



aeon archaeology

Ysgol y Berwyn, Bala, Gwynedd.

July 2016

V 1.0



Archaeological Watching Brief
Project Code: A0086.1
Report no. 0093



aeon archaeology

Ysgol y Berwyn, Bala, Gwynedd. July 2016

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Archaeological Watching Brief

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Project Code: A0086.1

Date: 21/07/2016

Client: Gwynedd Council

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Figures

Figure 01: Location of Ysgol y Berwyn, Bala. Scale 1:10,000 at A4.

Figure 02: Location of car park extension area at Ysgol y Berwyn, Bala. Scale 1:1,500 at A4.

Figure 03: Location of areas monitored by watching brief at Ysgol y Berwyn, Bala. Scale 1:750 at A4.

Figure 04: Location and orientation of photographs at Ysgol y Berwyn, Bala. Scale 1:750 at A4.

Plates

Plate 01: Car park extension eastern end topsoil strip, from the northwest. Scale 1.0m.

Plate 02: Car park extension eastern end topsoil strip, from the southeast. Scale 1.0m.

Plate 03: Car park extension western end topsoil strip, from the southeast. Scale 1.0m.

Plate 04: Car park extension western end topsoil strip, from the northwest. Scale 1.0m.

Plate 05: Compound laydown topsoil strip, from the north. Scale 1.0m.

Plate 06: Car park extension western end subsoil strip, from the northwest. Scale 1.0m.

Plate 07: Car park extension western end subsoil strip, from the southeast. Scale 1.0m.

Plate 08: Northeast facing section of topsoil strip, from the northeast. Scale 1.0m.

Plate 09: Northeast facing section of subsoil strip, from the northeast. Scale 1.0m.

Plate 10: Car park extension eastern end subsoil strip, from the southeast. Scale 1.0m.

Plate 11: Car park extension eastern end subsoil strip, from the northwest. Scale 1.0m.

Plate 12: Car park extension removal of pathway, from the southeast. Scale 1.0m.

Plate 13: Car park extension removal of pathway, from the northwest. Scale 1.0m.

Plate 14: Car park extension eastern end subsoil strip (beneath southern spoil tip), from the southeast. Scale 1.0m.

Plate 15: Car park extension eastern end topsoil strip (beneath northern spoil tip), from the northwest. Scale 1.0m.

Plate 16: Car park extension eastern end topsoil strip (beneath northern spoil tip), from the southeast. Scale 1.0m.

Contents

1.0	NON-TECHNICAL SUMMARY	1
2.0	INTRODUCTION	2
3.0	SITE LOCATION.....	3
4.0	PROJECT AIMS.....	4
5.0	METHODOLOGY – ARCHAEOLOGICAL WATCHING BRIEF.....	5
5.1	Watching Brief.....	5
5.2	Data Collection from Site Records	5
5.3	Artefact Methodology	6
5.4	Environmental Samples Methodology	6
5.5	Report and dissemination.....	6
6.0	QUANTIFICATION OF RESULTS	7
6.1	The Documentary Archive.....	7
6.2	Environmental Samples	7
6.3	Artefacts.....	7
7.0	RESULTS OF THE ARCHAEOLOGICAL WATCHING BRIEF.....	8
8.0	CONCLUSION AND RECOMMENDATIONS.....	10
9.0	SOURCES.....	11
	APPENDIX I: MAGNETOMETER SURVEY YSGOL Y BERWYN, BALA.....	12
	APPENDIX II: WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL WATCHING BRIEF	13

1.0 NON-TECHNICAL SUMMARY

Aeon Archaeology was commissioned by Darnton B3 Architecture on behalf of Gwynedd Council to carry out an archaeological watching brief as part of the construction of a new car park and refurbishment at Ysgol y Berwyn, Bala and within the Snowdonia National Park Authority (SNPA) as a condition of full planning permission.

The results of the archaeological watching brief at Ysgol y Berwyn are considered to be somewhat disappointing, with no archaeological remains or artefacts being uncovered. The magnetometer survey carried out by Durham University Archaeological Services had not identified any archaeological remains within the development area but had suggested that the area had been ploughed and cultivated. This phase of cultivation appears to have been relatively short-lived however, as the soil horizons were fairly shallow for a low-lying plateau, and no artefacts associated with post-medieval cultivation were observed. Indeed, aside from the modern intrusions of the goal posts and central pathway there does not appear to have been any disturbance of the soil horizons beyond that of the plough marks identified by Durham University.

It is therefore recommended that no further archaeological mitigation is required as part of the car park extension and upon conclusion of the historic building survey it is recommended that the archaeological condition be discharged in full.

2.0 INTRODUCTION

Aeon Archaeology was commissioned by Darnton B3 Architecture on behalf of Gwynedd Council to carry out an archaeological watching brief as part of the construction of a new car park and refurbishment at Ysgol y Berwyn, Bala and within the Snowdonia National Park Authority (SNPA) as a condition of full planning permission (**NP5/53/4D**).

Following a review of the catchment area of Ysgol y Berwyn, it was decided to create a Lifelong Learning Community in Y Bala. The development will provide education for the pupils of the following schools, Ysgol y Berwyn (secondary), Ysgol Bro Tegid (primary), Ysgol Beuno Sant (primary).

The development will take place on the site of the existing Secondary School - Ysgol y Berwyn and it is envisaged that it will involve substantial refurbishment of the existing school and the construction of a new two storey block to replace a substantial part of the red brick unit at the front of the existing Ysgol y Berwyn.

A new Sports facility will also be constructed as part of the Scheme.

The archaeological work was undertaken as part of mitigatory works during the groundworks associated with the construction of a new car park extension on the south-eastern side of the existing school car park off Ffrydan Road (**centred on NGR SH 9259 3631**) (figure 1).

A mitigation brief was not prepared for this work by the SNPA Archaeologist but the following statement was made a condition of full planning permission:

Condition 5

No work shall commence (including any ground disturbing works or site clearance) until such time as the applicant has submitted to and had approval in writing from the Local Planning Authority for an archaeological specification for a programme of works which must meet all relevant archaeological standards.

Condition 6

The development hereby approved shall be carried out in strict accordance with the archaeological specification for a programme of works as approved in condition 5 above.

The reason for this condition was:

*To ensure no matters of archaeological interest adversely affected as a result of this development and are satisfactorily recorded (**Planning Reference NP5/53/4D**).*

A magnetometer geophysical survey was undertaken of the proposed car park extension area and the surrounding playing field by Durham University Archaeological Services in June 2016 (report 4195, appendix I). The report on the findings of this survey did not show any archaeological remains within the development area. As such the Development Control Archaeologist (Mr John G Roberts) at the SNPA agreed that the phased approach to the archaeological mitigation would involve the following:

1. Archaeological watching brief:

- (i) During all ground disturbance associated with the construction of the car park extension.

2. Level 2 historic building record:

- (i) Prior to the demolition of the red-brick Victorian section of the school located alongside Ffrydan Road.

This report is for the archaeological watching brief phase of work with the historic building record scheduled to be undertaken in August 2016.

Relevant UK legislation on heritage includes the Welsh Government's Planning Policy Wales (PPW 2012), Welsh Office Circular 60/96, and the Historic Environment Act (Wales) 2016. The work adhered to the guidelines specified in Standard and Guidance for Archaeological Watching Brief (Chartered Institute for Archaeologists, 2014).

The watching brief was maintained during intrusive groundworks, as detailed below.

A written Scheme of Investigation (WSI) was undertaken by Aeon Archaeology in June 2016 (appendix II) which outlined the principle aims of the watching brief and the methods by which they would be met. This formed the basis of a method statement submitted for the work.

3.0 SITE LOCATION

Bala is a small market town, with a population of 1,980 (2001 census) situated at the northern end of Llyn Tegid within the Snowdonia National Park. (Grid Reference SH926362.)

The A4212 runs parallel to the site and there are minor roads that surround Ysgol y Berwyn, Bala which are Heol Arenig and Heol y Castell.

As of September 2010 there were 378 pupils and 28 teachers at the existing secondary school.

