

ZIP WORLD HQ, BETHESDA, GWYNEDD

ARCHAEOLOGICAL WATCHING BRIEF/ TOPOGRAPHIC SURVEY



ZIP WORLD HQ, BETHESDA, GWYNEDD

ARCHAEOLOGICAL WATCHING BRIEF/ TOPOGRAPHIC SURVEY

Project No. G2458

Report No. 1320

Prepared for: Dwr Cymru

June 2016

Written by: Jess Davidson

Illustration by: Jess Davidson

Cyhoeddwyd gan Ymddiriedolaeth Achaolegol Gwynedd
Ymddiriedolaeth Archaeolegol Gwynedd
Craig Beuno, Ffordd y Garth,
Bangor, Gwynedd, LL57 2RT

Published by Gwynedd Archaeological Trust
Gwynedd Archaeological Trust
Craig Beuno, Garth Road,
Bangor, Gwynedd, LL57 2RT

Cadeiryddes/Chair - Yr Athro/Professor Nancy Edwards, B.A., PhD, F.S.A.
Prif Archaeolegydd/Chief Archaeologist - Andrew Davidson, B.A., M.I.F.A.

Mae Ymddiriedolaeth Archaeolegol Gwynedd yn Gwmni Cyfyngedig (Ref Cof. 1180515) ac yn Elusen (Rhif Cof. 508849)
Gwynedd Archaeological Trust is both a Limited Company (Reg No. 1180515) and a Charity (reg No. 508849)

ZIP WORLD HQ, BETHESDA, GWYNEDD

ARCHAEOLOGICAL WATCHING BRIEF/ TOPOGRAPHIC SURVEY

Project No. G2458

Report No. 1320

Prepared for: Dwr Cymru

June 2016

Written by: Jess Davidson




Illustration by: Jess Davidson

Cyhoeddwyd gan Ymddiriedolaeth Achaolegol Gwynedd
Ymddiriedolaeth Archaeolegol Gwynedd
Craig Beuno, Ffordd y Garth,
Bangor, Gwynedd, LL57 2RT

Published by Gwynedd Archaeological Trust
Gwynedd Archaeological Trust
Craig Beuno, Garth Road,
Bangor, Gwynedd, LL57 2RT

Cadeiryddes/Chair - Yr Athro/Professor Nancy Edwards, B.A., PhD, F.S.A.
Prif Archaeolegydd/Chief Archaeologist - Andrew Davidson, B.A., M.I.F.A.

Mae Ymddiriedolaeth Archaeolegol Gwynedd yn Gwmni Cyfyngedig (Ref Cof. 1180515) ac yn Elusen (Rhif Cof. 508849)
Gwynedd Archaeological Trust is both a Limited Company (Reg No. 1180515) and a Charity (reg No. 508849)

Approvals Table				
	Role	Printed Name	Signature	Date
Originated by	Document Author	J DAVIDSON		20/06/16
Reviewed by	Document Reviewer	J ROBERTS		20/06/16
Approved by	Principal Archaeologist	J ROBERTS		20/06/16

Revision History			
Rev No.	Summary of Changes	Ref Section	Purpose of Issue

CONTENTS

List of Figures:.....	3
List of Plates:	4
1 NON-TECHNICAL SUMMARY	5
2 INTRODUCTION.....	6
3 ARCHAEOLOGICAL Background	8
4 METHODOLOGY	9
4.1 Topographic Survey.....	9
4.2 Watching Brief.....	9
5 RESULTS.....	10
6 DISCUSSION	12
7 SOURCES CONSULTED.....	13
7.1 Primary Sources	13
7.2 Secondary Sources	13
8 APPENDIX I	28
8.1 Reproduction of GAPS correspondence (reference: 512je03/D2035 dated 12th May 2015)	28
9 APPENDIX II	31
9.1 Reproduction of Gwynedd Archaeological Trust project design	31
10 APPENDIX III	51
10.1 Photographic Metadata.....	51

LIST OF FIGURES:

Figure 1: Plan showing the location of the work area.

Figure 2: Reproduction of Penseiri Lawray Drawing PL00_B.

Figure 3: Plan showing the slate waste earthworks in relation to the proposed work area.

Figure 4: Reproduction of OS 1" to 25-mile County Series Sheet XXII.12, 1889

Figure 5: Reproduction of OS 1" to 25-mile County Series Sheet XXII.12, 1900

Figure 6: Reproduction of OS 1" to 25-mile County Series Sheet XXII.12, 1914

Figure 7: Close up plan of the slate built earthworks.

LIST OF PLATES:

Plate 01: A curving section of dry stone wall surviving in a somewhat overgrown condition. View from the East; 2 x 1 m.

Plate 02: The eastern edge of the earthwork showing evidence of recent disturbance. View from the south; scale 1 x 2m.

Plate 03: A close up of a low un-bonded section of wall formed of poorly sorted blocks of slate, standing up to a meter in height

View from the North; scale 2 x 1 m.

Plate 04: An example of a regular rectangular block, waste from the production of roofing tiles, incorporated within the construction of the earthwork. Scale 1 x 1 m.

Plate 05: General view of the slate built earthwork showing the slight graduation in height. View from the Northeast.

Plate 06: Working shot showing the excavation of a trial hole within the earthwork. View from the north.

Plate 07: Post excavation shot of the trial hole excavated within the earthwork. View from the Northeast; scale 1 x 1 m.

Plate 08: Working shot showing the preservation in situ of the earthwork. View from the south.

Plate 09: Working shot showing the groundworks at the northern end of the site. View from the South.

Plate 10: Exposed section showing made-ground deposits to the east of the site entrance. View from the west.

1 NON-TECHNICAL SUMMARY

The Gwynedd Archaeological Trust have undertaken a topographic survey of a mid-late 20th century slate built silt trap located within Penrhyn quarry at the proposed site of the new Zip World headquarters. A subsequent watching brief was then undertaken during the initial phase of groundworks for the project. No additional archaeology was identified; the site was shown to have been a repository for significant quantities of spoil from the construction of the Conwy tunnel, and had also undergone additional phases of recent clearance and spoil deposition.

2 INTRODUCTION

Gwynedd Archaeological Trust (GAT) have undertaken a topographic survey and subsequent archaeological watching brief at the proposed site of the new Zip World headquarters, Bethesda, Gwynedd (centred on NGR SH62156540; Figure 01), on behalf of WRW Construction Ltd .

The development includes a new three storey building built to serve as the operations centre for Zip World. The building will include a reception area and associated facilities including a cafe and bar; the groundworks will also include the removal of existing temporary buildings, creation of a new zip wire course, car park, pedestrian boardwalk to connect with the existing visitor's car park and installation of a new sewage treatment plant. The proposals are detailed on Penseiri Lawray Drawing PL00_B (Figure 02) and the groundworks will include piling and foundation excavation.

The site is accessed via a track which runs southwest off the main quarry road. It lies in the midst of the quarry site, on the northern edge of an impressive flooded 19th century quarry. The footprint of the development is orientated northeast/southwest and measures c.220m x 60m (see figure 3).

The archaeological topographic survey was undertaken in advance of the groundworks. The survey focused on a sprawling series of earthworks visible on aerial photography and LiDAR, which were highlighted by the Gwynedd Archaeological Planning Service (GAPS) in advance of this scheme. The watching brief was completed during the initial phase of the groundworks; the footprint of the development covers a large proportion of this feature and the intention was to monitor its demolition in order to retrieve any additional information regarding its construction.

The initial phase of groundwork entailed the removal of material from the higher ground located in the northern portion of the site, and the deposition of this over lower areas in order to create a level surface on which to build. Following the commencement of works the methodology altered somewhat from that described in the initial design; the earthworks recorded at the southern end of the site were not levelled, but preserved in situ under a layer of deposited material and membrane. GAPS were notified of this alteration, and no formal revision to the design was requested at that stage.

The archaeological watching brief/topographic survey was completed in response to planning application C15/0276/16/LL condition 5:

No development (including any groundworks or site clearance) shall take place until a specification for a programme of archaeological work has been submitted to and approved in writing by the archaeological advisors to the Local Planning Authority. The development shall subsequently be carried out and all archaeological work completed in strict accordance with the approved specification.

In accordance with the planning condition, the specification for this work was approved on behalf of the Local Planning Authority. GAPS stated in correspondence (reference: 512je03/D2035 dated 12th May 2015; reproduced as appendix I) that the archaeological mitigation should consist of:

- an archaeological topographic survey of the site prior to development, in order to record several low linear earthworks constructed from slate waste, visible on aerial photographs and LiDAR within the area of the proposed car park;
- an archaeological watching brief during the main building groundworks, with observations informing a decision as to whether this needs to be maintained throughout intrusive works; and
- an archaeological watching brief within the car park.

