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## Archaeological Evaluation at Gwernaffield Road, Mold, Flintshire

ARS LTD REPORT 2021/94



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Prepared on behalf of: Anwyl Homes Ltd Date of compilation: 23/06/2021

Compiled by: Joseph Tong and Maryne Baylet

Checked by: Jim Moore Approved for issue by: 24/06/2021

Planning Reference: 061994

**Local Authority:** Flintshire County Council

Site central NGR: SJ 22950 64860 OASIS ID: Archaeol5-423155

#### **EXECUTIVE SUMMARY**

Project Name: Land off Gwernaffield Road, Mold, Flintshire

Site Code: GRM21

**Planning Authority:** Flintshire County Council

Planning Reference: 061994

Location: Gwernaffield Road, Mold, Flintshire, CH7 1SH

Parish: Wrexham

Hard Geology: Pennine Lower coal Measures Formation: Mudstone, Siltstone and

Sandstone

**Superficial Geology:** Devensian Sand And Gravel.

**Soil Type:** Freely draining slightly acid loamy soils

**NGR:** SJ 22950 64860)

**Date of Fieldwork:** 07/06/2021 to 11/06/2021

**Date of Report:** 23/06/2021

This report presents the results of an archaeological evaluation undertaken on land at Gwernaffield Road, Mold, Flintshire. The evaluation was commissioned to support a planning application for a residential development comprising housing, public open space and associated infrastructure.

The works were commissioned following a geophysical survey of the proposed development area that suggested the potential for the surviving remains of a circular feature, which topographically and morphologically, resembled the nearby Rhual Isaf round barrow, and further weak anomalies which might also be of potential archaeological interest.

The evaluation was undertaken between 07/06/2021 and 11/06/2021 in accordance with a written scheme of works agreed with the Clwyd-Powys Archaeological Trust Development Control Officers. A sign off meeting was held on site on 10/06/2021.

A total of 11 evaluation trenches were excavated, which measured c.30m by 2m with the exception of Trench 14 which measured c.40m by 2m for a combined excavated area of  $680m^2$ . The evaluation identified two linear features pertaining to a possible natural water feature and a Post-Medieval field boundary. These features are unlikely to be of any more than local significance. The evaluation trenches across the other areas of the site produced no evidence for the presence of buried archaeological remains surviving in these areas.

Mae'r adroddiad hwn yn cyflwyno canlyniadau gwerthusiad archaeolegol yr ymgymerwyd ag ef ar dir ger Ffordd y Waun, Yr Wyddgrug, Sir y Fflint. Comisiynwyd y gwerthusiad i gefnogi cais cynllunio ar gyfer datblygiad preswyl yn cynnwys tai, gofod agored cyhoeddus a seilwaith cysylltiedig.

Comisiynwyd y gwaith yn dilyn arolwg geoffisegol o ardal y datblygiad arfaethedig a awgrymai'r posibilrwydd o weddillion sy'n goroesi o nodwedd gron oedd, yn dopograffig ac yn forffolegol, yn debyg i grug crwn Rhual Isaf gerllaw ynghyd ag anomaleddau gweinion eraill a allai hefyd fod o ddiddordeb archaeolegol.

Cynhaliwyd y gwerthusiad rhwng 07/06/21 ac 11/06/2021 yn unol â chynllun gwaith ysgrifenedig y cytunwyd arno gyda Swyddogion Rheoli Datblygu Ymddiriedolaeth Archaeolegol Clwyd Powys. Cynhaliwyd cyfarfod ar y safle i gau pen y mwdwl ar y gwerthusiad ar 10/06/2021.

Cloddiwyd cyfanswm o 11 o ffosydd gwerthuso yn mesur tua 30m wrth 2m ac eithrio Ffos 14 oedd yn mesur tua 40m wrth 2m. Roedd y ffosydd hyn, wedi'u cyfuno, yn ffurfio ardal gloddedig o 680m². Adnabu'r gwerthusiad ddwy nodwedd linol yn perthyn i nodwedd ddŵr naturiol bosibl a therfyn cae ôl-ganoloesol. Mae'r nodweddion hyn yn annhebygol o fod yn fwy nag o arwyddocâd lleol. Roedd y ffosydd gwerthuso ar draws ardaloedd eraill y safle heb ddatgelu unrhyw dystiolaeth ar gyfer presenoldeb gweddillion archaeolegol claddedig yn goroesi yn yr ardaloedd hyn.



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#### I Introduction

#### 1.1 Background and Scope of Work

- 1.1.1 The archaeological evaluation was conducted to support a planning application (ref 061994) for a residential development comprising housing, public open space and associated infrastructure.
- 1.1.2 Archaeology is a material consideration in the planning process under Planning Policy Wales (PPW) Edition 11 (Feb 2021) paragraph 6.1.23 which recognises the need to conserve archaeological remains. The conservation of archaeological remains and their settings is a material consideration in determining planning applications, whether those remains are a scheduled monument or not.
- 1.1.3 In accordance with the PPW, Archaeological Research Services Ltd (ARS Ltd) was commissioned by Heritage Archaeology, on behalf of Anwyl Homes Ltd, to undertake a programme of archaeological evaluation trenches on a land off Gwernaffield Road, Mold, Flintshire (Figure 1), centered at NGR SJ 22950 64860.
- 1.1.4 A desk-based assessment and walkover survey was undertaken in January 2021 (Kelly 2021), followed by a geophysical survey in February (Durkin 2021).
- 1.1.5 The evaluation comprised the excavation and recording of 11 trenches.
- 1.1.6 Works were undertaken in compliance with the Written Scheme of Investigation (WSI) (See Appendix II) approved by the Clwyd-Powys Archaeological Trust (CPAT) and took place between 07/06/2021 and 11/06/2021.

#### 1.2 Site Location and Description

- 1.2.1 The proposed development area (PDA) is indicated in red on Figure 1. The site is located on land off Gwernaffield Road, Mold. The PDA is bounded to the north by Gwernaffield Road, and to the south and west by the A541 Denbugh Road. The PDA is roughly centered on NGR SJ 22950 64860 and encompassed a total area of 11.088ha.
- 1.2.2 The survey area comprises a single, irregular shaped field of c.8.4ha with hedgerow boundaries interspersed with several farm gates, sections of wooden post and wire fencing and residential property boundaries. The survey area slopes down from a southerly high point of c.121m above Ordnance Datum (aOD) to c.112m aOD in the north. An abrupt break of slope occurs in the centre of the survey area at an earthwork headland, adjacent to two mature trees on a former field boundary. Beyond this earthwork, the northern half of the survey area is relatively flat. An overhead power line runs from south-east to northwest across the entrance to the site from Gwernaffield Road, as well another line running from south-west to north-east diagonally across the PDA. The geophysical survey also identified modern water services running on a south-west to north-east alignment towards the south-east of the PDA (Durkin 2021).

