

Archaeological Excavation & Monitoring associated with the installation of a Wind Turbine at Postwick Village Hall, Ferry Lane, Postwick, Norfolk.



Prepared for Mr.P.Herring on behalf of
Postwick with Witton Parish Council

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Archaeological Excavation & Monitoring at Postwick Village Hall, Ferry Lane, Norfolk.

Location:	Postwick with Witton
Grid Ref:	TG 2978 0772
NHES Event No:	ENF125596
Date of fieldwork:	22 nd December 2010 & 19 th January 2011

1.0 Introduction

Norvic Archaeology was commissioned by Peter Herring, acting on behalf of Postwick with Witton Parish Council, to undertake an archaeological excavation and monitoring of groundworks associated with the construction of a 15m high wind turbine at the boundary of the football pitch and adjacent sports field to the rear of the Postwick Village Hall.

This programme of archaeological work was undertaken to fulfil a planning condition (Planning application No. 20101131) set by Broadland District Council and in accordance with a brief issued by the Historic Environment Service (HES Ref: CNF42840). The aim of the works was to preserve by record the presence/absence, date, nature, and extent of any buried archaeological remains and features. This report presents a brief description of the methodology followed, the results and the archaeological interpretation of the results.

On completion of the project, the site archive will be offered for long term deposition with Norfolk Museums and Archaeology Service, following the relevant policy on archiving standards.

2.0 Summary of Results

Excavation of the foundation pit for the Wind Turbine allowed for characterisation of the subsoil horizons, which comprised of a recent plough-soil above a thinner, more archaic subsoil. The natural geology was encountered at a depth of c.0.55m across the site and comprised of banded sands and clay-silts, with an outcrop of coarse gravel noted during cable trenching across the football pitch.

No features were recorded during the works and, more significantly, no additional evidence was brought to light regarding the previous discovery of a single articulated human burial discovered in the central area of the field during pipe works in the 1990s (NHER 28170). It currently seems unlikely that any form of large scale cemetery existed here; the remains are perhaps representative of a more isolated burial or small scale funerary site of unknown date.

The recovery of a single piece of micro-debitage, from the interface of the subsoil and the natural sands below, may indicate some potential for Mesolithic activity in the vicinity of the site, however no other worked flints were collected during the course of the project. Limited Mesolithic evidence is currently recorded for the parish as a whole, with a very few surface finds of cores, blades, flakes, microliths and other flake tools recorded along with a single flaked axe.

A small collection of other finds collected from the site include a single piece of medieval pottery and a late post-medieval button.