The project design for this work was submitted in February 2016 (see appendix II), The scheme was monitored by GAPS and conformed to the guidelines specified in *Standard and Guidance for an archaeological watching brief* (Chartered Institute for Archaeologists, 2014).

3 ARCHAEOLOGICAL BACKGROUND

The Zip World development is an adventure tourist attraction which opened in 2013 on the edge of the village of Bethesda. The site is located within Penrhyn Quarry; an active slate quarry established by the Penrhyn Estate in the late eighteenth century.

The quarry lies within the non-statutory Dyffryn Ogwen Landscape of Outstanding Historic Interest (No. 28 HLW (Gw) 10 (Cadw 1998, 105-8)), and forms one of the most important elements of this landscape. It also falls within Historic Landscape Character Area 41 – Moel y Ci/Gwaen Gynfi unenclosed uplands (GAT Report 351, 2000). The quarry lies just outside the Snowdonia National Park. There are no Scheduled Ancient Monuments within the quarry site, however the quarry retains significant evidence of former industrial activity, including incline planes, galleries, ancillary structures, quarry machinery and slate waste tips.

Some of the most significant surviving features within the quarry are two water balance lifts, with their headframes still complete, which are considered to be of national importance (PRN 59998 and 60020). One of these, the "Princess May" (PRN 60020), lies to the immediate southeast of the development site, though on a lower terrace. An examination of the First to Third Edition Ordnance Survey 1" to 25-mile County Series maps for the area (Sheet XXII.12, published in 1889, 1900 and 1914 respectively; Figures 03 to 05) show that this area was occupied by tramways, embankments and quarry buildings. The distribution of these features changes throughout the 15 year period represented by the maps, denoting the active nature of the quarry. There is however no evidence of these structures today. There are no recorded features listed in the regional Historic Environment Record within the proposed development site and much of the area appears to have been cleared and levelled during a programme of modernisation in the mid-20th century.

However, a series of low earthworks, visible on aerial photography and LiDAR, were highlighted by GAPS in advance of this scheme. The origin and purpose of this feature was unclear, it does not appear to relate to the tramway lines and stores shown on the First to Third Edition Ordnance Survey maps, though it was suggested that the curving line may be the remnant of an embankment evident on all three editions, with the line possibly part of the embankment top.

4 METHODOLOGY

4.1 Topographic Survey

A topographic survey was completed of the low slate waste earthworks in advance of the commencement of the groundworks, on the 12th of February 2016. The aim of the survey was to record the upstanding structures. The survey was completed using a survey grade GPS with <10cm accuracy (model: *Trimble GNSS/R6/5800*) and was supported by field notes completed on GAT field survey pro-formas. The survey outlined the base of the features in detail, with hashers sketched on to denote the break of slope.

4.2 Watching Brief

GAT undertook a partial watching brief during the foundation level groundworks. Through close liaison with the ground crew, appropriate times were agreed in order that the attending archaeologist could observe and document all relevant stages of the process. This comprised extensive excavation at the northern end of the site, and the redistribution of this material over the lower, southern portion of the site. No material was brought to or removed from the site during this work. The watching brief did not monitor the piling operation, as there was no potential for further archaeological discovery during that work.

GAPS were informed of any changes to the design and consulted on appropriate mitigation.

The watching brief conformed to the guidelines specified in *Standard and Guidance for an archaeological watching brief* (Chartered Institute for Archaeologists, 2014).

- All attendances and identified features were recorded using GAT watching brief pro-formas
- Photographic images were taken using a digital SLR (Nikon D40) camera set to maximum resolution (3008 × 2000 6.1 effective megapixels) in RAW format and were subsequently converted to TIFF and JPEG format for archiving using Adobe Photoshop; 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 (see appendix III);

5 RESULTS

The earthworks were centred on NGR SH61996539 and encompassed an area approximately 150m long and 60m wide, located at the southern end of the work area (see figure 6). They survived in a varied condition, somewhat overgrown throughout (see plate 1), and notably disturbed at the eastern edge where the adjacent area has recently been mechanically cleared and levelled (see plate 2).

The earthworks comprised a series of low un-bonded walls formed of poorly sorted blocks of slate, standing up to a meter in height (see plate 3). Much of the slate was in regular rectangular blocks, waste from the production of roofing tiles, mixed with irregular slate boulders (see plate 4). The feature comprised sections of curving wall, forming 7 irregular enclosures set on a gentle slope; the southern end of the feature being somewhat higher than the northern end (see plate 5). Although somewhat disjointed it seems probable that the earthworks are related and form part of one large feature. The site was overgrown with a variety of wasteland plant species including significant quantities of coltsfoot and small birch and willow trees, indicating less than 10 years of growth.

A trial hole was excavated within one of the enclosures towards the northern end of the feature in order to investigate the ground conditions. The hole was excavated using a mechanical excavator with a toothed bucket; it measured 1.3m x 3.0m and was excavated to a depth of 2m (see plate 6). The exposed deposits comprised a thin layer of turf overlying a firm dark brown, sand-silt topsoil deposit some 0.5m thick. This deposit contained moderately frequent sub-rounded pebbles, sub-angular slate pieces and occasional small marine shells (bivalves, not obvious food waste). The topsoil overlay a soft dark grey slate silt deposit containing occasional pieces of 20th century waste including several woven plastic sand bags. The base of this deposit was not reached (see plate 7).

The feature has been interpreted as a silt trap, the permeable slate walls would filter silt from water, most likely run-off from a cutting shed where blocks of slate were sawn and split to form roofing tiles. Given the very large size of some of the slate boulders within these walls it is unlikely that they were constructed by hand, rather simply pushed into place using machinery; no evidence of any facing was observed. This indicates a relatively modern date for the feature, compatible with the cartographic evidence and the modern waste found buried within the feature.

Following an alteration to the design, this feature was preserved in situ, earth from the northern portion of the site was transported across and tipped at the north-eastern edge where it was spread out and compressed using a mechanical excavator (see plate 8).

The northern portion of the site was shown to comprise extensive spoil heaps built up either side of a rough access track (see plate 9). This material is reportedly spoil from the construction of the Conwy tunnel, brought to the site during the late 1980's (pers comm Sean Wood, construction manager). The spoil heaps were predominantly formed of reddish clay, unlike the soils native to the site, though with modern building material and some slate mixed in (see plate 10). The excavations did not reach the full extent of this material, and no

in-situ deposits or features were observed. Thus us it may be assumed that there is some potential surviving remains below formation level, though no evidence of this was observed during these works.

6 DISCUSSION

The Gwynedd Archaeological Trust have undertaken a topographic survey of a mid-late 20th century slate built silt trap located within Penrhyn quarry at the proposed site of the new Zip World headquarters. The structure is simply constructed of waste slate material, mounded together to form the walls of an irregular multi cell structure. The rather disjointed appearance of the structure owes partly to its poor state of preservation, but may also reflect a rather piecemeal building style, though no phasing was identified.

A subsequent watching brief was undertaken during the initial phase of groundworks for the project. The silt trap was preserved in situ and no additional archaeology was identified; the site was shown to have been a repository for significant quantities of spoil from the construction of the Conwy tunnel, and had also gone through additional phases of recent clearance and spoil deposition. The potential for surviving archaeological remains is high, preserved below the present working level.

7 SOURCES CONSULTED

7.1 Primary Sources

Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1889

Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1900

Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1914

7.2 Secondary Sources

Chartered Institute for Archaeologists 2014 *Standards and Guidance for an archaeological watching brief*,

English Heritage 1991 *Management of Archaeological Projects*.

