1385

Land off Narrow Lane, Llandudno Junction

Phase 3

Archaeological Watching Brief
Final Report

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

Land off Narrow Lane, Llandudno Junction

Phase 3

Archaeological Watching Brief Final Report

Rhif Prosiect / Project No. G2392

Rhif Adroddiad / Report No.1385

Prepared for: Beech Developments

April 2017

Written by: Stuart Reilly and Bethan Jones

Illustrations by: Stuart Reilly

Front Cover: South-west facing half sectioned Pit [003], containing burnt stone (photographic archive ref. G2392_103)

Cyhoeddwyd gan Ymddiriedolaeth Achaeolegol Gwynedd
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Revision History			
Rev No.	**Summary of Changes**	**Ref Section**	**Purpose of Issue**

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NON-TECHNICAL SUMMARY

Gwynedd Archaeological Trust (GAT) was contracted by Beech Developments to conduct an archaeological watching brief during groundworks associated with the Phase 3 development at Narrow Lane, Llandudno Junction (centred on NGR SH80367829; Figure 01). The watching brief monitored the removal of topsoil and subsoil during groundworks within the boundary of the proposed development.

During the watching brief a small sub-circular pit (PRN 61717) was uncovered at the northern end of the housing development which produced two radiocarbon dates of 4618 ± 28 BP (Laboratory Code SUERC - 71189 (GU42792)) with a calibrated range of 3506 – 3427 calBC and 4524 ± 30 BP (Laboratory Code SUERC - 71190 (GU42793)) 3242 – 3103 calBC both at 95.4% probability. This would suggest a date range within the Early to Middle Neolithic (3800BC – 3000BC).

1.0 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was contracted by *Beech Developments* to conduct an archaeological watching brief during groundworks associated with the Phase 3 development at Narrow Lane, Llandudno Junction (centred on NGR SH80367829; Figure 01). The watching brief monitored the removal of topsoil and subsoil during groundworks within the boundary of the housing development; attendance focused on but was not limited to, the house plots, haul roads and site compound.

The development at Narrow Lane is a multi-phase project incorporating residential and commercial properties and includes the following:

- Phase 1 – Residential development incorporating properties 01 to 66; completed during 2014 and 2015 (GAT Report 1295);
- Phase 2 – Commercial/Office development; completed in 2015 (GAT Report 1295); and
- Phase 3 – Residential development incorporating 64 properties that commenced from November 2015 (GAT Report 1325).

The Phase 3 development was located on open pastureland bordered by the A470 trunk road to the east and north with the Phase 1 & 2 development and Pen Dyffryn estate to the west, as indicated on *Beech Developments* drawing NL-PH3-SS-100 (Figure 01).

The project was monitored by Gwynedd Archaeological Planning Services (GAPS). GAT produced a project design outlining the proposed scheme and archaeological mitigation methodology in November 2015 (see Appendix I). The project design was subsequently approved by GAPS (email correspondence: 20th November 2015). The watching brief conformed to the guidelines specified in *Standard and Guidance for an archaeological watching brief* (Chartered Institute for Archaeologists, 2014). Gwynedd Archaeological Trust is a Chartered Institute for Archaeologists *Registered Archaeological Organisation*. The format of this report corresponds with the requirements of section 2.3 of MoRPHE (Historic England, 2015) and to MAP2 (English Heritage, 1991, *Management of Archaeological Projects*).

The content of this report must be approved by GAPS prior to final submission.

2.0 ARCHAEOLOGICAL BACKGROUND

Gwynedd Archaeological Trust has already completed an archaeological watching brief during groundworks in the Phase 1 and Phase 2 areas between September 2014 and July 2015 (GAT Report 1295). The watching brief monitored foundation level groundworks across both areas. The most significant feature was a pit (Context [003]), identified within the location of Phase 1 Plots 54 to 59 (NGR SH80657823) at the southern end of the site (Figure 02). The pit measured 0.67m long x 0.52m wide, with a depth of 0.22m; the pit contained heat fractured burnt stone (80% of the fill) within a very compacted dark brown/black silt-clay (Context (04)), and on excavation it was noted that there were a number of possible stakeholes within the base of the pit. A palaeoenvironmental sample (Context (04); Sample 01) was recovered for species identification and dating. The radiocarbon date was 3319 ± 30 BP (Laboratory Code SUERC – 58848 (GU36816)), with a calibrated range of 1519 calBC at 95.4% probability, suggesting a date range within the Early to Middle Bronze (2500BC to 1000BC).

A programme of archaeological mitigation has been maintained on a school development site to the immediate south of the Narrow Lane development (Parry and Owen 2015, GAT Report 1233). Two small pits (PRN 20148 and 60149) were identified 324.0m to the southeast of the pit from the Phase 1 area. The two pits were of similar size and content, suggesting they were contemporary, although only one of the pits contained charcoal. The palaeoenvironmental report for the charcoal stated that it was most likely fire fuel and kindling, represented by Oak and Willow/Poplar respectively, which would have been sourced from the local area. An Early to Middle Neolithic radiocarbon date was obtained for the charcoal (SUERC-61197 (GU37966) & SUERC-61197 (GU37966)). Whilst the pit from Phase 1 Narrow Lane was later than the pits from the neighbouring development; both sites suggest there is a spread of domestic prehistoric activity across the area.

The topsoil and subsoil horizons varied in depth across the Phase 1 area, but were shallower at the eastern end, closest to Phase 3. The subsoil was a brown-grey sand-silt containing a moderate amount of stone; the glacial horizon was recorded as a mid/light yellow silt-sand with frequent inclusions of stone.

3.0 METHODOLOGY

3.1 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. This will be within a specified area or site on land, inter-tidal zone or underwater, 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” (*Standard and Guidance for an archaeological watching brief* (CIfA, 2014, p1)).

The purpose of the watching brief is:

- to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works

- to provide an opportunity, if needed, for the watching archaeologist 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

This definition and Standard do not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains in situ.

An archaeological watching brief is divided in to 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 **partial** watching brief was recommended by GAT for this scheme, to be completed during the topsoil/subsoil strip and of ground reduction.

The **watching brief** consisted of the following:

- Observation of non-archaeological excavation works.

- A written and photographic record of any archaeological or non-archaeological deposits that were revealed. The written record onto GAT pro-forma record sheets. The photographic record was maintained with a digital SLR with a minimum resolution of (3008 x 2000 6.1 effective megapixels) in RAW format. The images were subsequently converted to TIFF and JPEG for archiving using Adobe Photoshop, in accordance with *RCAHMW Guidelines for Digital Archives Version 1*. A complete table of metadata with details of each photographic image taken, including descriptions and directions of shot, were produced using Microsoft Access (archive images G2392_178 to G2392_303 and G2392_319 to 323; see Appendix II for a reproduction of the metadata).

- Preparation of full archive report under project number **G2392**.

The watching brief was conducted between 5th January and 22nd July 2016. GAT visited the development a total of 19 times as part of the watching brief, with the highest attendance being in February, which coincided with the majority of the site being stripped, when 6 visits were conducted. The groundworks required the removal of topsoil and subsoil in order to reduce the ground level to that required by the building contractors to obtain their working level, after which foundation trenches for each individual housing plot were excavated into the natural ground levels. Tracked excavators fitted with a toothless ditching bucket were used to strip the topsoil, followed by the subsoil. These soils were removed from the work area by dumper trucks and placed in individual bunds at specific locations within the site boundaries or cast to one side in temporary storage bunds.

4.0 TOPOGRAPHY

The site is located at Waen-Fynydd, along the western side of the modern A470 road on leaving Llandudno Junction towards Llandudno. The Phase 3 area incorporated six elongated, irregular shaped fields of various size (Plate 01) situated along the northern and eastern edge of the earlier phases of the development. The highest ground is roughly centrally located with a shallow slope downwards to the north and a steeper slope down towards the south. All fields were grassed and used for pasture with the soils being fairly shallow at the centrally located higher ground, with natural levels being observed during ground reduction operations. The northern and southern areas had deeper colluvial soils.

The underlying geological bedrock of the development area comprises of sedimentary bedrock of mudstone and siltstone formed in deep seas from irregular slurries of shallow water sediments that were then re-deposited as graded beds, approximately 428 million years ago. The superficial deposits of Till, Devensian-Diamicton rocks were formed approximately 2 million years ago when Ice Age glaciers moving across the landscape deposited till with outwash sand and gravel deposits from seasonal and post glacial meltwaters.

5.0 RESULTS

5.1 Watching Brief

5.1.1 Topsoil and Subsoil Strip

Most of the ground reduction work was completed using 13 tonne tracked 360° excavators fitted with a 2.0m wide toothless ditching bucket. The excavated soils were placed into six tonne dumper trucks (Plates 02 & 03) and removed onto designated areas within the site, although in some plots the soils were stored within the outer perimeter of the working areas (Plate 04).

The topsoil had an average depth of around 0.25m but varied in colour and composition. In the northern section of Phase 3, in the vicinity of Build Phases A and F the topsoil consisted of a soft, cohesive dark brown silty clay mixed with occasional sub-rounded stones and frequent tree roots, in particular along the northern edge of the development (Plate 05). Pottery in the form of sherds of Buckley ware and finer white glazed wares were recovered, noted and discarded in this section of the site. The topsoil in the remainder of Phase 3 consisted of a compact, cohesive mid brown silty loamy clay mixed with the occasional sub-rounded and sub-angular small stone (Plate 06). Pottery sherds were less frequent in these areas.

