

## AFON CELYNOG UCHAF HYDRO SCHEME

### BRIFF GWYLIO ARCHAEOLOEGOL/ ARCHAEOLOGICAL WATCHING BRIEF



Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust

# AFON CELYNOG UCHAF HYDRO SCHEME

## Briff Gwyllo Archeolegol / Archaeological Watching Brief

Yr Amgylchedd Hanesyddol yn Cofnodi Prif Gyfeirnod /  
Historic Environment Record Event Primary Reference Number 45441

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Golygfa o'r Ffordd Rufeinig bosibl / View of possible Roman Road (G2620\_01)

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## **CRYNODEB ANHECHNEGOL**

*Gofynnodd Dolhendre Hydro Ltd i Ymddiriedolaeth Archeolegol Gwynedd ymgymryd â briff gwylio archaeolegol i fonitro torri ffos bibell ar draws Ffordd Rufeinig bosibl yn ystod gwaith adeiladu ar gyfer Cynllun Hydro Uchaf Afon Celynog.*

*Datgelodd cloddio'r ffos bibell haenen gerrig carreg ddwys 0.88m o ddyfnder sy'n sail i'r trac fferm bresennol. Ni ddaethpwyd o hyd i unrhyw dystiolaeth o Ffordd Rufeinig yn ystod y cloddiaid.*

## **NON-TECHNICAL SUMMARY**

*Gwynedd Archaeological Trust was asked by Dolhendre Hydro Ltd to undertake an archaeological watching brief monitoring of the cutting of a pipe trench across a possible Roman Road during the construction works for the Afon Celynog Uchaf Hydro Scheme.*

*Excavation of the pipe trench revealed a densely packed stone cobble layer 0.88m in depth which is the basis for the current farm trackway. No evidence for a Roman Road was encountered during the excavations.*

# 1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was asked by *Dolhendre Hydro Ltd* to undertake an archaeological watching brief during the construction works for the Afon Celynog Uchaf Hydro Scheme, planning application NP5/54/566. The scope of the watching brief was limited to the monitoring of the cutting of a pipe trench at a road crossing 135m to the south east of Gelli Grafog, Ryhydymain, Gwynedd, LL40 2BW (NGR SH7994120263; Figure 01).

The watching brief follows the completion of an archaeological desk-based assessment for the scheme undertaken by Aeon Archaeology (unpublished Aeon Archaeology Report 0180, September 2018) which recommended further archaeological mitigation for the section of the pipeline that crosses the proposed line of the Roman Road from Caer Gai to Brithdir (Gwynedd HER PRN 17,631; Figure 01).

The cutting of the pipe trench across the Roman Road was undertaken by Gwyn Roberts Construction A'i Fab on the 20<sup>th</sup> April 2020.

The watching brief was completed in accordance with the following guidance:

- *Guidelines for digital archives* (RCAHMMW 2015).
- *Guidance for the Submission of Data to the Welsh Historic Environments Records (HERs)* (The Welsh Archaeological Trusts 2018);
- *Management of Archaeological Projects* (English Heritage, 1991);
- *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England, 2015);
- *Planning Policy Wales* (Welsh Government 2018);
- *Standard and Guidance for Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014); and
- *Technical Advice Note (TAN) 24: The Historic Environment* (Welsh Government 2017).

The watching brief was monitored by the Gwynedd Archaeological Planning Service and was undertaken in accordance with an approved Written Scheme of Investigation ([Appendix I](#)). In line with the Gwynedd Historic Environment Record (HER) requirements, the HER was contacted at the onset of the project to ensure that any data arising was formatted in a manner suitable for accession to the HER under the guidelines set out in Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) (The Welsh Archaeological Trusts, 2018). The HER was informed of the project start date, location including grid reference and estimated timescale for the work. The GAT HER enquiry number is GATHER1126 and the event primary reference number is 45441. A bilingual event summary has been prepared for submission to the HER in accordance with their guidance.

Gwynedd Archaeological Trust is certified to ISO 9001:2015 and ISO 14001:2015 (Cert. No. 74180/B/0001/UK/En) and is a Registered Organisation with the Chartered Institute for Archaeologists and a member of the Federation of Archaeological Managers and Employers (FAME).

## **1.1 Fieldwork Aims and Objectives**

The watching brief was conducted during the cutting of a pipe trench across a possible Roman Road. The key aims and objectives of the watching brief were to:

- identify and record any archaeological activity (specifically, but not limited to, the archaeological remains of a Roman Road) identified during the cutting of the pipe trench at the road crossing;
- establish the date and nature of any archaeological remains identified and assess the implications for understanding the historical development of the area in conjunction with the known archaeological record; and
- if no archaeological activity is identified, establish why this may be the case.



## **2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

An archaeological desk-based assessment has been completed for this scheme (Aeon Archaeology Report 0180, September 2018). The assessment report concluded that there were local area was characterised by agricultural features of post-medieval date and there were no sites considered to be above local importance within the 50.0m wide assessment corridor. The only exception to this was the route of the Roman Road between Caer Gai and Brithdir and the report recommended an archaeological watching brief during scheme works across this route (ibid.: 36 and 39). The report also concluded that “(T)he archaeological potential for buried preserved remains of all periods is suspected to be low across the entirety of both proposed schemes” (ibid.).

The proposed line of the possible Roman Road linking the Roman forts at Car Gai and Brithdir (RR66b; Gwynedd HER PRN 3849) runs in a fairly straight line between the two and was and traced in detail by Jones (1958-60, 208-220) and Margary (1973, 347-8) (Hopewell 2007, 20-21).