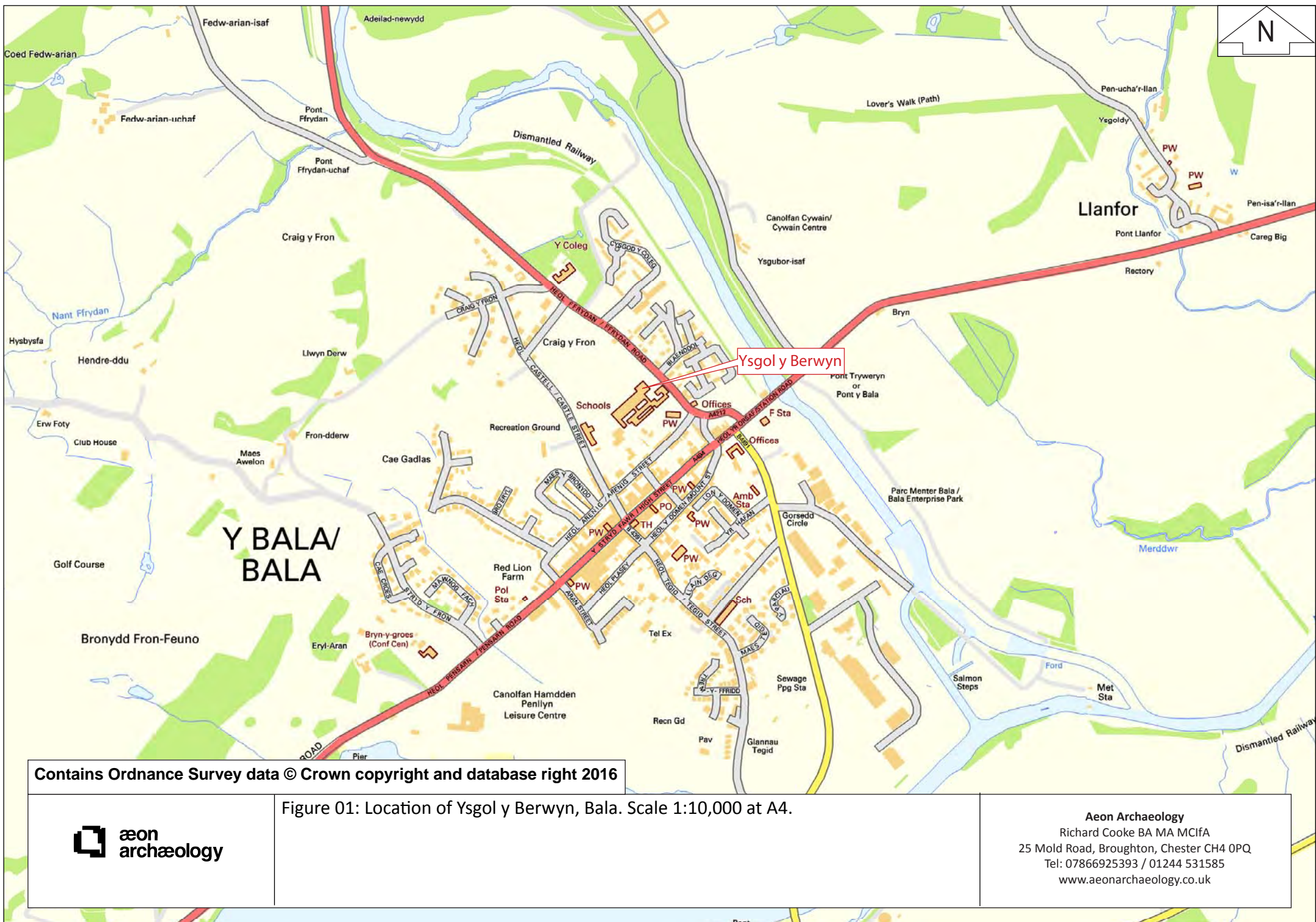
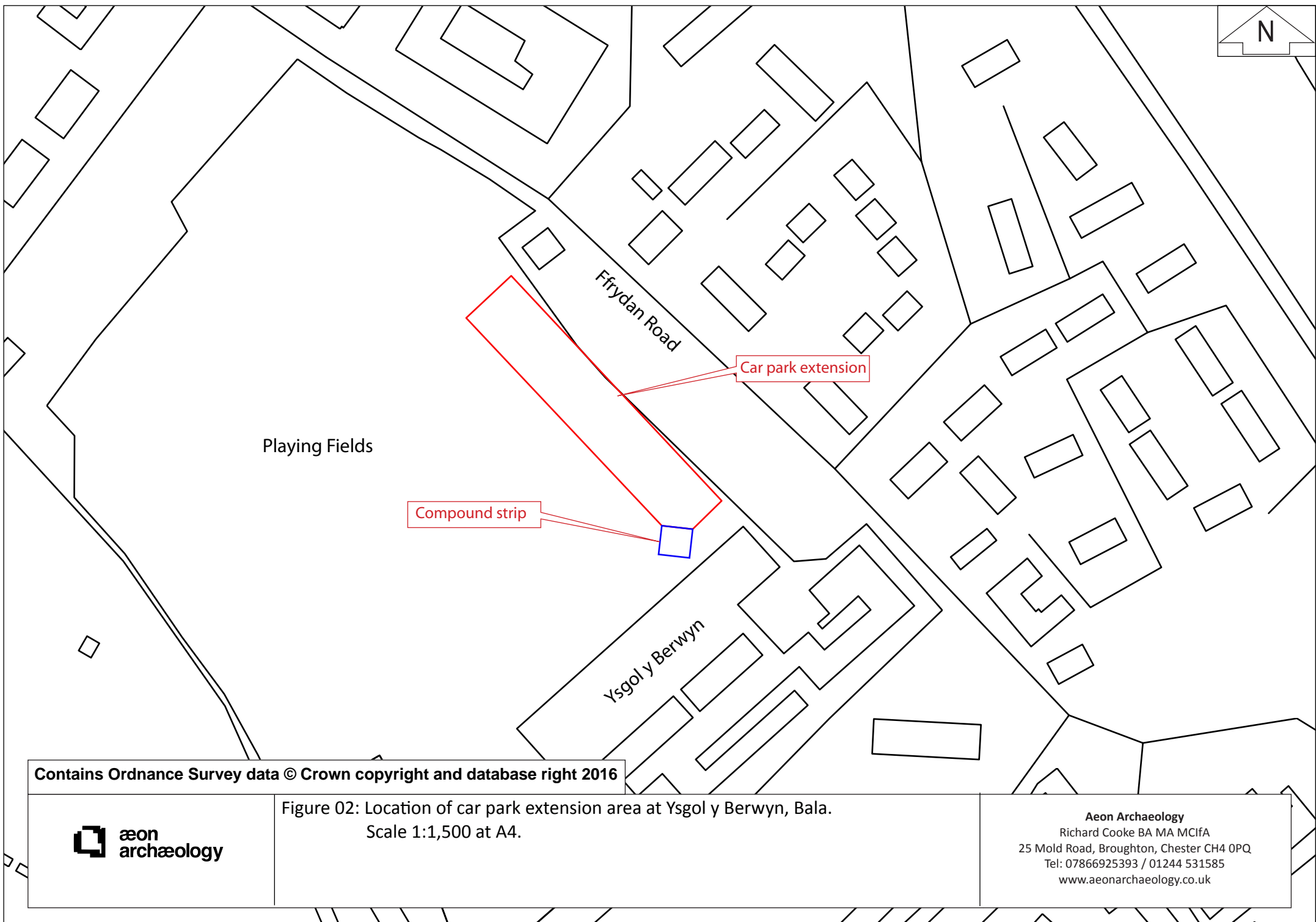


Figure 01: Location of Ysgol y Berwyn, Bala. Scale 1:10,000 at A4.



4.0 PROJECT AIMS

The aim of the watching brief works was to characterise the known, or potential, archaeological remains uncovered during groundworks associated with the construction of the car park extension at Ysgol y Berwyn.

The broad aims of the archaeological watching brief were to:

- To determine, as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains on the site, the integrity of which may be threatened by development at the site.
- To establish the nature and extent of existing disturbance and intrusion to sub-surface deposits and, where the data allows, assess the degree of archaeological survival of buried deposits of archaeological significance.
- To allow the SNPA Development Control Archaeologist to make an informed decision on the need for and scope of any further archaeological works that may be required on future projects within proximity to the scheme.

The detailed objectives of the archaeological watching brief were to:

- Insofar as possible within methodological constraints, to explain any temporal, spatial or functional relationships between the structures/remains identified, and any relationships between these and the archaeological and historic elements of the wider landscape.
- Where the data allows, identify the research implications of the site with reference to the regional research agenda and recent work in Gwynedd.

The management of this project has followed the procedures laid out in the standard professional guidance *Management of Research Projects in the Historic Environment Project Manager's Guide* (English Heritage 2006; rev 2015), and in the Chartered Institute for Archaeologists *Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014). Five stages are specified:

Phase 1: project planning

Phase 2: fieldwork

Phase 3: assessment of potential for analysis and revised project design

Phase 4: analysis and report preparation

Phase 5: dissemination

The current document reports on the phase 4 analysis and states the means to be used to disseminate the results. The purpose of this phase is to carry out the analysis identified in phase 3 (the assessment of potential phase), to amalgamate the results of the specialist studies, if required, with the detailed site narrative and provide both specific and overall interpretations. The site is to be set in its landscape context so that its full character and importance can be understood. All the information is to be presented in a report that will be held by the Gwynedd Historic Environment Record (HER) and the Royal Commission on the Ancient and Historic Monuments in Wales (RCAHMW) so that it can be accessible to the public and future researchers. This phase of work also includes archiving the material and documentary records from the project.

5.0 METHODOLOGY – ARCHAEOLOGICAL WATCHING BRIEF

5.1 Watching Brief

The CIfA maintains a standard for archaeological watching brief which states that:

An archaeological watching brief will record the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of conduct and other relevant by-laws of CIfA.

An archaeological watching brief is defined by the CIfA as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons (CIfA 2014a). The watching brief will take place within a specified area within the Site where there is a possibility that archaeological deposits may be disturbed or destroyed.

The CIfA further identifies the purpose of a watching brief as allowing, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established in advance of development or other potentially disruptive works.

It is also important to note that a watching brief provides an opportunity, if needed, for a signal to be made to all interested parties, before the destruction of the archaeological materials, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.

A watching brief is, therefore, not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

All soil removal was undertaken using a mechanical excavator fitted with a toothless ditching bucket. A photographic record was maintained throughout, using a digital SLR camera (Canon 6000D) set to maximum resolution and all archaeological features were to be recorded photographically with photographs taken in RAW format and later converted to TIFF format for long-term storage and JPEG format for presentation and inclusion in the archive. The standards for the digital archive adhered to those set out in ‘*Guidelines for Digital Archaeological Archives*’ (RCAHMW, 2015).

In the event of archaeological discovery features were to be excavated by hand and fully recorded using Aeon Archaeology pro-formas, digital photographs, and plan and section drawings taken at a suitable scale (usually 1:20 for plan drawings and 1:10 for section drawings).

The archive produced is held at Aeon Archaeology under the project code **A0086.1**.

5.2 Data Collection from Site Records

A database of the site photographs was produced to enable active long-term curation of the photographs and easy searching. The site records were checked and cross-referenced and photographs were cross-referenced to contexts. These records were used to write the site narrative and the field drawings and survey data were used to produce an outline plan of the site.

All paper field records were scanned to provide a backup digital copy. The photographs were organised and precisely cross-referenced to the digital photographic record so that they could be archived within the regional HER and RCAHMW.

5.3 Artefact Methodology

All artefacts were to be collected and processed including those found within spoil tips. They would be bagged and labelled as well as any preliminary identification taking place on site. After processing, all artefacts would be cleaned and examined in-house at Aeon Archaeology. If required artefacts would be sent to a relevant specialist for conservation and analysis.