It overlaid a compact, cohesive mid greyish brown silty clay subsoil, which was most evident in the hollow to the immediate east of Phase 2 and south facing slope of the site, from approximately Build Phase E onwards. In this area it had an average depth of 0.2m.

The underlying natural comprised of a compact, cohesive light greyish yellow sandy clay mixed with frequent sub-rounded cobbles and moderate sub-rounded boulders (Plate 07), along with occasional patches of red clay. The presence of these boulders, especially in areas of the development where the topsoil and subsoil were shallower, would indicate that the fields had not been ploughed, at least not within the last century when ploughing became more mechanised and was conducted at a greater depth.

During the topsoil strip of Build Phase A, a small pit (PRN 61717) was uncovered. The pit [003] was sub-circular in plan with a maximum diameter of 0.75m and depth of 0.15m (Plate 08). The cut had an abrupt break of slope at the top with fairly steep sides and a moderately sharp break of slope at the base which was undulating. It contained two fills [004] and [005]. The basal fill [004] was thin (maximum depth of 0.03m) and consisted of a soft dark greyish black silt mixed with frequent flecks and pieces of charcoal. The fill

lined the base of the pit. It was sealed beneath [005] a soft mid greyish brown clayey silt mixed with frequent angular cobbles, some of which displayed signs of fracturing and discolouration due to heating (Plate 09). There was no indication of in-situ burning within the pit.

A bulk sample was taken from pit [003] charred deposit (004) and subsequently analysed and assessed by AOC (Appendix III). The charcoal assemblage totaled 46.8g with the most common identified species being hazel (*Corylus avellana* L). The accumulation of charcoal and cereal (single cereal caryopses) within this pit is domestic in nature and probably represents a single burning event. Two pieces of hazel roundwood were identified as the most suitable for dating and were submitted to *Scottish Universities Environmental Research Centre* (SUERC) for radiocarbon dating (Appendix IV). The radiocarbon dates were 4618 ± 28 BP (Laboratory Code SUERC - 71189 (GU42792)) with a calibrated range of 3506 – 3427 calBC and 4524 ± 30 BP (Laboratory Code SUERC - 71190 (GU42793)) 3242 – 3103 calBC both at 95.4% probability. This would suggest a date range within the Early to Middle Neolithic (3800BC – 3000BC).

5.1.2 Gas Pipe Trench

Phase 3 of the development included the movement and replacement of a section of an existing gas mains located along the northern limit of the development. The existing gas mains pipe extended along the route of the main access road into Phase 3 and it was moved to the northern boundary of the development, adjacent to the A470.

An area that measured 80m east – west by a maximum of 16m north – south was topsoil stripped by 13 tonne tracked 360° excavator fitted with a 2.0m wide toothless ditching bucket (Plate 10). The topsoil was stripped to a depth of 0.20m and consisted of a soft, dark brown silty clay mixed with occasional sub-angular pebbles.

The pipe trench was stepped due to the excavated depth (maximum of 1.85m) and the localised wet ground conditions, to help negate the chance of collapsing trench sides, with an approximate width of 3.0m (Plate 11). In addition, three ‘bell holes’ were excavated at the western and eastern limits, as well as the centre point of the route of the new pipe trench. The ‘bell holes’ were roughly square in plan measuring 5.0m x 5.0m with a maximum depth of 2.10m.

The remaining topsoil had a depth of 0.16m, which overlaid a soft mid brown silty clay subsoil which had a maximum depth of 0.22m. This in turn covered a colluvium of a fine, coarse yellow sandy clay that had a maximum depth of 0.57m. The colluvium sealed a

compact yellowish red boulder clay (Plate 12). No archaeological deposits were uncovered during the groundworks associated with the gas mains pipe trench.

6.0 INTERPRETATION AND CONCLUSIONS

Gwynedd Archaeological Trust (GAT) was contracted by *Beech Developments* to conduct an archaeological watching brief during the groundworks associated with the Phase 3 of the housing development at land off Narrow Lane, Llandudno Junction, Conwy County Borough.

The earlier phases of the Narrow Lane development uncovered a charcoal rich pit (PRN 61631) which produced a radiocarbon date of 3319 ± 30 BP (Laboratory Code SUERC – 58848 (GU36816)), with a calibrated range of 1519 calBC at 95.4% probability, suggesting a date range within the Early to Middle Bronze (2500BC to 1000BC). This along with the discovery of similar pits in the adjacent school development at Esgyryn, Llandudno Junction, one of which, pit [005] (PRN 60148), produced an Early to Middle Neolithic (3800-3000BC) radiocarbon date, would contribute to the suggestion of prehistoric domestic activity in the area (Parry and Owen 2015). The sub-circular pit [003] (PRN 61717) identified during Phase 3 provides further evidence of domestic prehistoric activity at Llandudno Junction. The evidence garnered from this pit alongside that of the pits identified in the school development to the immediate south east, would suggest transitory prehistoric activity, as the pits represent single burning events (Robertson 2016). The species identified suggests the fire fuel and kindling was sourced from the local area using wood from the dominant species of hazel, oak, willow and poplar. Together this information offers a glimpse of the activity that took place in this part of Llandudno Junction and the tree species that were present in the earlier Neolithic (3800 – 3000 BC).

7.0 SOURCES CONSULTED

Beech Developments drawing NL-PH3-SS-100;

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

English Heritage, 1991, Management of Archaeological Projects;

English Heritage 2015. *Management of Research Projects in the Historic Environment (MoRPHE;*);

Dunbar and Naysmith, 2017, *SUERC Radiocarbon Dating Certificate SUERC -71189 & 71190;*

Parry, L and Owen, K. 2015. *Esgyryn, Llandudno Junction Archaeological Mitigation Report for Boundary Recording and Controlled Strip Excavation.* GAT Report 1233;

Regional Historic Environment Record (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor LL57 2RT);

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

Robertson, J., 2016, *Land off Narrow Lane AOC Project no: 23638.*

FIGURES

SALES OFFICE & PARKING

PHASE 1

PHASE 3

SITE OFFICE & WELFARE

SITE COMPOUND

N

Figure 1: Reproduction of Client Drawing NL-PH3-SS100

REVISIONS

FOR APPROVAL

beechdevelopments

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BUILD PHASE A

BUILD PHASE B

BUILD PHASE C

BUILD PHASE D

BUILD PHASE E

BUILD PHASE F

ESGYRYN

NARROW LANE
PHASE 3

LLANDUDNO JUNCTION

CONSTRUCTION PLAN
SITE SET UP

NL-PH3-SS-100

DRAWN BY	DRAWING DATE	APPROVED BY
JHG	04/06/15	~

SCALE: 1:1250 AT A3

REVISION: A

Y:\Beech LIve Jobs\Esgyryn\03-Drawings\Construction method statement

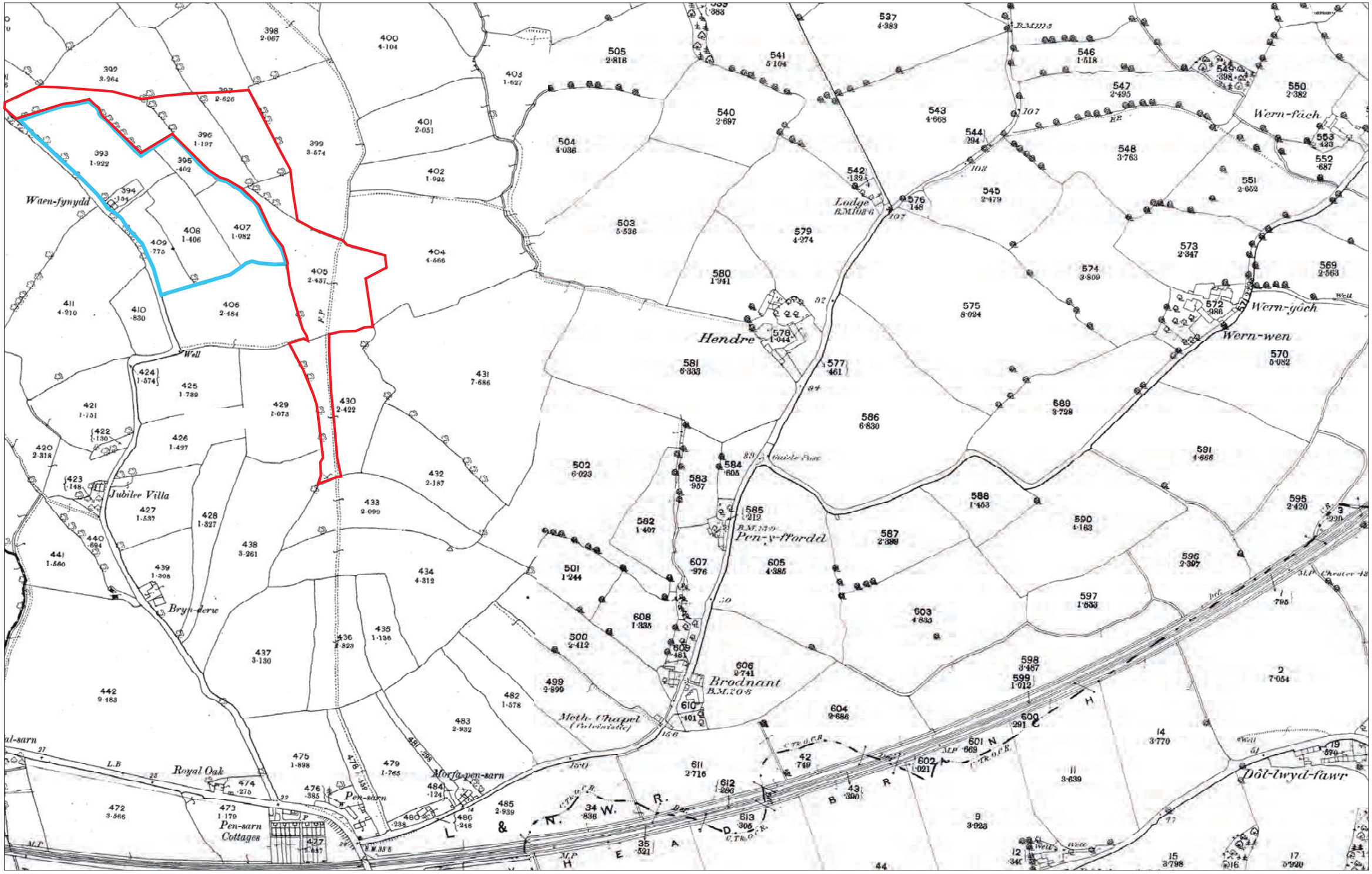

Figure 02: Reproduction of the First Edition 25" Ordnance Survey Map 1889: Sheets V.09 & V.10, with the Phase 3 development superimposed in red and Phase 1 & 2 development highlighted in blue. Scale: 1:5000@A4.