The possible Roman Road runs along a range of post-medieval tracks and roads in the vicinity of the scheme, the general line and width of the tracks suggest a Roman origin but few, if any features are visible to prove this. At the point at which the proposed works will take place (Gwynedd HER PRN 17631), the road survives as a well-worn northeast-southwest aligned farm trackway.

A zigzag just to the south of the proposed works (PRN 17630), just to the north of the Afon Celynog, predates the currently used road to the improved but extant packhorse bridge and could also be Roman. There are also signs of a possible ford on the south-west side of the river at this point (Hopewell 2007, 21).

### 3 METHODOLOGY

The watching brief was undertaken on the 20<sup>th</sup> April 2020 with the groundwork undertaken Gwyn Roberts Construction A'i Fab using a 15 tonne mechanical excavator fitted with a 2m wide toothless bucket.

Photographic images were taken using a digital SLR (Nikon D5600) camera set to maximum resolution (6000 x 4000 24.0 effective megapixels) in RAW format; a photographic record was maintained on site using GAT pro-formas and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process. Photographic images were archived in TIFF format using Adobe Photoshop; the archive numbering system was G2620\_01 to G2620\_08 (cf. [Appendix II](#)).

## **4 RESULTS**

The Roman Road is currently used as a farm track and is approximately 3.0m wide. At the point where the pipeline route crosses the road it is situated between a poorly maintained dry stone wall to the NW and line of trees and to the SE. The current road surface is stone cobble and turf (Plate 01). The removal of the top 0.20m of ground revealed a dense layer of stone cobbles contained in a dark brown sandy silt matrix (Plate 02). This layer continued for a depth of 0.88m before giving way to an orange sandy clay subsoil with a moderate amount of medium to large sized stone inclusions (Plate 03). Under the subsoil was a yellowish grey sandy clay natural (glacial horizon) with frequent medium sized stone inclusions (Plate 04).

No evidence of a Roman Road was encountered during the excavation.

## 5 CONCLUSION

Gwynedd Archaeological Trust was asked by *Dolhendre Hydro Ltd* to undertake an archaeological watching brief during the construction works for the Afon Celynog Uchaf Hydro Scheme. The scope of the watching brief was limited to the monitoring of the cutting of a pipe trench across a possible Roman Road.

The possible Roman Road runs along a range of post-medieval tracks and roads in the vicinity of the scheme, the general line and width of the tracks suggest a Roman origin but few, if any features are visible to prove this.

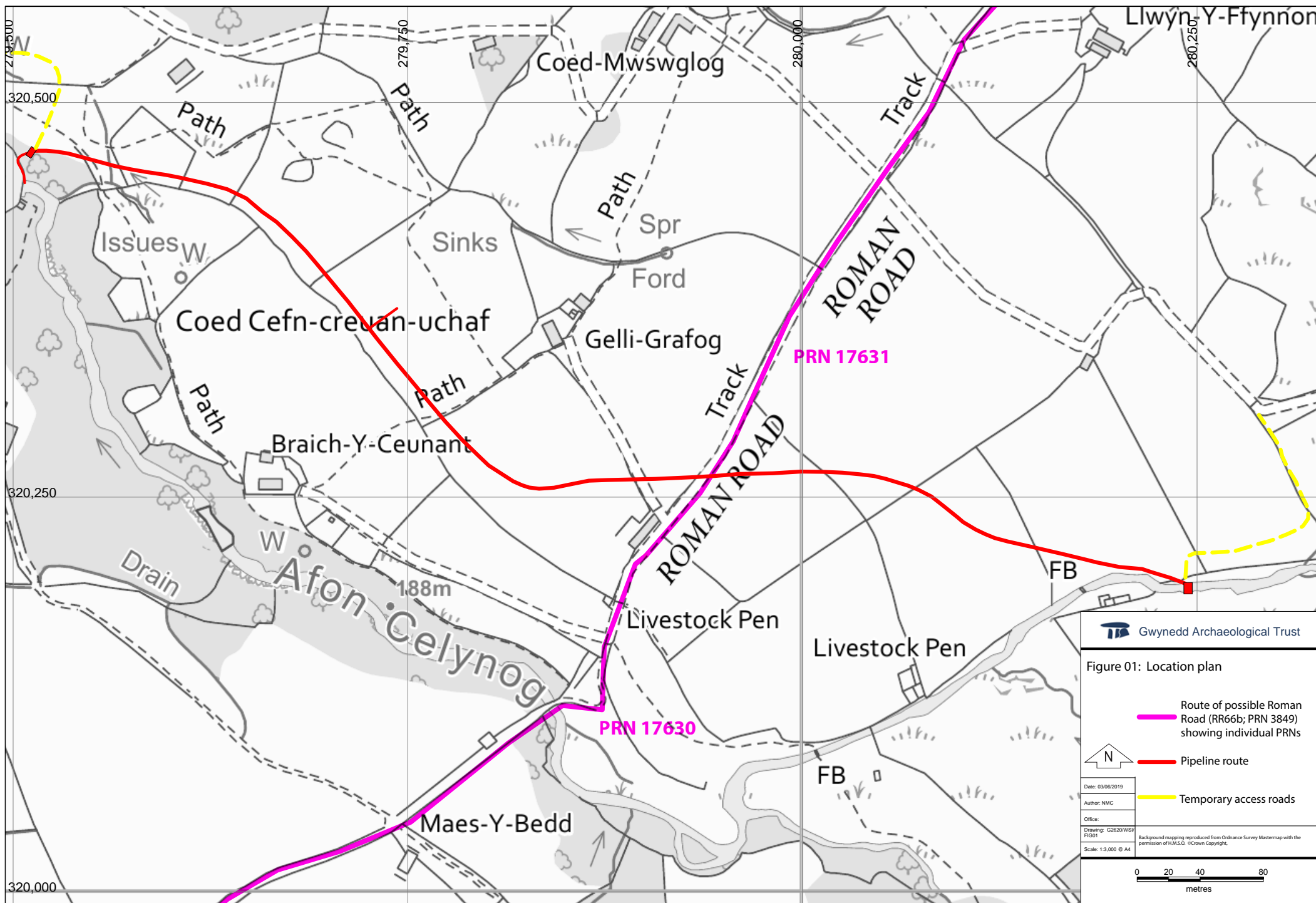
Excavation of the pipe trench revealed a densely packed stone cobble layer 0.88m in depth which is the basis for the current farm trackway. No evidence for a Roman Road was extant at this point. It is possible that the Roman Road was destroyed when the stone cobble was laid to create the farm track or the road is on a different alignment than originally suspected.