#### 1.3 Geology and Soils

1.3.1 The underlying solid geology of the survey area was deposited approximately 320 million years ago in the Carboniferous Period when the local environment was primarily dominated by swamps, estuaries and deltas. It comprises Mudstone, Siltstone and Sandstone of the Pennine Lower Coal Measures Formation. In the southwest of the site,

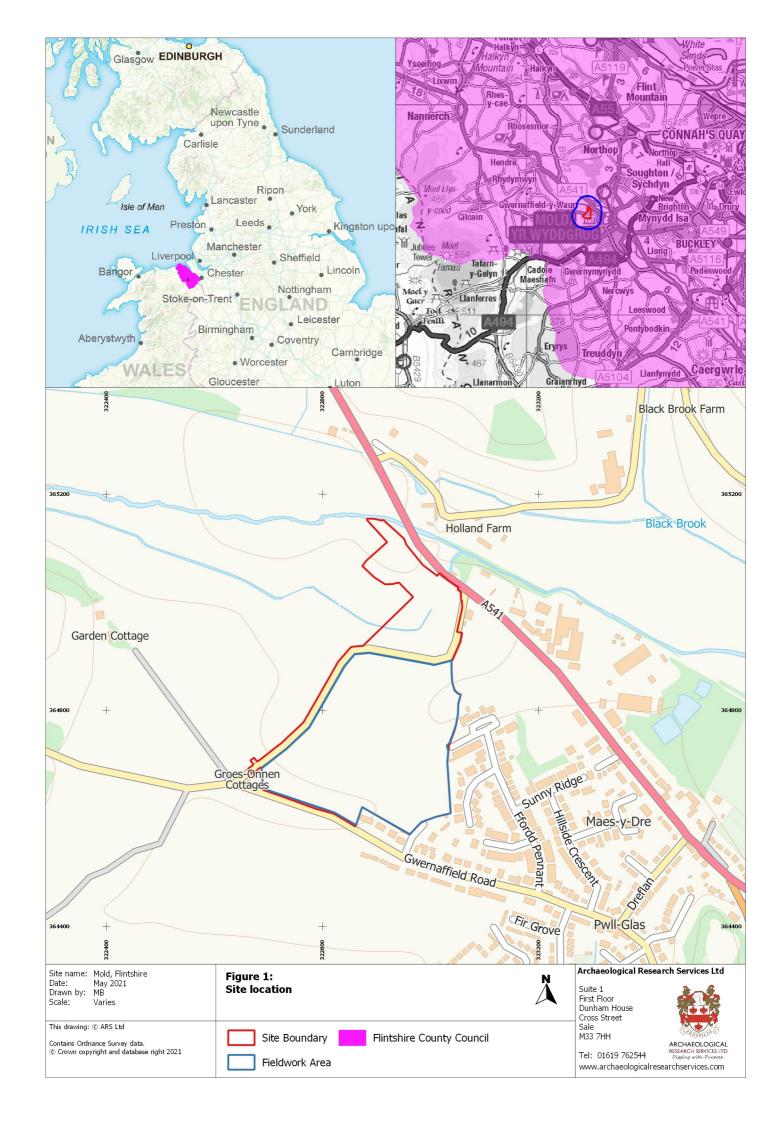


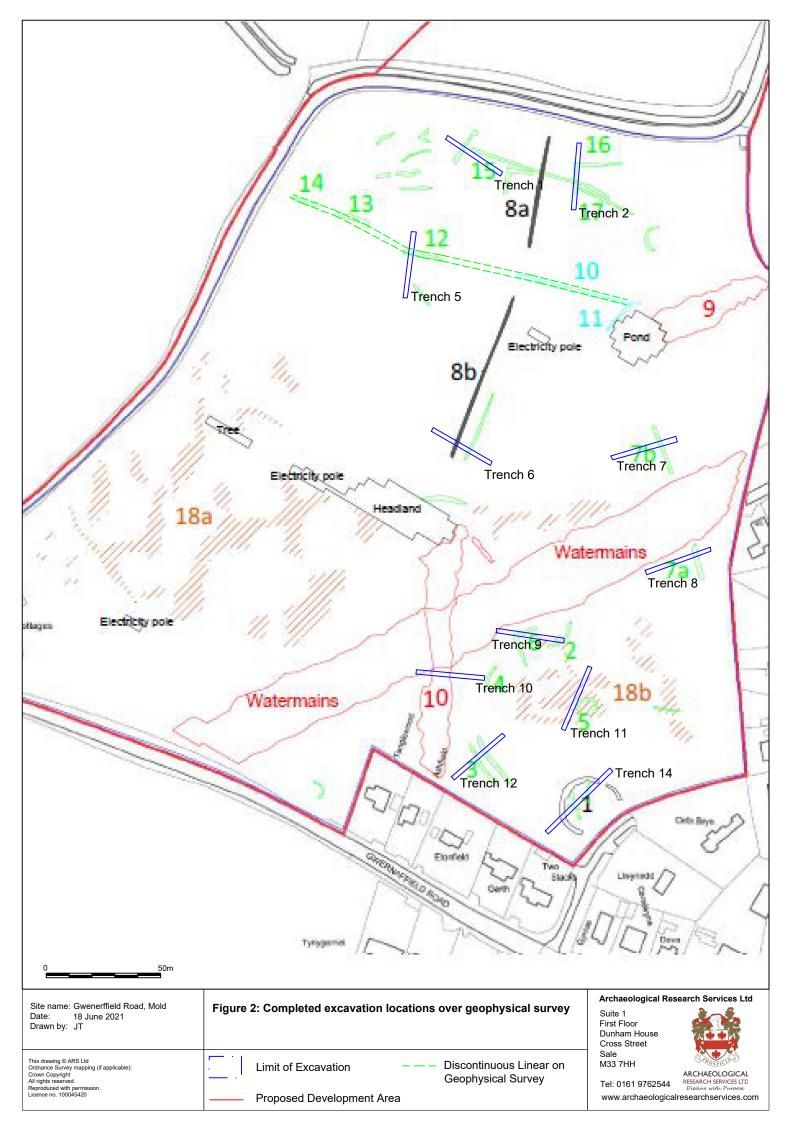
- the underlying solid geology comprises mudstone, sandstone and conglomerate of the Etruria formation (BGS 2021).
- 1.3.2 The solid geology is overlain by Glaciofluvial sheet deposits of Devensian sand and gravel in the south and the north which are separated by a band of Devensian Till and to the north of this a head deposit of clay, silt, sand and gravel (BGS 2021).
- 1.3.3 The Soils in the survey area are characterised as 'freely draining slightly acid loamy soils' (CU 2021).