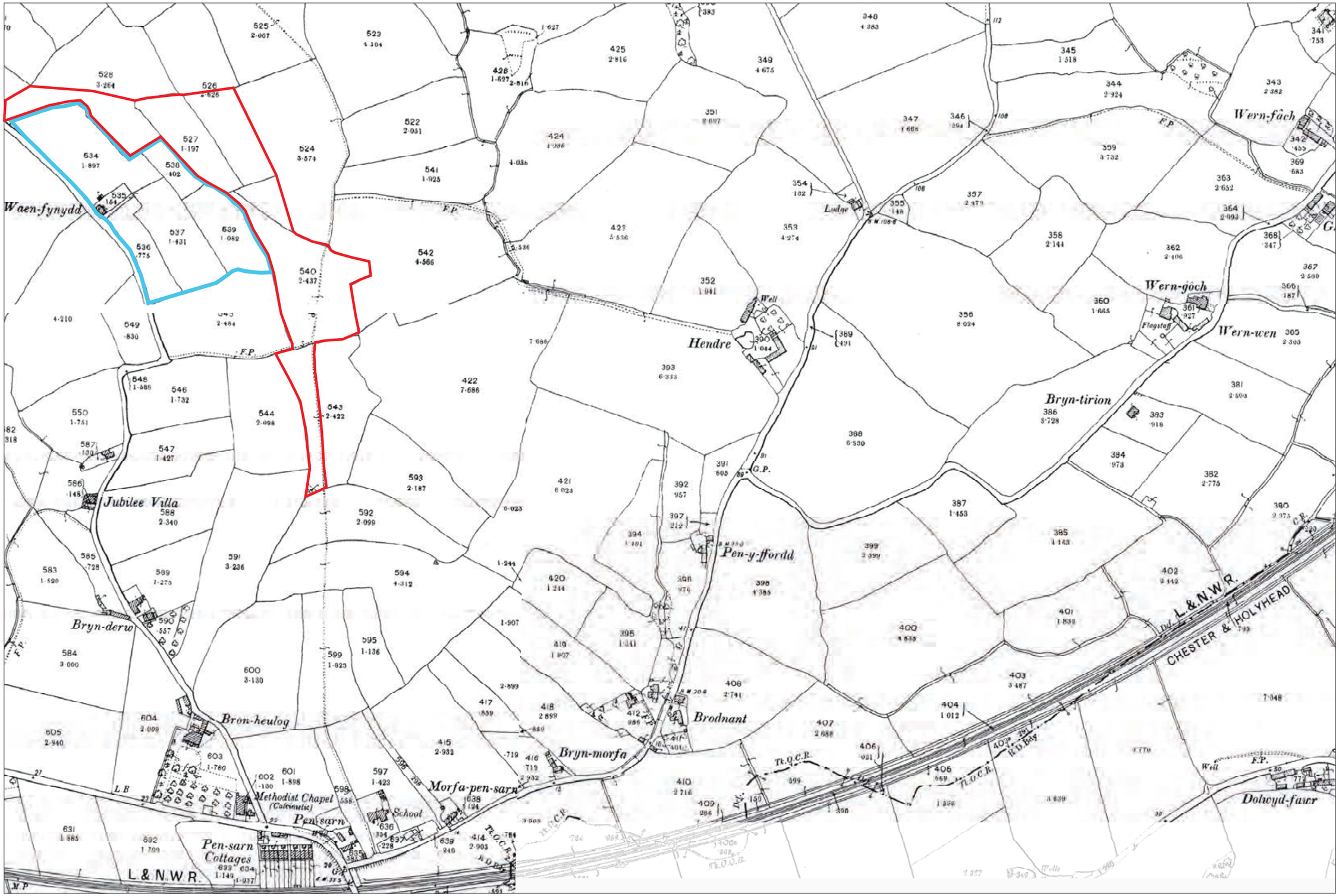

Figure 03: Reproduction of the Second Edition 25" Ordnance Survey Map 1900: Sheets V.09 & V.10, with the Phase 3 development superimposed in RED and Phase 1 & 2 development highlighted in blue. Scale: 1:5000@A4.

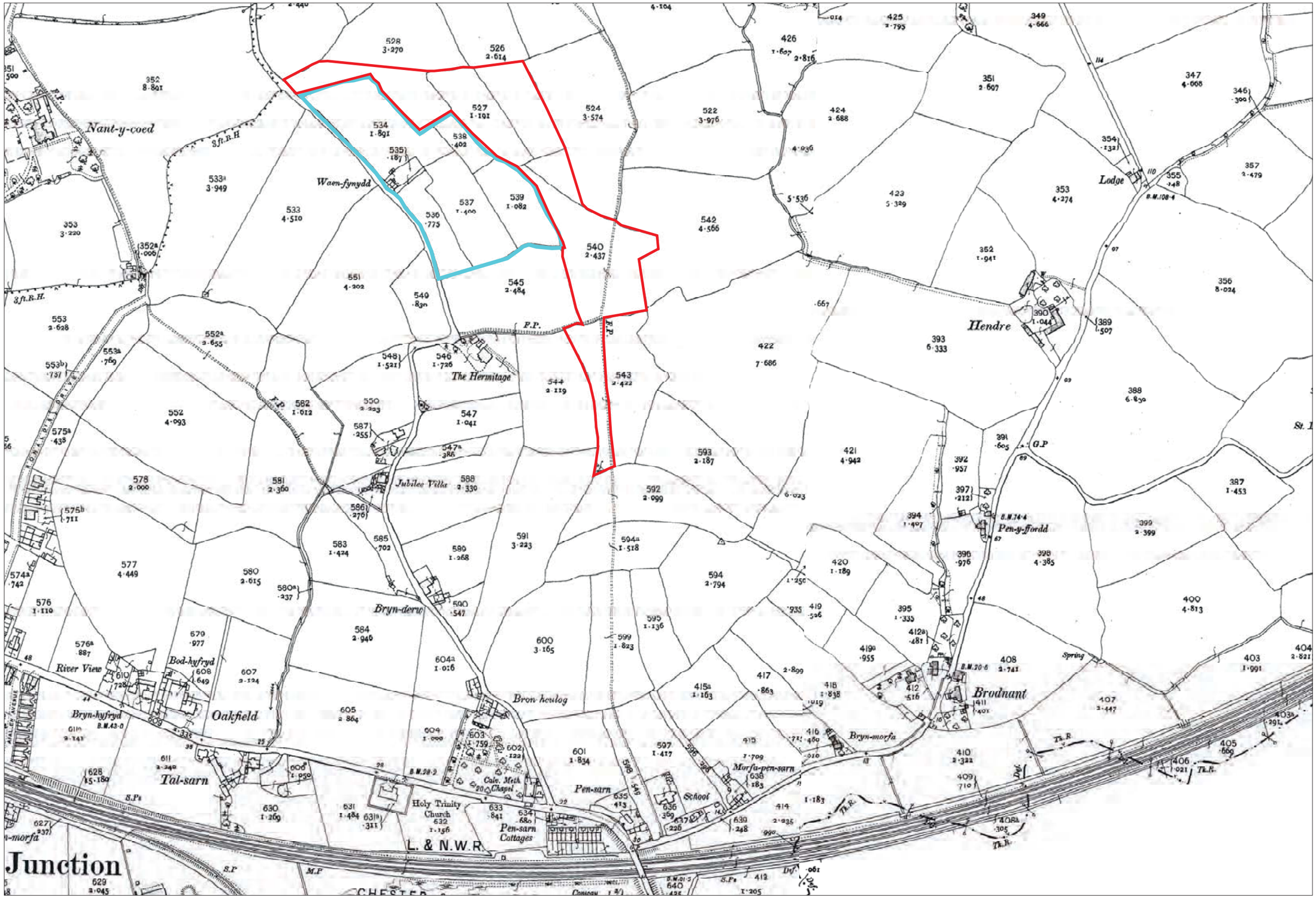

Figure 04: Reproduction of the Third Edition 25" Ordnance Survey Map 1913: Sheets V.09 & V.10, with the Phase 3 development superimposed in RED and Phase 1 & 2 development highlighted in blue. Scale: 1:5000@A4.