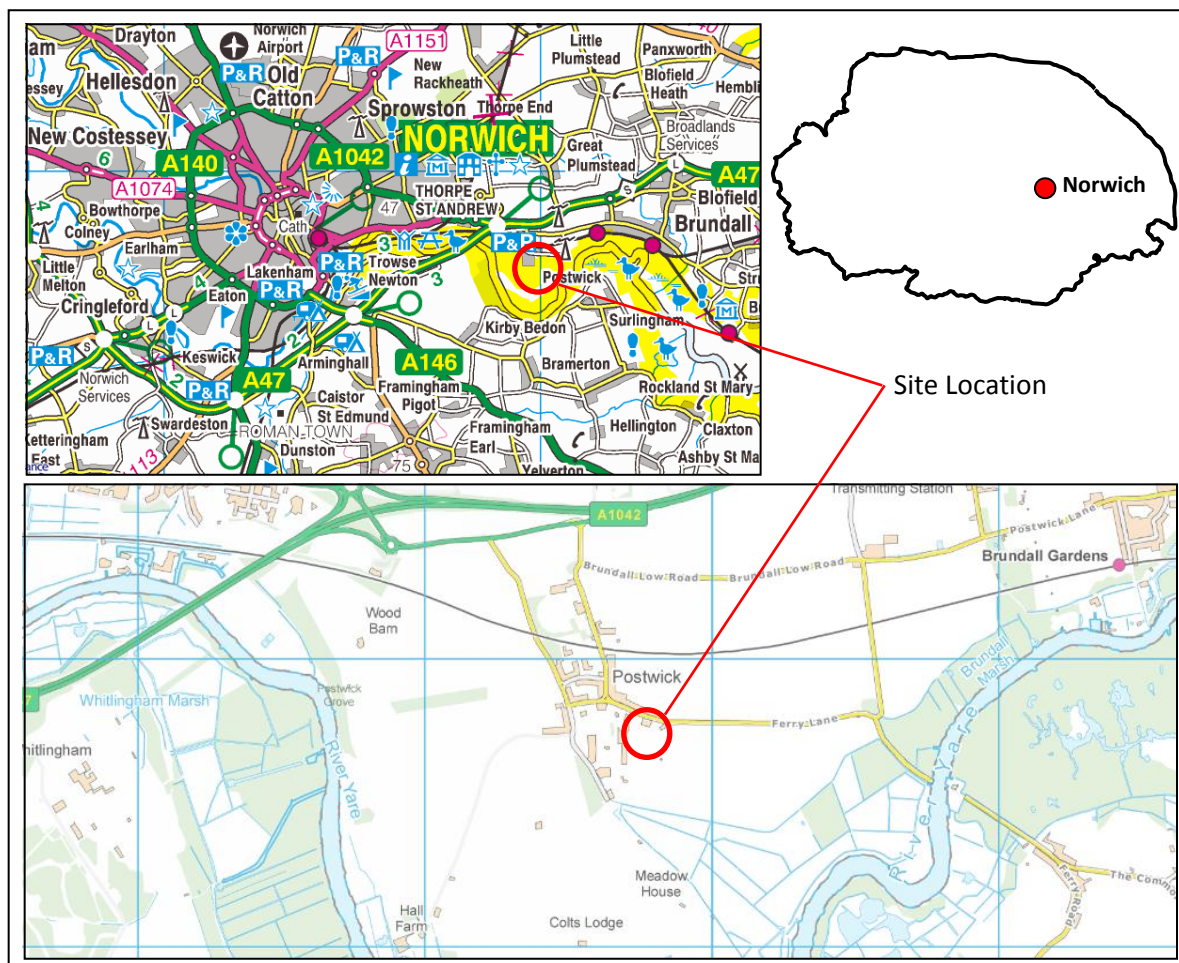


Figure 1: Site Location (not to scale).

3.0 Geology and Topography

The Village Hall is located on the northern slopes of the River Yare valley, just above a marshy floodplain, c. 750m north-east from the closest banks of the river at a height of c. 9m OD. The field accommodating the football pitch to the rear of the Village Hall slopes down c.1m from the north-west to south-east corner.

The site is located on superficial river terrace deposits of sand and gravel overlaying deeper deposits of sand and gravel crag. Breydon formation peat deposits lie immediately to the south of the sports fields occupying a lost channel, running on the approximate alignment of Oak Lane and conjoining with peat beds which occupy the flood plain of the river Yare immediately to the south (British Geological Survey – Geology of Britain Viewer at a scale of 1:50 000 (http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html)).

4.0 Brief Archaeological and Historical Background

The first edition OS plan of the 1880s shows the area of the sports fields as the north-west corner of a larger arable field with a gravel quarry to the west of the present football field, still delineated now by the same trapezoid shaped boundary around *The Wilderness* estate of homes (see Figure 2). The earlier Tithe map of 1838 shows same large open field with no quarry recorded.

Aerial photographs produced by the Royal Air Force National Air Survey of 1945-6 show the current field boundaries defining the present football and sports field as smaller agricultural divisions with no clearly established hedgerows or tree lines.

A parish summary of the large amount of information held for the parish on Norfolk's Historic Environment can be viewed on the Norfolk Heritage Explorer website (www.heritage.norfolk.gov.uk). The parish has generated over 160 records which give evidence of human occupation and activity for most periods in the form of find scatters, cropmarks and excavated sites. The most significant of these in relation to the site being the discovery of human remains below the Sports Field (NHER 28170) during drain digging (see Figure 3); and evidence of occupation activity to the east of the site in the form of cropmarks of uncertain date (NHER 49560); both described in more detail below.

The following information has been sourced from the Norfolk Historic Environment Record (NHER). Sites of particular relevance or interest recorded by the Historic Environment Record which fall in relatively close proximity to the development site include:

- ***Human Remains***

NHER 28170: In 1990, the skeleton of a mature female, laying roughly east to west, was revealed by workmen digging drains across the playing field (see Figure 3). The remains were reported to have been encountered at a depth of c.0.5m, lying above the natural. No associated finds were recovered and the skeleton could not be dated, it was subsequently reburied within the same length of trench. The remains fall c. 170m to the south-east of All Saints Church (NHER 9695 – a church with 13th and 14th century elements).