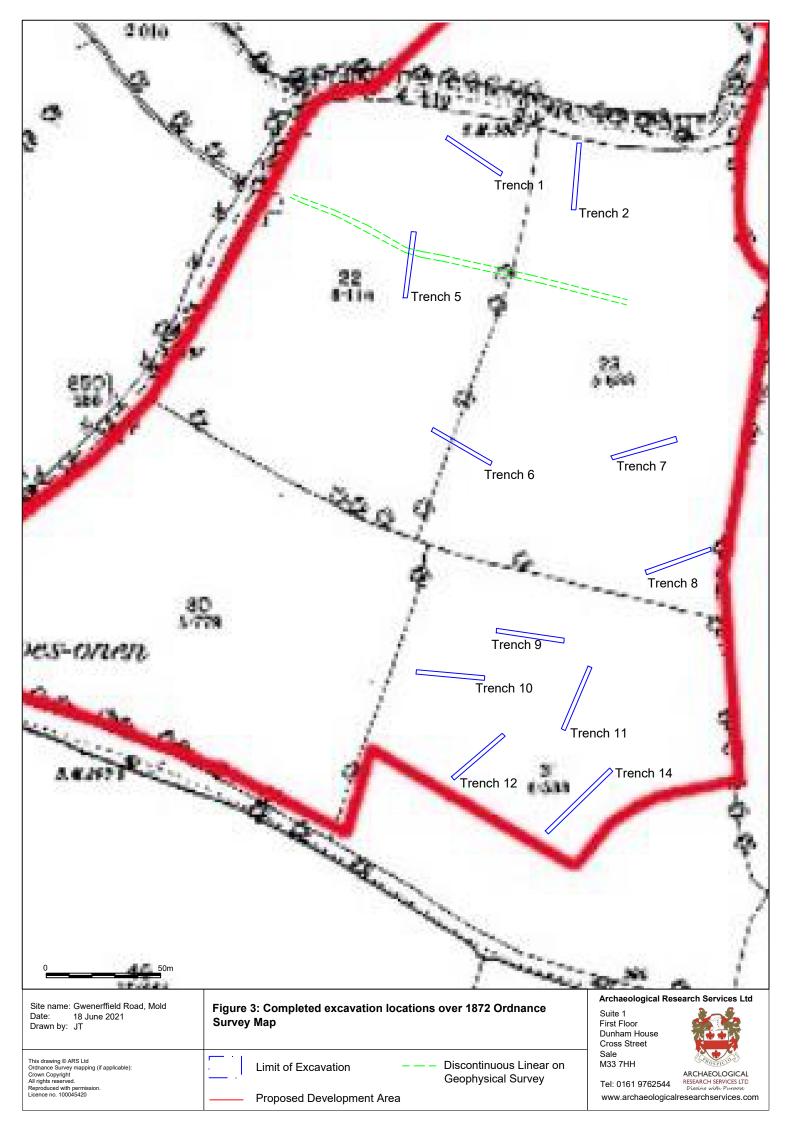
#### 1.4 Archaeological and Historical Background

- 1.4.1 A full and detailed Archaeological Desk Based Assessment of land at Gwernaffield Road, Mold has recently been compiled (Kelly 2021).
- 1.4.2 The assessment concluded that the PDA has low to moderate potential for archaeological evidence dating from the prehistoric to medieval period. The find of a Roman stylus close to the PDA indicates Roman period activity in the area. It was also noted that topographically the southern part of the PDA is elevated, at a similar contour to the scheduled Rhual Isaf round barrow and may therefore indicate low to moderate potential for similar prehistoric remains (Kelly 2021).
- 1.4.3 The PDA was assessed to have a high potential for post medieval archaeology. An earthwork headland is present within the survey area in addition to recorded field boundaries that are no longer extant. These are likely to survive as below ground evidence. The survey area has high potential for post-medieval assets associated with former agricultural activity (*ibid*).
- 1.4.4 A geophysical survey was undertaken by Archaeological Research Services Ltd (Durkin, 2021) during early 2021. The quality of the returned survey data obtained was good and revealed a potentially significant anomaly in the southeast of the survey area. The results suggested the surviving remains of a circular feature which, topographically and morphologically, resembled the nearby Rhual Isaf round barrow. In close proximity, further weak anomalies which could also be of potential archaeological interest were identified.
- 1.4.5 In the northern part of the survey area, the results revealed the surviving remains of a former field boundary which is no longer extant but was depicted on early editions of the Ordnance Survey. In the same part of the survey area, several weak anomalies which may relate to post-medieval or modern agricultural activity were recorded. A broad east to west aligned band of amorphous anomalies in the southern half of the field were considered to be caused by natural variations in the underlying superficial deposits.
- 1.4.6 The results also revealed a significant feature crossing the southern half of the survey area on a broadly south-west to north-east alignment, later confirmed from utility records to be buried water mains.









#### 2 AIMS AND OBJECTIVES

#### 2.1 Research Aims and Objectives

- 2.1.1 The aims and objectives of the archaeological evaluation are outlined in detail in the WSI (see Appendix II) prepared by Heritage Archaeology in consultation with CPAT prior to the commencement of the works. They are summarised below.
- 2.1.2 The research objectives of the programme of work are to be determined by what, if any, archaeological remains are present within the development footprint. However, subsequent assessment and analysis will be in accordance with the research aims outlined in The Research Framework for the Archaeology of Wales (Archaeolog 2021).

#### 2.2 Project Aims

- 2.2.1 The programme of work specifically aims to identify any archaeological deposits or features that may be present within the area of the proposed ground disturbance, where the potential for the survival of archaeological evidence is predicted to be high.
- 2.2.2 The programme of work is designed to then allow for the scope of any necessary further archaeological mitigation to be designed and undertaken. This approach is in accordance with Technical Advice Note 24 (May 2017).

#### 2.3 **Project Objectives**

- 2.3.1 The objectives of evaluation were as follows:
  - Determine what, if any, archaeological remains are present within the development footprint.



#### 3 METHOD STATEMENT

#### 3.1 Introduction

- 3.1.1 The methodology for the evaluation is set out in detail in the Written Scheme of Investigation (Appendix II). The trenching targeted the areas of potential archaeological interest relating to features identified by the geophysical survey.
- 3.1.2 The trenched evaluation proposed the excavation and recording of 14 trenches. These locations are indicatively shown on figure 4 of the Written Scheme of Investigation (Appendix II), and this was reduced to 11 trenches following consultation with CPAT.

Trench Number	Dimensions: Length x Width (m)	Phase	Objectives Identified by Geophysical Survey (Durkin 2021)
Trench 1			- NE to SW aligned linear feature (15).
			- NNW to SSE aligned linear feature (15).
			- Curvilinear feature (15)
Trench 2	30 x 2	Phase 1	- NNW to SSE aligned linear feature (15).
			- Curvilinear feature (16)
			- NNW to SSE aligned linear feature (17)
Trench 3	30 x 2	Phase 2	- Not excavated following consultation with CPAT
Trench 4	30 x 2	Phase 2	- Not excavated following consultation with CPAT
Trench 5	30 x 2	Phase 1	- NW to SE aligned linear feature (12)
			- NNW to SSE aligned linear feature (12)
Trench 6	30 x 2	Phase 1	- SSW to NNE aligned linear feature (8b)
			- SSW to NNE aligned linear feature (8b)
Trench 7	30 x 2	Phase 1	- NW to SE aligned linear feature (7b)
Trench 8	30 x 2	Phase 2	- NW to SE aligned linear feature (7a)
Trench 9	ench 9 30 x 2		- Curvilinear feature (2)
			- Curvilinear feature (6)
Trench 10	30 x 2	Phase 2	- SW to NE aligned linear feature (4)
Trench 11	30 x 2	Phase 1	- Curvilinear feature (5)
			- E to W aligned linear feature (18b)
Trench 12	30 x 2	Phase 1	- NW to SE aligned parallel linear features
Trench 13	30 x 2	Phase 2	- Not excavated following consultation with CPAT
Trench 14	40 x 2	Phase 1	- Curvilinear feature (1)

Table 1: Summary of excavated trenches and objectives.

