

Archaeology Wales

**Written Scheme of Investigation
for an Archaeological Watching Brief at the
Llanuwchllyn to Glan-llyn Cycle Path, Llanuwchllyn, Bala**

Prepared for:

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Project No: 2338

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NON TECHNICAL SUMMARY

This Written Scheme of Investigations details an Archaeological Watching Brief at the 'Llwybr Tegid' Cycle Path, Llanuwchllyn, Bala, Gwynedd. It has been prepared by Archaeology Wales Limited for Spencer Pugh Associates, Tywyn, Gwynedd.

1. Introduction

A development of a new 450m length of the 'Llwybr Tegid' cycle path between Llanuwchllyn and the Glan-Ilyn Outdoor Education Centre, Gwynedd, (Henceforth – the site) has been proposed (Planning Application Reference: NP5/71/39W) by Mr Spencer Pughe of Spencer Pugh Associates. The development plot comprises a linear area of land, owned by *Urdd Gobaith Cymru*, to the south of the A494 Llanuwchllyn to Bala Road and to the west of the Glan-Ilyn outdoor Education Centre, National Grid Reference centred on SH88513176 (Fig.1). The remainder of the field is owned by Mr Glyn Edwards, Fferm Y Lon, Llanuwchllyn, Gwynedd, LL23 7ST and is outside of the scope of the development; no access is allowed to Mr. Edward's land.

In preparation for the submission of an Outline Planning Application, Gwynedd Archaeological Trust (GAT) undertook an archaeological assessment in May 2012 for the first proposed cycle route (GAT report 1055). This concluded that the Roman Road from the Roman fort of Caer Gai to the Roman fort of Caersws would intersect the cycle route. The eastern end of the cycle route was subsequently modified and a desktop assessment undertaken in January 2015. The report on this work follows recommendations made by John Roberts, Snowdonia National Park Archaeologist (Henceforth - SNPA).

The report identified a previously unrecorded banked earthwork enclosure located at the south-western end of the proposed development near Glanllyn Isa. This feature was visible on a 1948 RAF aerial photograph and measured 75m square, with two rounded corners, which can be indicative of a Roman military site. At this point the walkover assessment of the site identified two low parallel banks with possible associated ditches (GAT report 1227). There is some historical evidence that the earthwork may be from 20th century agriculture of the Welsh Agricultural Sub-Committee. The proposed cycle route will cut through 2.5m of the width of the northern side of the enclosure.

In July 2015 Archaeology Wales undertook an Archaeological Evaluation to investigate the enclosure. Two trenches and two test pits were excavated that targeted the cropmark shown on the 1948 aerial photograph. A shallow, linear, area of disturbed natural corresponding to the location of the feature was revealed. It contained three fragments from a green glass vessel. No other archaeological features or finds were revealed. Analysis of the results of the evaluation shows that the feature identified by the aerial photograph probably relates to an early 20th century agricultural enclosure that was formed by, now removed, steel rails and concrete fence posts.

Given the proximity of the line of a known Roman road linking the forts at Caer Gai and Caersws, SNPA require an archaeological watching brief to monitor the main soil strip of the cycle path works. The soil strip across the pastoral fields will be archaeologically monitored. The entrance works do not require such monitoring. This

Written Scheme of Investigation has been prepared by Kate Pitt (ACIfA), Project Manager, Archaeology Wales Ltd (Henceforth - AW) at the request of Mr Spencer Pughe. It provides information on the methodology that will be employed by AW during the Watching Brief.

This WSI is for a program of archaeological works, to be undertaken as a condition of planning consent, in accordance with guidelines set out in Planning Policy Wales 2012 and Welsh Office Circular 60/96.

All work will conform to 'Standard and Guidance for Archaeological Watching Brief' (CIfA 2014) and be undertaken by suitably qualified staff to the highest professional standards.

2 Site description

The site comprises a 2.5m wide corridor of land in an area of pastoral land.

3 The proposed archaeological work

The proposed archaeological work relates to the area of the main soil strip across the pastoral fields, for the construction of the cycle path (Fig.1). The entrance works will not be archaeologically monitored.