The recovery policy for archaeological finds was kept under review throughout the archaeological watching brief. Any changes in recovery priorities would be made under guidance from an appropriate specialist and agreed with the Client and the SNPA Development Control Archaeologist. There was a presumption against the disposal of archaeological finds regardless of their apparent age or condition.

5.4 Environmental Samples Methodology

The sampling strategy and requirement for bulk soil samples was related to the perceived character, interpretational importance and chronological significance of the strata under investigation. This ensured that only significant features would be sampled. The aim of the sampling strategy was to recover carbonised macroscopic plant remains, small artefacts particularly knapping debris and evidence for metalworking.

Advice and guidance regarding environmental samples and their suitability for radiocarbon dating, as well as the analysis of macrofossils (charcoal and wood), pollen, animal bones and molluscs would be obtained from Oxford Archaeology if required.

5.5 Report and dissemination

A draft copy of the report has been sent to the client and upon written approval from them paper and digital copies of the report will be sent to the regional HER (x1) (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor, LL57 2RT), the Snowdonia National Park Authority (SNPA) Archaeologist (x3), and the Royal Commission on the Ancient and Historic Monuments in Wales (RCAHMW) (x1). Copies of all notes, plans, and photographs arising from the watching brief will be stored at Aeon Archaeology under the project code **A0086.1** with the originals being lodged in a suitable repository to be agreed with the archaeological curator.

Any artefacts arising from the fieldwork were to be lodged with the Gwynedd Museum and Art Gallery, Bangor, Gwynedd.

6.0 QUANTIFICATION OF RESULTS

6.1 The Documentary Archive

The following documentary records were created during the archaeological watching brief:

Watching brief day sheets	5
Context sheets	0
Digital photographs	32

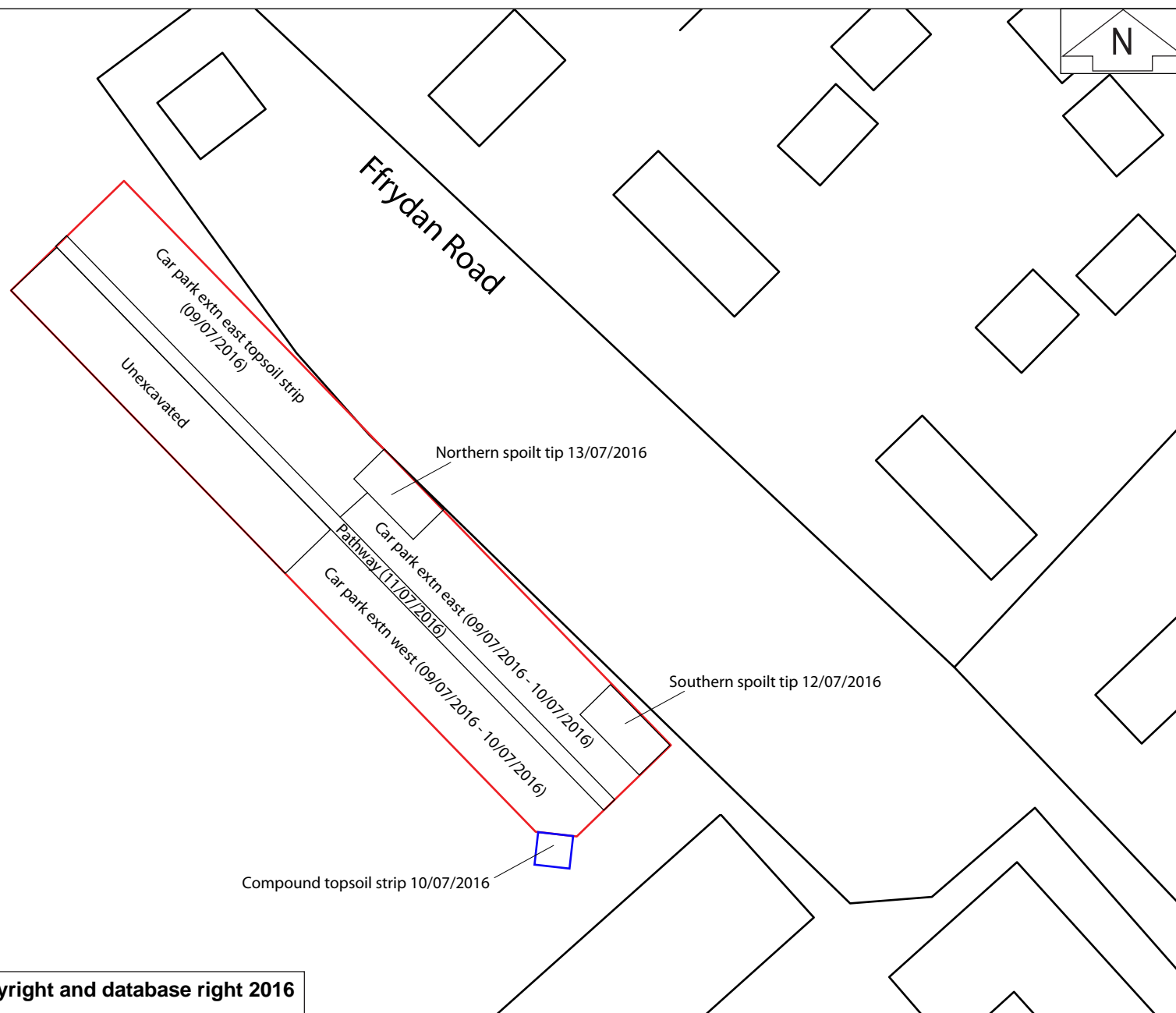
6.2 Environmental Samples

No environmental samples were taken as part of the watching brief as no suitable archaeological deposits were encountered.

6.3 Artefacts

No artefacts were recovered during the archaeological watching brief.

Playing Fields



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Figure 03: Location of areas monitored by watching brief at Ysgol y Berwyn, Bala.
Scale 1:750 at A4.

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7.0 RESULTS OF THE ARCHAEOLOGICAL WATCHING BRIEF

The archaeological watching brief was maintained by Richard Cooke BA MA MCIfA, archaeological contractor and consultant at Aeon Archaeology. The site was attended from 9th – 13th July 2016 and the weather conditions varied between heavy rain and bright conditions.

Saturday 9th July 2016 (figures 1-4; plates 1-4)

The watching brief was maintained while a 13 ton tracked excavator with toothless ditching bucket removed the topsoil horizon across the entire car park extension area which measured 100.0m in length by 20.0m in width orientated northwest to southeast. This involved initially stripping the turf and then removing the topsoil which consisted of a 0.25m deep dark red-brown silt-clay on to a mid red-brown silt-clay subsoil. The western quadrant of the extension was not stripped as this area was not required as part of the extension.

No archaeological remains were observed and no artefacts recovered.

Sunday 10th July 2016 (figures 1-4; plates 5-11)

The watching brief was maintained while a 13 ton tracked excavator with toothless ditching bucket removed the topsoil horizon in a 10.0m by 10.0m area located at the southern limit of the site as part of the compound setup. This involved initially stripping the turf and then removing the topsoil which consisted of a 0.25m deep dark red-brown silt-clay on to a mid red-brown silt-clay subsoil and then covering the area with geotextile and sub-base.

No archaeological remains were observed and no artefacts recovered.

The watching brief was also maintained during the removal of the subsoil horizon across the western part of the car park extension, an area measuring 50.0m in length by 7.0m in width orientated northwest to southeast. The subsoil consisted of a 0.1m deep mid red-brown silt-clay which lay directly above a light/mid red-brown sandy silt-clay natural glacial substrata with very frequent small sized rounded cobble inclusions.

No archaeological remains were observed and no artefacts recovered.

The watching brief was also maintained during the removal of the subsoil horizon across the eastern part of the car park extension, an area measuring 45.0m in length by 11.0m in width orientated northwest to southeast, with the exception of two spoil tip locations measuring 10.0m by 10.0m each and located at the northern and southern ends of the site. The subsoil consisted of a 0.1m deep mid red-brown silt-clay which lay directly above a light/mid red-brown sandy silt-clay natural glacial substrata with very frequent small sized rounded cobble inclusions.

No archaeological remains were observed and no artefacts recovered.



Plate 01: Car park extension eastern end topsoil strip, from the northwest. Scale 1.0m.



Plate 02: Car park extension eastern end topsoil strip, from the southeast. Scale 1.0m.



Plate 03: Car park extension western end topsoil strip, from the southeast. Scale 1.0m.



Plate 04: Car park extension western end topsoil strip, from the northwest. Scale 1.0m.



Plate 05: Compound laydown topsoil strip, from the north. Scale 1.0m.



Plate 06: Car park extension western end subsoil strip, from the northwest. Scale 1.0m.



Plate 07: Car park extension western end subsoil strip, from the southeast. Scale 1.0m.



Plate 8: Northeast facing section of topsoil strip, from the northeast. Scale 1.0m.



Plate 9: Northeast facing section of subsoil strip, from the northeast. Scale 1.0m.



Plate 10: Car park extension eastern end subsoil strip, from the southeast. Scale 1.0m.



Plate 11: Car park extension eastern end subsoil strip, from the northwest. Scale 1.0m.

Monday 11th July 2016 (figures 1-4; plates 12-13)

The watching brief was maintained while a 13 ton tracked excavator with toothless ditching bucket removed the tarmac, underlying sub-base, and subsoil horizon of the central pathway, measuring 100.0m in length by 2.0m in width orientated northwest to southeast. The subsoil consisted of a 0.1m deep mid red-brown silt-clay which lay directly above a light/mid red-brown sandy silt-clay natural glacial substrata with very frequent small sized rounded cobble inclusions.

No archaeological remains were observed and no artefacts recovered.

Tuesday 12th July 2016 (figures 1-4; plates 14)

The watching brief was maintained while a 13 ton tracked excavator with toothless ditching bucket removed the subsoil horizon across the western part of the car park extension beneath the southern spoil tip, an area measuring 10.0m by 10.0m. The subsoil consisted of a 0.1m deep mid red-brown silt-clay which lay directly above a light/mid red-brown sandy silt-clay natural glacial substrata with very frequent small sized rounded cobble inclusions.