Royal Commission on Ancient and Historic Monuments of Wales 2015 *Guidelines for digital archives*

Penseiri Lawray Drawing PL00_B Proposed Site Layout

<http://www.coflein.gov.uk>

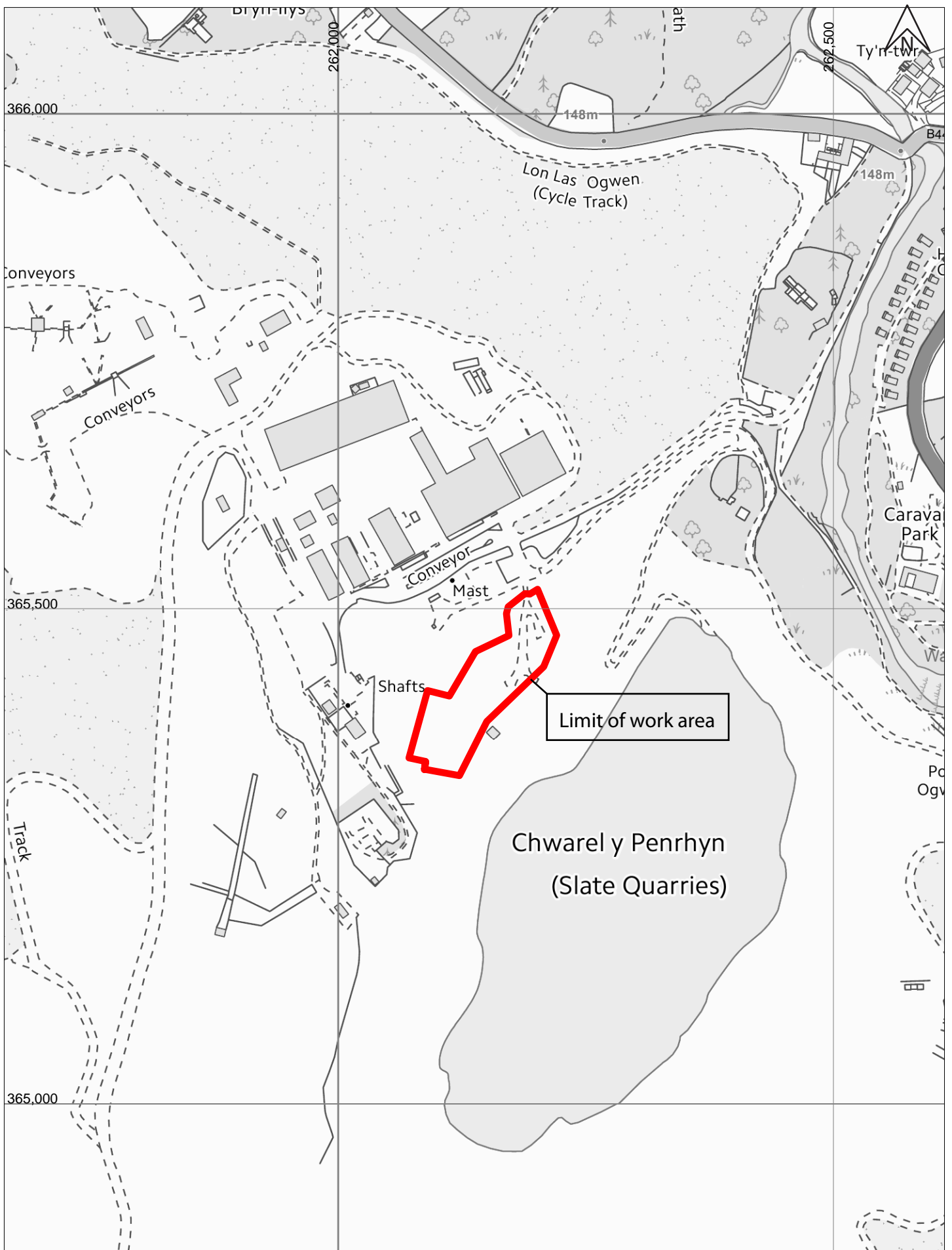
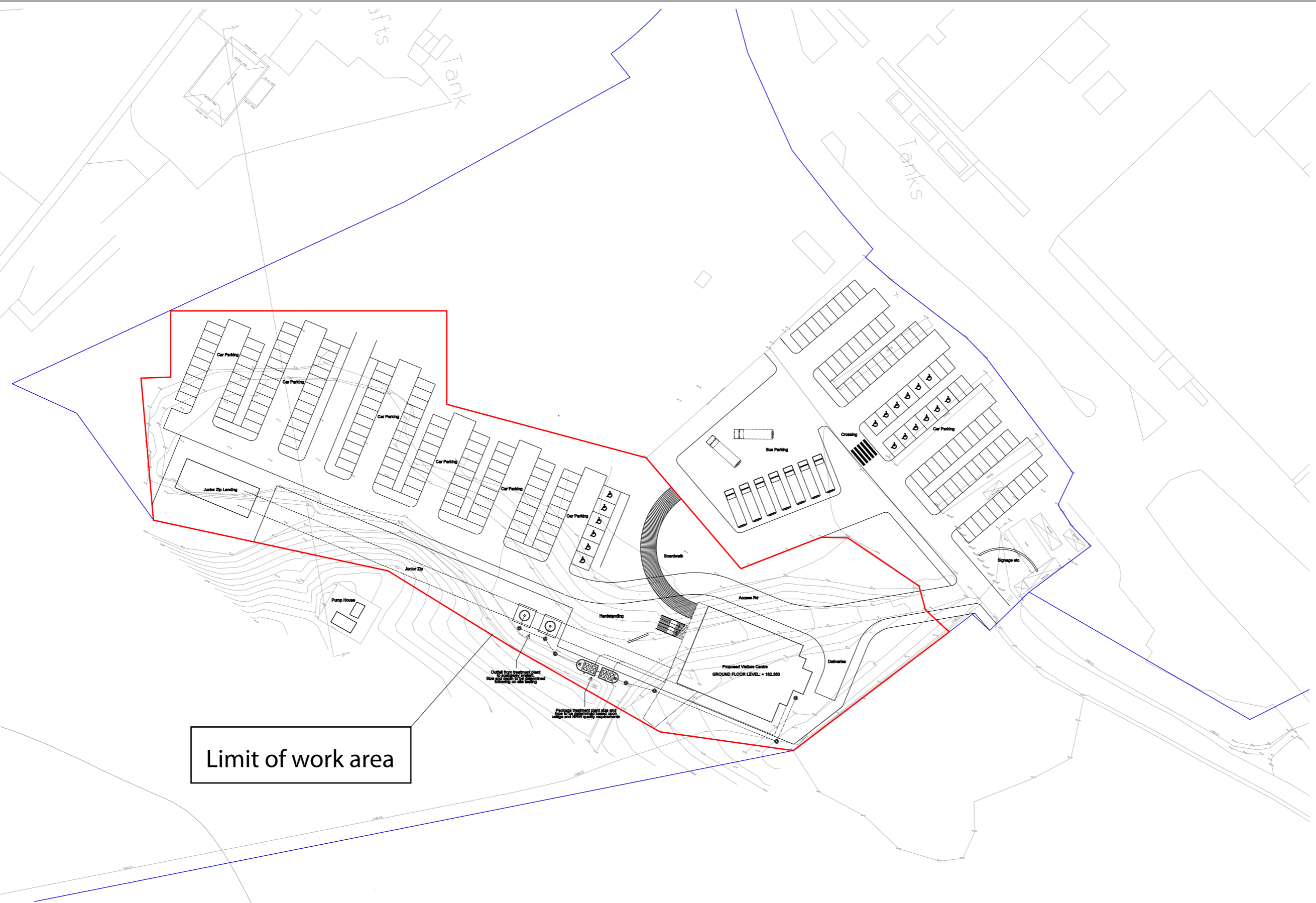
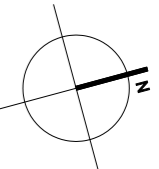


Figure 1: Plan showing the location of the work area.
 Figure based on 1:10000 Ordnance Survey County Series Map Sheets SH66NW & SH66SW. Crown Copyright. All Rights Reserved. License number AL100020895.

Construction (Design and Management) Regulations
 Design risk assessments are carried out throughout the design stage of this project. In accordance with the CDM Regulations, the design team has identified and then eliminated, reduced or controlled the significant risks that may arise from the design of the project. The design team has also identified and then eliminated, reduced or controlled the significant risks that may arise from the design of the project. The design team has also identified and then eliminated, reduced or controlled the significant risks that may arise from the design of the project.



Limit of work area

Rev	Description	Date	By	Chkd
B	RED LINE AMENDED	12.11.15	CE	CE
A	TREATMENT PLANT ADDED	07.11.15	CE	CE

FOR APPROVAL FOR CONSTRUCTION FOR TENDER AS BUILT

1 Cae Gwynedd, Tongwynlais, Cardiff CF15 7AB
 TEL: 029 20 528140
 e-mail: car@office@lawray.co.uk
 web site: www.lawray.co.uk
 Also at London & Wrexham

CLIENT
 WRW CONSTRUCTION

JOB TITLE
 NEW VISITORS CENTRE AT ZIPWORLD

DRAWING TITLE
 PROPOSED SITE PLAN

DATE	SCALE	DRAWN	CHECKED
SEPT'15	1:500@A1	CE	CE
JOB NO.	DRAWING NO.	REV	
1115	PL00	B	

DO NOT SCALE
 Copyright LAWRAY LIMITED.
 Any discrepancy or query concerning this drawing should be referred to the Architect.

