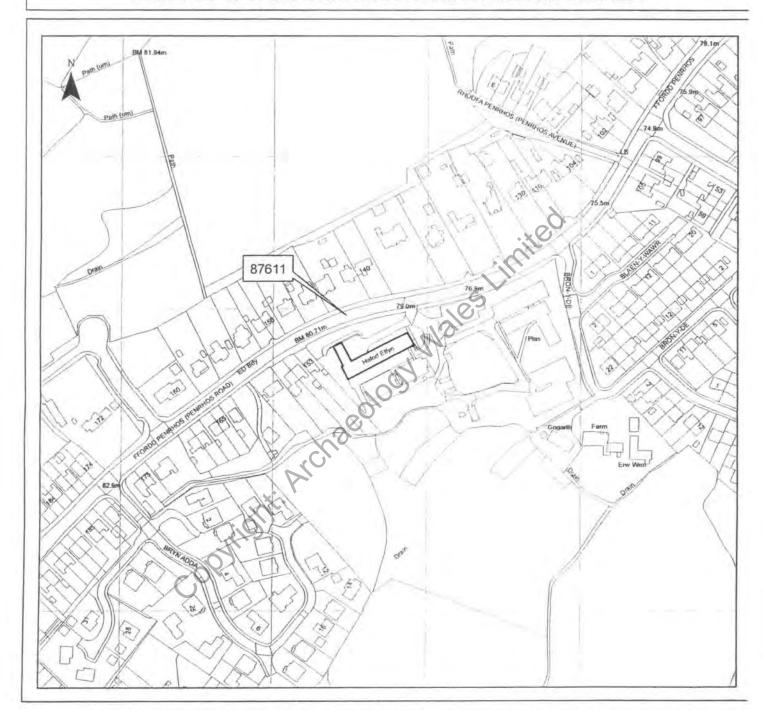
Plas Carew, Unit 5/7 Cefn Coed Parc Nantgarw, Cardiff, CF15 7QQ Tel: 01443 336000 Fax. 01443 336001

Email: cadw@wales.gsi.gov.uk Web. www.cadw.wales.gov.uk

Plas Carew, Uned 5/7 Cefn Coed Parc Nantgarw, Cardiff, CF15 7QQ Ffôn: 01443 336000

Facs: 01443 336001 Ebost: cadw@wales.gsi.gov.uk Gwefan: www.cadw.wales.gov.uk

BUILDINGS OF SPECIAL ARCHITECTURAL OR HISTORIC INTEREST



Unitary Authority: Gwynedd

Ordnance Survey

File No :

A-CL 144-06-065

Grid Reference

256368 370769

Community: Bangor Sheets

Ordnance Survey

SH 5670

Scale: 1:2,500





Cadw yw cyfarwyddiaeth amgylchedd hanesyddol Llywodraeth Cynulliad Cymru Cadw is the historic environment Directorate of the Welsh Assemby Government

Archaeology Wales

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