No archaeological remains were observed and no artefacts recovered.

Wednesday 13th July 2016 (figures 1-4; plates 15-16)

The watching brief was maintained while a 13 ton tracked excavator with toothless ditching bucket removed the topsoil horizon across the western part of the car park extension beneath the northern spoil tip, an area measuring 10.0m by 10.0m. This involved removing the topsoil which consisted of a 0.25m deep dark red-brown silt-clay on to a mid red-brown silt-clay subsoil. The subsoil was not stripped as the required depth limit was encountered.

No archaeological remains were observed and no artefacts recovered.



Plate 12: Car park extension removal of pathway, from the southeast. Scale 1.0m.



Plate 13: Car park extension removal of pathway, from the northwest. Scale 1.0m.



Plate 14: Car park extension eastern end subsoil strip (beneath southern spoil tip), from the southeast. Scale 1.0m.

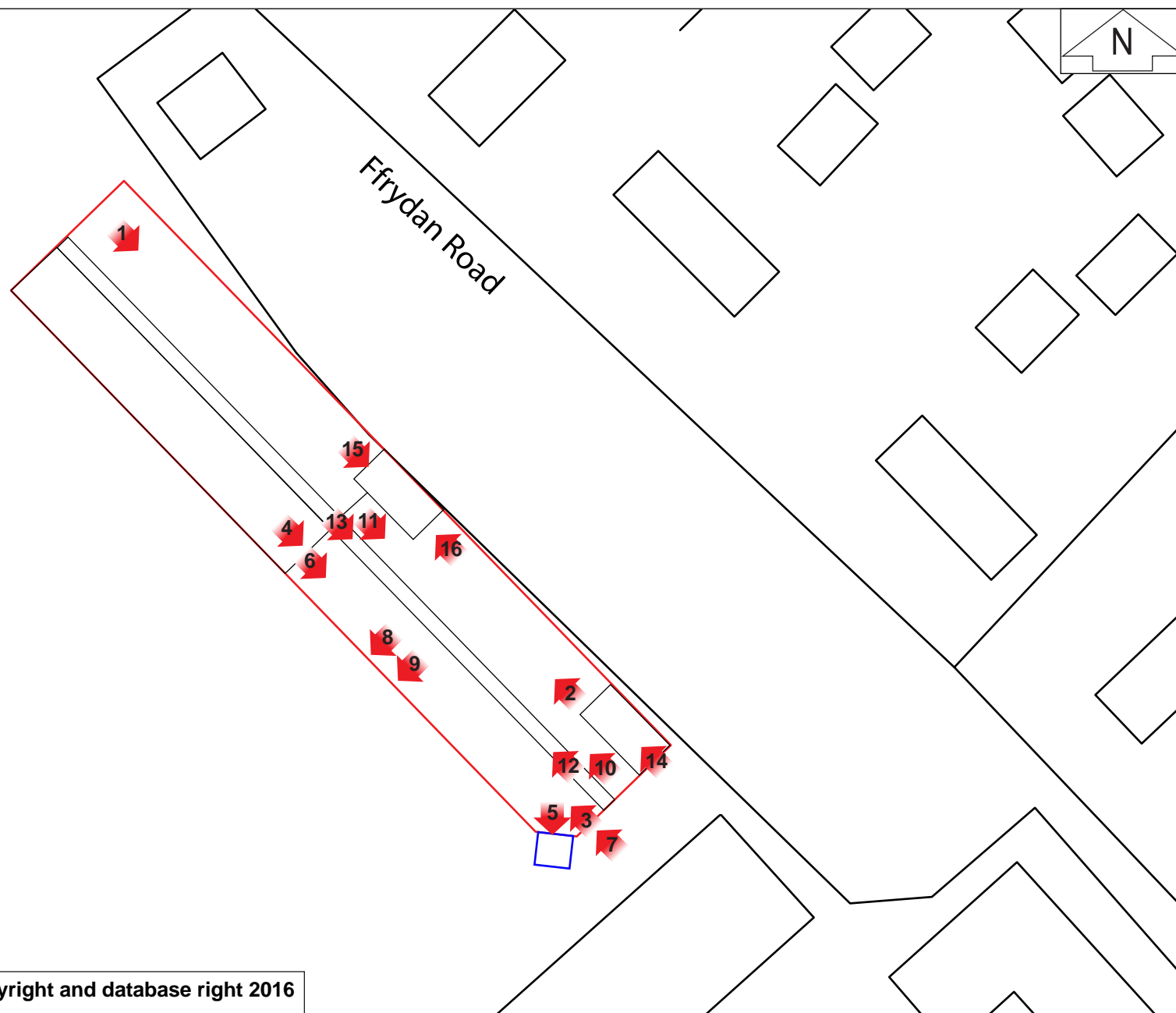


Plate 15: Car park extension eastern end topsoil strip (beneath northern spoil tip), from the northwest. Scale 1.0m.



Plate 16: Car park extension eastern end topsoil strip (beneath northern spoil tip), from the southeast. Scale 1.0m.

Playing Fields



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Figure 04: Location and orientation of photographs at Ysgol y Berwyn, Bala.
Scale 1:750 at A4.

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8.0 CONCLUSION AND RECOMMENDATIONS

The results of the archaeological watching brief at Ysgol y Berwyn are considered to be somewhat disappointing, with no archaeological remains or artefacts being uncovered. The magnetometer survey carried out by Durham University Archaeological Services had not identified any archaeological remains within the development area but had suggested that the area had been ploughed and cultivated. This phase of cultivation appears to have been relatively short-lived however, as the soil horizons were fairly shallow for a low-lying plateau, and no artefacts associated with post-medieval cultivation were observed. Indeed, aside from the modern intrusions of the goal posts and central pathway there does not appear to have been any disturbance of the soil horizons beyond that of the plough marks identified by Durham University.

It is therefore recommended that no further archaeological mitigation is required as part of the car park extension and upon conclusion of the historic building survey it is recommended that the archaeological condition be discharged in full.

9.0 SOURCES

Sources

Aeon Archaeology, 2016. *Written Scheme of Investigation for Archaeological Watching Brief – Ysgol y Berwyn, Bala, Gwynedd.*

British Geological Survey website. www.bgs.ac.uk.

Durham University Archaeological Services, 2016. *Ysgol y Berwyn, Bala, Gwynedd – Geophysical Survey. Report 4195.*

English Heritage, 1991. *Management of Archaeological Projects (MAP2)*

English Heritage, 2006, rev 2015. *Management of Research Projects in the Historic Environment (MORPHE)*

The Chartered Institute for Archaeologists, 2014 *Standard and Guidance for Archaeological Watching Brief*

APPENDIX I: MAGNETOMETER SURVEY YSGOL Y BERWYN, BALA.

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
Aeon Archaeology

Ysgol y Berwyn
Bala
Gwynedd

geophysical survey

report 4195
June 2016

Contents

1.	Summary	1
2.	Project background	2
3.	Historical and archaeological background	3
4.	Landuse, topography and geology	3
5.	Geophysical survey	3
6.	Conclusions	6
7.	Sources	6

Figures

Figure 1:	Site location
Figure 2:	Geophysical survey
Figure 3:	Geophysical interpretation
Figure 4:	Archaeological interpretation
Figure 5:	Trace plot of geomagnetic data

1. Summary

The project

- 1.1 This report presents the results of a geophysical survey conducted in advance of proposed development at Ysgol y Berwyn, Bala, Gwynedd. The works comprised 1.5ha of detailed geomagnetic survey.
- 1.2 The works were commissioned by Aeon Archaeology and conducted by Archaeological Services Durham University.

Results

- 1.3 A possible soil-filled ditch feature was identified in the west of the survey area.
- 1.4 Former ploughing was identified throughout the survey area.
- 1.5 A service and a probable drain were identified in the north-east and west of the area.
- 1.6 Goal posts and goal post sockets were identified throughout the area.

2. Project background

Location (Figure 1)

- 2.1 The proposed development area (PDA) was located at Ysgol y Berwyn, a high school in Bala, Gwynedd (NGR centre: SH 9259 3631). One survey of 1.5ha was conducted on a playing field at Ysgol y Berwyn. The A4212 road formed the eastern boundary to the site, with agricultural land to the north and west.

Development proposal

- 2.2 The proposed development comprises construction and alterations at Ysgol y Berwyn.

Objective

- 2.3 The principal aim of the survey was to assess the nature and extent of any sub-surface features of potential archaeological significance within the PDA, so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in relation to the development.
- 2.4 The survey has the potential to address research priorities set out in *A Research Framework for the Archaeology of Wales*, available at <http://www.archaeoleg.org.uk/intro.html>.

Methods statement

- 2.5 The survey has been undertaken in accordance with a Written Scheme of Investigation provided by Archaeological Services Durham University (ref. PC16.277r) and approved by Gwynedd Archaeological Planning Service, and with national standards and guidance (see para. 5.1 below).

Dates

- 2.6 Fieldwork was undertaken on 16th June 2016. This report was prepared for June 2016.

Personnel

- 2.7 Fieldwork was conducted by Patricia Voke (supervisor) and Mark Woolston-Houshold. The geophysical data were processed by Patricia Voke. This report was prepared by Patricia Voke, with illustrations by Janine Watson and Dr Helen Drinkall, and edited by Duncan Hale, the Project Manager.

Archive

- 2.8 The site code is **GBY16**, for **Gwynedd Bala Ysgol y Berwyn 2016**. The survey archive will be retained at Archaeological Services Durham University and a copy supplied on CD to the client for deposition with the project archive in due course.

Acknowledgements

- 2.9 Archaeological Services Durham University is grateful for the assistance of personnel and pupils of Ysgol y Berwyn in facilitating this scheme of works.