Figure 2: Reproduction of Penseiri Lawray Drawing PL00_B.

Ymddiriedolaeth Archaeolegol Gwynedd
 Gwynedd Archaeological Trust

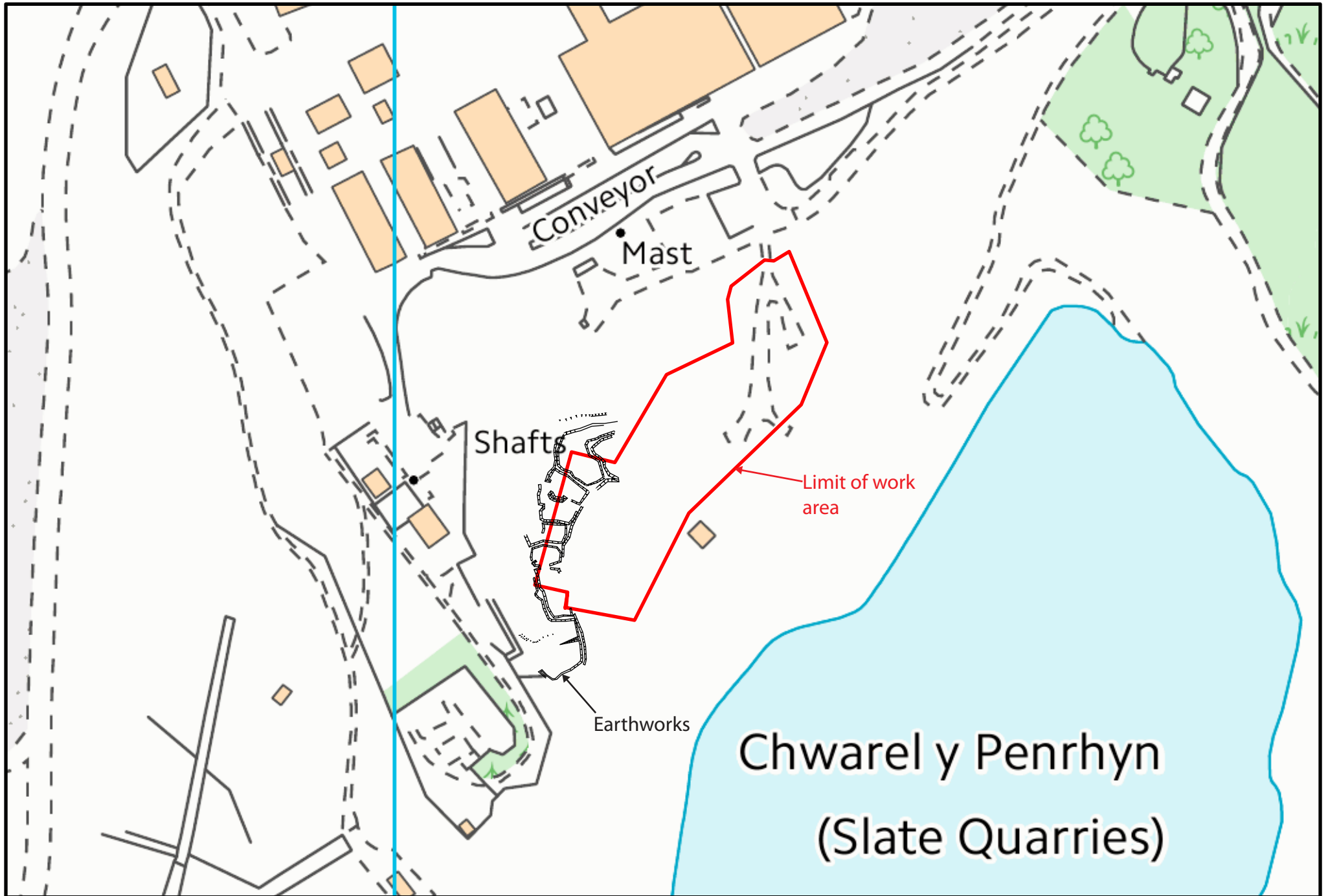


Figure 3: Plan showing the slate waste earthworks in relation to the proposed work area. Figure based on 1:10000 Ordnance Survey County Series Map Sheets SH66NW & SH66SW. Crown Copyright. All Rights Reserved. License number AL100020895. Scale: 1:2500@A4.