## 6 SOURCES CONSULTED

1. Brunning, R and Watson, J 2010, *Waterlogged Wood: Guidelines on the Recording*,
2. Chartered Institute for Archaeologists, 2014, *Standard and Guidance for Archaeological Watching Brief*
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4. Chartered Institute for Archaeologists, 2014, *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*
5. Chartered Institute for Archaeologists, 2017, *Updated Guidelines to the Standards for Recording Human Remains*
6. English Heritage, 1991, *Management of Archaeological Projects (MAP2)*
7. English Heritage, 2011, *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation*
8. Gwynedd Museum Service, 2009, *Guidelines For The Preparation and Deposition of Archaeological Archives: An agreement between Gwynedd Museums Service and Gwynedd Council*
9. Historic England, 2012, *Waterlogged Organic Artefacts Guidelines on their Recovery, Analysis and Conservation*
10. Historic England, 2015, *Management of Research Projects in the Historic Environment (MoRPHE)*
11. Hopewell, D, 2007, *Roman Roads in North-West Wales (Revision 4) - Part 1: Text*, GAT Report 668
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13. Royal Commission on Ancient and Historic Monuments of Wales, 2015, *Guidelines for digital archives*
14. *Sampling, Conservation and Curation of Waterlogged Wood* (3rd edition)
15. The Welsh Archaeological Trusts, 2018, *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)*
16. Watkinson, D and Neal, V, 2001, *First aid for finds* (3rd edition)

17. Welsh Government, 2017, *Technical Advice Note (TAN) 24: The Historic Environment*

18. Welsh Government, 2018, *Planning Policy Wales*



 Gwynedd Archaeological Trust

Figure 01: Location plan

Route of possible Roman Road (RR66b; PRN 3849) showing individual PRNs

Pipeline route

Temporary access roads



Date: 03/06/2019

Author: NMC

Office:

Drawing: G2620(WSt)

FIG01

Scale: 1:3,000 @ A4

Background mapping reproduced from Ordnance Survey Mastermap with the permission of H.M.S.G. © Crown Copyright.

0 20 40 80  
metres





Plate 01: Pre-ex of possible Roman Road; scale: 1x1m (archive reference: G2620\_01).



Plate 02: Stone cobble layer after removal of 0.2m; scale: 1x1m (archive reference: G2620\_02).





Plate 03: Subsoil at 0.88m; scale: 1x1m (archive reference: G2620\_04).



Plate 04: NE facing section of excavation through possible Roman Road; no scale (archive reference: G2620\_08).



## **APPENDIX I**

### **Gwynedd Archaeological Trust Approved Written Scheme of Investigation**

# AFON CELYNOG UCHAF HYDRO SCHEME (G2620)

## WRITTEN SCHEME OF INVESTIGATION FOR AN ARCHAEOLOGICAL WATCHING BRIEF


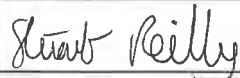

*Prepared for*

*Dolhendre Hydro Ltd*

***July 2019***



Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust

| Approvals Table |                         |               |  |          |
|-----------------|-------------------------|---------------|--|----------|
|                 | Role                    | Printed Name  | Signature  | Date     |
| Originated by   | Document Author         | JOHN ROBERTS  |  | 15/07/19 |
| Reviewed by     | Document Reviewer       | STUART REILLY |  | 15/07/19 |
| Approved by     | Principal Archaeologist | JOHN ROBERTS  |  | 15/07/19 |

| Revision History |   |  |   |
|------------------|---|--|---|
| Rev No.          | Summary of Changes  | Ref Section                                | Purpose of Issue                                  |
| 1                | Edits in response to feedback from Gwynedd Archaeological Planning Services | 1.3, 2, 3.1, 5, Appendix I and Appendix II | Gwynedd Archaeological Planning Services approval |
|                  |   |  |   |
|                  |   |  |   |
|                  |   |  |   |
|                  |   |  |   |

All GAT staff should sign their copy to confirm the project specification is read and understood and retain a copy of the specification for the duration of their involvement with the project. On completion, the specification should be retained with the project archive:

Name

Signature

Date

## **AFON CELYNOG UCHAF HYDRO SCHEME (G2620)**

### **WRITTEN SCHEME OF INVESTIGATION FOR AN ARCHAEOLOGICAL WATCHING BRIEF**

Prepared for *Dolhendre Hydro Ltd*, July 2019

Historic Environment Record Enquiry No. GATHER1126 Event Primary Reference Number 45441

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# 1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by *Dolhendre Hydro Ltd* to prepare a Written Scheme of Investigation (WSI) for an archaeological watching brief during the construction works for the Afon Celynog Uchaf Hydro Scheme, planning application NP5/54/566. The scope of the watching brief is limited to the monitoring of the cutting of a pipe trench at a road crossing 135m to the south east of Gelli Grafog, Ryhdymain, Gwynedd, LL40 2BW (NGR SH7994120263; Figure 01).