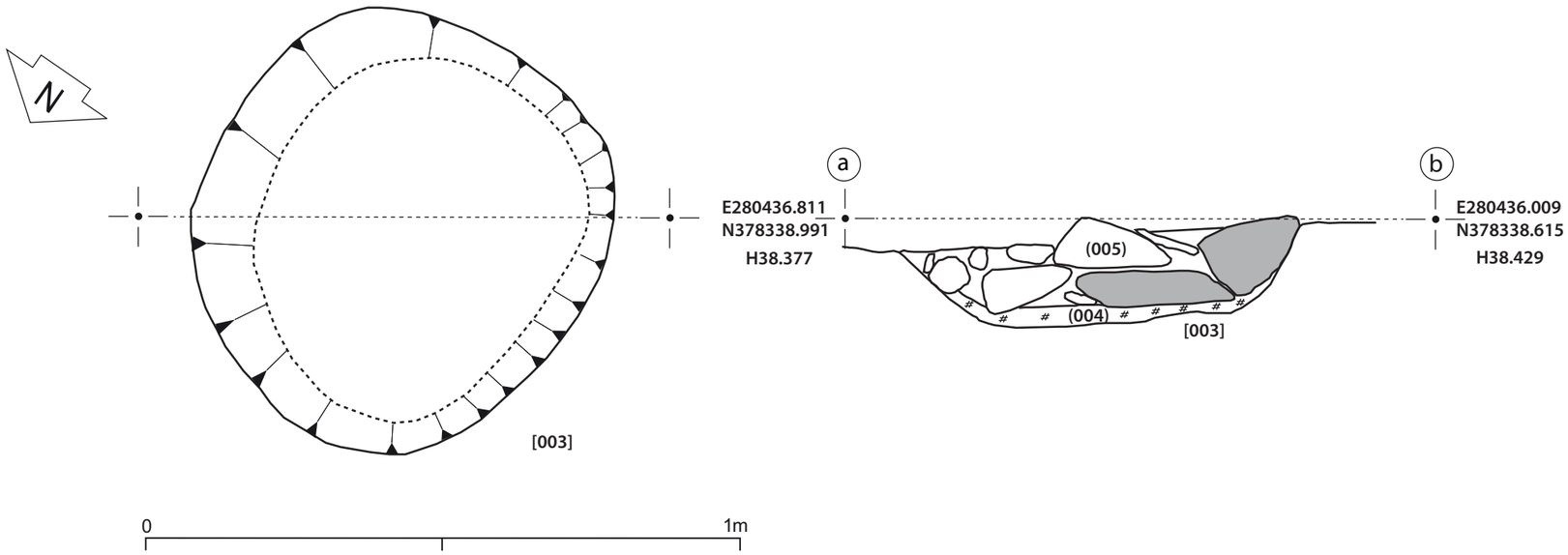

Figure 05: Section and Plan of Phase 3 Pit [003], PRN 61717. Scale 1:10 @ A4

PLATES

Plate 01: View of one of Phase 3 elongated fields, partially stripped. Viewed from the SW.

Plate 02: Topsoil strip in Build Phase A, with 360° excavator and dumper. View from the north. 1 x 1m scale.

Plate 03: Topsoil strip of Build Phase B with 360° excavator and dumper. View from the north. 1 x 1m scale.

Plate 04: View of topsoil strip of Plots 49-52 with soil stored along outer perimeter. View from the south west. 1 x 1m scale.

Plate 05: Depth of topsoil at the northern edge of Phase 3. View from the south. 1 x 1m scale.

Plate 06: Depth of topsoil at southern edge of Phase 3. View from the south. 1 x 1m scale.

Plate 07: View of exposed clay natural Build Phase A. View from the south. No scale.

Plate 08: Post-excavation shot of Pit [003]. View from the north northwest. 1 x 1m scale.

Plate 09: North northwest facing section through [003]. 1 x 1m scale.

Plate 10: Area topsoil stripped in advance of gas mains trench. View from the west. No scale.

Plate 11: Gas mains pipe trench excavated. View from the west. 2 x 2m scale.

Plate 12: South facing section through gas mains pipe trench. 1 x 1m scale.

APPENDIX I

Reproduction of Gwynedd Archaeological Trust Project Design

NARROW LANE – PHASE 3 - EXTENSION

PROJECT DESIGN FOR AN ARCHAEOLOGICAL WATCHING BRIEF (G2392)

Prepared for

Beech Developments

April 2016

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

NARROW LANE – PHASE 3 - EXTENSION

PROJECT DESIGN FOR AN ARCHAEOLOGICAL WATCHING BRIEF (G2392)

Prepared for Beech Developments, April 2016

Contents

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by Beech Developments to provide a project design for undertaking an archaeological watching brief during groundworks associated with the Phase 3 development at Narrow Lane, Llandudno Junction (centred on NGR SH80367829; Figure 01). The watching brief will monitor the removal of topsoil and subsoil during groundworks within the boundary of the proposed development; attendance will be based on the programme requirements defined below.

The development at Narrow Lane is a multi-phase project incorporating residential and commercial properties and includes the following:

- Phase 1 – Residential development incorporating properties 01 to 66; completed during 2014 and 2015 (GAT Report forthcoming);
- Phase 2 – Commercial/Office development; completed in 2015 (GAT Report forthcoming);
- Phase 3 – Residential development incorporating 64 properties; on-going since November 2015; and
- Phase 3 Extension – land to the east of the current development has been purchased from the Welsh Government to allow for temporary use as a site compound/site set up and topsoil storage.

The Phase 3 development extension is located on open pastureland between the A470 trunk road to the east and the Phase 3 development and Pen Dyffryn estate to the west, as indicated on *Beech Developments* drawing NL-PH3-SS-105 (Figure 01).

The scheme will be monitored by Gwynedd Archaeological Planning Services (GAPS and a copy of this design must be approved by GAPS prior to the start of the watching brief of Phase 3 Extension.

The watching brief will conform to the guidelines specified in *Standard and Guidance for an archaeological watching brief* (Chartered Institute for Archaeologists, 2014). Gwynedd Archaeological Trust is a Chartered Institute for Archaeologists *Registered Archaeological Organisation*. The format of this design corresponds to the requirements of section 2.3 of MoRPHE (English Heritage 2015) and to MAP2 (English Heritage, 1991, *Management of Archaeological Projects*).

2 ARCHAEOLOGICAL BACKGROUND

Gwynedd Archaeological Trust has already completed an archaeological watching brief during groundworks in the Phase 1 and Phase 2 areas between September 2014 and July 2015 (GAT Report forthcoming). The watching brief monitored foundation level groundworks across both areas. The most significant feature was a pit (Context [003]), identified within the location of Phase 1 Plots 54 to 59 (NGR SH80657823) at the southern end of the site (Figure 02). The pit measured 0.67m long x 0.52m wide, with a depth of 0.22m; the pit contained heat fractured burnt stone (80% of the fill) within a very compacted dark brown/black silt-clay (Context (04)), and on excavation it was noted that there were a number of possible stakeholes within the base of the pit. A palaeoenvironmental sample (Context (04); Sample 01) was recovered for species identification and dating. The radiocarbon date was 3319 ± 30 BP (Laboratory Code SUERC – 58848 (GU36816)), with a calibrated range of 1519 calBC at 95.4% probability, suggesting a date range within the Early to Middle Bronze (2500BC to 1000BC).

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3 METHODOLOGY

3.1 Introduction

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. This will be within a specified area or site on land, inter-tidal zone or underwater, 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” (*Standard and Guidance for an archaeological watching brief* (CIfA, 2014, p1)).

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- 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 **partial** watching brief recommended by GAT for this scheme and will consist of the following:

- Observation of non-archaeological groundworks across the Phase 3 and Extension area based on the information in *Beech Developments* drawing NL-PH3-SS-105 (Figure 01), viz., the removal of topsoil and subsoil during groundworks within the boundary of the development.

- The Phase 3 programme will commence in November 2015. The initial areas of work will focus on an access road as far as the southern edge of the site compound/Building Phase B (Plots 12 to 20 and 63); Building Phase A (Plots 1 to 11 and 64); sales office/parking area; and site compound, if the existing ground level is to be reduced.

- The Phase 3 Extension programme will commence in April 2016. The entire area outlined in Figure 01 will be topsoil stripped, with the northern section set aside for use as a new site compound and parking area. A portion of the area to the south of this area will be set aside for topsoil storage.

- It is anticipated that in May 2016 trenches will be excavated for the two overhead power cables that currently cross the development area on an E-W axis. This area will be topsoil/subsoil stripped and monitored by a GAT Project Officer in advance of the cable trenches being excavated.

- It is anticipated that the watching brief of Phase 3 (including the extension) will take a total of 13 working days.

- Specific site days for the watching brief will be arranged between the client (Beech Developments) and the GAT project manager, with nominated areas of the site identified, for example, the access road and anticipated length of time for the work.

- The GAT project officer will meet with the client's representatives on site and the sub-contractor undertaking the topsoil/subsoil strip to confirm the nominated areas of work.

- The GAT project officer will undertake the watching brief of the designated area. If the project officer is satisfied that this area does not have archaeological features/deposits the relevant people i.e. the client, the sub-contractor and GAT project manager will be informed.

- The GAT project manager will inform GAPS and the client's site manager which areas of the site are deemed to be archaeologically completed and signed off.

- If the GAT project officer identifies potential archaeological features/deposits, they will be given adequate time by the sub-contractor to investigate and evaluate its significance.