The aim of the work will be to establish and make available information about the archaeological resource existing on the site. The work will include the following elements:

- A watching brief (Stage 1).
- The production of an illustrated report and the deposition of the site archive (Stage 2)

4 Method Statement for the Watching Brief (Stage 1)

General

The watching brief work will comply with the CIfA Standards and Guidance on Watching Briefs (2014). It will be undertaken during all sub-surface groundworks that may expose potential archaeological deposits.

The watching brief is intended to ensure that any buried remains located within the development site are fully investigated and recorded if revealed as a consequence of site works.

As defined by the CIfA (2014) 'the Watching Brief will provide an opportunity for the archaeologists present to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard'.

If such a find is made, representatives of SNPA and the Developer will be informed and a site meeting organised as appropriate. If, as a result of the meeting, SNPA recommend that further work is undertaken, for example the excavation of specific

areas or features, AW will prepare a Specification for the work and an estimate of all associated costs.

Recording

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

Written, drawn and photographic records of an appropriate level of detail will be maintained throughout the course of the project. Digital photographs will be taken using cameras with resolutions of 18 mega pixels or above. All photographs will be taken with a digital SLR in RAW format (converted to TIFF and JPEG at highest resolution for archiving and presentation respectively). For both general and specific photographs, a photographic scale shall be included. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.

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

Monitoring

SNPA will be contacted prior to the commencement of ground works, and subsequently once the work is underway.

SNPA will be provided with notice of the start date no less than 5 working days prior to the commencement of the work.

Any changes to the specification that the contractor may wish to make after approval will be communicated to SNPA.

Representatives of SNPA (or, if appropriate SNPA) will be given access to the site so that they may monitor the progress of the watching brief. SNPA will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

Artefacts

Archaeological artifacts recovered during the course of the excavation will be cleaned and labelled using an accession number which will be obtained from the local museum. A single number sequence will be allocated to all finds. The artifacts will be stored appropriately until they are deposited with the museum.

All artefacts recovered during the project will be retained and be related to the contexts from which they were derived. All typologically distinct and closely datable finds will be recorded three-dimensionally.

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

A catalogue by context of all artefactual material found, quantified by number, weight, or both, and containing sketches of significant artefacts will be compiled.

Pottery will be analysed to the standards outlined in "Guidelines for the Preparation of

Pottery Archives" as prepared by the Study Group for Roman Pottery in consultation with the IFA. All other material will be analysed following the advice given in the Institute of Field Archaeologists: Guidelines for Finds Work.

The requirements for the conservation of artefacts will be unpredictable until after the completion of the fieldwork. AW will ensure that at least minimum acceptable standards are achieved (the UK Institute of Conservation's Guidelines for the Treatment of Finds from Archaeological Site should be used as guidance).

Environmental, palaeoenvironmental and technological samples

Samples will be taken where necessary when significant deposits are located. These will be retained for processing. The level of post-excavation processing will be dependent on the results of the watching brief and following discussion with an environmental specialist and SNPA.

Any features containing deposits of environmental, palaeoenvironmental or technological significance will be sampled. If required, the project manager will arrange, through a suitably qualified expert, the assessment of the environmental and/or palaeoenvironmental potential of the site through examination of suitable deposits. The assessment of potential should consider the guidelines set out in the English Heritage publication 'Environmental Archaeology' August 2011.

The requirements for the conservation of samples will be unpredictable until after the completion of the fieldwork. The archaeological contractor will ensure, however, that at least minimum acceptable standards are achieved (the UK Institute of Conservation's Guidelines for the Treatment of Finds from Archaeological Site should be used as guidance).

Human remains

Human remains will be left in situ, covered and protected when discovered. No further investigation will be permitted and SNPA and the local Coroner will be informed immediately. After discussion, it may be appropriate to take bone samples for C14 dating. If removal is essential it can only take place under the appropriate Ministry of Justice and Environmental Health regulations.

Specialists

In the event of certain finds/features etc. being discovered, the site archaeologist may have to seek specialist opinion for assistance. Such specialists will be accessed either internally within AW itself or from an external source. A list of external specialists is given in the table below.