NHER 15987: Human skeletal remains were found in 1980 within an infilled pit, adjacent to the churchyard. The bones belonged to a number of individuals, and one skull exhibited what was identified as a sword cut to the back. The remains were identified as Saxon, although it is likely they were associated with the church graveyard, and had been disturbed by construction work being carried out nearby.

- ***Individual Find Spots***

NHER 32323: A Roman sestertius coin of the Emperor Hadrian, minted between AD 117 and AD 138, was recovered in 1996 from gardens c. 100m to the north-west of the site.

- ***Excavated Sunken-Featured Building***

NHER 10219: Evidence for Saxon occupation in the area was excavated c. 600m to the south-east of the site in 1935. The fairly well preserved remains of a solitary 'hut-like' building were discovered in a gravel pit. Although half had been lost during the gravel works, the remainder was excavated by under the supervision of R.R. Clarke for the Norwich Research Committee. The structure was originally identified as Iron Age with later Roman occupation but has since been reinterpreted as a grubenhaus or sunken-featured building of Early Saxon date.

- ***Cropmarks***

NHER 49560: The cropmarks of an undated rectilinear enclosure, ditches/trackways and field boundaries are visible on aerial photographs to the south of railway line at Postwick, in fields that begin just 150m to the east of the site. It seems likely that these cropmarks represent several phases of activity, although the main components of the site are suggested to be Roman in date. Two small possible ring-ditches have been suggested to represent evidence for roundhouses of late prehistoric to Roman date. Finds dating from the Roman, Saxon and Medieval to Post-Medieval date have been recovered in the general vicinity, with noticeable quantities of Roman material.

NHER 36340: The cropmarks and earthworks of a probable Bronze Age round barrow are visible on aerial photographs in fields on the northern side of Ferry Lane, located c. 300m to the north-east of the site. The ring ditch appears to be 33m in diameter with a ditch that may measure up to 3m in width. In 1953, the remains were still visible as a slight earthwork. The barrow appears to be overlain by ditches of possible Roman date – see NHER 49560).

NHER 52115: A possible undated trackway on a northwest-south east orientation is visible as cropmarks on aerial photographs c. 450m to the west of the site, underlying linear features that appear to correspond to the Tithe Map (NHER 52017).

NHER 21767: Cropmarks visible on aerial photographs show a double-ditched enclosure c. 600m, west-north-west of the site, the inner ditch of which is not concentric with the outer and may represent more than one phase of use, as well as adjacent linear features which may also represent multi-period occupation. Although of unknown date, it is suggested that they could represent Prehistoric activity, particularly as they are situated close to a large scatter of Neolithic flints (NHER 22030).

5.0 Methodology (Figures 2 & 3)

The objective of the programme of archaeological works was to record any archaeological evidence revealed during groundworks associated with the construction of a 15m tall Wind Turbine.

Spoil, exposed surfaces and features were scanned with a metal detector (Minelab XTerra 705). All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

All archaeological features and deposits were recorded using Norvic Archaeology *pro forma* sheets. Trench locations, plans (Figure 4) and sections (Figure 5) were recorded at appropriate scales and digital images were taken of all relevant features and deposits.

Levels taken during the course of the work were transferred from an Ordnance Survey benchmark with a value of 14.01m AOD, located on the north-west corner of All Saints Church tower.

Site conditions were generally cold but good, although snow was present on the ground during the excavation of the Wind Turbine foundation trench, and more snow was falling by the close of the same day.

- **Archaeological Excavation** (Figure 5)

The foundation trench for the Wind Turbine was excavated under archaeologically controlled conditions using a 3-ton, 360° rubber tracked machine with a ditching bucket. The initial designs proposed for two trenches – a foundation trench and an anchor block trench, but a change in specifications to the foundation design called for a single modest foundation trench measuring 2.8m by 1.85m stepped in to a foundation pit 1.75m by 1.3m and excavated to a depth of c. 2.6m.

