

PHASE 2 OF LAND AT CHYVOUNDER FARM

GOONHAVERN

PERRANZABULOE

CORNWALL

Results of a Heritage Assessment



South West Archaeology Ltd. report no. 230130



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Phase 2 of Land at Chyvounder Farm, Goonhavern, Perranzabuloe, Cornwall

Results of a Heritage Assessment

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Work undertaken by SWARCH for CAD Architects (the Agent)
on behalf of Legacy Properties (the Client)

SUMMARY

This report presents the results of a heritage impact assessment carried out by South West Archaeology Ltd. (SWARCH) for a proposed residential development on land at Chyvounder Farm, Goonhavern, Perranzabuloe, Cornwall. This work was carried out on behalf of CAD Architects (the Agent) and Legacy Properties (the Client) in advance of a planning application.

The site is located at Chyvounder Farm at the northern edge of Goonhavern, north of the A3075 in the parish of Perranzabuloe. Settlement at Goonhavern is first recorded in 1300, though the village itself is largely post-medieval and associated with significant mining activity, for which historic mapping indicates a prospection pit in the north-eastern corner of the site. The site is set within a wider prehistoric landscape containing numerous Bronze Age barrows and Iron Age to Romano-British settlement sites. In 1841 the proposal site was part of the estates of Tywarnhayle and were owned by Elizabeth Demble and occupied by Joseph Pollard; the surrounding lands largely under the ownerships of John Thomas and Henry Peter.

The proposal site occupies two fields and an area of woodland on gently sloping ground within a historic fieldscape characterised as Post-medieval Enclosed Land: land enclosed in the 17th, 18th and 19th centuries. Archaeological fieldwork in the area has been relatively limited, mostly in the form of walkover and geophysical surveys largely identifying historic field-boundaries, drainage features and possible trackways. Much of the rest of the archaeological evidence in the area is derived from cropmark evidence.

In terms of designated heritage assets, there are three Listed structures (all Grade II); and two Scheduled Monuments (prehistoric barrows) within 1km of the site. Whilst additional associated prehistoric barrow Scheduled Monuments are situated within 2.5km in the wider landscape, local blocking, the topography and existing modern development were considered to insulate them from any visual effect.

As a result only the Scheduled barrows north-west of the proposal site (minor adverse); and Grade II Listed school and former Methodist chapel (both neutral to negligible adverse) were deemed to suffer any adverse effect. The aggregate effect was deemed to be minimal (negligible adverse), though the cumulative effective with the nearby small-scale developments, and effect on the historic landscape were assessed as minor adverse.

*With this in mind, the overall impact of the proposed development can be assessed as **negligible adverse**. The geophysical survey would indicate that the archaeological potential for the site is **low**, and the impact of the development would be **minor adverse** overall.*



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CONTENTS

<i>SUMMARY</i>	2
<i>CONTENTS</i>	3
<i>LIST OF TABLES</i>	3
<i>LIST OF FIGURES</i>	4
<i>LIST OF APPENDICES</i>	4
<i>ACKNOWLEDGEMENTS</i>	4
<i>PROJECT CREDITS</i>	4
1.0 INTRODUCTION	5
1.1 PROJECT BACKGROUND	5
1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND	5
1.3 HISTORICAL & ARCHAEOLOGICAL BACKGROUND	5
1.4 METHODOLOGY	6
2.0 HERITAGE IMPACT ASSESSMENT	8
2.1 HERITAGE IMPACT ASSESSMENT - OVERVIEW	8
2.2 NATIONAL POLICY	8
2.3 LOCAL POLICY	8
2.4 STRUCTURE OF ASSESSMENT – DIRECT AND INDIRECT IMPACTS	9
2.5 DEVELOPMENT PROPOSALS	9
3.0 DIRECT IMPACTS	10
3.1 STRUCTURE OF ASSESSMENT	10
3.2 DOCUMENTARY HISTORY	10
3.3 CARTOGRAPHIC DEVELOPMENT	11
3.4 LIDAR AND AERIAL PHOTOGRAPHS	14
3.5 ARCHAEOLOGICAL BACKGROUND	17
3.6 GEOPHYSICAL SURVEY	20
3.7 ARCHAEOLOGICAL POTENTIAL AND IMPACT SUMMARY	21
4.0 INDIRECT IMPACTS	25
4.1 STRUCTURE OF THE ASSESSMENT	25
4.2 IMPACT BY CLASS OF MONUMENT OR STRUCTURE	26
5.0 CONCLUSION	32
6.0 BIBLIOGRAPHY & REFERENCES	33

LIST OF TABLES

TABLE 1: EXTRACT FROM THE 1841 PERRANZABULOE TITHE APPORTIONMENT.	12
TABLE 2: TABLE OF NEARBY HERITAGE ASSETS.	18
TABLE 3: SURVEY DETAILS (UNADJUSTED).	20
TABLE 4: INTERPRETATION OF GRADIOMETER SURVEY DATA.	21
TABLE 5: SUMMARY OF DIRECT IMPACTS.	22
TABLE 6: SUMMARY OF IMPACTS, INCLUDING THE CATEGORY #2 ASSETS SCOPED OUT OF THE MAIN ASSESSMENT.	31

LIST OF FIGURES

COVER PLATE: VIEW ACROSS THE PROPOSAL SITE; VIEWED FROM THE SOUTH-WEST.