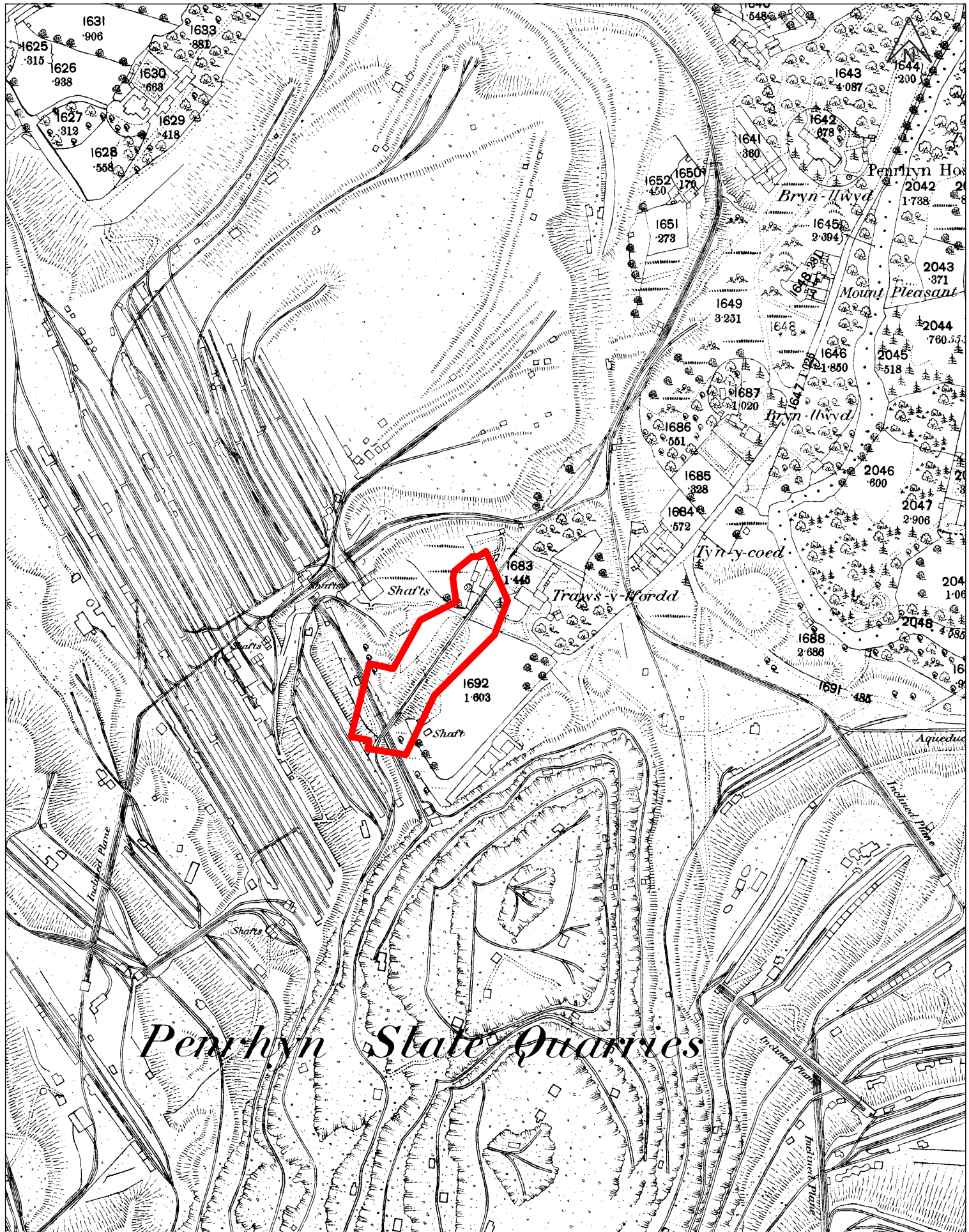


Figure 4: Reproduction of OS 1" to 25-mile County Series Sheet XXII.12, 1889



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

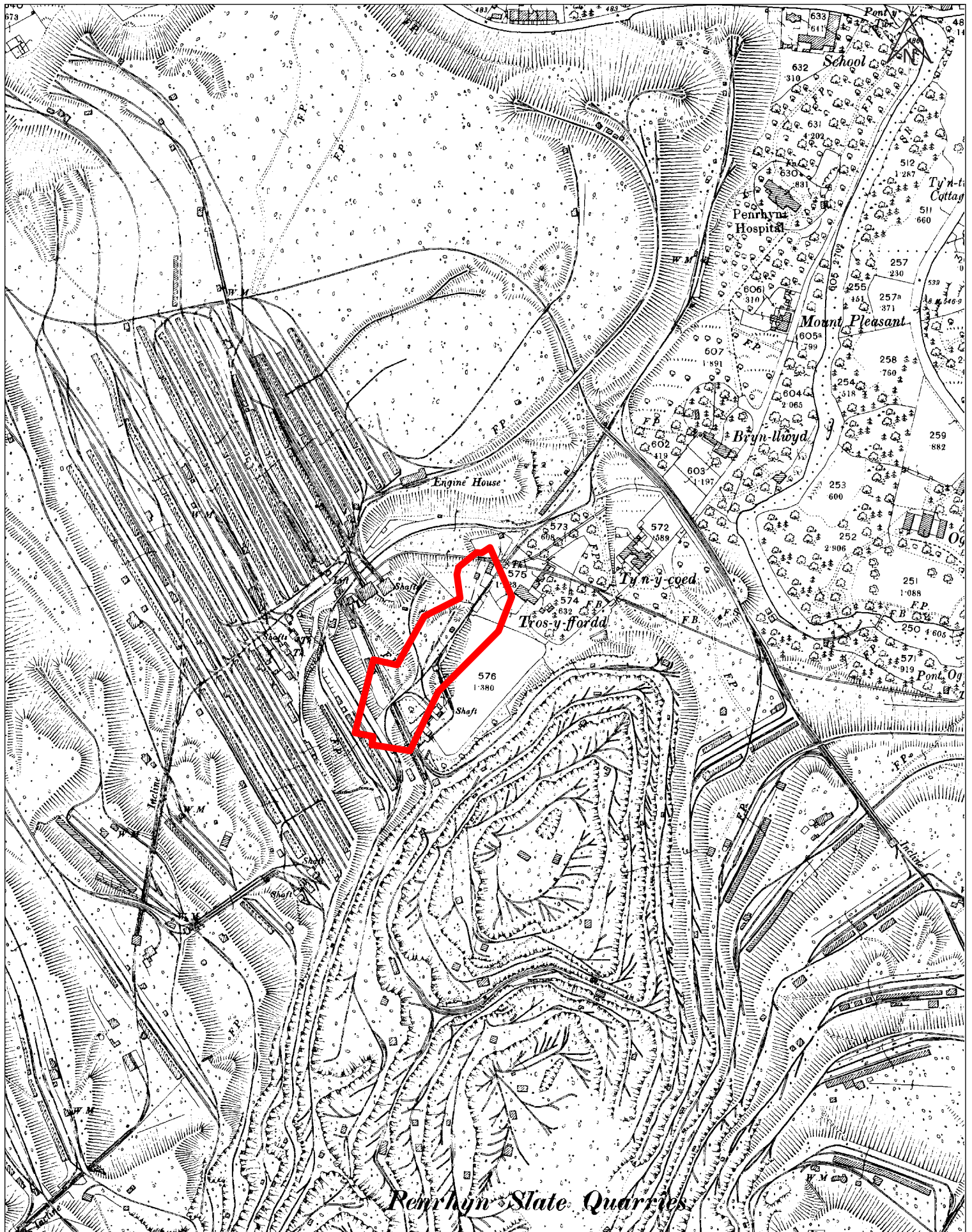


Figure 5: Reproduction of OS 1" to 25-mile County Series Sheet XXII.12, 1900





Figure 6: Reproduction of OS 1" to 25-mile County Series Sheet XXII.12, 1914



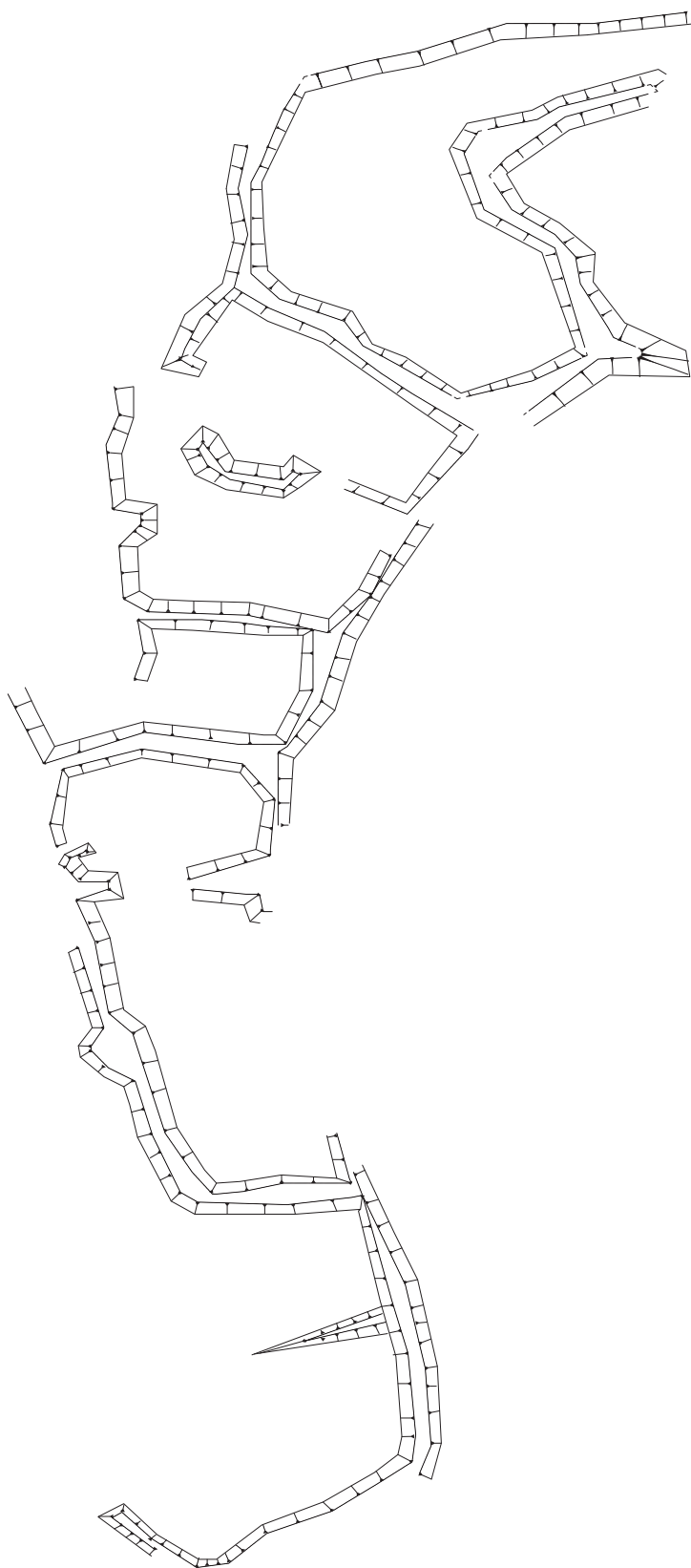


Figure 7: Close up plan of the slate built earthworks.





Plate 01: A curving section of dry stone wall surviving in a somewhat overgrown condition. View from the East; scale 2 x 1m.



Plate 02: The eastern edge of the earthwork showing evidence of recent disturbance. View from the south; scale 1 x 2m.



Plate 03: A close up of a low un-bonded section of wall formed of poorly sorted blocks of slate, standing up to a meter in height View from the North; scale 2 x 1m.



Plate 04: An example of a regular rectangular block, waste from the production of roofing tiles, incorporated within the construction of the earthwork. Scale 1 x 1m.



Plate 05: General view of the slate built earthwork showing the slight graduation in height. View from the Northeast.



Plate 06: Working shot showing the excavation of a trial hole within the earthwork. View from the north.



Plate 07: Post excavation shot of the trial hole excavated within the earthwork. View from the Northeast; scale 1 x 1m.



Plate 08: Working shot showing the preservation in situ of the earthwork. View from the south.



Plate 09: Working shot showing the groundworks at the northern ed of the site. View from the South.



Plate 10: Exposed section showing made-ground deposits to the east of the site entrance. View from the west.

7 APPENDIX I

Reproduction of GAPS correspondence (reference: 512je03/D2035 dated 12th May 2015)

12th May 2015

Our Ref: 0512je03/D2035

Glyn Llewelyn Gruffudd
Gwasanaeth Cynllunio
Swyddfa'r Cyngor
Ffordd y Cob
Pwllheli
Gwynedd
LL53 5AA

Dear Glyn,

Planning application: C15/0276/16/LL
Zip World, Penrhyn Quarry

Thank you for consulting me on the above planning application. I have checked the details against the regional Historic Environment Record (HER) and made a site visit with the applicant and their agent, and established that the proposals may have archaeological implications.