#### 3.2 Coverage

- 3.2.1 The trenches were excavated in two phases to minimise disruption to the land as much as reasonably practicable; trenches in phase 1 (Table 1) were all excavated. Following a decision taken in consultation with CPAT, two of the phase 2 trenches were also excavated (Table 1).
- 3.2.2 The location of the evaluation trenches is depicted in Figure 2 and targeted the areas of potential archaeological interest relating to features identified by the geophysical survey (see Written Scheme of Investigation (Appendix II).



#### 3.3 Professional Standards

3.3.1 The archaeological fieldwork was undertaken in accordance with the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* (2019) and *Standard and Guidance for Archaeological Evaluations* (2020a).

#### 3.4 **Health and Safety**

- 3.4.1 All works were undertaken in full compliance with the Health and Safety at Work Act 1974 and all other associated Regulations, Acts and Approved Codes of Practice (ACOP's), concerning Health, safety and welfare matters.
- 3.4.2 A risk assessment (RA No. 040/21/B) was produced before commencement of the work and was adhered to throughout the course of the fieldwork.

#### 3.5 Fieldwork

- 3.5.1 Trenches were sited in accordance with a pre-agreed trench plan using a Leica Smartrover GPS to a tolerance of 0.025m. The same GPS was later used to locate drawn plans and sections and to take spot heights within the trenches.
- 3.5.2 Each trench was opened using a mechanical excavator fitted with a toothless ditching bucket under continuous archaeological supervision. Excavation was undertaken in spits to the first archaeological/natural horizon.
- 3.5.3 Each trench was cleaned by hand to expose and define archaeological features. Preexcavation photographs were taken of each trench and any exposed archaeology within them.
- 3.5.4 All archaeological features were drawn and recorded at an appropriate scale and were sample excavated in accordance with the WSI. All trenches and features were accurately drawn in accordance with the ARS Ltd Field Recording Manual.
- 3.5.5 All features and trenches were tied into the Ordnance Survey Grid and all spot heights expressed in metres above Ordnance Datum (aOD).
- 3.5.6 All features were digitally photographed using a Fujifilm XP150 with 14.4 megapixel resolution and a full register of photographs was kept.
- 3.5.7 All written records were kept on pro forma recording sheets and a Harris Matrix was compiled for each trench where multiphase archaeological stratigraphy was present.



#### 4 RESULTS

- 4.1.1 An overall plan of trench locations is presented in (Figure 2). Individual trench plans and photographs for those trenches where archaeological features were present are included as subsequent figures.
- 4.1.2 The context records are summarised in (Table 2) in providing an overview of the presence/absence of, or potential for, archaeology associated with each evaluation trench. The table should be viewed in association with the figures, photographs and text for each trench where archaeological remains were present. Those trenches where only modern features or no archaeological remains were present are described in Table 2 but their plans have not been produced within this report. Further details of such trenches are preserved within the site archive.
- 4.1.3 The overburden across the area subject to evaluation was machine excavated down to the start of the archaeological horizon or depth of development, whichever was the shallower, under continuous archaeological supervision.

#### 4.2 Results

- 4.2.1 A total of 11 evaluation trenches were excavated. All evaluation trenches were sited to provide appropriate coverage of the proposed development area and were located specifically to target anomalies identified on the geophysical survey.
- 4.2.2 Of the 11 trenches excavated, 2 trenches contained archaeological remains, whilst 9 trenches were sterile. The trench summary table (Table 2) is presented below and provides a synthesis of the dimensions, the depths of the topsoil/over burden below ground level (BGL), and the presence/absence of archaeology or potential archaeology in each of the trenches. The following text describes those trenches where archaeological remains are present. This section should be read in conjunction with the accompanying figures and captions and the Trench Summary Table (Table 2) and Context Summary Table (see Appendix I).

Trench Number	Dimensions: Length x	Topsoil No. / Max. Depth	Trench Contents	
	Width (m)	(m)		
Trench 1	30 x 2	(101) / 0.40	Archaeologically Sterile	
Trench 2	30 x 2	(201) / 0.30	Archaeologically Sterile	
Trench 5	30 x 2	(501) / 0.34	Linear Ditch (503)/[504]	
Trench 6	30 x 2	(601) / 0.46	Linear Ditch (603)/[604]/(605)	
Trench 7	30 x 2	(701) / 0.40	Archaeologically Sterile	
Trench 8	30 x 2	(801) / 0.49	Archaeologically Sterile	
Trench 9	30 x 2	(901) / 0.41	Archaeologically Sterile	
Trench 10	30 x 2	(1001) / 0.25	Archaeologically Sterile	
Trench 11	30 x 2	(1101) / 0.38	Archaeologically Sterile	
Trench 12	30 x 2	(1201) / 0.42	Archaeologically Sterile	
Trench 14	40 x 2	(1401) / 0.40	Archaeologically Sterile	

Table 2: Trench information summarised by trench number.

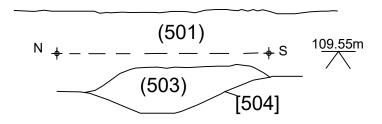


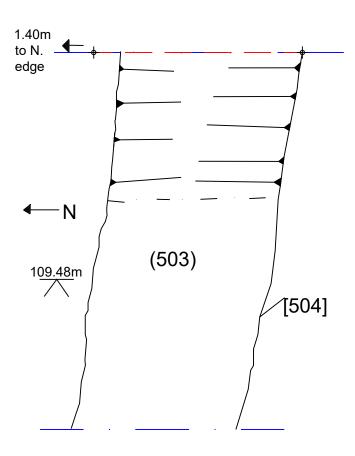
#### Trench 5

- 4.2.3 Trench 5 contained the buried remains of a ditch [504] that ran east-west across the trench at its northern end and averaged 0.82m in width and 0.21m deep (Figures 4 and 5). It had a u-shaped profile and was filled by a single fill (503) comprised of medium-coarse grey silty clay with occasional flecks of charcoal and two sherds of black glazed earthenware pottery retrieved from the upper surface of (503).
- 4.2.4 The 1872 Ordnance Survey map (Figure 3) depicted a linear stream feature which originates from a spring in a field to the north-west of the PDA. This linear is broadly aligned with a geophysical anomaly of a possibly discontinuous linear feature in the north-east of the proposed development site (Figure 3). On the basis of historic mapping aligning with a geophysical anomaly, and the fill material, it is likely that this ditch may be a natural drainage feature.



Figure 4: View of linear feature [504]. Scale 1x1 facing south-south-east.