- Confirmed archaeological features/deposits will be investigated by the project officer once the watching brief in that area has been completed.

- The GAT project officer will inform the client and GAT project manager who in turn will make GAPS aware of the discovery.

- GAPS and the client will be regularly updated on the progress of the archaeological watching brief by the GAT project manager.

- A written and photographic record of every watching brief visit.

- Preparation of full archive report.

It is a requirement of the watching brief that no toothed buckets are used by plant or bulldozers used during groundworks monitored by the watching brief and in areas of the development that are not deemed to be archaeologically completed and signed off.

3.2 Watching Brief

- 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;
- A complete table of metadata with details of each photographic image taken, including descriptions and directions of shot, will be produced using Microsoft Access;

- A day record sheet and photographic record sheet will be completed using GAT pro-formas;
- If required, any identified features will be recorded using GAT pro-formas;
- If required, any drawn sections/plans will be completed at either 1:10 or 1:20 scale;
- Archaeological features/deposits that may be encountered during the groundworks include for example, isolated charcoal filled pits, hearths and burnt mound spreads;
- All archaeological features/ deposits encountered will be manually cleaned and examined to determine extent, function, date and relationship to adjacent features. Limited excavation will be undertaken to characterise the features/ deposits: this strategy will be based on feature type and may include 100% of more significant features such as graves; an initial 50% sample of sub-circular features, spreads and hearths; and 10% sample of linear features. Any subsequent excavation required will be detailed in an appropriate **Further Archaeological Works Design**;
- 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).

3.3 Environmental Samples

Any deposits deemed suitable for dating will be taken from sealed contexts, with bulk samples from ditches and pit fills of 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.

3.4 Human Remains

Any finds of human remains 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.

3.5 Small Finds

Diagnostic artefacts, such as pottery sherds and lithics, along with animal bones from sealed contexts and/or middens, uncovered during the watching brief 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 the Llandudno 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 and ARCUS at Sheffield.

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.

3.6 Further Archaeological Works

The identification of significant archaeological features during the archaeological watching brief may necessitate the production of a new project design 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., burials, structures, peat deposits. 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 and ecofact specialist requirements, with detail of appropriate sampling strategies and specialist analysis
- timings, staffing and resourcing.
- Additional costs

The FAWD document will need to be approved by the GAPS Archaeologist.

This design does not include a methodology or cost for examination of, conservation of, or archiving of finds discovered during the archaeological excavation, nor of any radiocarbon dates required, nor of examination of palaeoenvironmental samples. The need for these will be identified in the post-fieldwork programme and a new design will be issued for approval by the GAPS Archaeologist.

3.7 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.

3.8 Data processing and report compilation

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

- Non-technical summary
- Introduction
- Aims and purpose
- Specification
- Methods and techniques, including details and location of project archive
- Watching Brief Results
- Summary and conclusions
- List of sources consulted.

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. A copy of the draft report will be submitted to GAPS and the client on completion of the watching brief and no later than July 2016.

4 DISSEMINATION AND ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled and cross-referenced, and lodged in an appropriate place (to be decided in consultation with the regional Historic Environment Record) within an agreed submission period.

- A digital report will be provided to GAPS;
- Two copies of the paper report plus a digital report and archive on optical disc will be provided to Historic Environment Record, Gwynedd Archaeological Trust; this will be submitted within six months of report completion;
- A digital report and archive (including photographic and drawn) data will be provided to Royal Commission on Ancient and Historic Monuments, Wales;
- A paper report(s) plus digital report(s) will be provided to the client;
- 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 (2015). 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 Llandudno Museum. If artefacts are transferred to Llandudno Museum, this must be in accordance with the Conwy Museums Service Collections Development Policy 2015-2020 (2015);
- 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.

4.1 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.

5 PERSONNEL

The project will be managed by John Roberts, Principal Archaeologist GAT Contracts Section and attended by a Project Officer. The project archaeologist will be responsible for field management duties, including 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 and will also archive all written, drawn and digital data. 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.

6 HEALTH AND SAFETY

The GAT Project Officer 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.

7 INSURANCE

Public 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/000405

EXPIRY DATE 22/06/2016

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 24765101CHC/000405

EXPIRY DATE 22/06/2016

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

HU PI 9129989/1208

EXPIRY DATE 23/07/2016

8 SOURCES CONSULTED

Beech Developments drawing NL-PH3-SS-105

Bradley H. 2015. Conwy Museums Service Collections Development Policy 2015-2020

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

English Heritage, 1991, Management of Archaeological Projects

English Heritage 2015. *Management of Research Projects in the Historic Environment (MoRPHE)*.

Jones, S. 2000. GAT report 398.

Leigh D & D. Watkinson. 1998*. First Aid for Finds: Practical Guide for Archaeologists.*

Leigh D & D. Watkinson. 2001*. UK Institute for Conservation: Excavated Artefacts and Conservation.*

Parry, L and Owen, K. 2015. *Esgyryn, Llandudno Junction Archaeological Mitigation Report for Boundary Recording and Controlled Strip Excavation.* GAT Report 1233

Regional Historic Environment Record (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor LL57 2RT)