Penrhyn Quarry contains a wealth of industrial archaeology and forms a pivotal component of both the Dyffryn Ogwen Registered Landscape of Outstanding Historic Interest and the proposed *Slate Industry of North Wales* World Heritage Site. Numerous individual features are recorded, with additional records resulting from research associated with the World Heritage Site bid and ongoing quarrying operations.

The HER has no recorded sites within the proposed development site, although several are in close proximity. These include the Grade II listed quarry office (Cadw ref. 23392), other extant structures, and water-balance shafts and lifts forming part of the quarry's extensive 19th century network for managing slate processing from extraction through to export. The 'Princess May' water balance shaft and headframe (marked as 'pump house' on modern mapping) was assessed as of national importance in a Gwynedd Archaeological Trust survey in 1995 (report 176), but currently has no statutory designation. Historic mapping records that the site itself was fully occupied by tramways and associated features, and was an integral part of the slate management complex. These appear to have remained in use until the mid 20th century, possibly being cleared during a programme of modernisation in the 1960s.

The land on which the new operations centre would be built has been cleared and levelled, with no visible surface features. It is likely that this has substantially removed or truncated evidence of industrial features, but in the absence of information about the clearance or deposits at the site, the possibility of surviving traces cannot be entirely ruled out. There is a low bund of slate rubble which partly defines the western site boundary, which appears to be of relatively recent date, but may overlie an earlier feature. To the west of this, in the area of the proposed car park, are several low linear earthworks, which are also visible on aerial photographs and LiDAR. These do not obviously correspond to any historic mapped features and may be a product of site

Archaeolegydd Rheoli Datblygiad JENNY EMMETT *Development Control Archaeologist*

Cadeiryddes/Chair - Yr Athro/Professor Nancy Edwards, B.A., Ph.D, F.S.A. Prif Archaeolegydd/Chief Archaeologist - Andrew Davidson, B.A., M.I.F.A.

clearance, but their relatively regular form suggests that they may have a more structured origin. These features would be partly removed by creation of the car park.

In the light of these comments, should planning consent be granted, it is recommended that the local authority requires a programme of archaeological mitigation be undertaken, in accordance with national planning guidance (Planning Policy Wales 2014) and Welsh Office Circular 60/96 (Planning and the Historic Environment: Archaeology). In order to secure such recording, it is recommended that the following condition be attached:

No development (including any groundworks or site clearance) shall take place until a specification for a programme of archaeological work has been submitted to and approved in writing by the archaeological advisors to the Local Planning Authority. The development shall subsequently be carried out and all archaeological work completed in strict accordance with the approved specification.

Reasons: 1) To ensure the implementation of an appropriate programme of archaeological mitigation in accordance with the requirements of Planning Policy Wales 2014 and Welsh Office Circular 60/96 *Planning and the Historic Environment: Archaeology*.

2) To ensure that the work will comply with *Management of Archaeological Projects* (MAP2) and the Standards and Guidance of the Institute for Archaeologists (IfA).

The archaeological mitigation should initially consist of an archaeological topographic survey of the site prior to development, in order to record the low earthworks within the area of the proposed car park. This should be followed, within the levelled area of the main construction activity, by an archaeological watching brief on initial groundworks, with observations informing a decision as to whether this needs to be maintained throughout intrusive works. Within the proposed car park area a watching brief may also be required, but an alternative approach, such as a limited trench excavation in order to record earthworks in section, may be a more effective mitigation response.

Please contact me with any queries regarding the above.

Yours sincerely

Jenny Emmett
Development Control Archaeologist

8 APPENDIX II

Reproduction of Gwynedd Archaeological Trust project design

ZIP WORLD HQ,
BETHESDA, GWYNEDD

PROJECT SPECIFICATION FOR AN
ARCHAEOLOGICAL WATCHING
BRIEF/TOPOGRAPHIC SURVEY
(G2458)

Prepared for

Cadnant Planning Ltd.

February 2016

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

ZIP WORLD HQ, BETHESDA, GWYNEDD

PROJECT SPECIFICATION FOR AN ARCHAEOLOGICAL WATCHING BRIEF/TOPOGRAPHIC SURVEY (G2458)

Prepared for Cadnant Planning Ltd., February 2016

CONTENTS

1	INTRODUCTION	4
2	ARCHAEOLOGICAL BACKGROUND	5
3	METHODOLOGY	6
3.1	Topographic Survey.....	6
3.2	Watching Brief.....	6
3.3	Basic watching brief methodological procedures	7
3.3.1	Watching Brief.....	7
3.4	Environmental Samples	8
3.5	Human Remains	9
3.6	Small Finds	10
3.7	Further Archaeological Works	11
3.8	Monitoring Arrangements	12
3.9	Fieldwork Archiving.....	13
4	PROCESSING DATA, ILLUSTRATION, REPORT AND ARCHIVING	14
5	DISSEMINATION AND ARCHIVING	15
5.1	Historic Environment Record	15
6	PERSONNEL	16
7	HEALTH AND SAFETY	17
8	INSURANCE	18
9	REFERENCES	19
	Figure 01	20
	Site Location Map	20
	Figure 02	21
	Reproduction of Penseiri Lawray Drawing PL00_B	21
	Figure 03	22
	Reproduction of Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1889	22
	Figure 04	23
	Reproduction of Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1900	23
	Figure 05	24
	Reproduction of Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1914	24
	Appendix I	25
	Reproduction of Gwynedd Archaeological Planning Services	25
	Correspondence 512je03/D2035 (12th May 2015).....	25
	Appendix II	26
	Reproduction of Gwynedd Archaeological Trust field survey pro-forma	26
	Appendix III	27
	Reproduction of Gwynedd Archaeological Trust watching brief pro-forma	27
	Appendix IV	28
	Reproduction of Gwynedd Archaeological Trust photographic record pro-forma.....	28

Approvals Table				
	Role	Printed Name	Signature	Date
Originated by	Document Author			
Reviewed by	Document Reviewer			
Approved by	Principal Archaeologist			

Revision History			
Rev No.	Summary of Changes	Ref Section	Purpose of Issue

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by *Cadnant Planning Ltd.* to provide a project specification for undertaking an archaeological watching brief/topographic survey on the site of the Zip World HQ, Bethesda, Gwynedd (centred on NGR SH62156540; Figure 01).

The watching brief will be completed during groundworks for the construction of a new three storey building to serve as the operations centre for Zip World. The building will include a reception area and associated facilities including a cafe and bar; the groundworks will also include the removal of existing temporary buildings, creation of a new zip wire course, car park, pedestrian boardwalk to connect with the existing visitor's car park and installation of a new sewage treatment plant. The proposals are detailed on Penseiri Lawray Drawing PL00_B (Figure 02) and the groundworks will include piling and foundation excavation. The topographic survey will be undertaken in advance of the groundworks.

The archaeological watching brief/topographic survey will be completed in response to planning application C15/0276/16/LL condition 5:

No development (including any groundworks or site clearance) shall take place until a specification for a programme of archaeological work has been submitted to and approved in writing by the archaeological advisors to the Local Planning Authority. The development shall subsequently be carried out and all archaeological work completed in strict accordance with the approved specification.

In accordance with the condition this specification must be approved by Gwynedd Archaeological Planning Service (GAPS) on behalf of the Local Planning Authority. GAPS have stated in correspondence (reference: 512je03/D2035 dated 12th May 2015; reproduced as [Appendix I](#)) that the archaeological mitigation should consist of:

- an archaeological topographic survey of the site prior to development, in order to record several low linear earthworks constructed from slate waste, which are also visible on aerial photographs and LiDAR within the area of the proposed car park;
- an archaeological watching brief of the main building groundworks, with observations informing a decision as to whether this needs to be maintained throughout intrusive works; and
- an archaeological watching brief within the car park.

The scheme will be monitored by GAPS and will conform to the guidelines specified in *Standard and Guidance for an archaeological watching brief* (Chartered Institute for Archaeologists, 2014).

2 ARCHAEOLOGICAL BACKGROUND

The Zip World development is located within Penrhyn Quarry, which is a still active slate quarry established by the Penrhyn Estate in late eighteenth century. The quarry retains significant evidence of former industrial activity, including incline planes, galleries, ancillary structures, quarry machinery and slate waste tips. There are no recorded features listed in the regional Historic Environment Record within the proposed development site and the proposed new building will be located within an area that appears to have been cleared and levelled during a programme of modernisation in the mid-20th century.