Type	Name	Tel No.
Flint	Amelia Pannett	02920 899509
Animal bone	Jen Kitch	07739 093712
CBM, heat affected clay, Daub etc.	Rachael Hall	01305 259751
Clay pipe	Hilary Major	01376 329316

Glass	Andy Richmond	01234 888800
Cremated and non-cremated human bone	Malin Holst	01759 368483
Metalwork	Kevin Leahy	01652 658261
Neo/BA pottery	Dr Alex Gibson	Bradford University
IA/Roman pottery	Jane Timby	01453 882851
Post Roman pottery	Mr Stephen Clarke	
Charcoal (wood ID)	John Carrot	01388 772167
Waterlogged wood	Nigel Nayling	University of Wales (Lampeter)
Molluscs and pollen	Dr James Rackham	01992 552256
Charred and waterlogged plant remains	Wendy Carruthers	01443 233466

Treasure

If items that may be subject to the Law of Treasure Trove are recovered, the appropriate authorities will be notified, in accordance with The Treasure Act 1996, Code of Practice (2nd revision), England and Wales issues by the Department for Culture Media and Sport.

5 Method statement for the production of an illustrated Watching Brief Report and the deposition of the site archive (Stage 2)

Report preparation

The watching brief report will contain the following:

- A fully representative description of the information gained from the watching brief above, even if this is largely negative.
- A concise non-technical summary of the project results.
- At least one plan showing the site's location in respect to the local topography, as well as the position of all excavated areas.
- Suitably selected plans and sections of significant archaeological features. All plans and sections should be related to Ordnance Datum.
- Written descriptions of all features and deposits excavated and their considered interpretation.
- A summary report on the artefactual and ecofactual assemblage and an assessment of its potential for further study, prepared by suitably qualified individuals or specialists.
- A statement of the local and regional context of the archaeological remains identified.
- An impact assessment, with mitigation proposals, of the proposed development on the archaeological resource can be considered and presented for consideration. This could include the mapped archaeological potential of the site in relation to the proposed development.

Copies of the report will be sent to the client, the SNPA archaeologist (two hard copies and two on DVD), for the SNPA planning department, and for inclusion in the local HER (two hard copies and two on DVD) and the National Monuments Record (paper copy and DVD). The DVDs will include the whole digital archive arising from the work including the photographs (as below). Digital copies will also be provided in pdf format.

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

The site archive

A project archive will be prepared in accordance with the National Monuments Record (Wales) agreed structure and be deposited within an appropriate local museum on completion of site analysis and report production. It will also conform to the guidelines set out in EH MORPHE 2006. Arrangements will be made with the local museum before work starts. Wherever the archive is deposited, this information will be relayed to the HER.

Although there may be a period during which client confidentiality will need to be maintained, the report and the archive will be deposited not later than six months after completion of the work.

Other significant digital data generated by the survey (ie AP plots, EDM surveys, CAD drawings, GIS maps, etc) will be presented as part of the report on a CD/DVD. The format of this presented data will be agreed with the GAT HER officer in advance of its preparation.

6. Resources and timetable

Standards

The field work will be undertaken by AW staff using current best practice and in accordance with:

Standard and Guidance for Archaeological Watching Brief (CIfA 2014).

Standard and Guidance for the collection, documentation, conservation and research of archaeological materials (CIfA 2014).

Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (CIfA 2014).

Management of Research Projects in the Historic Environment (MoRPHE) (English Heritage 2006)

Staff

The project will be undertaken by suitably qualified AW staff. Overall management of the project will be undertaken by Kate Pitt ACIfA.

Equipment

The project will use existing Archaeology Wales equipment.

Timetable of archaeological works

The start date of works will be agreed with the client and SNPA informed.

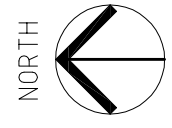
Insurance

Archaeology Wales holds Insurance through Towergate insurance.

Health and safety

All members of staff will adhere to the requirements of the Health & Safety at Work Act, 1974, and the Health and Safety Policy Statement of Archaeology Wales.

AW will produce a detailed Risk Assessment before any work is undertaken.