- **Archaeological Monitoring**

The cable trench linking the Wind Turbine to the south-east corner of the Village Hall was excavated using a wheel based 'digga' cable-trenching machine. This created a slit trench up to 200mm in width and c. 0.40 to 0.60m in depth.

Additional monitoring was conducted of groundworks associated with the machine excavation of an open trench to a depth of 2m for the installation of ground loops for a Ground Source Heat Pump to the south-west of the village hall, which also included dual pipe trenching (0.75m deep) linking it to the front of the hall. The shape of this trench was such that it avoided any chance of encountering the drainage run inserted across the field in 1990 (NHER 28170).



Plates 2 & 3: Cable trenching across the football pitch (looking north-north-west) and the eastern half of the GSHP ground loop installation trench (looking south).



6.0 Results (Appendix 1)

• Sub-surface geology

Natural deposits were revealed at a depth of c.0.55m in the Wind Turbine foundation pit and in general at a similar depth across the site, although slightly shallower at the northern end of the field.

An area of large coarse natural gravel was encountered for a stretch of c. 15m during the cable trenching work between 23m to 38m from the south-east corner of the Village Hall. This could represent an outcrop of river terrace gravels or some form of glacially sorted gravel.

Deeper deposits revealed during the reduction of the natural proved to be mid orange sands mottled by dense lenses of pale mid-yellowish clay-silts (to a depth of 2m), above banded dark orange firm sands, divided episodically by pale greyish yellow sands and dense pale grey clay-silts (observed to the limit of 2.6m).

• Subsoil layers (Figure 4)

Subsoil A: The subsoil (02) comprised of a well homogenised sandy-loam up to c. 0.35m deep. This soil was well mixed and represents a recent plough soil horizon.

Subsoil B: This lower horizon can be characterised as an earlier subsoil horizon (03) c. 0.15m deep, with a fairly diffuse boundary at both the limit of the plough soil above and the natural sands below.



Plate 4: Natural sand revealed within the Wind Turbine foundation pit (looking west) [1m Scale].



Plate 5: Natural deposits revealed below subsoils within the Wind Turbine foundation pit (looking north) [1m Scale].

7.0 Finds Analysis (Appendix 2)

• Flint

A single small piece of micro-debitage was collected from subsoil B, context (03), at the interface with the cleaner natural sands below. This piece is fairly fresh and represents the medial fragment of a snapped bladelet with a slight notch to one edge. It appears to be debitage from relatively small microlith production, perhaps representative of a Late Mesolithic industry.

Context No.	Feature No.	SSD	Material	Object	Object Date	Feature Period
03	-	WT	Flint	Micro-debitage	Mesolithic	-
Medial fragment of snapped bladelet.						

• Metal Objects

A machine made, copper-alloy button was collected from subsoil deposit (02). A fragment of copper-alloy sheet and a copper-alloy crescent-shaped furniture handle were collected from the spoil arising from the GSHP trench (05).

Context No.	Feature No.	SSD	Material	Object	Object Date	Feature Period
02	-	WT	Cu Alloy	Button	L. Post-medieval	-
Circular, concave press moulded, four eye holes						
05	-	GSHP	Cu Alloy	Sheet	-	-
Fragment of a larger sheet of good quality copper-alloy						
05	-	GSHP	Cu Alloy	Handle	L. Post-medieval	-
Half crescent hook shaped with a right angled arm, fragment of a small drawer or cabinet door handle.						

• Pottery

Two sherds of pottery were collected during the course of the work, both as residual finds collected during monitoring of the cable trench work; a late post-medieval sherd and a piece of medieval greyware ware. Neither sherd can be attributed to the presence of sub-surface archaeological deposits; both could just as easily have been brought onto site as stray finds through past manuring activity.

Context	Fabric	Form	No	Wt/g	Sherd date range	comments
05	MCWM		1	3	12-14 th c.	Medieval coarseware – micaceous, Body sherd – medium sandy fabric, sooted externally
05	LGRE	?Jar	1	32	18-19 th c.	Lead glazed internal and external base sherd.

• Clay Tobacco Pipe

Two clay tobacco pipe stems were collected from the subsoil (02) and a further two from the spoil of the Ground Source Heat Pump trench (05).