FIGURE 1: SITE LOCATION.	6
FIGURE 2: PROPOSED SITE LAYOUT PLAN.	9
FIGURE 3: EXTRACT FROM THE 1810 ST COLUMB MAJOR ORDNANCE SURVEY (OS) SURVEYOR'S DRAFT MAP.	11
FIGURE 4: EXTRACT FROM THE 1841 PERRANZABULOE TITHE MAP.	12
FIGURE 5: EXTRACT FROM THE OS 1 ST EDITION 25" MAP SURVEYED IN 1878 AND PUBLISHED IN 1880.	13
FIGURE 6: EXTRACT FROM THE 2 ND EDITION 25" OS MAP REVISED IN 1906 AND PUBLISHED 1907.	14
FIGURE 7: IMAGE DERIVED FROM 1M DSM LIDAR DATA; LIDAR DATA PRESENTED AS HILLSHADE.	15
FIGURE 8: IMAGE DERIVED FROM 1M DSM LIDAR DATA SHOWING RELICT FEATURES; LIDAR DATA PRESENTED AS HILLSHADE.	16
FIGURE 9: AERIAL PHOTO OF THE SITE FROM 2022.	17
FIGURE 12: NON-DESIGNATED HERITAGE ASSETS WITHIN 1KM OF THE SITE.	18
FIGURE 11: GREYSCALE SHADE PLOT OF THE GRADIOMETER SURVEY DATA; MINIMAL PROCESSING.	23
FIGURE 12: INTERPRETATION OF THE GRADIOMETER SURVEY DATA.	24

LIST OF APPENDICES

APPENDIX 1: IMPACT ASSESSMENT METHODOLOGY	34
APPENDIX 2: METADATA FOR GEOPHYSICAL SURVEY PROCESSING	51
APPENDIX 3: ADDITIONAL IMAGES OF THE GEOPHYSICAL SURVEY	53
APPENDIX 4: SUPPORTING PHOTOGRAPHS - WALKOVER SURVEY	57

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1.0 INTRODUCTION

LOCATION:	CHYVOUNDER FARM, GOONHAVERN
PARISH:	PERRANZABULOE
COUNTY:	CORNWALL
CENTROID NGR:	SW 78915 54005
PLANNING NO.	PRE-PLANNING
SWARCH REF.	CHC22
OASIS REF.	SOUTHWES1-515551

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by CAD Architects (the Agent) on behalf of Legacy Properties (the Client) to undertake a heritage assessment for Phase 2 of a proposed residential development on land at Chyvounder Farm, Goonhavern, Perranzabuloe, Cornwall prior to a planning application. This work was undertaken in accordance with best practice and ClfA guidance. Previous episodes of archaeological investigation associated with the Phase 1 development identified evidence of ditch or drainage features (Boyd *et al* 2018).

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The village of Goonhavern is located c.3.25km east of Perranporth and c.3.8km south-east of the Atlantic coastline, between junctions of the B3285 and A3075. The site comprises two agricultural (pastoral) fields (F3-F4) and an area of woodland (F3), all gently sloping down to the south-east at a height of between c.55m and c.70m AOD.

The soils of this area are the well-drained, fine loamy soils over slate or slate rubble of the Denbigh 2 Association (SSEW 1983); overlying the sedimentary mudstone and siltstone of the Trendrean Mudstone Formation, with superficial deposits of clay, silt, sand and gravel recorded within the wooded valley at the eastern edge of the site (BGS 2023).

1.3 HISTORICAL & ARCHAEOLOGICAL BACKGROUND

Goonhavern lies within the parish of Perranzabuloe, or *Perran-in-the-Sands*, in the hundred and deanery of Pyder. The name is derived from the Cornish for 'downs of summer-ploughed land' (Watts 2004) and was first recorded in 1300 as *Goenhavar*. In 1841 the proposal site was part of the estates of Tywarnhayle and were owned by Elizabeth Demble and occupied by Joseph Pollard; the surrounding lands largely under the ownerships of John Thomas and Henry Peter.