An examination of the First to Third Edition Ordnance Survey 1" to 25-mile County Series maps for the area (Sheet XXII.12, published in 1889, 1900 and 1914 respectively; Figures 03 to 05) confirm that this area was occupied by tramways, embankments and quarry buildings. The distribution of these features changes throughout the 15 year period represented by the maps, denoting the active nature of the quarry and it is possible that evidence for this activity and phasing is still extant at sub surface level, albeit substantially removed or truncated.

The low earthworks highlighted by GAPS and also visible on aerial photography and LiDAR include a curving line of slate waste orientated north to south, with at least nine short spurs of slate waste projecting at right angles from the curving line. The origin and purpose of these spurs is not clear from the First to Third Edition Ordnance Survey maps as their location appears dominated by tramway lines and stores; the curving line may be the remnant of an embankment evident on all three editions, with the line possibly part of the embankment top.

3 METHODOLOGY

3.1 Topographic Survey

A topographic survey will be completed of the low slate waste earthworks within the proposed car park area. The earthworks are centred on NGR SH61996539 and encompass an area approximately 150m long and 60m wide.

The aim of the survey is to record all visible features in plan. The survey will be completed using a survey grade GPS with <10cm accuracy (model: *Trimble GNSS/R6/5800*) and will be supported by field notes completed on GAT field survey pro-formas ([Appendix II](#)). The proposed outline of the car park and main building will be included in the survey for geo-referencing.

The survey will be completed in advance of the watching brief and will be undertaken in February 2016.

3.2 Watching Brief

(Reproduced from Chartered Institute for Archaeologists 2014, *Standard and Guidance for an Archaeological Watching Brief*)

The definition of an archaeological watching brief is 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.

An archaeological watching brief is divided into four categories according the Institute for Archaeologists *Standard and Guidance for an archaeological watching brief*:

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

A watching brief category was not defined in the GAPS correspondence, but it is recommended by GAT (further to GAPS approval) that an **intensive** watching brief is undertaken with attendance focused on the initial foundation level groundworks for both the main building and the car park. Initial observations will determine whether attendance is required for the duration of intrusive groundworks; subject to agreement with GAPS. The watching brief of the car park will also focus on the removal of the earthworks during the groundworks and a record will be made of the earthworks in section.

The initial groundworks will be completed over a 9 week schedule and will include piling operations and foundation level works. The following programme is currently proposed by the contractor *WRW Construction Ltd*:

- Piling – 4 week duration; scheduled from March 2016; and
- Foundation level groundworks – 5 week duration; scheduled from April 2016.

The watching brief will not monitor the piling operation but will focus on the foundation level groundworks. GAT will be in regular contact with the client and/or contractor to confirm programme and schedule. GAPS will be informed of any changes to those listed.

3.3 Basic watching brief methodological procedures

3.3.1 *Watching Brief*

- All attendances and identified features will be recorded using GAT watching brief pro-formas ([Appendix III](#))
- 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 and will be converted to TIFF and JPEG format for archiving using Adobe Photoshop; a photographic record will be maintained on site using GAT pro-formas ([Appendix IV](#)) and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process;
- Any subsurface remains will be recorded photographically, with detailed notations and a measured survey.
- All archaeological features/deposits encountered will be manually cleaned and examined to determine extent, function, date and relationship to adjacent features. It is likely that features encountered will be related to industrial activity rather than discrete features such as pits, postholes or ditches. However, if any discrete features are encountered, the following will apply: 50% sample of sub-circular features, 10% sample of linear features. Any large-scale or more detailed excavation required will be detailed in an appropriate **Further Archaeological Works Design**.
- All sections to be drawn at a minimum 1:10 scale. This will include the profiles/sections of any earthworks truncated or removed during the course of the car park groundworks. Sections will be drawn on GAT pro-forma permatrace.
- All plans to be at a minimum 1:20 scale. Plans will be drawn on GAT pro-forma permatrace.
- Should dateable artefacts and ecofacts be recovered, an interim report will be submitted summarising the results, along with an assessment of potential for analysis specification (in line with the MAP2 process).

3.4 Environmental Samples

Due to the industrial origin of the site, it is not expected that ecofacts will be recovered. However, should any deposits deemed suitable for dating will be taken from sealed contexts, with bulk samples from ditches and pit fills proposed as not less than 10 litres from each context. 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 analysis and dating. Any required specialists will be consulted during the watching brief to advise GAT on a sampling strategy.

3.5 Human Remains

Due to the industrial origin of the site, it is not expected that human remains be encountered. However, should any finds of human remains be encountered, they will be left *in-situ*, covered and protected, and both the coroner and the GAPS 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 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. This will be applied for should human remains need to be investigated or moved.

3.6 Small Finds

Diagnostic artefacts, including any industrial artefacts associated with the slate industry will be retained for further examination and identification. Pottery sherds of 19th and 20th 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 (Watkinson and Neal 2001) in particular the advice provided within *First Aid for Finds* (Rescue 1999) and Historic England.

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 Bangor Museum, 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 National Museums and Galleries of Wales acts as advisor on technical matters, and may be the recipient body for the objects.

The National Museums and Galleries of Wales 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.

3.7 Further Archaeological Works

The identification of significant archaeological features during the watching brief may necessitate the production of a new project specification and the submission of new cost estimates to the contractor.

The application of a further archaeological works design (FAWD) will be dependent on the initial identification, interpretation and examination of an archaeological feature and the identification of activity that cannot be addressed within the provisions of the current design, e.g., structures. The requirement for an FAWD will be determined in conjunction with GAPS through established communication lines and the monitoring process.

The FAWD will be instigated through a GAT produced document that will include:

- feature specific methodologies;
- artefact specialist requirements, with detail of appropriate specialist analysis;
- timings, staffing and resourcing;
- additional costs.

The FAWD document will need to be approved by GAPS.

3.8 Monitoring Arrangements

The GAPS Archaeologist will need to be informed of the project start date 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 FAWDs (if required) as features of potential archaeological significance are encountered.

3.9 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. Sections: all cross referenced and complete;
4. Survey data: downloaded using a Computer Aided Design package imported into a GIS shapfile;
5. Plans (if relevant): 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;

All data will be processed, final illustrations will be compiled and a report will be produced which will detail and synthesise the results. Location drawings and a sample of relevant photographs will be used to illustrate the reports.

4 PROCESSING DATA, ILLUSTRATION, REPORT AND ARCHIVING

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

1. Non-technical summary
2. Introduction
3. Aims and purpose
4. Specification
5. Methods and techniques, including details and location of project archive
6. Topographical Survey Results
7. Watching Brief Results
8. Summary and conclusions
9. List of sources consulted.
10. Appendix I – approved project design

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 regional curatorial archaeologist (GAPS) and 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 mitigation outlined in this project specification will commence with the topographical survey in February 2016, followed by the watching brief in April 2016. A draft report will be submitted within one month of fieldwork completion (May 2016); a final report will be submitted to the Historic Environment within six months of submitting the draft report (November 2016).

The following dissemination will apply:

- A digital report will be provided to GAPS (draft report then final report).
- A paper report plus a digital report will be provided to the regional Historic Environment Record, Gwynedd Archaeological Trust; this will be submitted within six months of report completion (final report only).
- A digital report and archive (including photographic and drawn) data will be provided to Royal Commission on Ancient and Historic Monuments, Wales (final report only).
- A paper report(s) plus digital report(s) will be provided to the client (draft report then final report).
- Submission of digital information to the Royal Commission on the Ancient and Historical Monuments of Wales shall be undertaken in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. Digital information will include the photographic archive and associated metadata.
- Artefacts recovered from the site during the watching brief, with the landowners permission, will initially be transferred to GAT and then subsequently to Bangor Museum. If artefacts are transferred to Bangor Museum, this must be in accordance with agreed guidelines.
- Dependent on the results of the watching brief a summary note or a specific article will be included in the Council for British Archaeology Wales publication *Archaeology in Wales*. This shall be agreed with GAPS, and client in advance of publication along with all publication content. GAPS involvement in the project will be acknowledged therein.

5.1 Historic Environment Record

In line with the regional Historic Environment Record (HER) requirements, the HER must 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. At the onset, the HER Enquiry Form provided by the HER, will be completed and submitted.