The watching brief follows the completion of an archaeological desk-based assessment for the scheme undertaken by Aeon Archaeology (unpublished Aeon Archaeology Report 0180, September 2018) which recommended further archaeological mitigation for the section of the pipeline that crosses the proposed line of the Roman Road from Caer Gai to Brithdir (Gwynedd HER PRN 17,631; Figure 01).

The cutting of the pipe trench across the Roman Road will be undertaken by Gwyn Roberts Construction A'i Fab during October 2019 and is expected to take one working day.

The watching brief will be completed in accordance with the following guidance:

- *Guidelines for digital archives* (RCAHMW 2015).
- *Guidance for the Submission of Data to the Welsh Historic Environments Records (HERs)* (The Welsh Archaeological Trusts 2018);
- *Management of Archaeological Projects* (English Heritage, 1991);
- *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England, 2015);
- *Planning Policy Wales* (Welsh Government 2018);
- *Standard and Guidance for Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014); and
- *Technical Advice Note (TAN) 24: The Historic Environment* (Welsh Government 2017).

Gwynedd Archaeological Trust is certified to ISO 9001:2015 and ISO 14001:2015 (Cert. No. 74180/B/0001/UK/En) and is a Registered Organisation with the Chartered Institute for Archaeologists and a member of the Federation of Archaeological Managers and Employers (FAME).

The Gwynedd HER Enquiry number for this project is GATHER1126 and the EVENT PRN is 45441.



## **1.1 Fieldwork Aims and Objectives**

The watching brief will be conducted during the cutting of a pipe trench across a possible Roman Road. The key aims and objectives of the watching brief are to:

- identify and record any archaeological activity (specifically, but not limited to, the archaeological remains of a Roman Road) identified during the cutting of the pipe trench at the road crossing;
- establish the date and nature of any archaeological remains identified and assess the implications for understanding the historical development of the area in conjunction with the known archaeological record; and
- if no archaeological activity is identified, establish why this may be the case.

## **1.2 Monitoring Arrangements**

The watching brief will be monitored by the Gwynedd archaeological Planning Service (GAPS) on behalf of Snowdonia National Park Authority (GAPS reference number: D2154); the content of this WSI and all subsequent reporting by GAT must be approved by GAPS prior to final issue.

The GAPS Archaeologist will need to be informed of the project timetable and of the subsequent progress and findings. This will allow the GAPS Archaeologist time to arrange monitoring visits and attend site meetings (if required) and enable discussion about the need or otherwise for further archaeological works (if required) as features of potential archaeological significance are encountered.

The curator contact details are: **01248 370926**.

### **1.3 Historic Environment Record**

In line with the Gwynedd Historic Environment Record (HER) requirements, the HER will be contacted at the onset of the project to ensure that any data arising is formatted in a manner suitable for accession to the HER and follows the guidance set out in *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* (The Welsh Archaeological Trusts, 2018). The HER will be informed of the project start date, location including grid reference, estimated timescale for the work, and further relevant information associated with the project.

The GAT HER Enquiry Number for this project is GATHER1126 and the Event Primary Reference Number (PRN) is 45441. The GAT HER will also be responsible for supplying the PRNs for any new identified and recorded assets.

## **2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

An archaeological desk-based assessment has been completed for this scheme (Aeon Archaeology Report 0180, September 2018). The assessment report concluded that there were local area was characterised by agricultural features of post-medieval date and there were no sites considered to be above local importance within the 50.0m wide assessment corridor. The only exception to this was route of the Roman Road between Caer Gai and Brithdir and the report recommended an archaeological watching brief during scheme works across this route (ibid.: 36 and 39). The report also concluded that “(T)he archaeological potential for buried preserved remains of all periods is suspected to be low across the entirety of both proposed schemes” (ibid.).

The proposed line of the possible Roman Road linking the Roman forts at Car Gai and Brithdir (RR66b; Gwynedd HER PRN 3849) runs in a fairly straight line between the two and was and traced in detail by Jones (1958-60, 208-220) and Margary (1973, 347-8) (Hopewell 2007, 20-21).

The possible Roman Road runs along a range of post-medieval tracks and roads in the vicinity of the scheme, the general line and width of the tracks suggest a Roman origin but few, if any features are visible to prove this. At the point at which the proposed works will take place (Gwynedd HER PRN 17631), the road survives as a well-worn northeast-southwest aligned farm trackway.

A zigzag just to the south of the proposed works (PRN 17630), just to the north of the Afon Celynog, predates the currently used road to the improved but extant packhorse bridge and could also be Roman. There are also signs of a possible ford on the south-west side of the river at this point (Hopewell 2007, 21).

### 3 METHODOLOGY

#### 3.1 Introduction

An archaeological watching brief is defined by the Chartered Institute for Archaeologists as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive (CIfA, 2014).

An archaeological watching brief can be divided into four categories:

- comprehensive (present during all ground disturbance)
- intensive (present during sensitive ground disturbance)
- intermittent (viewing the trenches after machining)
- partial (as and when seems appropriate).

GAPS have requested that the archaeological watching brief will be completed on the cutting of the pipe trench across the Roman Road works on an **intensive** basis.

The works to be monitored entail the cutting of an approximately 3m long, 1.05m deep and 0.60m wide pipe trench across the Roman Road to take a 450mm pipe with around 650mm cover.

The works are to be undertaken by Gwyn Roberts Construction A'i Fab during **October 2019** and are anticipated to last one working day.