Context No.	Feature No.	SSD	Material	Object	Object Date	Feature Period
02	-	WT	Pipe Clay	Tobacco Pipe	Post-medieval	-
Stem fragments x2						
05	-	GSHP	Pipe Clay	Tobacco Pipe	Post-medieval	-
Stem fragments x2						

8.0 Conclusions

No features were recorded and, more significantly, no additional evidence was brought to light regarding the previous discovery of a single articulated human burial discovered in the central area of the field during pipe works in the 1990s (NHER 28170).

It currently seems unlikely that any form of large scale cemetery existed here, the remains are perhaps representative of a more isolated burial or small scale funerary site of unknown date.

The recovery of a single piece of micro-debitage may indicate some potential for Mesolithic activity in the vicinity of the site, however no other worked flints were collected during the course of the project. Limited Mesolithic evidence is currently recorded for the parish as a whole with a very few surface finds of cores, blades, flakes, microliths and other flake tools recorded along with a single flaked axe.

9.0 Acknowledgements

Thanks are due to Peter Herring who commissioned Norvic Archaeology to carry out this work on behalf of the Postwick with Wotton Parish Council. All stages of the monitoring and post-excavation analysis work were carried out by the author.

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Appendix 1: Context Summary

Context	Category	?Fill of	Brief Physical Description	Interpretation	Period
01	Deposit	-	Firm mid-grey v.sandy-loam, max 0.15m deep	Topsoil	Modern
02	Deposit	-	V.friable, mid-greyish-brown v. sandy-loam , occ. stones, rare charcoal & cbm flecks, c.0.30 to 0.45m deep	Subsoil A	Modern
03	Deposit	-	Soft, mid-orangey-brown silty-sand, occ. stones, c. 0.15m deep	Subsoil B	Uncertain
04	Deposit	-	Variable: glacio-fluvial sands above banded deposits of sands, gravels & clay-silts	Natural	Pleistocene
05	Recorded Finds	-	Finds collected from spoil produced by the cable trench	-	-
06	Recorded Finds	-	Finds collected from spoil produced by groundworks for the Ground Source Heat Pump	-	-

Appendix 2a: Finds by Context

Context	Material	Quantity	Weight (g)	Comment
02	Clay Tobacco Pipe	2	-	Stems
	Object – Cu Alloy Button	1	-	
03	Microlith - debitage	1	-	Snapped blade segment
05	Pottery	2	35g	Med x1, Late P.med x1
05	Metal – Cu Alloy	2	-	Sheet & handle frags.

Appendix 2b: NHER finds summary table

Period	Material	Quantity
Unknown	Cu-Alloy fragment - sheet	1
Mesolithic	Flint – micro-debitage	1
Medieval (1066 to 1539AD)	Pottery	1
Post-medieval (1540 to 1900AD)	Button	1
	Furniture Handle – Cu-alloy	1
	Pottery	1
	Tobacco Pipe	2

Appendix 3: Archive summary table

Factual Type	Quantity
Site diary	1
Field note sheets	3
Permatrace scale drawing sheets	1
Context Sheets	4
Photo Index	1
Digital Images	43