3. Historical and archaeological background

- 3.1 A report on Bala's 'urban characterisation' has previously been prepared for CADW and The Snowdonia National Park by Gwynedd Archaeological Trust (Davidson *et al.* 2008); the results of that report are summarised here.
- 3.2 No site of archaeological importance has been identified within the PDA, however, there are several recorded in the wider landscape.
- 3.3 The principal archaeological sites within Bala are a motte and the later medieval borough. The motte survives as a substantial mound approximately 300m south-east of the PDA. The motte has been confirmed as Norman in origin with 11th- to 13th-century archaeological remains likely to lie close to the mound.
- 3.4 Several others sites of medieval origin are also recorded in the town of Bala, including a chapel and courthouse.

4. Landuse, topography and geology

- 4.1 At the time of survey the proposed development area comprised one playing field. The survey area was roughly rectangular in shape, with several metal goal posts noted throughout. At the north-east end of the survey area were several concrete paths.
- 4.2 The area was predominantly level with a mean elevation of approximately 166m OD.
- 4.3 The underlying solid geology of the area comprises Ashgill epoch Moelfryn Mudstones Formation, which is overlain by Holocene alluvium.

5. Geophysical survey Standards

- 5.1 The surveys and reporting were conducted in accordance with Historic England guidelines, *Geophysical survey in archaeological field evaluation* (David, Linford & Linford 2008); the Chartered Institute for Archaeologists (CIfA) *Standard and Guidance for archaeological geophysical survey* (2014); the CIfA Technical Paper No.6, *The use of geophysical techniques in archaeological evaluations* (Gaffney, Gater & Ovenden 2002); and the Archaeology Data Service & Digital Antiquity *Geophysical Data in Archaeology: A Guide to Good Practice* (Schmidt 2013).

Technique selection

- 5.2 Geophysical survey enables the relatively rapid and non-invasive identification of sub-surface features of potential archaeological significance and can involve a suite of complementary techniques such as magnetometry, earth electrical resistance, ground-penetrating radar, electromagnetic survey and topsoil magnetic susceptibility survey. Some techniques are more suitable than others in particular situations, depending on site-specific factors including the nature of likely targets; depth of likely targets; ground conditions; proximity of buildings, fences or services and the local geology and drift.

- 5.3 In this instance, it was considered possible that cut features such as ditches and pits could be present on the site, and that other types of feature such as trackways, wall foundations and fired structures (for example kilns and hearths) could also be present.
- 5.4 Given the non-igneous geological environment of the study area a geomagnetic technique, fluxgate gradiometry, was considered appropriate for detecting the types of feature mentioned above. This technique involves the use of hand-held magnetometers to detect and record anomalies in the vertical component of the Earth's magnetic field caused by variations in soil magnetic susceptibility or permanent magnetisation; such anomalies can reflect archaeological features.

Field methods

- 5.5 A 30m grid was established across the survey area and related to the Ordnance Survey National Grid using a Leica GS15 global navigation satellite system (GNSS) with real-time kinematic (RTK) corrections typically providing 5-10mm accuracy.
- 5.6 Measurements of vertical geomagnetic field gradient were determined using Bartington Grad601-2 dual fluxgate gradiometers. A zig-zag traverse scheme was employed and data were logged in 30m grid units. The instrument sensitivity was nominally 0.03nT, the sample interval was 0.25m and the traverse interval was 1m, thus providing 3,600 sample measurements per 30m grid unit.
- 5.7 Data were downloaded on site into a laptop computer for initial processing and storage and subsequently transferred to a desktop computer for processing, interpretation and archiving.

Data processing

- 5.8 Geoplot v.3 software was used to process the geophysical data and to produce both a continuous tone greyscale image and a trace plot of the raw (minimally processed) data. The greyscale image and interpretations are presented in Figures 2-4; the trace plot is provided in Figure 5. In the greyscale image, positive magnetic anomalies are displayed as dark grey and negative magnetic anomalies as light grey. A palette bar relates the greyscale intensities to anomaly values in nanoTesla.
- 5.9 The following basic processing functions have been applied to the geomagnetic data:

<i>clip</i>	clips data to specified maximum or minimum values; to eliminate large noise spikes; also generally makes statistical calculations more realistic
<i>zero mean traverse</i>	sets the background mean of each traverse within a grid to zero; for removing striping effects in the traverse direction and removing grid edge discontinuities
<i>de-stagger</i>	corrects for displacement of geomagnetic anomalies caused by alternate zig-zag traverses
<i>interpolate</i>	increases the number of data points in a survey to match sample and traverse intervals; in this instance the data have been interpolated to 0.25m x 0.25m intervals

Interpretation: anomaly types

- 5.10 A colour-coded geophysical interpretation plan is provided. Three types of geomagnetic anomaly have been distinguished in the data:

<i>positive magnetic</i>	regions of anomalously high or positive magnetic field gradient, which may be associated with high magnetic susceptibility soil-filled structures such as pits and ditches
<i>negative magnetic</i>	regions of anomalously low or negative magnetic field gradient, which may correspond to features of low magnetic susceptibility such as wall footings and other concentrations of sedimentary rock or voids
<i>dipolar magnetic</i>	paired positive-negative magnetic anomalies, which typically reflect ferrous or fired materials (including fences and service pipes) and/or fired structures such as kilns or hearths

Interpretation: features

- 5.11 A colour-coded archaeological interpretation plan is provided.
- 5.12 A linear positive magnetic anomaly has been detected in the west of the survey area aligned north-east/south-west. This anomaly reflects a relative increase in high magnetic susceptibility materials and could represent the remains of a soil-filled ditch.
- 5.13 A linear negative magnetic anomaly has been detected in the west of the survey, which probably reflects a drain.
- 5.14 A broad chain of dipolar magnetic anomalies has been detected in the north-east of the area, aligned north-west/south-east, which almost certainly reflects a service.
- 5.15 A series of parallel positive and negative magnetic anomalies has been detected throughout the survey area, oriented broadly north-east/south-west, which almost certainly reflects former ploughing.
- 5.16 Several pairs of discrete, intense, dipolar magnetic anomalies have been detected throughout the survey area. The paired anomalies reflect standing goal posts and sockets for goal posts.
- 5.17 Strong magnetic anomalies along the edges of the survey area reflect the adjacent metal fence, car park and buildings of Ysgol y Berwyn and Ysgol Bueno Sant.
- 5.18 The only other anomalies detected here are small, discrete dipolar magnetic anomalies. These almost certainly reflect items of near-surface ferrous and/or fired debris, such as horseshoes and brick fragments.

6. Conclusions

- 6.1 Approximately 1.5ha of detailed geomagnetic survey was undertaken at Ysgol y Berwyn, Bala, Gwynedd, prior to proposed development.
- 6.2 A possible soil-filled ditch feature was identified in the west of the survey area.
- 6.3 Former ploughing was identified throughout the survey area.
- 6.4 A service and a probable drain were identified in the north-east and west of the area.
- 6.5 Goal posts and goal post sockets were identified throughout the area.

7. Sources

- CIfA 2014 *Standard and Guidance for archaeological geophysical survey*. Chartered Institute for Archaeologists
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- Schmidt, A, 2013 *Geophysical Data in Archaeology: A Guide to Good Practice*. Archaeology Data Service & Digital Antiquity, Oxbow

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0 1km
scale 1:25 000 for A4 plot

364

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


on behalf of
Aeon Archaeology

Ysgol y Berwyn
Bala
Gwynedd

geophysical survey
report 4195

Figure 2: Geophysical survey

0 50m
scale 1:1000 for A3 plot

-  site boundary
-  core survey area
-  magnetic survey

-16 nT 20

363

362

925

926

927

HOCKEY PITCH
(SAND)

RUGBY/SOCCER PITCH

HEOL Y CASTELL (CASTLE STREET)

Ysgol Bueno Sant

School
House

Posts

Church

BM 166.44m

BM 166.45m

EL Sub



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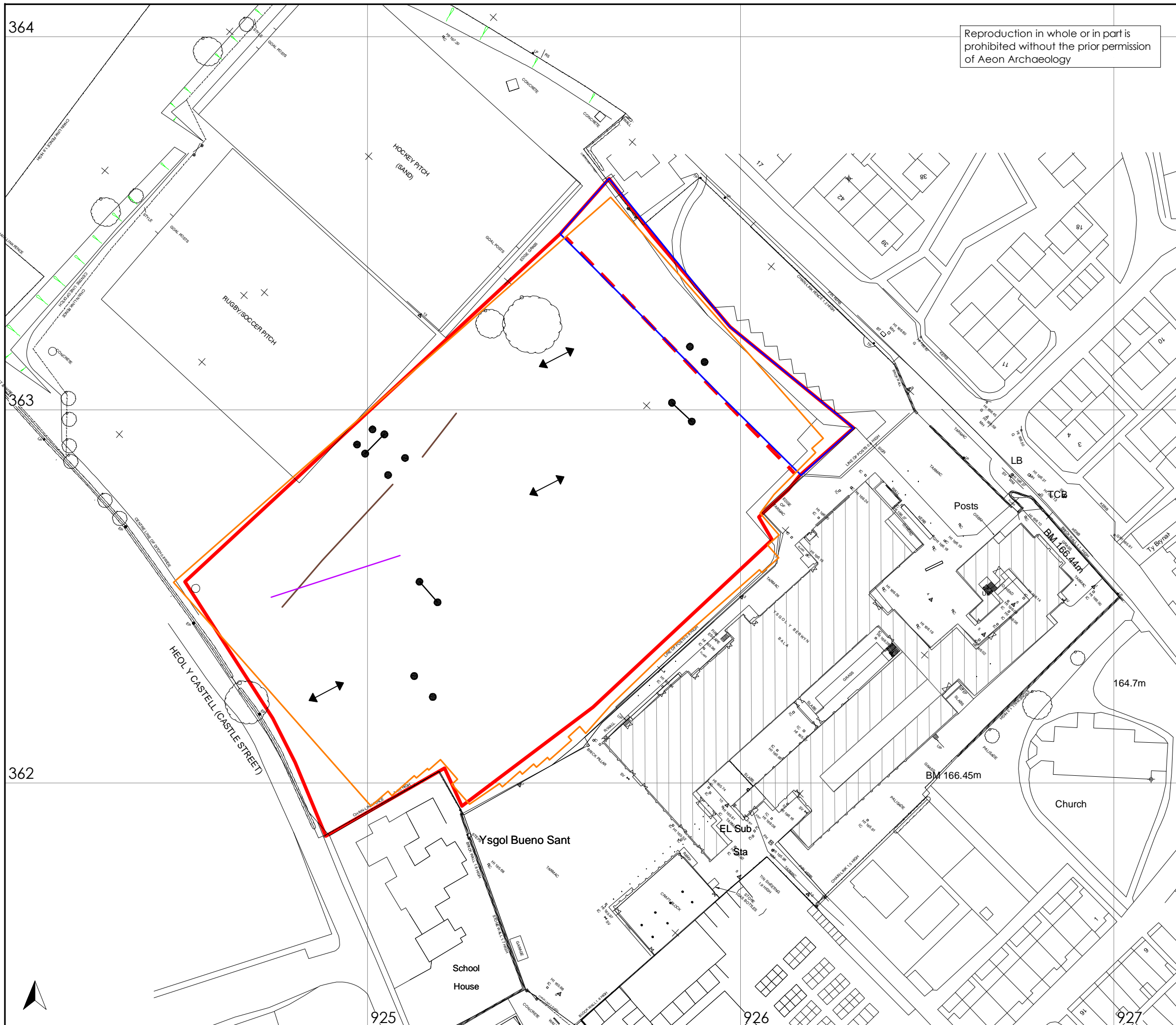
on behalf of
Aeon Archaeology