- The watching brief will monitor the pipe trench cutting to the limit of excavation, defined as either an archaeological horizon, the 1.05m dig depth or the glacial horizon, whichever is encountered first;
- The cutting of the pipe trench will be undertaken by a 7 to 12 tonne mechanical excavator fitted with a 0.60m wide **toothless bucket**;
- During the watching brief all attendances and any identified features will be recorded using GAT watching brief pro-formas ([Appendix I](#));

- Photographic images will be taken using a digital SLR (Nikon D40) camera set to maximum resolution (3008 × 2000 6.1 effective megapixels) in RAW format; a photographic record will be maintained on site using GAT pro-formas ([Appendix II](#)) and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process. Photographic images will be archived in TIFF format using Adobe Photoshop; the archive numbering system will start from **G2620\_001**. When practical, a photographic ID board will be used during the watching brief inspection to record site code, image orientation and any relevant context numbers;
- Any subsurface features will be recorded photographically, with detailed notations and a measured survey (completed using a *Trimble* R8 GPS unit);
- If the Roman Road is encountered within the confines of the trench, it will be fully excavated. A suitable drawn and written record will be made of the construction of the road (e.g., the *agger* surface and any sub-surface deposits) as well as any associated features (e.g., drainage ditches). The feature will be examined for any evidence of phasing, use and repair. Plans and sections will be drawn at a minimum 1:10 scale using GAT A4, A3 or A2 pro-forma permatrace. Any diagnostic artefacts will be recovered and specialist input will be sought, where necessary. Ecofact samples will be taken from sealed deposits, including drainage ditch fills and any other deposits deemed appropriate; methodology will be as defined in [para. 3.3](#) and will include the use of specialist input. A section of the Caersws to Caer Gai Roman Road (PRN 17793), between Glanllyn and Llanuwchllyn in Gwynedd, was recently excavated and recorded by GAT (GAT Report 1394). That excavation identified the road surface, drainage ditches and associated features; artefacts including fragments of pottery, ceramic building material, glass, iron nails, worked lead and worked stone, all associated with the use of the nearby Caer Gai fort, were recovered. In addition, ecofacts recovered from the drainage ditch fill provided important dating information associated with the abandonment of the fort. Information from that report will be consulted for comparison and general reference, as well as for detail on the post-excavation strategy and specialists utilised. In addition, information from *Roman Roads in North-West Wales* (Hopewell, D. 2013), relating to Roman Road construction, typology and use, as well as comparative examples, will also be consulted.
- Any additional archaeological features/deposits/structures generally encountered will be manually cleaned and examined to determine extent, function, date and relationship to adjacent activity. Due to the confined nature of the pipe trench pit, it is

expected that these features will be 100% excavated. Any required plans or sections to be drawn at a minimum 1:10 scale using GAT A4 or A2 pro-forma permatrace.

- In any instance where archaeological activity is encountered, the project archaeologist must be allowed to halt the cutting of the pipe trench to investigate and record any archaeological features and/or deposits encountered and be allowed sufficient time to do so. If this requires additional time resourcing and costs, Dolhendre Hydro Ltd, the contractor's site manager and GAT project manager will be notified;
- Should dateable artefacts, human remains and/or ecofacts be recovered, an **interim report** will be submitted summarising the results of the watching brief, along with an assessment of potential for analysis post-excavation project design (in line with the MAP2 process). Additional time, resourcing and costs will be required to undertake any post-excavation programme of works. Alternatively, if the full post-excavation process is not merited, then it will progress straight to final report.

## 3.2 Human Remains

If any human remains cannot be preserved in situ and are to be excavated, this will take place under appropriate regulations and with due regard for health and safety issues. In order to excavate human remains, a Ministry of Justice 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. In accordance with the Ministry of Justice licence, recovered remains will be reburied once the investigation and/or assessment/analysis are complete.

Non-fragmented skeletal remains will be excavated using wooden tools and collected and stored in polyethylene bags (with appropriate references for context, grave number, et al) and placed in a lidded cardboard archive box (note: separate boxes for each grave) and stored in a suitable manner within GAT premises. If significant quantities of human remains are encountered, a human osteologist should be contacted and appointed to advise the team during the fieldwork. The osteologist will be an external appointment: Dr. Genevieve Tellier | Tel: 01286 238827 | email: [northwalesosteology@outlook.com](mailto:northwalesosteology@outlook.com) who will assist in devising the excavation, recording and sampling strategy for features containing human remains. The osteologist should also help to ensure that adequate post-excavation processing of human remains is carried out so that the material is in a fit state for assessment during the post-excavation stage. For inhumations, this will involve washing, drying, marking and packing.

If human remains are recovered that are deemed suitable for further assessment/analysis, this will be completed in accordance with the osteologist's requirements and with *Human Bones from Archaeological Sites Guidelines for producing assessment documents and analytical reports* (Chartered Institute for Archaeologists, 2017).



### **3.3 Ecofacts**

Should any deposits deemed suitable for dating be identified, they will be taken from sealed contexts, with not less than 40 litres for bulk samples. The sampling strategy will be undertaken in accordance with the principles set out in *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage, 2011). Recourse will be made to relevant specialists for palaeoenvironmental assessment, analysis and dating (AOC Archaeology | telephone: 0208 843 7380).

For any ecofact samples taken from human burials, this will be completed in accordance with an appointed osteologist's guidance.

### 3.4 Artefacts

Diagnostic artefacts will be retained for further examination and identification. Pottery sherds of 19<sup>th</sup> and 20<sup>th</sup> century date will be examined on site and the context from which they were retrieved noted but the sherds will not be retained. The artefacts will be treated according to guidelines issued by the UK Institute of Conservation, in particular the advice provided within *First Aid for Finds* (Watkinson and Neal 2001).