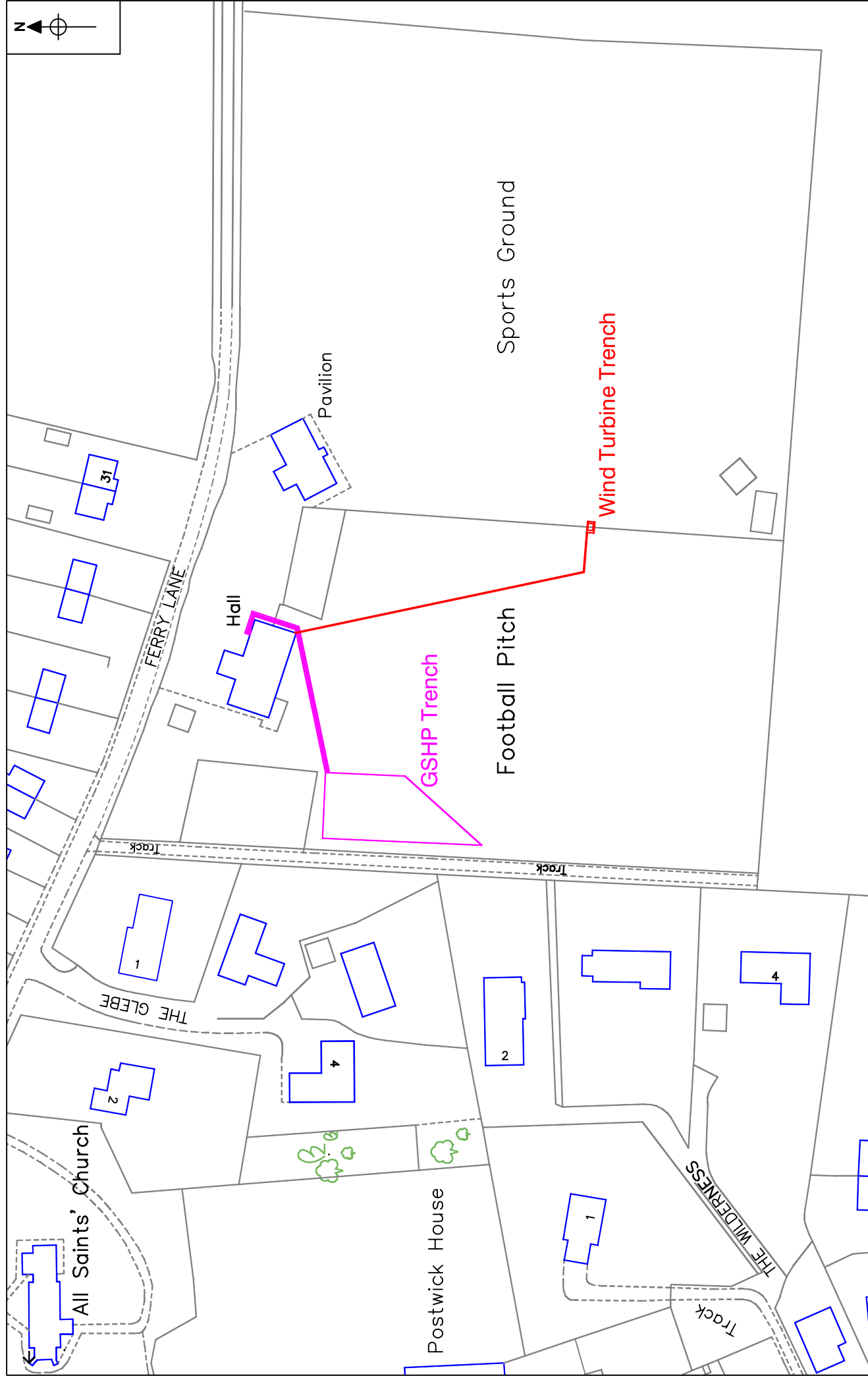


Figure 2. Site Location Plan. Scale 1:1250

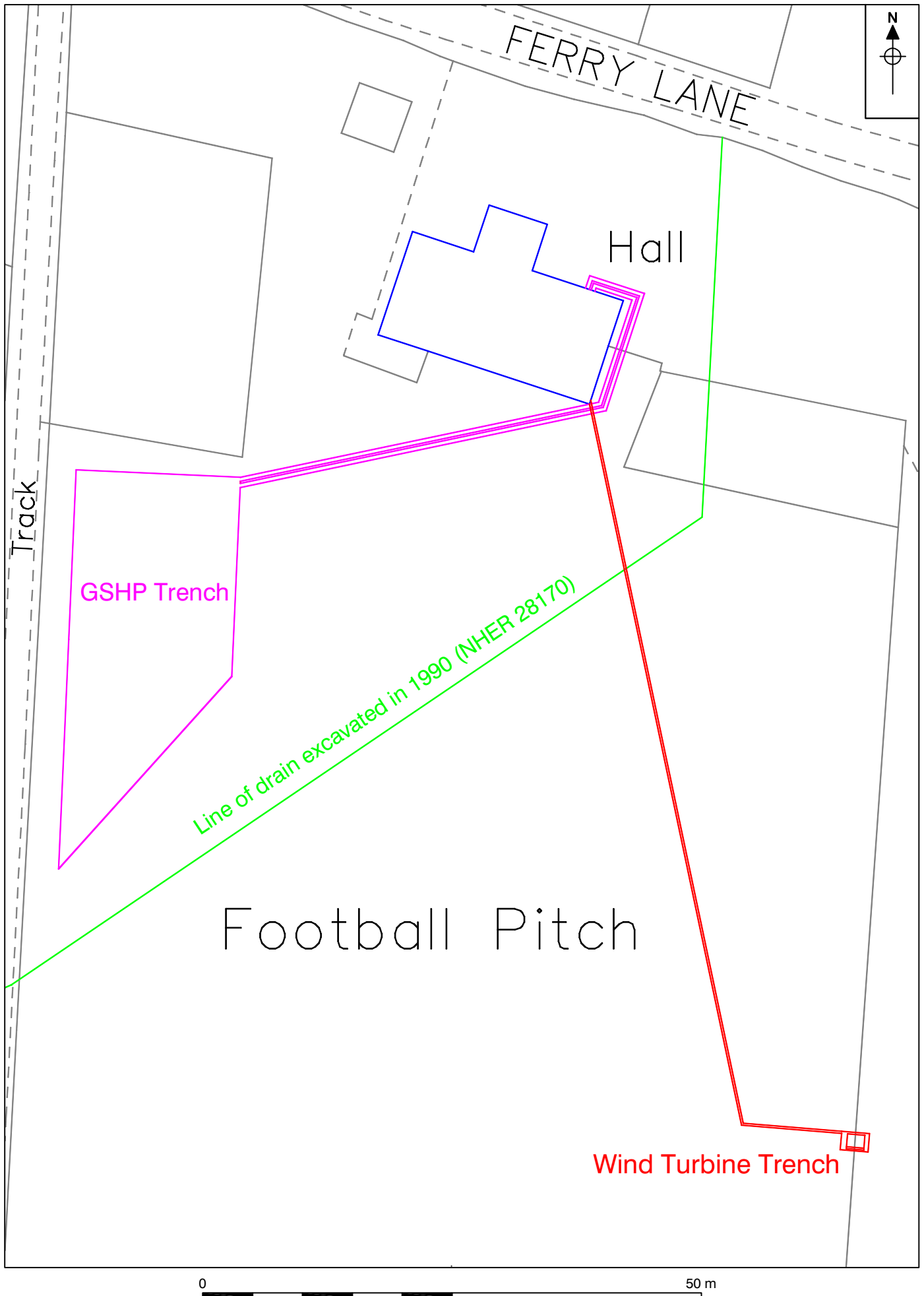