APPENDIX II

Reproduction of Gwynedd Archaeological Trust Photographic Metadata

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_178	Land off Narrow Lane	Watching Brief	Phase 3	View of the temporary haul road at the N. end of the area following the removal of the turf		SE	-	05/01/16	plate 1
G2392_179	Land off Narrow Lane	Watching Brief	Phase 3	View of the northern part of the main phase 3 area following the removal of the turf		N	-	05/01/16	
G2392_180	Land off Narrow Lane	Watching Brief	Phase 3	View of the northern part of the main phase 3 area following the removal of the turf		NW	-	05/01/16	
G2392_181	Land off Narrow Lane	Watching Brief	Phase 3	Working shot - topsoil removal from the temporary haul road		NW	-	05/01/16	
G2392_182	Land off Narrow Lane	Watching Brief	Phase 3	Deep wheel ruts at the southern end of the haul road		NW	-	05/01/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_183	Land off Narrow Lane	Watching Brief	Phase 3	Deep wheel ruts at the access point to the main phase 3 area		W	-	05/01/16	
G2392_184	Land off Narrow Lane	Watching Brief	Phase 3	Working shot - topsoil removal from the main phase 3 area		S	-	05/01/16	
G2392_185	Land off Narrow Lane	Watching Brief	Phase 3	Stone filled field drain observed in the main phase 3 area		NW	1x1m	05/01/16	
G2392_186	Land off Narrow Lane	Watching Brief	Phase 3	Post-ex shot of the temporary haul road		SE	-	05/01/16	
G2392_187	Land off Narrow Lane	Watching Brief	Phase 3	Post-ex shot of the temporary haul road		NW	-	05/01/16	
G2392_188	Land off Narrow Lane	Watching Brief	Phase 3	End of day shot of the main phase 3 area		E	-	05/01/16	
G2392_189	Land off Narrow Lane	Watching Brief	Phase 3	NNW facing section of pit [003]	[003], (004), (005)	NNW	1x1m	06/01/16	
G2392_190	Land off Narrow Lane	Watching Brief	Phase 3	NNW facing section of pit [003]	[003], (004), (005)	NNW	1x1m	06/01/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_191	Land off Narrow Lane	Watching Brief	Phase 3	NNW facing section of pit [003]	[003], (004), (005)	NNW	1x1m	06/01/16	
G2392_192	Land off Narrow Lane	Watching Brief	Phase 3	Mid-ex shot of pit [003]	[003], (004), (005)	NNW	1x1m	06/01/16	
G2392_193	Land off Narrow Lane	Watching Brief	Phase 3	Post-ex shot of pit [003]	[003]	NNW	1x1m	06/01/16	
G2392_194	Land off Narrow Lane	Watching Brief	Phase 3	Post-ex shot of the northern part of the main phase 3 area		W	-	06/01/16	
G2392_195	Land off Narrow Lane	Watching Brief	Phase 3	Post-ex shot of the northern part of the main phase 3 area		S	-	06/01/16	
G2392_196	Land off Narrow Lane	Watching Brief	Phase 3	Post-ex shot of the northern part of the main phase 3 area		S	-	06/01/16	
G2392_197	Land off Narrow Lane	Watching Brief	Phase 3	Post-ex shot of the northern part of the main phase 3 area		S	-	06/01/16	
G2392_198	Land off Narrow Lane	Watching Brief	Phase 3	Post-ex shot of the northern part of the main phase 3 area		W	-	06/01/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_199	Land off Narrow Lane	Watching Brief	Phase 3	View of retained trees within planned building plots		S	1m	20/01/16	
G2392_200	Land off Narrow Lane	Watching Brief	Phase 3	View of retained hedgeline within planned building plots on western side		S	-	20/01/16	
G2392_201	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip southwards towards retained trees		E	1m	20/01/16	
G2392_202	Land off Narrow Lane	Watching Brief	Phase 3	Opening a way through hedgeline on eastern side to allow dumping of topsoil away from stripped plots		W	1m	20/01/16	
G2392_203	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip close to retained trees		N	-	20/01/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_204	Land off Narrow Lane	Watching Brief	Phase 3	Opened way through hedgeline on eastern side to allow dumping of topsoil away from stripped plots		E	1m	20/01/16	
G2392_205	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip against retained hedgeline on western side		S	1m	20/01/16	
G2392_206	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and strip against retained hedgeline on western side		S	1m	20/01/16	
G2392_207	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip against retained hedgeline on western side		S	1m	20/01/16	
G2392_208	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip against retained hedgeline on western side		N	1m	20/01/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_209	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip to North of retained trees		N	1m	20/01/16	
G2392_210	Land off Narrow Lane	Watching Brief	Phase 3	Glacial boulder trapped within roots of one of the retained trees		-	-	20/01/16	
G2392_211	Land off Narrow Lane	Watching Brief	Phase 3	Glacial boulder trapped within roots of one of the retained trees		N	-	20/01/16	
G2392_212	Land off Narrow Lane	Watching Brief	Phase 3	Glacial boulder trapped within roots of one of the retained trees		W	-	20/01/16	
G2392_213	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip against retained hedgeline on eastern side		S	1m	20/01/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_214	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip against retained hedgeline western side		S	1m	20/01/16	
G2392_215	Land off Narrow Lane	Watching Brief	Phase 3	Glacial boulder exploded under ground pressure and revealed during stripping		S	-	20/01/16	
G2392_216	Land off Narrow Lane	Watching Brief	Phase 3	Completion of topsoil and subsoil strip to North of retained trees		S	-	20/01/16	
G2392_217	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to east of retained trees		N	1m	02/02/16	
G2392_218	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to east of retained trees		N	1m	02/02/16	
G2392_219	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to east of retained trees		N	1m	02/02/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_220	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to east of retained trees		N	1m	02/02/16	
G2392_221	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to east of retained trees		N	1m	02/02/16	
G2392_222	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to east of retained trees		W	1m	02/02/16	
G2392_223	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to east of retained trees		N	-	02/02/16	
G2392_224	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to east of retained trees		W	-	02/02/16	
G2392_225	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		W	1m	02/02/16	
G2392_226	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		W	1m	02/02/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_227	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south and east of retained trees		N	1m	02/02/16	
G2392_228	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south and east of retained trees		N	1m	02/02/16	
G2392_229	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		S	1m	02/02/16	
G2392_230	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		N	-	09/02/16	
G2392_231	Land off Narrow Lane	Watching Brief	Phase 3	Possible stone filled field drain			1m	09/02/16	
G2392_232	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		N	-	09/02/16	
G2392_233	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		E	-	09/02/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_234	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		W	1m	09/02/16	
G2392_235	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		E	-	12/02/16	
G2392_236	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees - G2374 in background		N	-	12/02/16	
G2392_237	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		W	-	12/02/16	
G2392_238	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees		W	-	15/02/16	
G2392_239	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees - visible in background		S	-	15/02/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_240	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees with retained western hedgeline visble on left		SE	-	16/02/16	
G2392_241	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees with retained western hedgeline visble		W	-	16/02/16	
G2392_242	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil and subsoil strip to south of retained trees with retained western hedgeline visble		W	-	16/02/16	
G2392_243	Land off Narrow Lane	Watching Brief	Phase 3	Soilmark left by the grubbing out of former hedgeline to south of retained trees		SE	1m	16/02/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_244	Land off Narrow Lane	Watching Brief	Phase 3	Plots 20-26 stripped of topsoil and 360 excavator removing subsoil.		N	1m	24/02/16	
G2392_245	Land off Narrow Lane	Watching Brief	Phase 3	Shot of Plot 26, adjacent to public right of way.		NE	1m	24/02/16	
G2392_246	Land off Narrow Lane	Watching Brief	Phase 3	Rear of plots 20-26 & site road being stripped of subsoil.		N	1m	24/02/16	
G2392_247	Land off Narrow Lane	Watching Brief	Phase 3	Depth of topsoil/subsoil at Plots 20-26.		SW	1m	24/02/16	
G2392_248	Land off Narrow Lane	Watching Brief	Phase 3	Area of plots 37-42 & 43-48 as yet unstripped.		SW	-	24/02/16	
G2392_249	Land off Narrow Lane	Watching Brief	Phase 3	Plots 20-26 stripped of topsoil and most of the subsoil.		N	1m	24/02/16	
G2392_250	Land off Narrow Lane	Watching Brief	Phase 3	Plots 20-26 stripped of topsoil and most of the subsoil.		S	1m	24/02/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_251	Land off Narrow Lane	Watching Brief	Phase 3	Shot of Plot 26, with removed hedgerow and neighbouring site in background.		NW	1m	24/02/16	
G2392_252	Land off Narrow Lane	Watching Brief	Phase 3	View South towards G2374 Esgyryn showing plots 20-26 stripped		N	1m	26/02/16	
G2392_253	Land off Narrow Lane	Watching Brief	Phase 3	View North West showing plots 20-26 stripped		SE	1m	26/02/16	
G2392_254	Land off Narrow Lane	Watching Brief	Phase 3	View of plots 58-60 partly stripped		N	1m	03/03/16	
G2392_255	Land off Narrow Lane	Watching Brief	Phase 3	View of plots 58-60 partly stripped		E	1m	03/03/16	
G2392_256	Land off Narrow Lane	Watching Brief	Phase 3	View of plots 58-60 being stripped		E	1m	03/03/16	
G2392_257	Land off Narrow Lane	Watching Brief	Phase 3	View from North of plots 27-36 after topsoil strip		N	-	15/03/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_258	Land off Narrow Lane	Watching Brief	Phase 3	Disturbance around base of former telegraph pole		N	1m	15/03/16	
G2392_259	Land off Narrow Lane	Watching Brief	Phase 3	Disturbed ground		E	1m	15/03/16	
G2392_260	Land off Narrow Lane	Watching Brief	Phase 3	Visible stones prior to excavation		E	1m	15/03/16	
G2392_261	Land off Narrow Lane	Watching Brief	Phase 3	Visible stones prior to excavation		N	1m	15/03/16	
G2392_262	Land off Narrow Lane	Watching Brief	Phase 3	Stones during excavation		E	1m	15/03/16	
G2392_263	Land off Narrow Lane	Watching Brief	Phase 3	Stones during excavation and stones removed from excavation		N	1m	15/03/16	
G2392_264	Land off Narrow Lane	Watching Brief	Phase 3	Plots 27-36 following topsoil strip		S	-	15/03/16	
G2392_265	Land off Narrow Lane	Watching Brief	Phase 3	Plots 37-48 following topsoil strip with plots 23-24 in foreground		W	1m	18/03/16	
G2392_266	Land off Narrow Lane	Watching Brief	Phase 3	Plots 37-48 following topsoil strip with plots 24-25 in foreground		SW	1m	18/03/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_267	Land off Narrow Lane	Watching Brief	Phase 3	Plots 37-48 following topsoil strip		NE	-	18/03/16	
G2392_268	Land off Narrow Lane	Watching Brief	Phase 3	Plots 20 and 43-48 following topsoil strip. Visible is area to be stripped.		E	-	18/03/16	
G2392_269	Land off Narrow Lane	Watching Brief	Phase 3	Pre-ex shot of topsoil strip area for re-alignment of gas main to N of site compound		W	-	19/04/16	
G2392_270	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip for re-alignment of gas main mid-ex		W	-	19/04/16	
G2392_271	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip mid-ex		E	-	20/04/16	
G2392_272	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip mid-ex		NE	-	20/04/16	
G2392_273	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip mid-ex		E	-	20/04/16	
G2392_274	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip working shot		E	-	20/04/16	
G2392_275	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip completed		W	-	20/04/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_276	Land off Narrow Lane	Watching Brief	Phase 3	S facing section of striped area adjacent to pipe trench		S	1m	11/05/16	
G2392_277	Land off Narrow Lane	Watching Brief	Phase 3	S facing section of striped area adjacent to pipe trench		S	1m	11/05/16	
G2392_278	Land off Narrow Lane	Watching Brief	Phase 3	S facing section of pipe trench and stripped area		S	1m	11/05/16	
G2392_279	Land off Narrow Lane	Watching Brief	Phase 3	W facing section of pipe trench		SE	1m	11/05/16	
G2392_280	Land off Narrow Lane	Watching Brief	Phase 3	N facing section of pipe trench and stripped area		NW	1m	11/05/16	
G2392_281	Land off Narrow Lane	Watching Brief	Phase 3	Working shot		SE		11/05/16	
G2392_282	Land off Narrow Lane	Watching Brief	Phase 3	Working shot		SE		11/05/16	
G2392_283	Land off Narrow Lane	Watching Brief	Phase 3	Shot of 'Bell Hole' at glacial horizon		SE		11/05/16	
G2392_284	Land off Narrow Lane	Watching Brief	Phase 3	Shot of section of (stepped to natural) at W end of site		S	1m	12/05/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_285	Land off Narrow Lane	Watching Brief	Phase 3	Shot of section of (stepped to natural) at W end of site		S	1m	12/05/16	
G2392_286	Land off Narrow Lane	Watching Brief	Phase 3	S facing section of 'bell hole' W end of site		S	1m	12/05/16	
G2392_287	Land off Narrow Lane	Watching Brief	Phase 3	S facing section of 'bell hole' W end of site		S	1m	12/05/16	
G2392_288	Land off Narrow Lane	Watching Brief	Phase 3	S facing section of 'bell hole' to full depth 2.1m		S	1m	12/05/16	
G2392_289	Land off Narrow Lane	Watching Brief	Phase 3	S facing section adjacent to W 'bell hole' to natural		S	1m	16/05/16	
G2392_290	Land off Narrow Lane	Watching Brief	Phase 3	S facing section adjacent to W 'bell hole' full depth 1.8m		S	1m	16/05/16	
G2392_291	Land off Narrow Lane	Watching Brief	Phase 3	Working shot - collapsed sides of pipe trench		SW		16/05/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_292	Land off Narrow Lane	Watching Brief	Phase 3	Working shot - recutting the pipe trench due to sides collapsing		SE		17/05/16	
G2392_293	Land off Narrow Lane	Watching Brief	Phase 3	Working shot - recutting the pipe trench due to sides collapsing		SW		17/05/16	
G2392_294	Land off Narrow Lane	Watching Brief	Phase 3	Pipe trench after recut		W	2m	17/05/16	
G2392_295	Land off Narrow Lane	Watching Brief	Phase 3	Pipe trench after recut		W	2m	17/05/16	
G2392_296	Land off Narrow Lane	Watching Brief	Phase 3	Pipe trench from central 'bell hole' to E 'bell hole'		W	2m	17/05/16	
G2392_297	Land off Narrow Lane	Watching Brief	Phase 3	Pipe trench from central 'bell hole' to E 'bell hole'		E	2m	17/05/16	
G2392_298	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip of area adjacent to new gas main		E	1m	26/05/16	
G2392_299	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip of area adjacent to new gas main		E	1m	26/05/16	