Ysgol y Berwyn
Bala
Gwynedd
geophysical survey
report 4195

Figure 3: Geophysical interpretation

0 50m
scale 1:1000 for A3 plot

- site boundary
- core survey area
- magnetic survey
- dipolar magnetic anomaly
- positive magnetic anomaly
- negative magnetic anomaly



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Ysgol y Berwyn
Bala
Gwynedd
geophysical survey
report 4195

Figure 4: Archaeological interpretation

0 50m
scale 1:1000 for A3 plot

- site boundary
- core survey area
- magnetic survey
- soil-filled feature
- service
- land drain
- former ploughing
- goal post
- goal post socket

on behalf of
Aeon Archaeology

Ysgol y Berwyn
Bala
Gwynedd

geophysical survey
report 4195

Figure 5: Trace plot of geomagnetic
data

0 50m
scale 1:1000 for A3 plot



60.00nT/cm

**APPENDIX II: WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL
WATCHING BRIEF**



aeon archaeology

Ysgol y Berwyn, Bala, Gwynedd.

**Written Scheme of Investigation
for Archaeological Watching Brief
and Level 2 Historic Building Record.**



Archaeological WSI
Project Code: A0086.1

1.0 INTRODUCTION	2
2.0 SITE LOCATION	4
3.0 WATCHING BRIEF - ARCHAEOLOGICAL AIMS	4
4.0 METHODOLOGY	5
4.1 Archaeological Watching Brief	5
4.2 Watching brief report.....	6
4.2.1 Post-excavation Assessment	6
4.2.2 Post-excavation Report	7
5.0 FURTHER ARCHAEOLOGICAL WORKS DESIGNS (FAWDs)	7
6.0 ENVIRONMENTAL SAMPLES	8
7.0 HUMAN REMAINS	8
8.0 ARTEFACTS	8
9.0 UNEXPECTED DISCOVERIES: TREASURE TROVE	10
10.0 HISTORIC BUILDING RECORD – ARCHAEOLOGICAL AIMS	10
10.1 Building Record.....	10
11.0 METHOD STATEMENT	11
11.1 Level 2 Record.....	11
11.1.1 Written Account.....	11
11.1.2 Photographs	11
11.1.3 Drawings.....	11
12.0 ARCHIVING	11
13.0 PERSONNEL	12
14.0 MONITORING AND LIAISON	12
15.0 HEALTH AND SAFETY	12
16.0 INSURANCE	12

1.0 INTRODUCTION

Aeon Archaeology has been commissioned by Darnton B3 Architecture on behalf of Gwynedd Council to provide a written scheme of investigation (WSI) for carrying out an archaeological watching brief and level 2 historic building record as part of the construction of a new car park and refurbishment at Ysgol y Berwyn, Bala and within the Snowdonia National Park Authority (SNPA). (NGR: SH 9259 3631).

Following a review of the catchment area of Ysgol y Berwyn, it has been decided to create a Lifelong Learning Community in Y Bala. The development will provide education for the pupils of the following schools, Ysgol y Berwyn (secondary), Ysgol Bro Tegid (primary), Ysgol Beuno Sant (primary).

The development will take place on the site of the existing Secondary School - Ysgol y Berwyn and it is envisaged that it will involve substantial refurbishment of the existing school and the construction of a new two storey block to replace a substantial part of the red brick unit at the front of the existing Ysgol y Berwyn.

A new Sports facility will also be constructed as part of the Scheme.

A mitigation brief was not prepared for this scheme by the SNPA Archaeologist but the following statement was made a condition of full planning permission:

Condition 5

No work shall commence (including any ground disturbing works or site clearance) until such time as the applicant has submitted to and had approval in writing from the Local Planning Authority for an archaeological specification for a programme of works which must meet all relevant archaeological standards.

Condition 6

The development hereby approved shall be carried out in strict accordance with the archaeological specification for a programme of works as approved in condition 5 above.

The reason for this condition is:

To ensure no matters of archaeological interest adversely affected as a result of this development and are satisfactorily recorded (Planning Reference NP5/53/4D).

A magnetometer geophysical survey was undertaken of the proposed car park extension area and the surrounding playing field by Durham University Archaeological Services in June 2016. The report on the findings of this survey is forthcoming however the initial results did not show any archaeological remains within the development area. As such the the Development Control Archaeologist (Mr John G Roberts) at the SNPA has agreed that the phased approach to the archaeological mitigation will involve the following:

1. Archaeological watching brief:

- (i) During all ground disturbance associated with the construction of the car park extension.

2. Level 2 historic building record:

- (i) Prior to the demolition of the red-brick Victorian section of the school located alongside Ffrydan Road.

Relevant UK legislation on heritage includes the Welsh Government's Planning Policy Wales (PPW 2012), Welsh Office Circular 60/96, and the Historic Environment Act (Wales) 2016.

The work will adhere to the guidelines specified in Standard and Guidance for Archaeological Watching Brief (Chartered Institute for Archaeologists, 2014).

This design and all subsequent mitigation will conform to the guidelines specified in English Heritage '*Understanding Historic Buildings: a guide to good recording practice*' (2006) & Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures (Chartered Institute for Archaeologists, 2014).

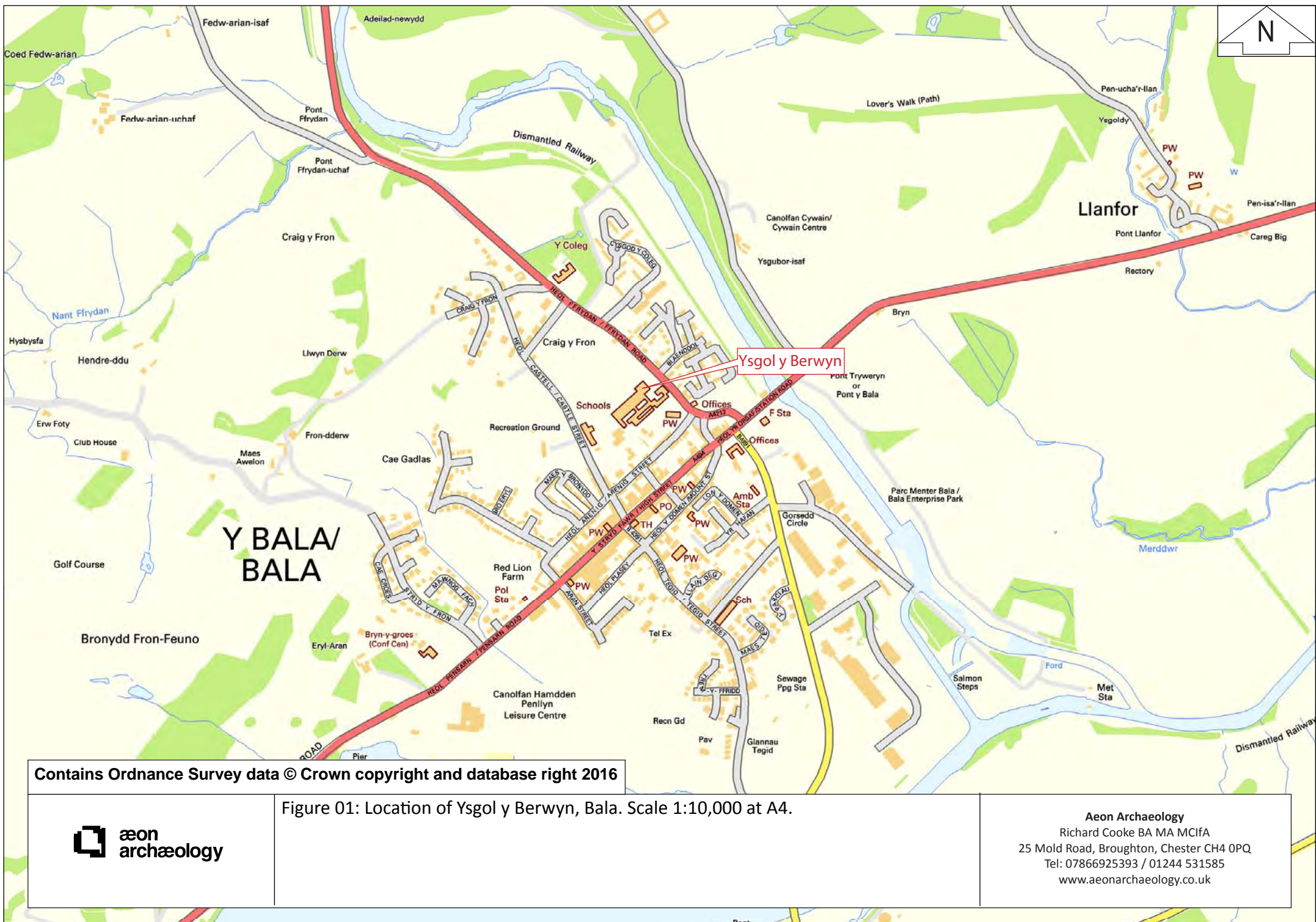


Figure 01: Location of Ysgol y Berwyn, Bala. Scale 1:10,000 at A4.