Figure 3. Groundworks plan. Scale 1:500

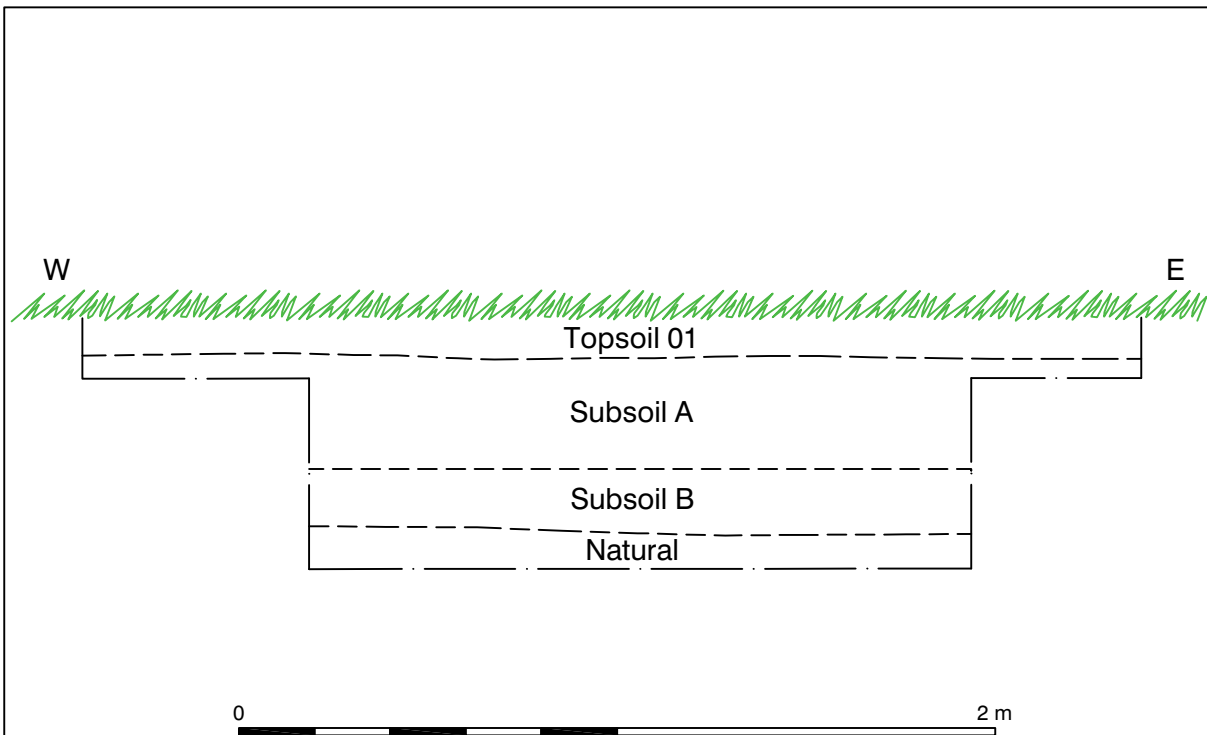


Figure 4. Example Section from