Site name: Gwenerffield Road, Mold Date: 18 June 2021 Drawn by: JT

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Figure 5: Plan and section of [504]

Limit of Excavation

Section Line

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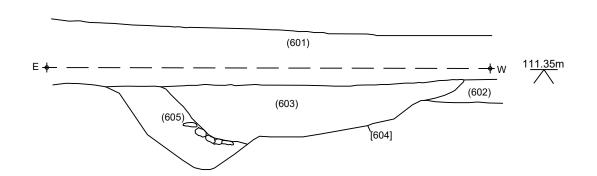
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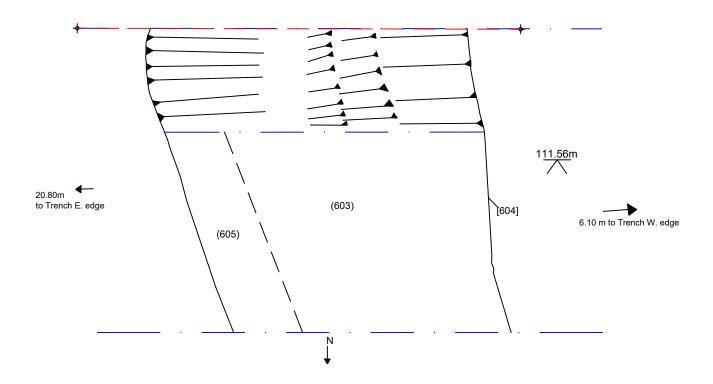
#### Trench 6

- 4.2.5 Trench 6 contained the buried remains of a ditch [604] that ran north-south roughly centrally across the trench and averaged 1.78m in width and 0.50m deep (Figures 6 and 7). From west to east, the ditch sloped gently at c.75° to a flat base before it sloped down again to form a u-shaped profile at the eastern edge of the ditch. The primary fill (605) was found at the eastern edge of the ditch and was composed of pale brown to orange sandy silty clay measuring 0.32m in width and 0.50m deep.
- 4.2.6 A large quantity of stones were identified at the interface between the primary fill (605) and the upper fill (603) suggesting that (605) was deliberately deposited. The upper fill (603) was composed of pale to mid-brown silty sandy clay with occasional flecks of charcoal and contained five sherds of blue and white transfer printware, 1 stem fragment of clay pipe and a shard of glass suggestive of a 19<sup>th</sup> Century date. It is likely that this ditch represents a north-south field boundary visible on the 1872 Ordnance Survey map (Figure 3).



Figure 6: View of linear feature [604]. Scale 1x1m facing south.







Limit of Excavation

Section Line

<u>1</u>m

Figure 7: Plan and section of [604]

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#### Summary

4.2.7 The evaluation trenches identified two linear features pertaining to a possible natural water feature (Trench 5) and a Post-Medieval field boundary (Trench 6). The evaluation trenches across the other areas of the site produced no evidence for the presence of buried archaeological remains surviving in these areas.

#### 5 Discussion

#### **5.1** Site Context

5.1.1 The archaeological evaluation was conducted to support a planning application (ref 061994) for a residential development comprising housing, public open space and associated infrastructure. The PDA was identified to have potential for post-medieval archaeological remains, and low to moderate potential for roman activity.

#### 5.2 Archaeological Features

5.2.1 The evaluation identified no features which obviously pre-date the modern period. A total of two linear features were found. One of the linear features corresponds with a field boundary first depicted on the 1872 Ordnance Survey map. One linear feature is likely natural in origin. However, if it is anthropogenic in origin, it is likely a field boundary which pre-dates available mapping of the proposed development area.

#### 5.3 **Significance**

5.3.1 The results of the evaluation indicate the presence of the remains of former field boundaries within the PDA. These remains are of local significance based on their potential to contribute towards the Research Framework for the Archaeology of Wales (Archaeolog 2021)

### 6 PUBLICITY, CONFIDENTIALITY AND COPYRIGHT

- 6.1.1 Any publicity will be handled by the client.
- 6.1.2 ARS Ltd will retain the copyright of all documentary, photographic and video material under the Copyright, Designs and Patent Act (1988).

#### 7 STATEMENT OF INDEMNITY

7.1.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

#### 8 ARCHIVE

- 8.1.1 A paper and digital archive will be prepared by ARS Ltd, consisting of all primary written documents, plans, sections, photographs and electronic data, which will be deposited with the North East Wales Archives.
- 8.1.2 The archive will follow the recommendations provided by CIfA's (2020) 'Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives', and the Society of Museum Archaeologists' (1993) 'Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland'.
- 8.1.3 A set of annotated, illustrative pictures of the site and watching brief area is contained within the digital archive.
- 8.1.4 A digital copy of the archive will be sent to the RCAHMW, as per their guidelines. This will include an uploaded pdf version of this report. The site has produced a paper and digital archive which will be deposited, along with this report, in digital form with RCAHMW. In addition, a copy of this report will be deposited with CPAT Historic Environment Record (HER).

#### 9 ACKNOWLEDGEMENTS

9.1.1 ARS Ltd would like to thank Anwyl Homes and Heritage Archaeology for commissioning this work. We must also acknowledge the assistance of Mark Walters and Sophie Watson of CPAT.



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### APPENDIX I CONTEXT DESCRIPTION TABLE

Trench No.	Context Number	Context Type	Length (m)	Width (m)	Depth	Finds	Context Description	Palaeoenvironmental Residues	Estimated Date
1	101	Deposit	30	2	0.40		Dark brown sandy silty clay topsoil		-
1	102	Deposit	30	2	-		Pale orange/yellow silty sand natural geology		-
2	201	Deposit	30	2	0.30		Dark brown sandy silty clay topsoil		-
2	202	Deposit	30	2	-		Pale orange/yellow silty sand natural geology		-
5	501	Deposit	30	2	0.34		Dark brown sandy silty clay topsoil		-
5	502	Deposit	30	2	-		Pale orange/yellow silty sand natural geology		-
5	503	Fill	2	0.82	0.21	x2 sherds (black glazed earthenware)	Grey silty clay fill of linear cut (?) [504]. Possible natural water feature.	Infrequent Charcoal	19 <sup>th</sup> C.
5	504	Cut	2	0.82	0.21		Possible linear cut feature. Possible natural water feature.		-
6	601	Deposit	30	2	0.46		Dark brown sandy silty clay topsoil		-
6	602	Deposit	30	2	-		Pale orange/yellow silty sand natural geology		-
6	603	Fill	2	1.79	0.45	x1 clay pipe stem fragment x1 shard of glass x5 sherds (blue and white transfer print ware)	Pale brown silty sandy clay upper fill of linear ditch cut [604]	Infrequent Charcoal	19 <sup>th</sup> C.