The land here is characterised as *post-medieval enclosed land*, enclosed in the 17th, 18th and 19th centuries, usually from upland rough ground and medieval commons on the Cornwall and Scilly Historic Landscape Characterisation (HLC). The site lies in a landscape of archaeological potential, the Cornwall and Scilly Historic Environment Record (HER) listing a Bronze Age barrow cemetery (MCO32551) c.400m to the north-west; cropmarks of medieval or later field-boundaries (MCO32552) within the fields immediately to the north of the proposal site; and five post-medieval mines within 1km of the site (see Section 3.4). Two Grade II Listed buildings are situated within Goonhavern itself; a post-medieval non-conformist chape (MCO32306) lies directly across the road from Chyvounder Farm; and a school (MCO51341) is located c.110m to the west of the farm. A possible Iron Age 'round' (MCO117) is located to the north-west, and St Piran's Oratory lies c.3.2km to the west-north-west.

A number of archaeological investigations have been carried out in the area, with episodes of assessment and geophysical survey associated with phases of residential development and growth

of the village, including as part of Phase 1 of the current proposals (Boys *et al* 2018). The fields of the current proposal area have not been subject to previous archaeological works.



FIGURE 1: SITE LOCATION. CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2023.

1.4 METHODOLOGY

The desk-based assessment follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (CifA 2020) and *Understanding Place: historic area assessments in a planning and development context* (Historic England 2017). Note that the Historic England aerial photograph database at Swindon could not be consulted due to the long turnaround times.

The historic visual impact assessment follows the guidance outlined in: *Conservation Principles: policies and guidance for the sustainable management of the historic environment* (English Heritage 2008), *The Setting of Heritage Assets* (Historic England 2017), *Seeing History in the View* (English Heritage 2011), *Managing Change in the Historic Environment: Setting* (Historic Scotland 2016), and with reference to *Visual Assessment of Wind Farms: Best practice* (University of Newcastle 2002) and *Guidelines for Landscape and Visual Impact Assessment 3rd edition* (Landscape Institute 2013). The local heritage assets were visited by P. Bonvoisin.

The geophysical (gradiometer) survey follows the guidance outlined in *Geophysical Survey in Archaeological Field Evaluation* (English Heritage 2008b); *Standard and Guidance for Archaeological Geophysical Survey* (ClfA 2014); *EAC Guidelines for the use of geophysics in Archaeology: Questions to Ask and Points to Consider* (Europae Archaeologiae Consilium/ European Archaeological Council 2016).

'Archaeological geophysical survey uses non-intrusive and non-destructive techniques to determine the presence or absence of anomalies likely to be caused by archaeological features, structures or deposits, as far as reasonably possible, within a specified area or site on land, in the inter-tidal zone or underwater. Geophysical survey determines the presence of anomalies of archaeological potential through measurement of one or more physical properties of the subsurface.' (Standard and Guidance for Archaeological Geophysical Survey 2014).

The results of the geophysical survey will, as far as is possible, inform on the presence or absence, character, extent and in some cases, apparent relative phasing, of buried archaeology, to inform a strategy to mitigate any threat to the archaeological resource. This fieldwork was undertaken by Peter Bonvoisin.

2.0 HERITAGE IMPACT ASSESSMENT

2.1 HERITAGE IMPACT ASSESSMENT - OVERVIEW

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonably practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area, monument or archaeological site (the ‘heritage asset’). Secondly, to assess the likely effect of a proposed development on the heritage asset (direct impact) and/or its setting (indirect impact). The methodology employed in this assessment is based on the approach outlined in the relevant National Highways guidance (DMRB LA 104 2020), used in conjunction with the ICOMOS (2011) guidance and the staged approach advocated in *The Setting of Heritage Assets* (GPA3 2nd Ed Historic England 2017). The methodology employed in this assessment can be found in Appendix 1.

2.2 NATIONAL POLICY

General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2021). The relevant guidance is reproduced below:

Paragraph 194

In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 195

Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset’s conservation and any aspect of the proposal.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

2.3 LOCAL POLICY

Policy 24: *Historic Environment* in *The Cornwall Local Plan: Strategic Policies 2010-2030* makes the following statement:

All development proposals should be informed by proportionate historic environment assessments and evaluations... identifying the significance of all heritage assets that would be affected by the

proposals and the nature and degree of any affects and demonstrating how, in order of preference, any harm will be avoided, minimised or mitigated.

Great weight will be given to the conservation of Cornwall’s heritage assets... Any harm to the significance of a designated or non-designated heritage asset must be justified... In those exceptional circumstances where harm to any heritage assets can be fully justified, and the development would result in the partial or total loss of the asset and/or its setting, the applicant will be required to secure a programme of recording and analysis of that asset, and archaeological excavation where relevant, and ensure the publication of that record to an appropriate standard in public archive.

2.4 STRUCTURE OF ASSESSMENT – DIRECT AND INDIRECT IMPACTS

This assessment is broken down into two main sections. Section 3.0 addresses the *direct impact* of the proposed development *i.e.* the physical effect the development may have on heritage assets within, or immediately adjacent to, the development site. Designated heritage assets on or close to a site are a known quantity, understood and addressed via the *design and access statement* and other planning documents. Robust assessment, however, also requires a clear understanding of the value and significance of the *archaeological* potential of a site. This is achieved via the staged process of archaeological investigation detailed in Section 3.0. Section 4.0 assesses the likely effect of the proposed development on known and quantified designated heritage assets in the local area. In this instance the impact is almost always indirect *i.e.* the proposed development impinges on the *setting* of the heritage asset in question and does not have a direct physical effect.