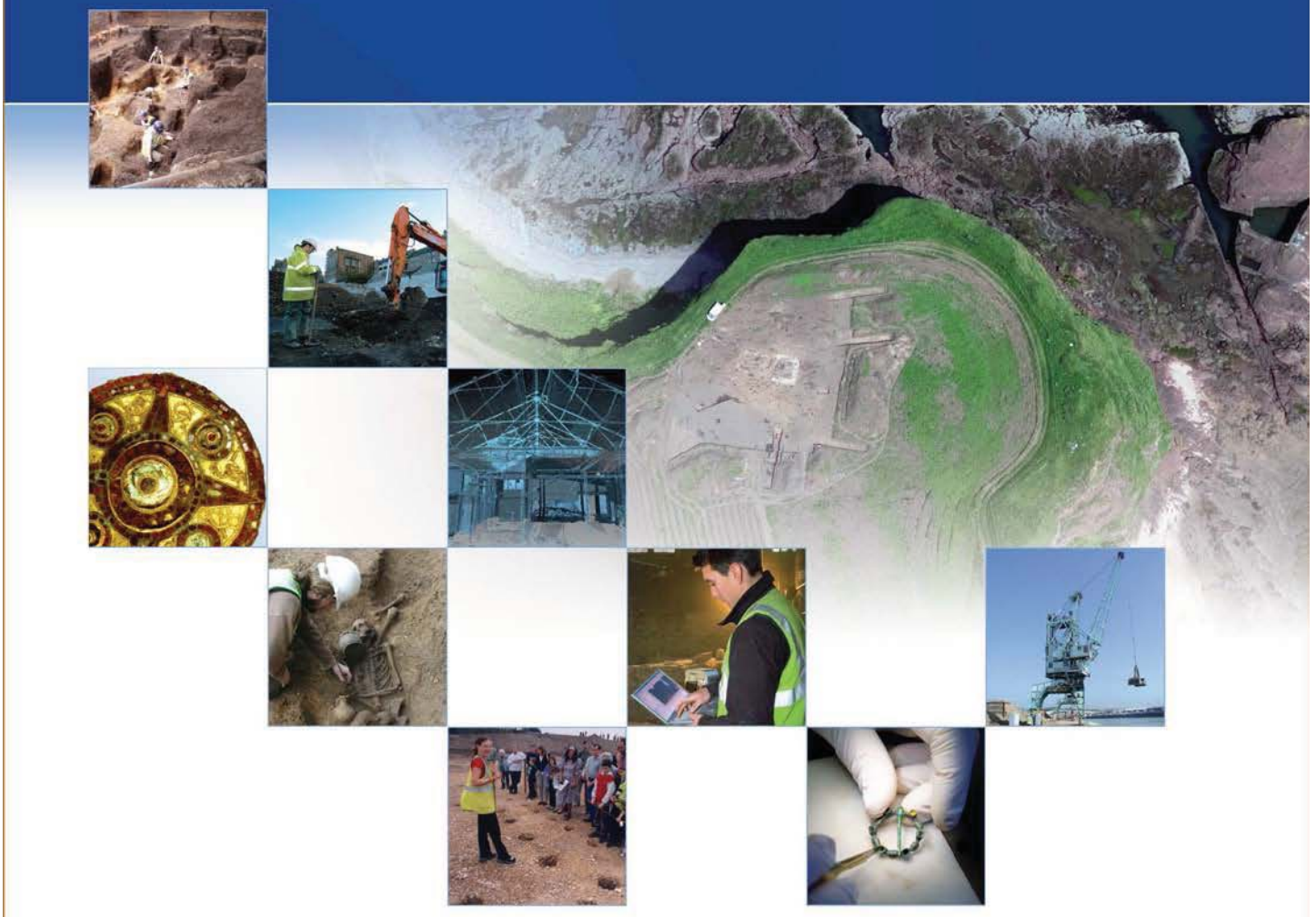
File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_300	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip - old gas main route. Redeposited natural linear		E	1m	26/05/16	
G2392_301	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip - old gas main route. Redeposited natural linear		E	1m	26/05/16	
G2392_302	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip completed		W	1m	26/05/16	
G2392_303	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip completed		W	1m	26/05/16	
G2392_319	Land off Narrow Lane	Watching Brief	Phase 3	View of topsoil strip of Plots 49-52 beneath overhead cable (now dismantled)		SW	1m	22/07/16	
G2392_320	Land off Narrow Lane	Watching Brief	Phase 3	Shot of Plots 18 & 19 (beneath dismantled overhead cable) after turf strip		NE	1m	22/07/16	
G2392_321	Land off Narrow Lane	Watching Brief	Phase 3	Plots 49-52 stripped of topsoil		NE	-	22/07/16	
G2392_322	Land off Narrow Lane	Watching Brief	Phase 3	Topsoil strip of Plots 18 & 19		NE	-	22/07/16	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Plates
G2392_323	Land off Narrow Lane	Watching Brief	Phase 3	Plots 18 & 19 topsoil stripped		NE	1m	22/07/16	

APPENDIX III
AOC Archaeology Ecofacts Assessment Report

LAND OFF NARROW LANE

AOC Project no:23638
Site Code: G2392
Date: November 2016



AOC Archaeology Group

ARCHAEOLOGY | HERITAGE | CONSERVATION

Land off Narrow Lane

On Behalf of: Gwynedd Archaeological Trust (GAT)

National Grid Reference (NGR):

AOC Project No:	**23638**
Prepared by:	**Jackaline Robertson**
Illustration by:	**N/A**
Date of Fieldwork:	
Date of Report:	**November 2016**

This document has been prepared in accordance with AOC standard operating procedures.

Author: Jackaline Robertson	**Date: November 2016**
Approved by: Ciara Clarke	**Date: November 2016**
Draft Report Stage:	**Date:**

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Factual data

A single flot was submitted for environmental analysis from Gwynedd Archaeological Trust from the excavation of Land off Narrow Lane. The sample was collected from a small isolated pit located at the northern end of the phase 3 area of the site. This pit was described as a possible cooking event and there was evidence of heat shattered stones, although no finds were recovered. The archaeological function of this isolated pit is currently unconfirmed but several prehistoric features of a similar nature were uncovered nearby and these were dated to the Neolithic and Bronze Age. The aim of this analysis was to recover any environmental evidence to explain the archaeological purpose of this pit and provide an accurate date.

Methodology

The flot was sieved using a 4mm, 2mm and 1mm system of stack sieves. The sample was subsequently analysed using a low power microscope and macrofossils were examined at magnifications of x10 and up to x100 where necessary. Identifications were confirmed using modern reference material and seed atlases stored at AOC Edinburgh (Cappers *et al* 2006; Jacomet 2006). Taxonomic and nomenclature for plants follows Stace (2010). Charcoal 4mm and larger was collected for species identification.

Results

The results are recorded below in table 1 the charcoal species and table 2 the carbonised macroplant

Table 1 Charcoal species

Feature	Context	Sample	Species	Name	Frag	Roundwood	Weight(g)
Pit 3	4	1	*Corylus avellana* L.	Hazel	18	2	46.8

Table 2. The carbonised macroplant assemblage

Feature	Context	Sample	Vol (ml)	% Sort	Cereal caryopsis
Pit 3	4	1	120	100	1

The charcoal assemblage

The charcoal assemblage totalled 46.8g and 20 fragments were selected for species identification. All 20 were identified as hazel (*Corylus avellana* L) of which two were roundwood. There is no evidence to suggest that this large concentration of a single wood species is representative of *in situ* burning of a small discrete structure such as a post or artefact. There was no evidence of any wood working within this assemblage. Instead these remains probably accumulated from a single burning event in which hazel was either deliberately selected for fuel or was the most accessible wood species at the time of burning.

The macroplant assemblage

A single poorly preserved cereal caryopsis was present but this could not be identified further due to poor preservation.

Modern Contamination

Small quantities of roots and modern seeds were noted but there is no evidence that the archaeological security of any of the environmental finds has been compromised.

Recommendations

The hazel roundwood is the most suitable material for dating. It is unlikely that the single cereal caryopses will contain sufficient carbon to provide an accurate date. The accumulation of charcoal and cereal within this pit is domestic in nature and probably represents a single burning event.

References

Cappers R.T.J., Bekker R.M. and Jans J.E.A. (2006) *Digital seed atlas of the Netherlands* (Barkhuis Publishing and Groningen University Library, Groningen).