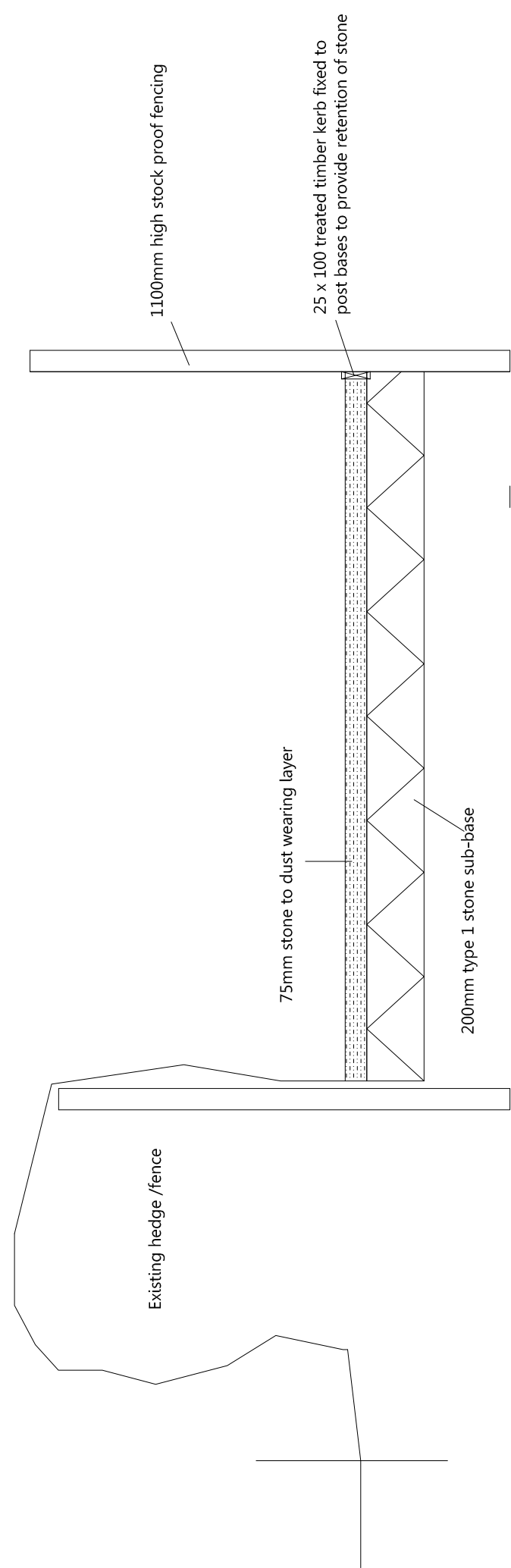


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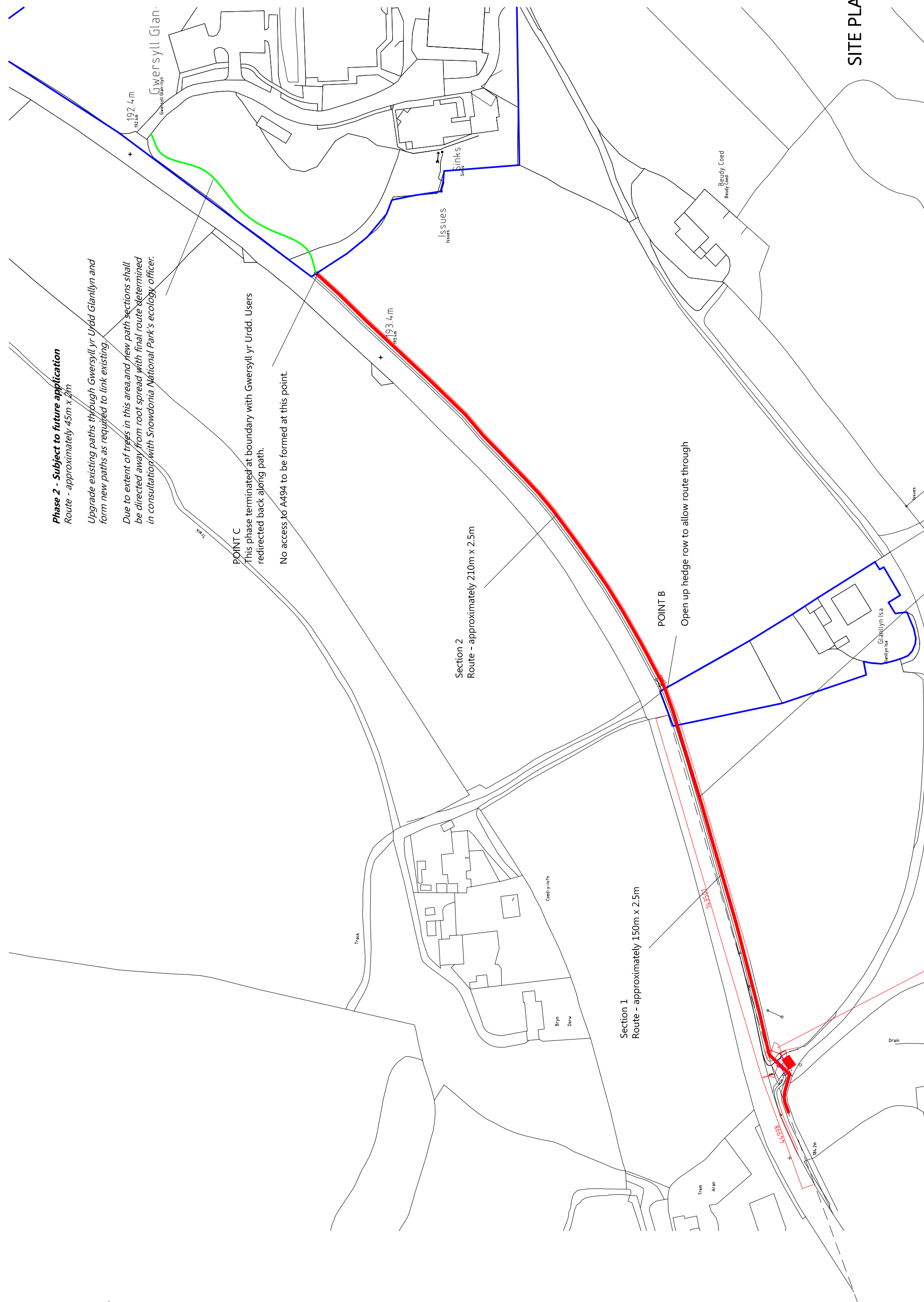