2.5 DEVELOPMENT PROPOSALS

The proposed development comprises residential housing within two agricultural fields and one area of woodland to the north-east of Chyvounder Farm, Goonhavern. The proposed design covers an area c.2.5ha.

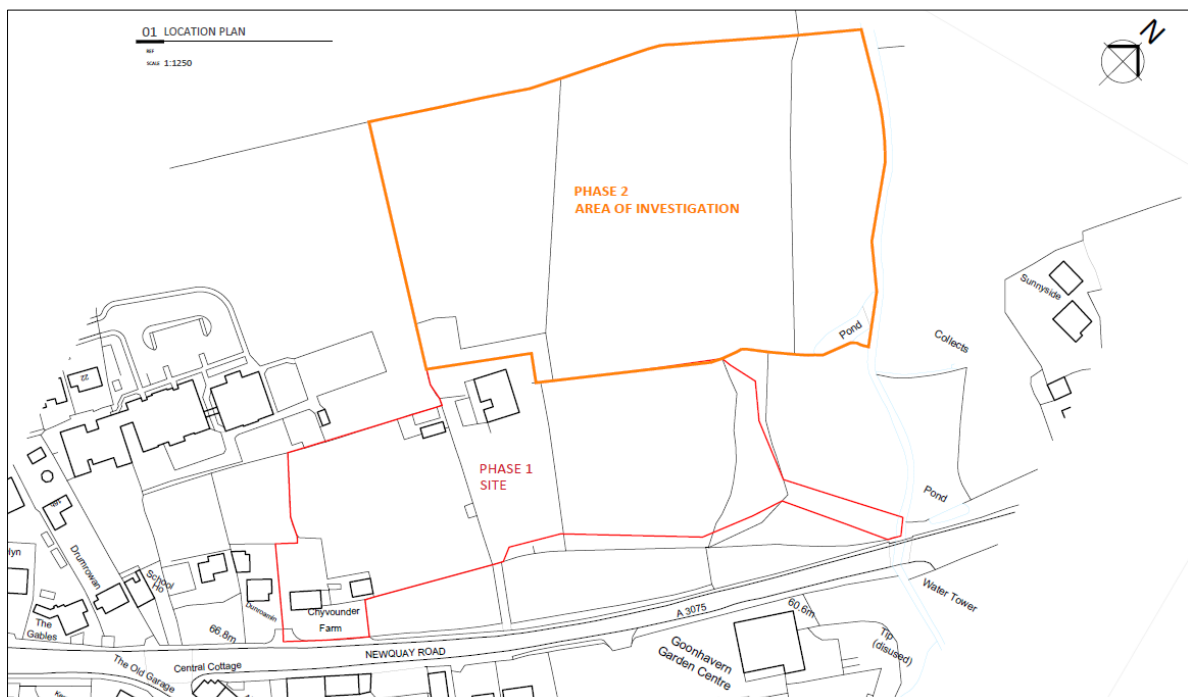


FIGURE 2: PROPOSED SITE LAYOUT PLAN; (IMAGE SUPPLIED BY THE CLIENT); THE OUTLINE OF THE PHASE 2 PROPOSAL AREA IS INDICATED IN ORANGE.

3.0 DIRECT IMPACTS

3.1 STRUCTURE OF ASSESSMENT

For the purposes of this assessment, the *direct effect* of a development is taken to be its direct physical effect on the buried archaeological resource. In most instances the effect will be limited to the site itself. However, unlike designated heritage assets (see Section 4.0) the archaeological potential of a site, and the significance of that archaeology, must be quantified by means of a staged programme of archaeological investigation. Sections 3.2-3.5 examine the documentary, cartographic and archaeological background to the site; Section 3.6 details the walkover survey undertaken. Section 3.7 details the geophysical survey undertaken, and Section 3.8 summarises this information in order to determine the significance of the archaeology, the potential for harm, and outlines mitigation strategies as appropriate. Appendix 1 details the methodology employed to make this judgement.

3.2 DOCUMENTARY HISTORY

The site lies on the north-eastern edge of the village of Goonhavern, off the A3075 within the parish of Perranzabuloe (formerly *Lanpiran*) in the hundred and deanery of Pyder. The name means 'St Piran in the sands' and is used to distinguish it from other parishes associated with St Piran and refers to an oratory built by the saint which was continually buried by sands (Lysons 1814). Goonhavern was first recorded in c.1300 as *Goenhavar*, from the Cornish *goon* and *havar* meaning 'downs of the summer ploughed land' which refers to an area of rough grazing with an area of summer-ploughed land in or near it (Watts 2004). The village itself is a 19th century mining settlement.