6	604	Cut	2	2.11	0.50		Linear cut ditch feature	19 <sup>th</sup> C.
6	605	Fill	2	0.30	0.50		Very pale brown/orange sandy silty clay primary fill of ditch cut [604]	19 <sup>th</sup> C.
7	701	Deposit	30	2	0.40		Dark brown sandy silty clay topsoil	-
7	702	Deposit	30	2	-		Pale orange/yellow silty sand natural geology	-
8	801	Deposit	30	2	0.49		Dark brown sandy silty clay topsoil	-
8	802	Deposit	30	2	-		Pale orange/yellow silty sand natural geology	-
9	901	Deposit	30	2	0.41		Dark brown sandy silty clay topsoil	-
9	902	Deposit	30	2	-		Pale orange/yellow silty sand natural geology	-
10	1001	Deposit	30	2	0.25		Dark brown sandy silty clay topsoil	-
10	1002	Deposit	30	2	-		Pale orange/yellow silty sand natural geology	-
11	1101	Deposit	30	2	0.38		Dark brown sandy silty clay topsoil	-
11	1102	Deposit	30	2	-		Pale orange/yellow silty sand natural geology	1
12	1201	Deposit	30	2	0.42	x9 sherds (black glazed earthenware) x2 shards glass	Dark brown sandy silty clay topsoil	1
12	1202	Deposit	30	2	-		Pale orange/yellow silty sand natural geology	-
14	1401	Deposit	30	2	0.40	x2 sherds (Buckley slipware)	Dark brown sandy silty clay topsoil	-
14	1402	Deposit	30	2	-		Pale orange/yellow silty sand natural geology	-

## APPENDIX II WRITTEN SCHEME OF INVESTIGATION

# **Written Scheme of Investigation**

for a

**Programme of Archaeological Work (trenched evaluation)** 

Land at Gwernaffield Road, Mold,

**Flintshire** 



May 2021

Client	Anwyl H	Anwyl Homes Ltd						
Site name	Land off	Land off Gwernaffield Road, Mold, Flintshire						
Report type	Written S	Written Scheme of Investigation						
Report reference	P00078.0	02.01						
Report date	17/05/20	021						
Prepared by	Helena Kelly, BSc, MIFA							
	Heritage Archaeology Harborough Innovation Centre Airfield Business Park, Leicester Rd, Market Harborough LE16 7WB							
Revision history	V1.0	Client draft						



#### **Summary**

Heritage Archaeology was commissioned by Anwyl Homes to provide a written scheme of investigation for a programme of archaeological work for a proposed housing development site at land at Gwernaffield Road, Mold, Flintshire. Following consultation with Clwyd Powys Archaeological Trust, it was proposed that a trenched evaluation be undertaken to investigate and characterise potential archaeology at the site identified through a programme of geophysical survey. A magnetometer survey was undertaken within the proposed development site in February 2021, as part of a programme of pre-determination archaeological evaluation, it followed the production of a desk-based assessment. The geophysical survey identified a potential archaeological feature in the south east of the proposed development site, a number of linear features potentially relating to former field boundaries were also identified. The programme of work outlined below aims to confirm the presence/ absence of archaeology within the site, and to characterise the nature and significance of any present archaeology, as a guide to determining future mitigation strategies, as needed and appropriate.

#### Crynodeb

Comisiynwyd Archaeoleg Treftadaeth gan Anwyl Homes i ddarparu cynllun ymchwilio ysgrifenedig ar gyfer rhaglen o waith archeolegol ar gyfer safle datblygu tai arfaethedig ar dir yn Gwernaffield Road, yr Wyddgrug, Sir y Fflint. Ar ôl ymgynghori ag Ymddiriedolaeth Archaeolegol Clwyd Powys, cynigiwyd cynnal gwerthusiad ffosydd i ymchwilio a nodweddu archaeoleg bosibl ar y safle a nodwyd drwy raglen o arolwg geoffisegol. Cafodd arolwg magnetomedr ei gynnal o fewn y safle datblygu arfaethedig ym mis Chwefror 2021, fel rhan o raglen o werthusiad archeolegol cyn penderfynu, roedd yn dilyn cynhyrchu asesiad desg. Nododd yr arolwg geoffisegol nodwedd archeolegol bosibl yn ne-ddwyrain y safle datblygu arfaethedig, nodwyd nifer o nodweddion llinellol a allai fod yn gysylltiedig â ffiniau caeau blaenorol hefyd. Nod y rhaglen waith a amlinellir isod yw cadarnhau presenoldeb/absenoldeb archaeoleg o fewn y safle, a nodweddu natur ac arwyddocâd unrhyw archaeoleg bresennol, fel canllaw i bennu strategaethau lliniaru yn y dyfodol, yn ôl yr angen ac yn briodol.

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## 1 Introduction

1.1. Heritage Archaeology has been commissioned by Anwyl Homes to provide a written scheme of investigation for a programme of archaeological work for a trenched evaluation in relation to a proposed housing development site at land at Gwernaffield Road, Mold, Flintshire.

#### Site location

1.2. The proposed development site is located to the south of the A541 Denbigh Road, and north of Gwernaffield Road, it is within Mold Community and immediately to the north west of the town of Mold, Flintshire. The closest post code is CH7 1SH and the centre of the site is at national grid reference 322950,364870 (SJ22956486). The local planning authority is Flintshire County Council. The relevant Historic Environment Record (HER) is maintained by Clwyd Powys Archaeological Trust (CPAT), who also provide advice on heritage matters to Flintshire County Council.

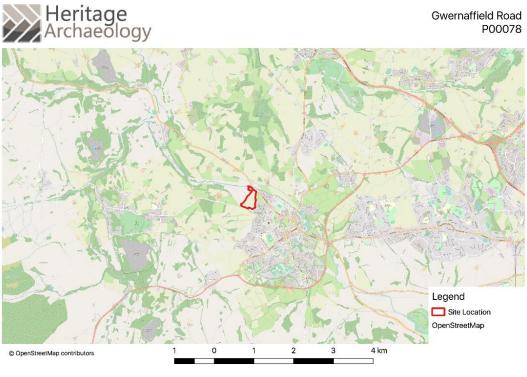


Figure 1: Site location

## Planning background

- 1.3. An application for the residential development has been submitted to Flintshire Council, (reference 061994).
- 1.4. CPAT was consulted on the application and responded to Flintshire Council (email dated 12/11/2020) recommending that a desk-based assessment and walk-over survey be undertaken, followed by a geophysical survey.



1.5. The desk-based assessment and walkover survey was undertaken in January 2021. CPAT was consulted on the results of the assessment and confirmed their advice for a geophysical survey. A WSI was provided for the geophysical survey and approved by CPAT in February 2021. That survey was undertaken in February 2021 and a report provided to CPAT in March 2021. Following further consultation, CPAT recommended that a programme of pre-determination trenched evaluation be undertaken to target anomalies of potential archaeological interest identified by the geophysical survey.

#### Aims of the assessment

- 1.6. The following programme has been designed to address the consultation advice provided by CPAT by setting out a method for archaeological evaluation, post excavation assessment, analysis and publication commensurate to any findings on site.
- 1.7. The programme of work specifically aims to identify any archaeological deposits or features that may be present within the area of the proposed ground disturbance, where the potential for the survival of archaeological evidence is predicted to be high.
- 1.8. The programme of work is designed to then allow for the scope of any necessary further archaeological mitigation to be designed and undertaken. This approach is in accordance with Technical Advice Note 24 (May 2017), Paragraph 4.7.
- 1.9. The research objectives of the programme of work will be determined by what, if any, archaeological remains are present within the development footprint. However, subsequent assessment and analysis will be in accordance with the research aims outlined in The Research Framework for the Archaeology of Wales<sup>1</sup>.