Any waterlogged artefacts (e.g. wood or leather) that are to be recovered for post-excavation assessment and analysis will be processed in accordance with *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage, 2011) and specifically in accordance with Brunning and Watson (2010) for waterlogged wood and Historic England (2012) for waterlogged leather. In such cases an external specialist will be contacted to agree an appropriate sampling and recovery strategy via Lucy Whittingham | Project Manager (post-excavation) | AOC Archaeology | telephone: 0208 843 7380 | email: [lucy.whittingham@aocarchaeology.com](mailto:lucy.whittingham@aocarchaeology.com)).

All finds are the property of the landowner; however, it is Trust policy to recommend that all finds are donated to an appropriate museum (in this case Storiol Museum and Art Gallery, Ffordd Gwynedd, Bangor, Gwynedd, LL57 1DT), where they can receive specialist treatment and study. Access to finds must be granted to the Trust for a reasonable period to allow for analysis and for study and publication as necessary. Trust staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants used by the Trust, including National Museums and Galleries of Wales at Cardiff.

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, on whose behalf the Portable Antiquities Scheme acts as advisor on technical matters, and may be the recipient body for the objects.

The Treasure Valuation Committee, based at the British Museum, and informed by the Portable Antiquities Scheme, 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.

GAT will contact the landowner (via Dolhendre Hydro Ltd) for agreement regarding the transfer of artefacts, initially to GAT and subsequently to the relevant museum (Storiol Museum and Art Gallery). A GAT produced pro-forma will be issued to the landowner where they are given the option to donate the finds or to record that they want them returning to them once analysis and assessment has been completed. Artefacts will be transferred to the Storiol Museum and Art Gallery will in accordance with *Guidelines for the Preparation and deposition of Archaeological Archives: An agreement between and Gwynedd Museums Service* (Gwynedd Council, 2009).

### 3.5 Fieldwork Archiving

Following the completion of the fieldwork, a programme of field work archiving will be completed based on following task list;

1. Pro-formas: all cross referenced and complete;
2. Photographic Metadata: completed in *Microsoft Access* and cross-referenced with all pro-formas;
3. Survey data: downloaded using a Computer Aided Design package;
4. Sections: all cross referenced and complete (to include matrices);
5. Plans: all cross referenced and complete;
6. Artefacts (if relevant): quantified and identified; register completed;
7. Ecofacts (if relevant): quantified and register completed;
8. Context register (if relevant): quantified and register completed;
9. Site Matrix.

All data will be processed, final illustrations will be compiled and a report will be produced which will detail and synthesise the results.

## **4 REPORTING**

Following completion of the stages outlined above, a report will be produced within one month of fieldwork completion incorporating the following:

1. Non-technical summary
2. Introduction
3. Background
4. Methods and techniques, including details and location of project archive
5. Watching Brief Results
6. Summary and conclusions (including any further recommendations – if relevant)
7. List of sources consulted.
8. Appendix I – approved GAT written scheme of investigation

Illustrations will include plans of the location, site plans and individual plans and sections of archaeological features identified as appropriate. Historical maps, when appropriate and if copyright permissions allow, will be included. A draft copy of the report will be sent to the client prior to production of the final report.

## 5 DISSEMINATION AND ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. The archaeological watching brief outlined in this WSI is currently scheduled to be completed in October 2019. A draft report (or interim report) will be submitted within one month of fieldwork completion (November 2019) and a final report will be submitted to the Gwynedd Historic Environment Record, Craig Beuno, Garth Road, Bangor, Gwynedd, LL57 2RT within six months of the completion of the watching brief. .

The following dissemination will apply:

- A digital report will be submitted to GAPS (draft report then final report);
- A digital report will be submitted to the client (draft report then final report). It will be the client's responsibility to then submit the final report to the local planning authority in order to discharge any relevant planning condition;
- A final digital report and paper report, and a bilingual event PRN summary will be submitted to the Gwynedd Historic Environment Record within six months of fieldwork completion. In addition, for any new assets, bilingual summaries will be submitted, in accordance with *Guidance for the Submission of Data to the Welsh Historic Environments Records (HERs)* section 4.4;
- A digital report and archive data will be provided to the Royal Commission on Ancient and Historical Monuments Wales, in accordance with *Guidelines for Digital Archives Version 1*. Digital information will include the photographic archive and associated metadata;

## **6 PERSONNEL**

The project will be managed by John Roberts, Principal Archaeologist GAT Contracts Section and attended by a project archaeologist.

The project archaeologist will be responsible for the watching brief, including all field management duties, e.g. curator liaison, main contractor liaison and specialist liaison (if relevant). The project archaeologist will be responsible for completing the watching brief record sheets as well as all other on site pro-formas and the fieldwork archive itemised in [para. 3.5](#). The project archaeologist will also be responsible for sourcing Primary Reference Numbers from the regional Historic Environment Record if any new assets are identified and recorded, and for submitting a draft final report (or interim report) for project manager review and approval. The report will then be submitted as per the arrangements defined in [para. 5](#).

## **7 HEALTH AND SAFETY**

The GAT Project Archaeologist(s) will be CSCS certified. Copies of the site specific risk assessment will be supplied to the client and site contractor prior to the start of fieldwork. Any risks and hazards will be indicated prior to the start of work via a submitted risk assessment. All staff will be issued with required personal safety equipment, including high visibility jacket, steel toe-capped boots and hard hat.