Perranzabuloe, or St Piran in the Sands, was the principal manor of the Parish and at the time of the Domesday survey in 1086 was held by the church, the Canons of St Piran and assessed at three hides with land for eight ploughs (Williams & Martin 2002). The manor passed through the Kendall and Vincent families, although some interests were owned by the Marquis of Buckingham and others by the church, including farmland and tin mines (Lysons 1814). The parish of Perranzabuloe was the supposed burial place of St Piran, Patron saint of Cornwall and tin miners who founded an oratory church in the 7th century on the coast north of Perranporth. The church was subsumed by the sands, which gives the parish its name, from the medieval Latin *Perranus in Sabuloe*, for 'Piran in the sand' (*ibid*; Watts 2004). In the late 18th to early 19th century the church of St Piran was moved to the village of Lambourn, now called Perranzabuloe, near the centre of the parish, and it was consecrated in 1805 (Lysons 1814).

Callestick, Halwyn and Tywarnhale within the same parish were all Anglo-Saxon manors and were listed in the Domesday survey as held by Robert, the Count of Mortain (Williams & Martin 2002). The site is situated within the estate of Tywarnhale (from the Cornish for 'house on the salt river/estuary'; Watts 2004), the closest and largest manor, on the 1841 tithe apportionment. The Cornwall and Scilly HER describes Tywarnhale as c.4km to the west, near the current town of Perranporth; though the 1841 tithe map locates it c.800m south-west of the site. The manor was granted in 1337 to Edward the Black Prince, who gave it to Sir Walter de Woodland. It was later annexed to the duchy of Cornwall, until 1798 when it was purchased by John Thomas, esq. of Chiverton, apart from a number of mines and wrecks of the sea which were reserved to the duchy (Lysons 1814). Tywarnhaile Barton was occupied as a farm in the 19th century.

The tithe survey data indicates that in 1841 the proposal site was owned by Elizabeth Demble as part of the estates of Tywarnhayle, and on the edge of Tywarnhayle Common, the surrounding lands largely under the ownerships of John Thomas and Henry Peter.

3.3 CARTOGRAPHIC DEVELOPMENT

There are a number of useful early maps available to this study, including the 1810 Ordnance Survey (OS) surveyor's draft map of the area (Figure 3). Detail on these early maps is limited, and even the OS draft maps, which do show settlements and roads with some accuracy, have only sketched in the fields here.

The 1810 OS surveyor's draft map for St Columb Major is the first map to show some (any) detail for the area. The topography, indicated by the hachures, of the region can be seen and Goonhavern is identified as a single property at a crossroads in a landscape of large open fields with some post-medieval enclosure. The proposal site is shown across two relatively large open fields; the watercourse at its eastern boundary depicted as being fairly wide and may indicate a defined parcel of land or alternative land use.



FIGURE 3: EXTRACT FROM THE 1810 ST COLUMB MAJOR ORDNANCE SURVEY (OS) SURVEYOR'S DRAFT MAP (BL); THE APPROXIMATE LOCATION OF THE SITE IS INDICATED.

The first detailed cartographic source available to this study is the tithe map for the parish of Perranzabuloe (c.1841) (Figure 4). This depicts a landscape of broadly rectilinear fields, often with gently curving long boundaries and arranged in recognisable blocks defined by two long boundaries and subdivided into smaller parcels. This general fieldscape is not much different to that depicted on the later maps. As with the preceding map, only limited settlement is indicated.

The surrounding fields are largely recorded within the accompanying apportionments as being under arable agriculture and pasture, with gardens and orchards surrounding settlements (see Table 1). The proposal site incorporates two plots of land: *Croft* (plot no. 405) and *Slip* (plot no. 407), all listed as part of Tywarnhayle. The estate is divided between multiple owners, those of the site owned by Elizabeth Demble and tenanted by Joseph Pollard. Many of the surrounding fields, however, are owned by John Thomas and Henry Peter with blocks of land leased out. In general most of the field-names are prosaic and straight-forward (e.g. *Goonhavern Field*, *Middle Close*, *Croft Close*) describing location, size, topography, or use of the plot. Certain names are repeated and probable indicate an area of land later sub-divided. These fields were post-medieval, probably 19th century enclosures within a landscape of common land exempt from tithes, specifically that of *Tywarnhayle Common* (plot no. 3110), which surrounds the site. Mining industry in the area and near to the site can be seen by the presence of *Wheal Hope* to the north of the site, and it is possible that the narrow enclosure along the eastern boundary of the site depicted on the preceding map may be accounted for by mining prospection or canalisation for industrial works; although it may

have reflected a less hospitable piece of land such as a steep and/or wooded bank. Goonhavern itself appears to have grown to approximately four properties, one of which lies just to the south of the site. A track or road to the south of the site is indicated by poorly defined as part of the common land, though a road is shown on the earlier map.