-

<sup>&</sup>lt;sup>1</sup> https://archaeoleg.org.uk



## 2 Operational matters

### **Regulatory requirements**

Planning Policy Wales, Technical Advice Note 24 (TAN 24): The Historic Environment (May 2017)

- 2.1. Paragraph 4.7 states that "where archaeological remains are known to exist, or considered likely to exist, and a study has not already been undertaken by the applicant, the local planning authority should ask an applicant to undertake a desk-based archaeological assessment and, where appropriate, an archaeological evaluation. These should be done by a qualified and competent expert to the appropriate standard.56 The reports of these investigations will form part of the planning application. Applicants should show they have modified their development proposals to minimise any negative impact on the identified archaeological remains, and how they intend to mitigate any remaining negative impacts".
- 2.2. TAN 24 continues to provide guidance on preservation in situ of important archaeological remains, or if that is not warranted, provisions for recording archaeological evidence as a condition of planning consent.

### Best practice and guidance

- 2.3. The guidance most relevant to this WSI is provided in:
  - Chartered Institute for Archaeologists 2020, Standard and Guidance for: Archaeological Field Evaluation; the Collection, Documentation and Research of Archaeological Materials; and for commissioning work on, or providing consultancy advice on, archaeology and the historic environment;
  - Conservation Principles; Policy for the Sustainable Management of the Historic Environment in Wales, Welsh Assembly Government, 2011;
  - Guidance for the Submission of Data to the Welsh Historic Environment Records; and
  - The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales (National Panel for Archaeological Archives in Wales, 2017).

## **Monitoring**

2.4. The implementation of the works outlined in this WSI will be monitored by CPAT, adviser to the local planning authority (Flintshire Council). CPAT will be kept up to date with progress during all phases of the archaeological works.

## **Programme**

- 2.5. It is anticipated that the works will happen in accordance with the following programme:
  - May 2021 submit WSI for approval by CPAT



- May / June 2021 Archaeological trial trenching (up to 7 days allowance on site)
- Interim reporting/ consultation with CPAT
- +4 weeks report
- +6 months deposition of archive

### **Organisation and Key Personnel**

- 2.6. The archaeological works will be undertaken by a suitably qualified archaeological contractor and will be managed by Helena Kelly, MCIfA, Heritage Archaeology Ltd.
- 2.7. Fieldwork will be undertaken by Archaeological Research Services Ltd, a Registered Organisation with the CIfA. ARS Ltd has extensive experience of undertaking archaeological fieldwork projects throughout the UK, including in Wales.
- 2.8. A written risk assessment and method statement (RAMS) will be provided by ARS Ltd prior to works being undertaken on site. A schedule of proposed specialists can be provided with the RAMS, if required.

### **Health and Safety**

- 2.9. All work on site would be undertaken strictly in accordance with the project health and safety plan and task specific risk assessments. All companies working on the project will adhere to the client's required quality, health, safety and environment controls.
- 2.10. Access routes to working areas will be specified by the client and access would only be permitted to those routes and the area of the fieldwork.
- 2.11. All site staff, including subcontractors and visitors, will prove that they have attended a site induction and have the necessary competencies (e.g. CITB training for machine operators), and any other necessary health and safety qualifications, as required.



## 3 Archaeological and historic context

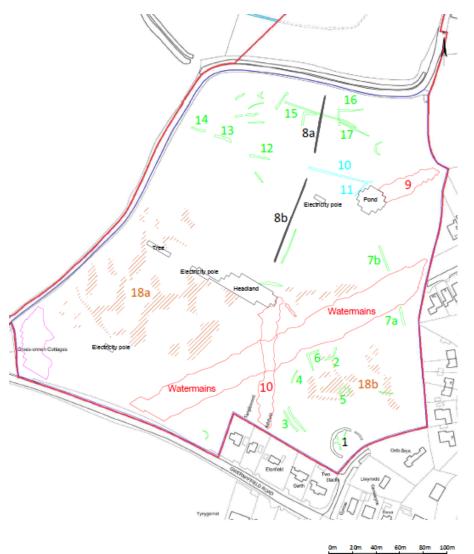
- 3.1. An archaeological desk-based assessment has been undertaken for the planning application area by Heritage Archaeology (Heritage Archaeology, 2021, Archaeological Desk-Based Assessment Land at Gwernaffield Road, Mold, unpublished report reference P00078.01.v2). In summary, the conclusions of that report are:
- 3.2. The proposed development site has a low to moderate potential for archaeological evidence dating from the prehistoric to medieval period. Background information such as the find of a Roman stylus on or close to the site indicates activity in the area from these periods. It is also noted that topographically the southern part of the site is elevated, at a similar contour to the nearby scheduled Rhual Isaf round barrow and this also suggests a low to moderate potential for these periods.
- 3.3. The proposed development site has a high potential for archaeological evidence dating from the post medieval period. An earthwork headland is present in the southern part of the site, and there are recorded boundaries in that part of the site that are no longer extant. These are likely to survive as below ground evidence. The southern part of the site therefore has a high potential for assets from this period associated with former agricultural activity.
- 3.4. The northern part of the site includes earthwork remains associated with its former use as a Factory Pond and gravel pit. The Factory Pond's former extent is evident as a bank, with revetment wall on the southern boundary of the pond. The pond is of local value as an example of industrial activity in Flintshire. The Factory Pond and gravel pit are likely to have impacted any earlier archaeology that may have been present within this part of the site and the potential for evidence from the prehistoric to medieval period to be present in the northern part of the site is negligible.
- 3.5. A geophysical survey was undertaken by Archaeological Research Services Ltd (ARS, 2021, A Geophysical Survey of lant at Gwernaffield Road, Mold, Flintshire, unpublished report reference 2021/30). The The quality of the returned survey data was good and has revealed a potentially significant anomaly in the south east of the survey area. The results suggest the surviving remains of a circular feature which, topographically and morphologically, resembles the nearby Rhual Isaf round barrow. In close proximity are further weak anomalies which could also be of potential archaeological interest. In the northern part of the survey area the results have revealed the surviving remains of a former field boundary which is no longer extant but which was depicted on early editions of the Ordnance Survey. This is likely to be of local historical interest only. In the same part of the survey area, several weak anomalies were recorded which could be of archaeological interest but may relate to post-medieval or modern agricultural activity. A broad east to west aligned band of amorphous anomalies in the southern half of the field are considered to be caused by natural variations in the underlying superficial deposits. The results have also revealed a bank of modern water mains crossing the southern half of survey area on a south-west to north-east alignment and two probable buried pipes.



Figure 2: Ordnance Survey County Series, Flintshire, 1872, 1:2500

Factory Pond 5 3%

Figure 3: Geophysical Survey interpretive plan (ARS, 2021)





# 4 The programme of archaeological work

## **Trenched evaluation**

4.1. The trenching will target the area of potential archaeological interest relating to features identified by the geophysical survey.