Jacomet. S. 2006. *Identification of cereal remains from archaeological sites*. (2nd ed) Archaeobotany Lab IPAS, Basel University.

Stace,C. 2010. *New Flora of the British Isles*. 3rd Edition. Cambridge University Press

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APPENDIX IV
SUERC Laboratories Radiocarbon Dating Report

Scottish Universities Environmental Research Centre

Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE

03 February 2017

Laboratory Code	SUERC-71189 (GU42792)
Submitter	Bethan Jones Gwynedd Archaeological Trust Craig Beuno Garth Road Gwynedd LL57 2RT
Site Reference	G2392 - Land off Narrow Lane
Context Reference	4
Sample Reference	<01>
Material	Carbonised Macroplant : Corylus avellana
$\delta^{13}C$ relative to VPDB	-23.6 ‰
Radiocarbon Age BP	4618 ± 28

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

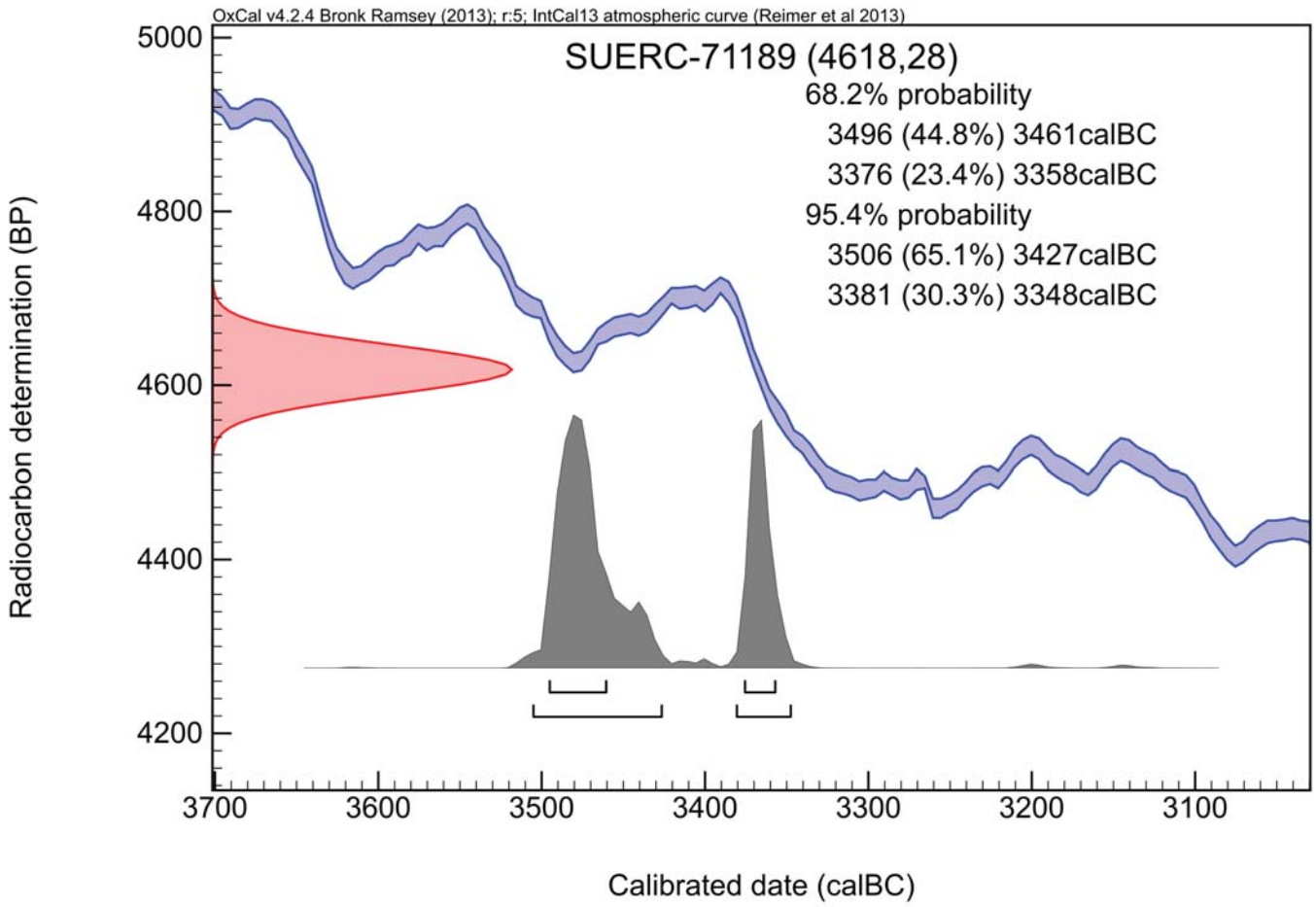
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 03/02/2017

Checked and signed off by :- P. Naysmith Date :- 03/02/2017

Calibration Plot



Scottish Universities Environmental Research Centre

Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE

03 February 2017

Laboratory Code	SUERC-71190 (GU42793)
Submitter	Bethan Jones Gwynedd Archaeological Trust Craig Beuno Garth Road Gwynedd LL57 2RT
Site Reference	G2392 - Land off Narrow Lane
Context Reference	4
Sample Reference	<01>
Material	Carbonised Macroplant : Corylus avellana
$\delta^{13}C$ relative to VPDB	-27.4 ‰
Radiocarbon Age BP	4524 ± 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

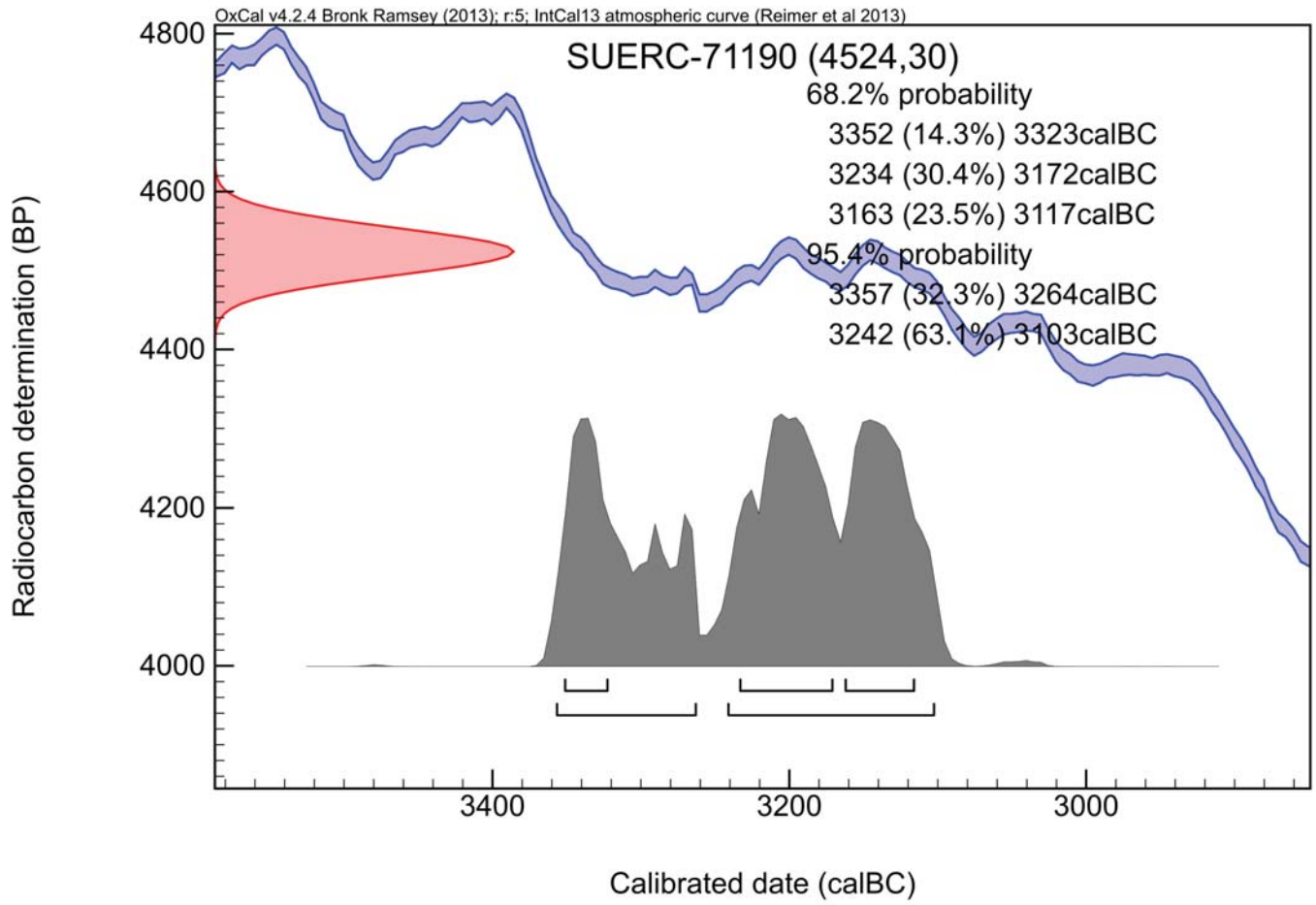
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 03/02/2017

Checked and signed off by :- P. Naysmith Date :- 03/02/2017

Calibration Plot



Gwynedd Archaeological Trust
Ymddiriedolaeth Archaeolegol Gwynedd

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