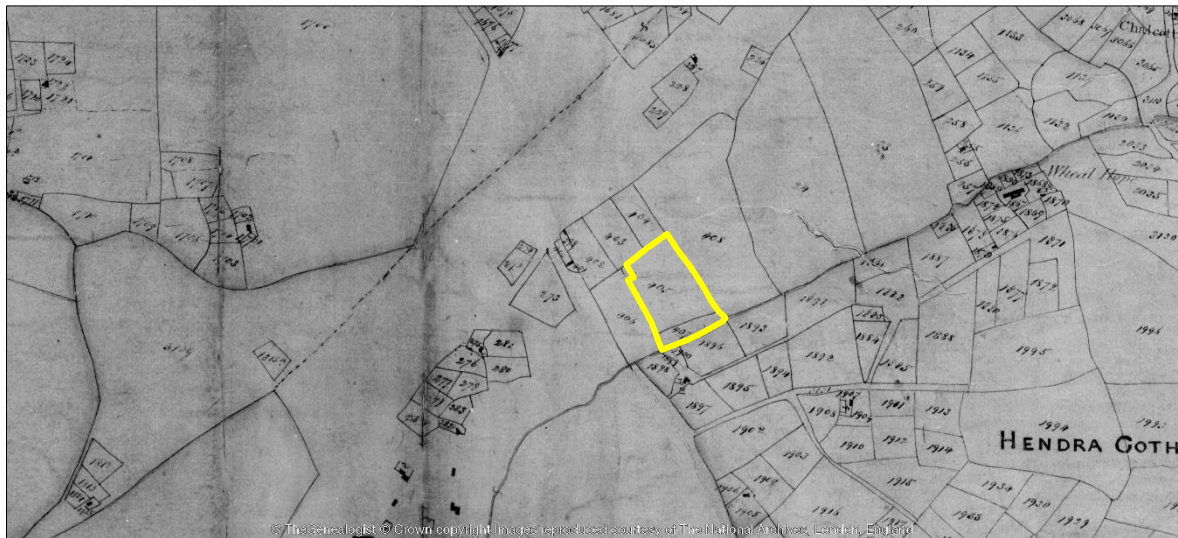


FIGURE 4: EXTRACT FROM THE 1841 PERRANZABULOE TITHE MAP (TNA); THE APPROXIMATE OUTLINE OF THE SITE IS INDICATED.

TABLE 1: EXTRACT FROM THE 1841 PERRANZABULOE TITHE APPORTIONMENT; THE SITE IS HIGHLIGHTED IN GREEN (TNA).

Plot No.	Owner	Occupier	Field Name	Field Use
Tywarnhayle				
24	Stephen Davey, Richard Davey & John Blewett	John Blewett	Little Croft	Pasture
273	Stephen & Richard Davey	Thomas Watts	Close	Arable
399	Elizabeth Demble	Joseph Pollard	Cottage & Courtlage	Homestead
400			Garden	Garden
401			Orchard	Orchard
402			Goonhavern Field	Arable
403			Middle Close	Arable
404			Croft Close	Arable
405			Croft	Arable & Pasture
406			Great Field	Arable
407			Slip	Arable
408		Croft	Pasture	
Pencrennow				
1861	John Thomas Henry Peter	William Pascoe	Cottage & Meadow	-
Hendra Croft				
1882	John Thomas Henry Peter	Himself	Croft	Pasture
1891		John Trenergy	Croft	Pasture
1893			Field	Arable
1896			Close	Arable
1898			Meadow	Arable
1899			Garden	Garden
1900			Garden	Garden
Commons, Roads & Wastes				
3110			Tywarnhayle Common	

The later historic OS maps (Figures 5 & 6) show a landscape very similar in overall form and layout. However, significant change had occurred by 1880: Goonhavern has grown into a small settlement including a school, chapel and inn all identified; the areas of common land had been sub-divided into individual fields, continuing the pattern of small 19th century enclosures that were depicted on the 1841 tithe map. Despite this, the area of the proposal site has gone the opposite way, the two plots becoming a single field; alongside other boundary loss and alteration and the demolition of a structure to the south-west. A pit is depicted in the north-eastern corner of plot no. 407, one of a large number of similar features shown in the wider landscape and almost certainly associated with mining prospection. It is likely that this feature was associated with the lead mine of *Wheal Albert*

(out of use by 1880) to the east-south-east, within lands that were formerly part of the Tywarnhayle estate. Mining at *Wheal Albert* is also likely to have influenced the modifications to the watercourse that defines the eastern boundary of the site.