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2.0 SITE LOCATION

Bala is a small market town, with a population of 1,980 (2001 census) situated at the northern end of Llyn Tegid within the Snowdonia National Park. (Grid Reference SH926362.)

The A4212 runs parallel to the site and there are minor roads that surround Ysgol y Berwyn, Bala which are Heol Arenig and Heol y Castell.

As of September 2010 there were 378 pupils and 28 teachers at the existing secondary school.

3.0 WATCHING BRIEF - ARCHAEOLOGICAL AIMS

The archaeological watching brief shall be maintained:

1. During intrusive ground works associated with the construction of the car park extension.

The CIfA maintains a standard for archaeological watching brief which states that:

An archaeological watching brief will record the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of conduct and other relevant by-laws of CIfA.

An archaeological watching brief is defined by the CIfA as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons (CIfA 2014a). The watching brief will take place within a specified area within the Site where there is a possibility that archaeological deposits may be disturbed or destroyed.

The CIfA further identifies the purpose of a watching brief as allowing, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established in advance of development or other potentially disruptive works.

It is also important to note that a watching brief provides an opportunity, if needed, for a signal to be made to all interested parties, before the destruction of the archaeological materials, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.

A watching brief is, therefore, not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

The aims of the watching brief are:

- To allow, within the resources available, the opportunity to gain information about and record the presence/absence, nature and date of archaeological remains on the Site affected by excavations and groundworks, the presence and nature of which could not be established with sufficient confidence in advance of works which may disturb them.
- To provide the facility to signal to the relevant authorities, before irreversible impact to remains that an archaeological and/or historic find has been made for which the resources allocated to the watching brief itself are inadequate to support their treatment to an adequate and satisfactory standard.

The specific objectives of the watching brief are:

- To observe and recover any artefacts of archaeological significance.
- To record the location, dimensions and nature of any deposits, features, structures or artefacts of archaeological significance.
- To recover samples of any deposits considered to have potential for analysis for palaeoenvironmental data should the opportunity arise.

4.0 METHODOLOGY

4.1 Archaeological Watching Brief

The methodology for the watching brief has been prepared with reference to the CIfA's document Standards and Guidance for Archaeological Watching Brief (2014a) and will be kept under constant review during the project, in order to see how far it is meeting the terms of the aims and objectives, and in order to adopt any new questions which may arise.

Curatorial monitoring of the archaeological work on behalf of the Council will be carried out by the SNPA Development Control Archaeologist (Mr John G Roberts). To facilitate the curatorial monitoring, the officer shall be provided with a minimum of two weeks' notice of the start of the archaeological work.

A suitably qualified and experienced archaeologist(s) from Aeon Archaeology will be commissioned for the maintenance of the watching brief. On arrival on site, the archaeologist(s) will report to the site manager and conform to the arrangements for notification of entering and leaving site. The archaeologist(s) will keep a record of the date, time and duration of all attendances at site, the names and numbers of archaeologists deployed and any actions taken. The archaeologist will be provided with a Health & Safety Induction by the construction contractor and wear a safety helmet, safety footwear and high visibility jacket/vest at all times.

If deposits and or artefacts are exposed during excavations for the development which require recording and recovery, it may be necessary to delay works whilst the proper investigation and recording takes place. Watching brief recording can often be undertaken without delay to groundworks, depending upon the specific circumstances and flexibility of all the staff on site.

Within the constraints of the terms of the watching brief work, the archaeologist will not cause unreasonable disruption to the maintenance of the work schedules of other contractors on site. In the event of archaeological discoveries the treatment of which (either arising from the volume/quantity of material and/or the complexity/importance of the material) is beyond the resources deployed the Client will be notified and a site meeting/telephone consultation arranged with the SNPA Archaeologist. The aim of the meeting will be to confirm that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard and identify measures which would be sufficient to support treatment to a satisfactory and proper standard prior to destruction of the material in question.

Any archaeological deposits, features and structures identified which can be investigated and recorded under the terms of the watching brief will be excavated manually in a controlled and stratigraphic manner sufficient to address the aims and objectives of the project – subject to the limitations on site access.

It may not be necessary to excavate the complete stratigraphic sequence to geologically lain deposits but the inter-relationships between archaeological deposits, features and structures will be investigated sufficient to address the aims and objectives of the project and the complete stratigraphic sequence to geologically lain deposits will be investigated where practicable.

The method of recording will follow the normal principles of stratigraphic excavation and the stratigraphy will be recorded in written descriptions even where no archaeological deposits have been identified. The archaeologist will record archaeological deposits using proformae recording forms and locate them on a large-scale site plan related to the Ordnance Survey National Grid and Datum references.

The groundworks excavations shall be undertaken using a mechanical excavator fitted with a toothless ditching bucket.

The drawn record will comprise plans at scale 1:20 and sections at scale 1:10; propriety electronic hardware and software to prepare site drawings may be used as appropriate.

The photographic record will be maintained throughout using a digital SLR camera (Canon 550D) set to maximum resolution (72 dpi) and all archaeological features will be recorded photographically with photographs taken in RAW format and later converted to TIFF format for long-term storage and JPEG format for presentation and inclusion in the archive. The standards for the digital archive will adhere to those set out in 'Guidelines for Digital Archaeological Archives' (RCAHMW, 2015).

The archive produced will be held at Aeon Archaeology under the project code **A0086.1**.

4.2 Watching brief report

4.2.1 Post-excavation Assessment

A report on the results of the watching brief, in accordance with the recommendations in *Management of Research Projects in the Historic Environment Project Manager's Guide* (English Heritage 2006; 2015), and in the Chartered Institute for Archaeologists *Standard and Guidance for an archaeological watching brief* (2014) will be required to be produced upon conclusion of the archaeological fieldwork. The report will be completed within a maximum of two months of completion of work on site and may include examination and quantification leading to the identification of function, form, date, method of manufacture, material/fabric type, source, parallels, attributes and condition of artefacts; of the exploitation of wild or domesticated resources; the reconstruction of environments; and the nature of human populations.

Full analysis of the results of the project, including: dating and interpretation of excavated features; pottery and other finds analysis; analysis of industrial residues by an appropriate specialist or specialists; analysis of samples for environmental data (including pollen, plant macrofossils and beetles) by an appropriate specialist or specialists; radiocarbon dating; discussion of the results in their local, regional and national context, including relating the excavated features and palaeoenvironmental data to evidence from nearby sites, and discussion of the results in their local, regional and national context may be required.

The scope of post-excavation assessment will subject to a specification for approval by the SNPA Archaeologist, upon the conclusion of the fieldwork project and preliminary report.

4.2.2 Post-excavation Report

Following completion of the stages outlined above, a report will be produced that will include:

- A non-technical summary.
- A table of contents.
- An introduction with acknowledgements, including a list of all those involved in the project and the location and description of the site.
- A statement of the project aims.
- An account of the project methodology undertaken, with an assessment of the same to include a statement on preservation bias and the means of data collection and sampling strategies.
- A factual summary of the history, development and use of the site.
- A statement setting out the nature, quantity and condition of the material archive (artefacts and ecofacts) including commentary on any bias observed due to collection and sampling strategies and commentary on long-term storage requirements.
- A statement setting out the nature and quantity of the documentary archive (notes, photographs, drawings, digital data).
- A general site plan indicating the position and size of the areas subject to watching brief and the locations of archaeological deposits identified and recorded during the works.
- Plans and sections at appropriate scales, augmented with appropriate photographs. All plans and sections will be related to the Ordnance Survey datum levels and to the National Grid.
- Other maps, plans, drawings, stratigraphic matrices and photographs as appropriate.
- Summary assessment reports on the artefact, bio-archaeological, dating and other assessments/analyses.
- A discussion of the location, extent, date, nature, condition, quality and significance of any archaeological deposits and finds identified during the project.
- A discussion of any research implications arising from the archaeological work.
- Notes on consultations with conservators and the nominated archive repository related to the immediate and long-term conservation and storage requirements for the data held in the site archive and recommendations of retention/discard of artefacts and ecofacts.
- A bibliography of sources consulted.
- Appendices to the report will include artefact catalogues, reports on assessments/analyses and an index to the project archive and a statement on its location/proposed repository.
- In addition the post-excavation report will summarise and draw together the findings of all of the phases of work.

Illustrations will include plans of the location of the study area and archaeological sites. Historical maps, when appropriate and if copyright permissions allow, will be included. Photographs of relevant sites and of the study area where appropriate will be included.

A draft copy of the report will be sent to the SNPA Archaeologist and to the client for comment and approval prior to production of the final report.

Aeon Archaeology will not be held responsible for delays and subsequent costs incurred through the onset of adverse weather. If such conditions occur additional costs may be incurred.

5.0 FURTHER ARCHAEOLOGICAL WORKS DESIGNS (FAWDs)

- **The discovery of substantial archaeological remains and/or features during the archaeological works may result in the requirement for an extended programme of**

archaeological mitigation. This may require the submission of revised quotes to the client as well as a new specification which will be required to be approved by the SNPA archaeologist prior to implementation.

- **This WSI does not include a methodology or cost for examination, conservation and archiving of artefacts discovered during the archaeological works, nor of any radiocarbon dates required, nor of examination of palaeoenvironmental samples. The need for these will be identified in the post-fieldwork programme (if required), and a new WSI will be issued for approval by the Client and the SNPA Archaeologist.**

6.0 ENVIRONMENTAL SAMPLES

Relevant archaeological deposits will be sampled by taking bulk samples (a minimum of 10.0 litres and maximum of 30.0 litres) for flotation of charred plant remains. Bulk samples will be taken from waterlogged deposits for macroscopic plant remains. Other bulk samples, for example from middens, may be taken for small animal bones and small artefacts.