## **8 SOCIAL MEDIA**

One of the key aims in the GAT mission statement is to improve the understanding, conservation and promotion of the historic environment in our area and inform and educate the wider public. To help achieve this, GAT maintains an active social media presence and seeks all opportunities to promote our projects and results. With permission, GAT would like the opportunity to promote our work on this scheme through our social media platforms. This could include social media postings during our attendance on site as well as any postings to highlight results. In all instances, approval will be sought from client prior to any postings.

## **9 INSURANCE**

The insurance cover detailed below is renewed annually. Up to date insurance cover details can be supplied on request prior to the beginning of fieldwork in October 2019.

### **Public/Products Liability**

Limit of Indemnity- £5,000,000 any one event in respect of Public Liability

INSURER Aviva Insurance Limited

POLICY TYPE Public Liability

POLICY NUMBER 24765101CHC/UN/000375

EXPIRY DATE 21/06/2019

### **Employers Liability**

Limit of Indemnity- £10,000,000 any one occurrence.

The cover has been issued on the insurers standard policy form and is subject to their usual terms and conditions. A copy of the policy wording is available on request.

INSURER Aviva Insurance Limited

POLICY TYPE Employers Liability

POLICY NUMBER 24765101 CHC / UN/000375

EXPIRY DATE 21/06/2019

### **Professional Indemnity**

Limit of Indemnity- £5,000,000 in respect of each and every claim

INSURER Hiscox Insurance Company Limited

POLICY TYPE Professional Indemnity

POLICY NUMBER 9446015

EXPIRY DATE 22/07/2019

## 10 SOURCES CONSULTED

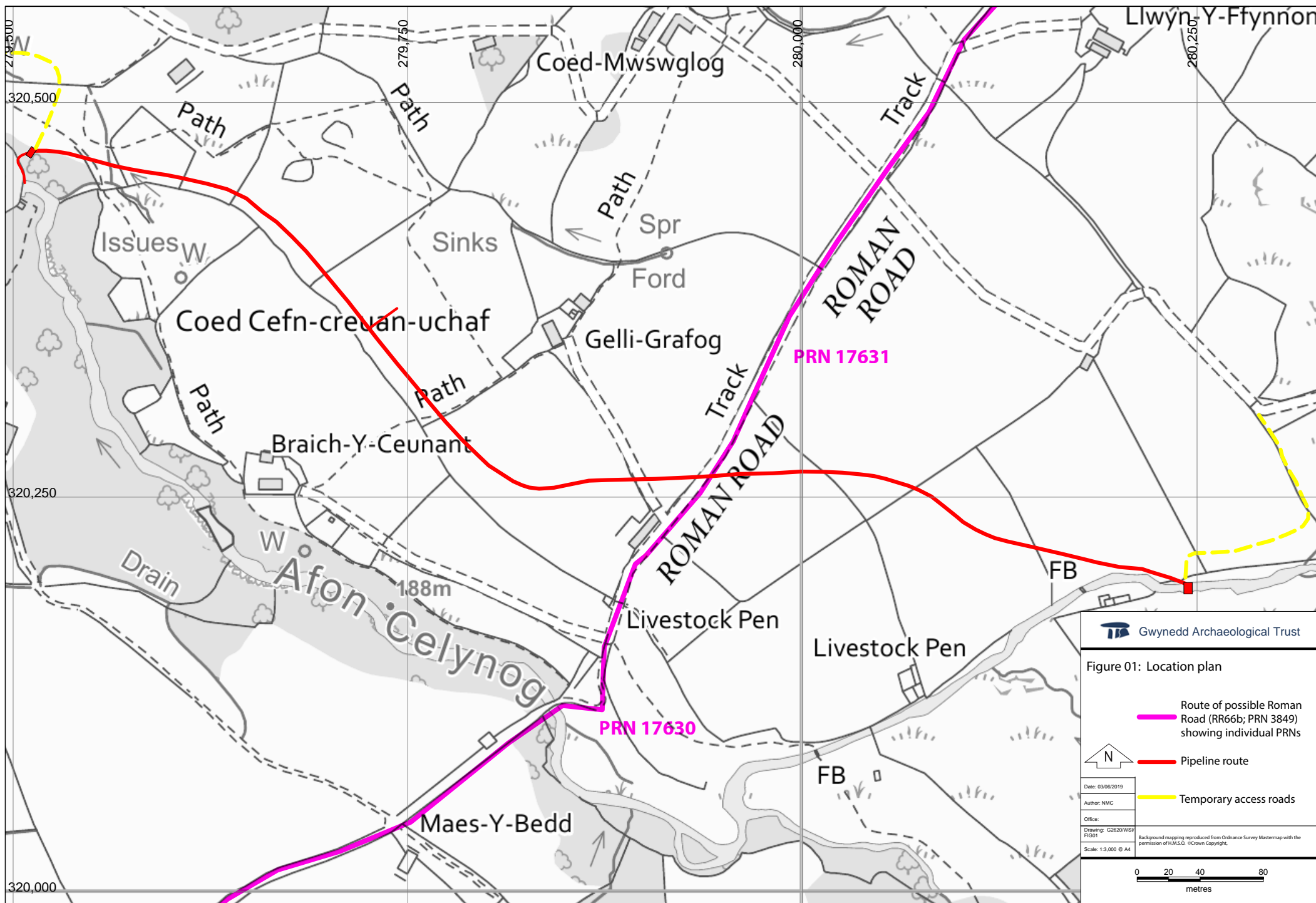
1. Brunning, R and Watson, J 2010, *Waterlogged Wood: Guidelines on the Recording*,
2. Chartered Institute for Archaeologists, 2014, *Standard and Guidance for Archaeological Watching Brief*
3. Chartered Institute for Archaeologists, 2014, *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*
4. Chartered Institute for Archaeologists, 2014, *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*
5. Chartered Institute for Archaeologists, 2017, *Updated Guidelines to the Standards for Recording Human Remains*
6. English Heritage, 1991, *Management of Archaeological Projects (MAP2)*
7. English Heritage, 2011, *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation*
8. Gwynedd Museum Service, 2009, *Guidelines For The Preparation and Deposition of Archaeological Archives: An agreement between Gwynedd Museums Service and Gwynedd Council*
9. Historic England, 2012, *Waterlogged Organic Artefacts Guidelines on their Recovery, Analysis and Conservation*
10. Historic England, 2015, *Management of Research Projects in the Historic Environment (MoRPHE)*
11. Hopewell, D, 2007, *Roman Roads in North-West Wales (Revision 4) - Part 1: Text*, GAT Report 668
12. Hopewell, D. 2013 *Roman Roads in North-West Wales*, Gwynedd Archaeological Trust, Bangor.
13. Royal Commission on Ancient and Historic Monuments of Wales, 2015, *Guidelines for digital archives*
14. *Sampling, Conservation and Curation of Waterlogged Wood* (3rd edition)
15. The Welsh Archaeological Trusts, 2018, *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)*
16. Watkinson, D and Neal, V, 2001, *First aid for finds* (3rd edition)