Wind Turbine Trench. Scale 1:20

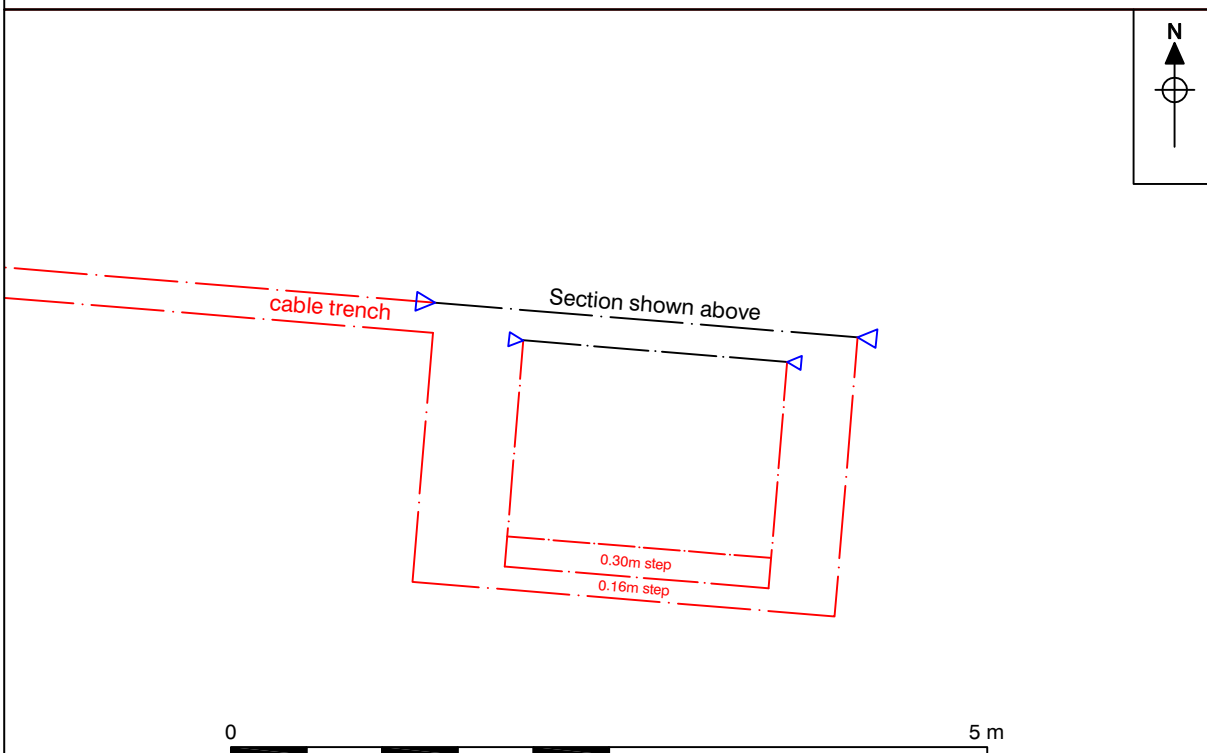


Figure 5. Wind Turbine Trench Plan. Scale 1:50