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LOCATION PLAN 1:2500



INDICATIVE SECTION
THROUGH PATH 1:20



SITE PLAN 1:1250

Planned route of cycle path subject to this application shown in red

Route to be bounded on highway side with existing hedgerows/stock proof fencing.

New stockproof fencing to be installed 2500mm from existing hedgerow to provide enclosure to open side.

New cycle route to be formed in minimum 200mm imported Type 1 stone sub-base material. Path surface to comprise 75mm layer of 20mm to dust aggregate.

Stones to be installed in maximum 150mm thick layers and well compacted.

Path to be installed with 1:80 cross gradient for surface water run off towards open field.

Path edges along side new stockproof fencing to be have 100mm x 25mm timber edgings installed along inside face at base of fence posts. Edging to be follow the line of the existing ground.

Open up hedge row and relocate existing gates, install new gates and relocate existing cattle grid.

Existing hedgerow adjoining highway to be maintained at a max. height of 1000mm above ground for a distance of approx 30m back to existing telegraph pole in order to improve visibility to existing vehicular access at junction.

Phase 2 - Subject to future application
Route - approximately 45m x 2.5m

Upgrade existing paths through Gwersyllt yr Urd Gtlanllyn and form new paths as required to link existing.

Due to extent of trees in this area and new path sections shall be directed away from root spread with final route determined in consultation with Snowdonia National Park's ecology officer.

POINT C
This point is located on boundary with Gwersyllt yr Urd. Users are to be restricted to a narrow path and a restricted back-riding path.

No access for A494 to be formed at this point.

Section 1
Route - approximately 150m x 2.5m

Section 2
Route - approximately 210m x 2.5m

POINT B
Open up hedge row to allow route through

REV	DATE	DESCRIPTION	DRAWN	CHECKED
A	12.11.14	FIRST ISSUE	SP	
B	27.07.15	Junction at point A clarified for access purposes	SP	
C	12.09.15	Alteration at point A to account of road safety audit recommendations and highway comments	SP	
D	05.10.15	Visibility study on western changed to offside lane when travelling from west	SP	
E	13.01.16	Location plan corrected	SP	

DO NOT SCALE FROM THIS DRAWING
ALL DIMENSIONS TO BE CHECKED
ASSUMPTIONS SHOULD NOT BE MADE
PERMISSION OF THE AUTHOR

Figure 1