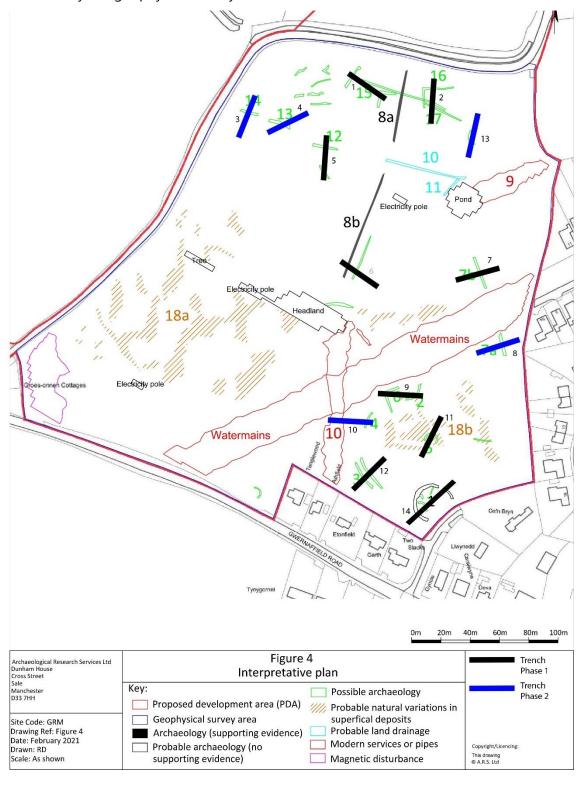


Figure 4: Indicative Trench Plan (trenches not to scale)



- 4.2. The trenched evaluation will comprise the excavation and recording of up to 14no. trenches. It is proposed that trenches 1-13 measure 30m by 2m, and trench 14 measure 40m by 2m. These are indicatively shown on figure 4, above and have provisionally been agreed with CPAT through consultation.
- 4.3. The trenches are located to the features identified by the geophysical survey but are not scaled or geo-referenced. A scaled trench plan will be provided by ARS Ltd with the RAMS, following further consultation with CPAT and their agreement in principle of the trench locations indicatively shown below.
- 4.4. The trenches have been designed to adequately sample the archaeological interest of the site in order to define the presence / absence of known and potential archaeology as described by the desk-based assessment. It will be sufficient to determine what, if any, further mitigation is required to provide a record of those features prior to development commencing.
- 4.5. It is requested that the trenches are excavated in two phases to minimise disruption to the land as much as reasonably practicable; trenches in phase 1 will all be excavated following which a decision will be taken in consultation with CPAT regarding the need for and scope of the phase 2 trenches. It is understood that all of the trenches in phases 1 and 2 may require excavation. Trenches in both phase 1 and 2 would be excavated as a single, continuous deployment, subject to obtaining the necessary permissions for land access.
- 4.6. The trenches will be mechanically excavated using a machine fitted with a toothless ditching bucket. Under instruction from the designated supervising archaeologist, the machine will operate in 'spits', removing only an appropriate amount of overburden with each action. The supervising archaeologist will give the command to stop should archaeological deposits or structures become visible. At each soil horizon change, the supervising archaeologist will indicate to the machine driver that each stratum should be stored separately.
- 4.7. Upon reaching the archaeological horizon or the natural horizon, whichever is encountered first, machine excavation will stop. Should the trenches require excavation to depths in excess of approximately 1.5m to reach archaeological horizons, the trench may require stepping or shoring, or investigation by machine sondage, rather than features being cleaned by hand. This would be confirmed in consultation with the client and CPAT.
- 4.8. The trenched evaluation will provide an accurate record of any archaeological and palaeoenvironmental finds, features, artefacts or ecofacts identified. If any such finds or features are identified, subsequent excavations will be undertaken by hand.
- 4.9. Sampling strategies will be in accordance with the archaeological sub-contractor fieldwork manual and the requirements of CPAT.
- 4.10. The archaeological contractor will make appropriate pre-and post-excavation site records. All finds and features will be accurately located and planned accurately at appropriate scales.
- 4.11. Backfilling will be undertaken by reinstating the arisings in reverse order (subsoil/ topsoil).



#### **General**

#### **Finds**

- 4.12. All finds or environmental samples recovered during the archaeological works will be assessed and reported on by external specialists. A list of specialists for the project will be provided by the archaeological contractor when required.
- 4.13. All finds will be treated in accordance with current best practice as set out in Chartered Institute for Archaeologists and Historic England guidance.

#### **Human Remains**

4.14. If human remains are encountered during the evaluation, they will be left in situ and the coroner notified. If it is deemed appropriate to excavate human remains, this will be done in accordance with appropriate Historic England and Chartered Institute for Archaeologists guidance (e.g. CIfA Technical Paper 13 Excavation and Post-excavation Treatment of Cremated and Inhumed remains). Excavation, removal from site, analysis and final placing will all be subject to the requirements of the appropriate Ministry of Justice licence.

#### **Treasure**

4.15. If any artefacts are encountered that would constitute 'treasure' as defined by The Treasure Act, 1996, they will be reported to the local Coroner and relevant Finds Liaison Officer. Any artefacts deemed to be Treasure should be excavated on the day they are discovered and removed to a secure site. If this is impractical then appropriate security would be provided until full excavation and removal can occur.

#### Paleo-environmental sampling and analysis

- 4.16. Paleo-environmental assessment aims to identify areas suitable for the survival of evidence of past environments. These most commonly occur in the form of subsurface peat layers but can also include all waterlogged deposits. The identification of any suitable areas will take place during the archaeological works. Should any such deposits exist within the area of impact, samples will be taken by a suitably qualified specialist sub-contractor.
- 4.17. Having assessed the potential for analysis a project design would be produced to provide a detailed proposal for analysis (including, for example, C14 dating, loss-on-ignition to measure organic carbon content, humification and mass specific magnetic susceptibility) of any present selected samples. If necessary and appropriate the advice of the Historic England Science Advisor for the North West will be sought.



## 5 Reporting

- 5.1. A programme of reporting will be undertaken, to commence on completion of each phase of fieldwork. It will be proportionate to the findings of the fieldwork, and it may be that a single phase of assessment, analysis and reporting is sufficient in the event of non-complex findings.
- 5.2. In the event of negative, or non-complex findings, a report will be produced detailing the results of the fieldwork within four weeks of the end of the fieldwork and archived within six months. The reports will include;
  - a front cover to include the NGR, and HER reference number
  - a concise, non-technical summary of the results,
  - the circumstances of the project and the dates on which the fieldwork was undertaken,
  - description of the methodology, including the sources consulted,
  - the historical background of the development area,
  - results of the fieldwork
  - a statement, where appropriate, of the archaeological implications of the impact,
  - a copy of this project design, and indications of any agreed departure from that design,
  - the report will also include a complete bibliography of sources from which data has been derived, and a list of any further sources identified but not consulted,
  - a site location plan related to the national grid,
  - appropriate plans showing the location and position of features or sites located,
  - plans and sections showing the positions of deposits and finds,
  - illustrative photographs as appropriate,
  - plan showing the positions of where the survey photographs were taken,
  - coordinates (latitude/longitude) of relevant sites if archaeological remains have been discovered.



## 6 Archive

- 6.1. A copy of the report will be provided as a PDF submitted to the client, Flintshire Council and CPAT.
- 6.2. Archiving will be done in accordance with the *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* and the relevant Welsh archiving guidance, specifically The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales (National Panel for Archaeological Archives in Wales, 2017).
- 6.3. A digital copy of the archive will also be sent to the RCAHMW, as per their guidelines.
- 6.4. Archiving will include the bilingual requirements for English and Welsh language summaries and any other necessary bilingual content.
- 6.5. An archive of the results of the archaeological work will be produced, in accordance with current Chartered Institute for Archaeologists Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (CIfA 2020).