6 PERSONNEL

The project will be managed by John Roberts, Principal Archaeologist GAT Contracts Section and attended by a minimum of one Project Archaeologist (watching brief only; two expected to complete the topographic survey). The project archaeologist will be responsible for completing the topographic survey and watching brief including all field management duties, e.g. liaison with GAPS and client. The project archaeologist will be responsible for completing day record sheets as well as all other on site pro-formas as well as the fieldwork archive itemised in [para. 3.9](#). The project archaeologist will also be responsible for submitting a draft final 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 INSURANCE

Public Liability

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

INSURER Aviva Insurance Ltd
POLICY TYPE Public Liability
POLICY NUMBER 24 7651 01 CHC/000405
EXPIRY DATE 31/03/2016

Employers Liability

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

INSURER Aviva Insurance Ltd
POLICY TYPE Employers Liability
POLICY NUMBER 24 765101 CHC/000405
EXPIRY DATE 31/03/2016

Professional Indemnity

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

INSURER Hiscox Insurance Company
POLICY TYPE Professional Indemnity
POLICY NUMBER HU PI 9129989/1208
EXPIRY DATE 31/03/2016

9 REFERENCES

1. Chartered Institute for Archaeologists 2014 Standards and Guidance for an archaeological watching brief;
2. English Heritage 1991 Management of Archaeological Projects.
3. Leigh D & D. Watkinson. 1998. First Aid for Finds: Practical Guide for Archaeologists.
4. Leigh D & D. Watkinson. 2001. UK Institute for Conservation: Excavated Artefacts and Conservation.
5. Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1889
6. Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1900
7. Ordnance Survey 1" to 25-mile County Series Sheet XXII.12, 1914
8. Royal Commission on Ancient and Historic Monuments of Wales 2015 Guidelines for digital archives
9. Penseiri Lawray Drawing PL00_B Proposed Site Layout

9 APPENDIX III

Photographic Metadata

G2458 Zip World HQ

File reference	Project name	Phase	Section	Description	View from	Scale (s)	Type	Date	Originating person	Originating organisation
G2458_001	Zip World HQ	Topographic Survey		general shot from southeast corner of the development	s	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_002	Zip World HQ	Topographic Survey	01	shot of start of low raised bank at southeast edge of the site	w	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_003	Zip World HQ	Topographic Survey	01	shot along top of 01, eastern edge of bank	s	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_004	Zip World HQ	Topographic Survey	02	shot of bank 02	w	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_005	Zip World HQ	Topographic Survey	01 & 02	shot of interface between 01 and 02 with large slate blocks	sw	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_006	Zip World HQ	Topographic Survey	01 & 03	interface between 01 and 03	sw	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_007	Zip World HQ	Topographic Survey	03	length of 03	e	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_008	Zip World HQ	Topographic Survey	01	shot of where 01 has been destroyed	s	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_009	Zip World HQ	Topographic Survey	03	arc of mound 03	e	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust

G2458 Zip World HQ

File reference	Project name	Phase	Section	Description	View from	Scale (s)	Type	Date	Originating person	Originating organisation
G2458_010	Zip World HQ	Topographic Survey	03	bulged area in 03	s	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_011	Zip World HQ	Topographic Survey	03	east terminal of 03	e	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_012	Zip World HQ	Topographic Survey	03 & 02	general shot of 03 and 02	n	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_013	Zip World HQ	Topographic Survey	04	Flowering currant			Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_014	Zip World HQ	Topographic Survey	05	low mound 04	s	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_015	Zip World HQ	Topographic Survey	06	shot of 05	n	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_016	Zip World HQ	Topographic Survey	07	shot of 06	s	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_017	Zip World HQ	Topographic Survey	08	shot of 07	n	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_018	Zip World HQ	Topographic Survey	08 & 09	shot of 08	n	1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust

G2458 Zip World HQ

File reference	Project name	Phase	Section	Description	View from	Scale (s)	Type	Date	Originating person	Originating organisation
G2458_019	Zip World HQ	Topographic Survey	09 & 12	shot of 08 merging into 09	sw	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_020	Zip World HQ	Topographic Survey		shot of gap between 09 and 12	w	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_021	Zip World HQ	Topographic Survey		interface between 11 and 12	e	2 x 1m	Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_022	Zip World HQ	Topographic Survey		looking southwest across features	ne		Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_023	Zip World HQ	Topographic Survey		looking southwest across features	ne		Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_024	Zip World HQ	Topographic Survey		end of current road and view south	n		Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_025	Zip World HQ	Topographic Survey		view of site road looking south	n		Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_026	Zip World HQ	Topographic Survey		site road looking west	e		Photograph	11/02/2016	Stuart Reilly	Gwynedd Archaeological Trust
G2458_027	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	NE	-	Photograph	16/05/2016	Jess Davidson	Gwynedd Archaeological Trust

G2458 Zip World HQ

File reference	Project name	Phase	Section	Description	View from	Scale (s)	Type	Date	Originating person	Originating organisation
G2458_028	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	NE	-	Photograph	16/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_029	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	N	-	Photograph	16/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_030	Zip World HQ	Watching Brief		General site view	N	-	Photograph	16/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_031	Zip World HQ	Watching Brief		General site view	N	-	Photograph	16/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_032	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	S	-	Photograph	16/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_033	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	S	-	Photograph	16/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_034	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	N	-	Photograph	17/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_035	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	SE	-	Photograph	17/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_036	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	E	-	Photograph	17/05/2016	Jess Davidson	Gwynedd Archaeological Trust

G2458 Zip World HQ

File reference	Project name	Phase	Section	Description	View from	Scale (s)	Type	Date	Originating person	Originating organisation
G2458_037	Zip World HQ	Watching Brief		General site view	N	-	Photograph	17/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_038	Zip World HQ	Watching Brief		General site view	N	-	Photograph	17/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_039	Zip World HQ	Watching Brief		Working shot - excavation at the N. end of the site	E	-	Photograph	17/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_040	Zip World HQ	Watching Brief		Working shot - excavation of trial hole within the silt trap	NW	-	Photograph	19/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_041	Zip World HQ	Watching Brief		Post-ex shot of trial hole	NE	1 x 1m	Photograph	19/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_042	Zip World HQ	Watching Brief		Close up of regular slate blocks within the walls of the silt trap	NE	1 x 1m	Photograph	19/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_043	Zip World HQ	Watching Brief		Close up of regular slate blocks within the walls of the silt trap	NE-	1 x 1m	Photograph	19/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_044	Zip World HQ	Watching Brief		General view of the groundworks progress	SW	-	Photograph	19/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_045	Zip World HQ	Watching Brief		General view of the groundworks progress	SW	-	Photograph	19/05/2016	Jess Davidson	Gwynedd Archaeological Trust

G2458 Zip World HQ

File reference	Project name	Phase	Section	Description	View from	Scale (s)	Type	Date	Originating person	Originating organisation
G2458_046	Zip World HQ	Watching Brief		General view of the groundworks progress at the northern end of the site	SW	-	Photograph	20/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_047	Zip World HQ	Watching Brief		General view of the groundworks progress at the northern end of the site	SW	-	Photograph	20/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_048	Zip World HQ	Watching Brief		General view of the groundworks progress at the northern end of the site	SW	-	Photograph	20/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_049	Zip World HQ	Watching Brief		General view of the groundworks progress at the northern end of the site	SW	-	Photograph	23/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_050	Zip World HQ	Watching Brief		General view of the groundworks progress at the northern end of the site	N	-	Photograph	25/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_051	Zip World HQ	Watching Brief		Exposed section showing made ground deposits to the east of the site entrance.	W	-	Photograph	25/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_052	Zip World HQ	Watching Brief		Working shot showing deposition of material at the northern end of the site	W	-	Photograph	25/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_053	Zip World HQ	Watching Brief		Working shot showing deposition of material at the northern end of the site	W	-	Photograph	25/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_054	Zip World HQ	Watching Brief		Working shot showing deposition of material at the northern end of the site	S	-	Photograph	25/05/2016	Jess Davidson	Gwynedd Archaeological Trust

G2458 Zip World HQ

File reference	Project name	Phase	Section	Description	View from	Scale (s)	Type	Date	Originating person	Originating organisation
G2458_055	Zip World HQ	Watching Brief		Working shot showing deposition of material at the northern end of the site	S	-	Photograph	25/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_056	Zip World HQ	Watching Brief		Working shot showing exposed section of made ground deposits to the west of the site entrance.	S	-	Photograph	26/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_057	Zip World HQ	Watching Brief		Working shot showing the preservation in situ of the silt trap	W	-	Photograph	26/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_058	Zip World HQ	Watching Brief		Working shot showing the preservation in situ of the silt trap	W	-	Photograph	26/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_059	Zip World HQ	Watching Brief		Working shot showing the preservation in situ of the silt trap	S	-	Photograph	26/05/2016	Jess Davidson	Gwynedd Archaeological Trust
G2458_060	Zip World HQ	Watching Brief		Working shot showing the preservation in situ of the silt trap	S	-	Photograph	26/05/2016	Jess Davidson	Gwynedd Archaeological 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