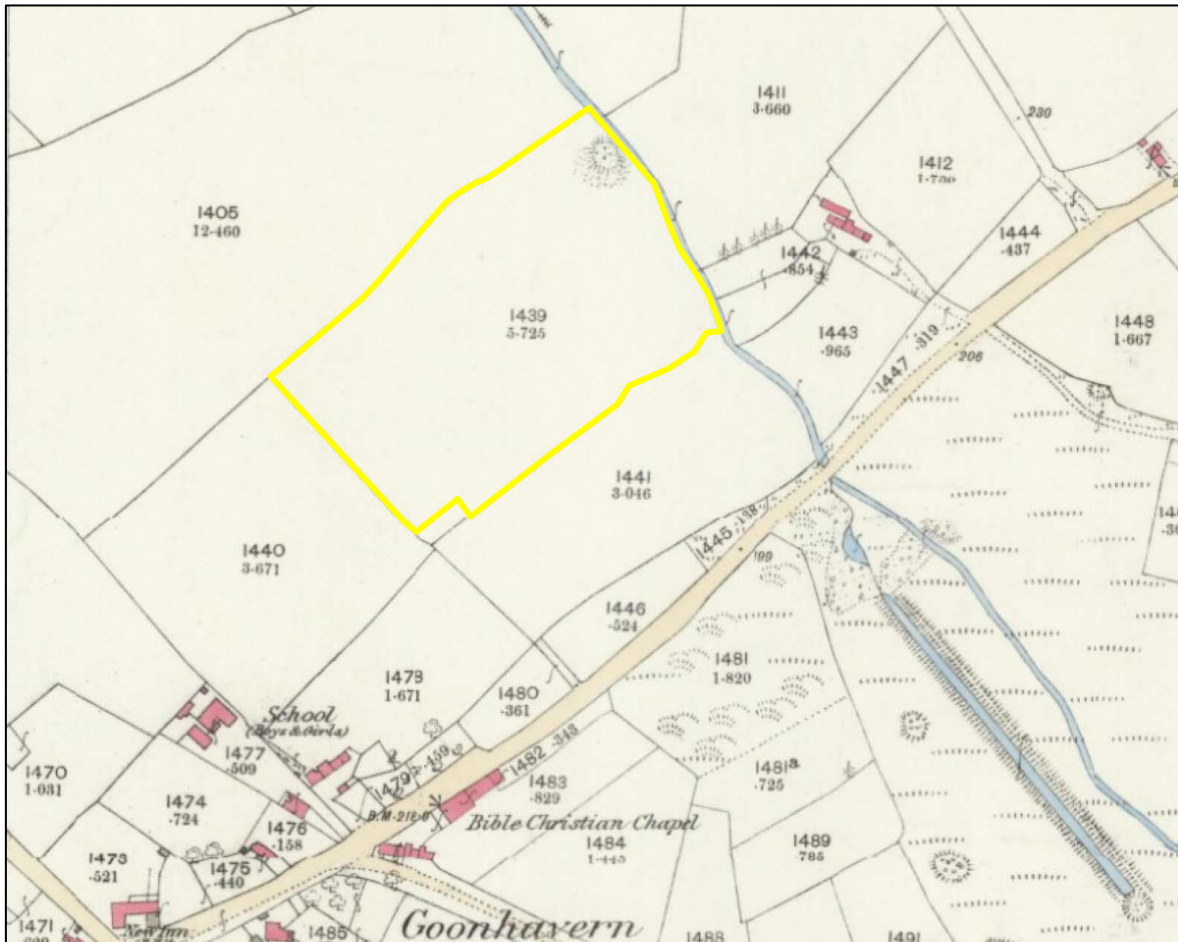


FIGURE 5: EXTRACT FROM THE OS 1ST EDITION 25" MAP SURVEYED IN 1878 AND PUBLISHED IN 1880 (NLS). THE APPROXIMATE OUTLINE OF THE SITE IS INDICATED.

The OS 2nd edition map, published 1907 (Figure 6) shows general continuity across the site and the landscape. The only notable change in the landscape is the construction of the Truro to Newquay branch line of the Great Western Railway to the south of the site. It was opened in c.1905 and became redundant and was dismantled from Goonhavern by 1973, probably as part of the Dr. Beeching cuts of the 1960s. Along with minor boundary alteration and loss, OS mapping from 1963 to 1973 indicates a major expansion of Goonhavern along its main roads and intersections. Some buildings are shown to the south-west of the site and the eastern boundary, along the watercourse, is shown as wooded; whilst further boundary alteration and removal has occurred; and a building has been constructed to the immediate south-west of the site.