Bulk environmental samples will also be taken from any fills, deposits or structures which yield archaeological artefacts, charcoal flecks/ fragments, bone, or any other historic remains.

Advice and guidance regarding environmental samples and their suitability for radiocarbon dating, as well as the analysis of macrofossils (charcoal and wood), pollen, animal bones and molluscs will be obtained from Oxford Archaeology.

For guidance purposes the following volume criteria represent the minimum feature sampling requirements:

- 50% of each discrete feature (e.g. pits and postholes)
- 25% of the exposed areas of each linear feature and all terminals/intersections
- 50% of structural features (e.g. beamslots, ring-ditches)
- 50%-100% of domestic/industrial working features (e.g. hearths and ovens)

7.0 HUMAN REMAINS

Any finds of human remains will be left *in-situ*, covered and protected, and both the coroner and the SNPA Archaeologist informed. If removal is necessary it will take place under appropriate regulations and with due regard for health and safety issues. In order to excavate human remains, a licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. This will be applied for should human remains need to be investigated or moved.

8.0 ARTEFACTS

All artefacts and ecofacts will be retrieved for identification and recording and will be treated in accordance with CIfA 2008 Guidelines for the collection, documentation, conservation and research of archaeological materials (Chartered Institute for Archaeologists, 2014).

All artefacts are the property of the landowner but it is recommended that finds are deposited with the rest of the project archive within an appropriate museum. Furthermore, the client agrees to granting access to all artefacts recovered by Aeon Archaeology for analysis, study and publication as necessary. All finds would be treated according to advice provided within *First Aid for Finds* (Rescue

1999). Aeon Archaeology staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants.

The recovery policy for archaeological finds will be kept under review throughout the archaeological works. Any changes in recovery priorities will be under guidance from an appropriate specialist and agreed with the SNPA Archaeologist. There will be a presumption against the disposal of archaeological finds regardless of their apparent age or condition.

All finds will be collected and processed including those found within spoil tips. Their location and height will be plotted; finds numbers attributed, bagged and labelled as well any preliminary identification taking place on site. Where specialist advice is required provision will be made to do so at the earliest possible convenience.

After processing, artefacts which are suitable will be cleaned and conserved in-house. Artefacts requiring specialist cleaning and conservation will be sent to the relevant specialist. All artefacts will then be sent to a specialist for analysis, the results of which will then be assessed to ascertain the potential of the finds assemblage to meet the research aims of the project. The value of the finds will also be assessed in terms of the wider educational and academic contributions.

Depending upon the material of the remains the following experts will be consulted regarding the conservation of waterlogged material:

- Organic material: Mr Phil Parkes, Cardiff Conservation Services (tel: +44(0)29 2087 5628)
- Non-organic material: Mr Phil Parkes, Cardiff Conservation Services (tel: +44(0)29 2087 5628)

Depending upon the material of the remains the following experts will be consulted regarding the conservation and analysis of artefacts:

- Bone: Nora Bermingham
- Glass: Hilary Cool, Barbican Research Associates.
- Metal artefacts: Phil Parkes, Cardiff Conservation Services, Cardiff.
- Slag, burnt clay, hammerscale: Dr. Tim Young, Geoarch, Cardiff.
- Stone artefacts: George Smith, Gwynedd Archaeological Trust, Bangor.
- Wood artefacts: Jane Foley, Foley Conservation, Builth Wells.
- Leather: Quita Mould, Barbican Research Associates.
- Environmental Material: Dr Mike Allen, Allen Environmental Archaeology.
- Numismatics: Peter Guest, Barbican Research Associates.
- Ceramics: Leigh Dodd

The cost for examination, conservation and archiving of artefacts discovered during the archaeological mitigation work are not included within this quote.

If well preserved materials are found it may be necessary to employ additional staff. Furthermore, it may be necessary to suspend work within a specific region of the site, or across the whole site, while conservation and excavation/recording takes place. Aeon Archaeology accepts no responsibility for any costs incurred from delays as a result of unexpected archaeological finds.

The cost for the additional staff, resources, and time required to excavate/ record unexpected archaeological finds/ features are not included within this quote and a separate specification will be submitted to the client and the SNPA archaeologist if necessary.

9.0 UNEXPECTED DISCOVERIES: TREASURE TROVE

Treasure Trove law has been amended by the Treasure Act 1996. The following are Treasure under the Act:

- *Objects other than coins* any object other than a coin provided that it contains at least 10% gold or silver and is at least 300 years old when found.
- *Coins* all coins from the same find provided they are at least 300 years old when found (if the coins contain less than 10% gold or silver there must be at least 10). Any object or coin is part of the same find as another object or coin, if it is found in the same place as, or had previously been left together with, the other object. Finds may have become scattered since they were originally deposited in the ground. Single coin finds of gold or silver are not classed as treasure under the 1996 Treasure Act.
- *Associated objects* any object whatever it is made of, that is found in the same place as, or that had previously been together with, another object that is treasure.
- *Objects that would have been treasure trove* any object that would previously have been treasure trove, but does not fall within the specific categories given above. These objects have to be made substantially of gold or silver, they have to be buried with the intention of recovery and their owner or his heirs cannot be traced.

The following types of finds are not treasure:

- Objects whose owners can be traced.
- Unworked natural objects, including human and animal remains, even if they are found in association with treasure.
- Objects from the foreshore which are not wreck.

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown.

The British Museum will decide whether they or any other museum may wish to acquire the object. If no museum wishes to acquire the object, then the Secretary of State will be able to disclaim it. When this happens, the coroner will notify the occupier and landowner that he intends to return the object to the finder after 28 days unless he receives no objection. If the coroner receives an objection, the find will be retained until the dispute has been settled.

10.0 HISTORIC BUILDING RECORD – ARCHAEOLOGICAL AIMS

10.1 Building Record

The requirements are for an archaeological building record of the Victorian red-brick part of Ysgol y Berwyn prior to demolition work, however should observations or desk-based research suggest the potential for significant features to be encountered during the site clearance/ground work, the archaeological contractor should make arrangements to undertake any appropriate supplementary recording work during the development. The SNPA Development Control Archaeologist has requested that the building record be roughly commensurate with the English Heritage *‘Understanding Historic Buildings: a guide to good recording practice’* (2006) **Level 2**.

Both the exterior and the interior will be viewed, described and photographed. The record will present conclusions regarding the building's development and use, but will not discuss in detail the evidence on which these conclusions are based.

The detailed photographic record will consist of English Heritage '*Understanding Historic Buildings: a guide to good recording practice*' (2006) elements:

- written account: 1-3, 6
- drawings: sometimes 1, sometimes one or more of 2-7
- photographs: 1,2,4

11.0 METHOD STATEMENT

11.1 Level 2 Record

11.1.1 Written Account

The written account will include:

- The building's precise location as a National Grid Reference and address form;
- A note of any statutory designation and non-statutory designation;
- The date of the record, name(s) of the recorder(s) and archive location;
- A summary of the building's form, function, date, and sequence of development.

11.1.2 Photographs

The photographic record will include:

- A general view or views of the building;
- The building's external appearance. Typically a series of oblique views will show all external elevations of the building and give an impression of its size and shape;
- The overall appearance of the principal rooms and circulation areas.
- Detailed photographs of any architectural features of note.

The photographic record will be maintained throughout using a digital SLR camera (Canon 550D) set to maximum resolution (72 dpi) and all archaeological features will be recorded photographically with photographs taken in RAW format and later converted to TIFF format for long-term storage and JPEG format for presentation and inclusion in the archive. The standards for the digital archive will adhere to those set out in '*Guidelines for Digital Archaeological Archives*' (RCAHMW, 2015).

11.1.3 Drawings

The drawn record will include:

- A site plan showing the location and orientation of photographs. This will label all room spaces and indicate any architectural features of note.

12.0 ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled, and cross-referenced, and lodged with the National Monument Record, RCAHMW within six months of the completion of the project.

A draft copy of the report will be produced within six months of the completion of the fieldwork and sent to the Client and the SNPA Archaeologist for comment prior to finalisation of the report and dissemination. Bound copies of the report and an archive CD will be sent to the regional HER (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor, Gwynedd LL57 2RT) (x 2#), the SNPA archaeologist (x 3#) and to National Monument Record, of the Royal Commission on the Ancient and Historic Monuments of Wales (RCAHMW) (x 1#) for long term archiving. Furthermore, a summary of the project will be sent to *Archaeology in Wales* for publication. Copies of all digital files (inc. photos, report as PDF and Word, spreadsheets, databases, survey data etc) to be presented to each of above on optical disc (ie DVD).

13.0 PERSONNEL

The work will be managed and undertaken by Richard Cooke BA MA MCifA, Archaeological Contractor and Consultant at Aeon Archaeology.

14.0 MONITORING AND LIAISON

Regular liaison and site monitoring meetings will take place during all stages of work. The SNPA Archaeologist will be informed of the start date and of discreet subsequent stages. A brief progress report will be produced weekly and submitted to the Client and the SNPA Archaeologist.

15.0 HEALTH AND SAFETY

Aeon Archaeology has a Health and Safety Policy Statement which can be supplied upon request. Furthermore, site-specific Risk Assessments and Method Statements are compiled and distributed to every member of staff involved with the project prior to the commencement of works.

16.0 INSURANCE

Liability Insurance – Insignia Underwriting Policy 347002

Employers' Liability: Limit of Indemnity £10m in any one occurrence

Public Liability: Limit of Indemnity £2m in any one occurrence

Legal Defence Costs (Health and Safety at Work Act): £250,000

The current period expires 07/09/16

Professional Indemnity Insurance – Insignia Underwriting Policy 347002

Limit of Indemnity £500,000 any one claim

The current period expires 07/09/16