17. Welsh Government, 2017, *Technical Advice Note (TAN) 24: The Historic Environment*

18. Welsh Government, 2018, *Planning Policy Wales*


## **FIGURE 01**

### **Location Plan**



 Gwynedd Archaeological Trust

Figure 01: Location plan

 Route of possible Roman Road (RR66b; PRN 3849) showing individual PRNs

 Pipeline route

 Temporary access roads



Date: 03/06/2019

Author: NMC

Office:

Drawing: G2620(WSt)

FIG01

Scale: 1:3,000 @ A4

Background mapping reproduced from Ordnance Survey Mastermap with the permission of H.M.S.G. © Crown Copyright.

0 20 40 80  
metres

## **APPENDIX I**

### **Gwynedd Archaeological Trust Watching Brief pro-forma**

|   |                |          |
|---|----------------|----------|
| YMDDIRIEDOLAETH ARCHAEOLEGOL GWYNEDD ARCHAEOLOGICAL TRUST |                |          |
| WATCHING BRIEF DAY RECORD                                 |                | Date     |
| Project name  | Project number | Compiler |
| Location  |                |          |
| Description   |                |          |
| Times of travelling and on-site                           |                |          |
| Drawn record details                                      |                |          |
| Photographic record details                               |                |          |
|   |                |          |



## **APPENDIX II**

### **Gwynedd Archaeological Trust Photographic Metadata pro-forma**



**Digital Photographic Record      Project code and name:**

Include main context numbers for each shot, drawing numbers for sections and any other relevant numbers for cross referencing.

Delete any unwanted photos **immediately** from the camera.

Regularly upload photographs to computer.

[illegible]

## **APPENDIX II**

### **Photographic Metadata**

| <b>PHOTO<br/>RECORD<br/>NUMBER*</b> | <b>DESCRIPTION*</b>   | <b>VIEW<br/>FROM</b> | <b>SCALE(S)</b> | <b>CREATOR OF<br/>DIGITAL<br/>PHOTO</b> | <b>DATE OF<br/>CREATION OF<br/>DIGITAL PHOTO</b> | <b>ORIGINATING<br/>ORGANISATION</b> |
|-------------------------------------|---|----------------------|-----------------|---|--|-------------------------------------|
| G2620_01                            | Roman Road/Farm Track Pre-ex                                  | SW                   | 1x1m            | Carol Ryan<br>Young                     | 20/04/2020                                       | Gwynedd Archaeological<br>Trust     |
| G2620_02                            | Top layer removed mid-ex                                      | NE                   | 1x1m            | Carol Ryan<br>Young                     | 20/04/2020                                       | Gwynedd Archaeological<br>Trust     |
| G2620_03                            | Mid-ex 0.3m removed   | NE                   | 1x1m            | Carol Ryan<br>Young                     | 20/04/2020                                       | Gwynedd Archaeological<br>Trust     |
| G2620_04                            | Mid-ex stone removed 0.88m                                    | NE                   | 1x1m            | Carol Ryan<br>Young                     | 20/04/2020                                       | Gwynedd Archaeological<br>Trust     |
| G2620_05                            | Subsoil removal - natural appearing at the SE of<br>the slope | NE                   | 1x1m            | Carol Ryan<br>Young                     | 20/04/2020                                       | Gwynedd Archaeological<br>Trust     |
| G2620_06                            | Subsoil contains larger boulders                              | NE                   | 1x1m            | Carol Ryan<br>Young                     | 20/04/2020                                       | Gwynedd Archaeological<br>Trust     |
| G2620_07                            | Natural - orange/grey sandy clay                              | NE                   | 1x1m            | Carol Ryan<br>Young                     | 20/04/2020                                       | Gwynedd Archaeological<br>Trust     |
| G2620_08                            | NE facing section showing stones, subsoil and<br>natural      | NE                   | -               | Carol Ryan<br>Young                     | 20/04/2020                                       | Gwynedd Archaeological<br>Trust     |



Gwynedd Archaeological Trust  
Ymddiriedolaeth Archaeolegol Gwynedd

Craig Beuno, Ffordd y Garth, Bangor, Gwynedd. LL57 2RT  
Ffon: 01248 352535. Ffacs: 01248 370925. email: [gat@heneb.co.uk](mailto:gat@heneb.co.uk)