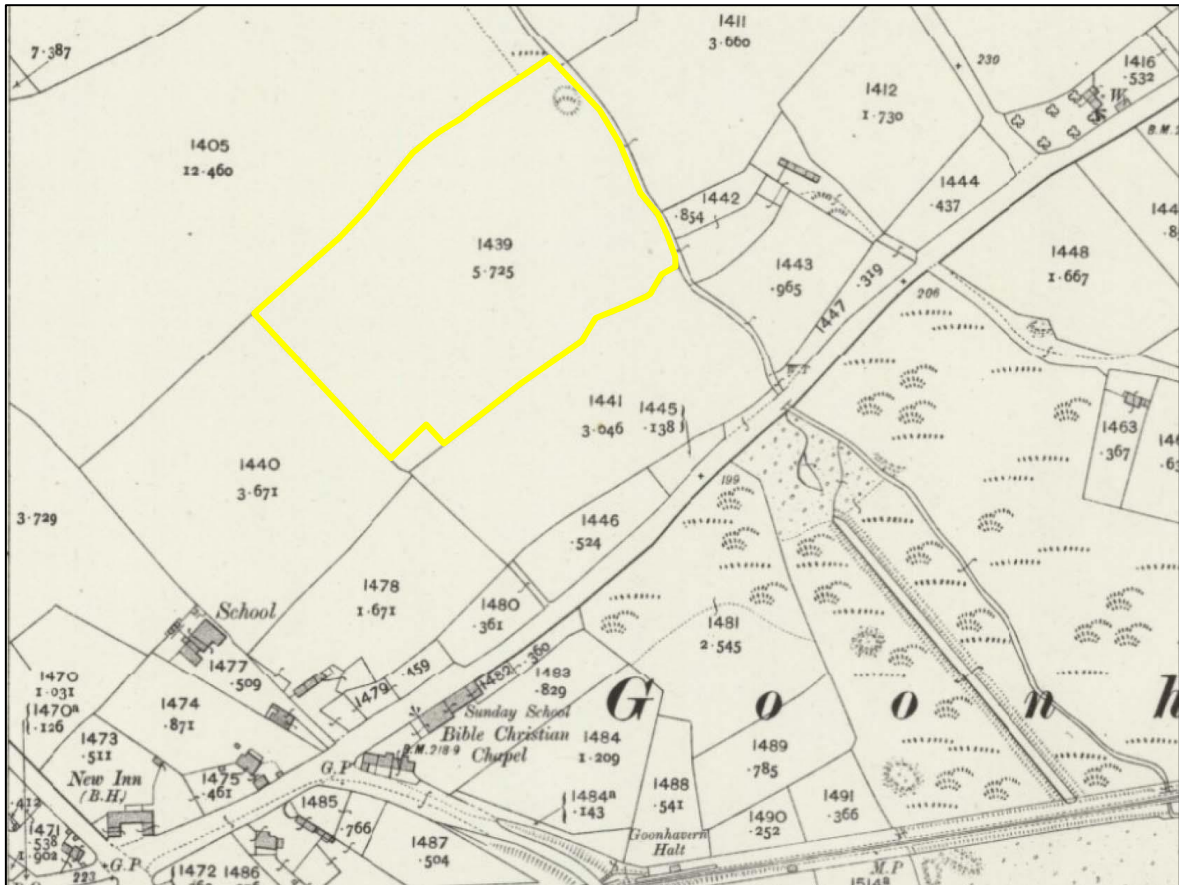


FIGURE 6: EXTRACT FROM THE 2ND EDITION 25" OS MAP REVISED IN 1906 AND PUBLISHED 1907 (NLS); THE APPROXIMATE OUTLINE OF THE SITE IS INDICATED.

3.4 LIDAR AND AERIAL PHOTOGRAPHS

LiDAR data is available at a survey interval of 1m for the site and surrounding area. While a 25cm interval is preferable for the identification of archaeological features, especially within woodland, a 1m resolution can be used, particularly for identifying larger archaeological features. The LiDAR data is a 2020 data set. LiDAR Digital Terrain Model (DTM) (Figure 7) data has been processed and examined. The data clearly depicts the 'round' to the immediate north-east of the proposal site as well as several other features which appear to indicate an associated field-system. Some of these features extend into the proposal site; whilst historic boundaries associated with the 19th century enclosure of the land can also be seen.

Figures 7 and 8 show the topography of the landscape, the site situated towards the summit of moderately steep river valley running approximately north-west to south-east. LiDAR imagery is very useful for identifying earthworks, even in the fields that have been subject to ploughing. Many of the surrounding fields are shown marked by numerous parallel lines reflecting phases of historic and more recent agricultural practices. Field boundaries and other features lost prior to the 19th century are indistinctly visible and whilst most are broadly congruent with the existing field-system and do not appear to predate it, others appear slightly offset. Three barrows can be seen in the north-western corner of the field to the north of the proposal site. Many of these features can be seen extending into the proposal area.

No historic aerial photographs are available for the study area, although commercially available aerial images of the site (Figure 9) demonstrate the limited growth of Goonhavern in the last 50 years.



FIGURE 7: IMAGE DERIVED FROM 1M DSM LIDAR DATA; LIDAR DATA PRESENTED AS HILLSHADE (DATA USED UNDER THE OPEN GOVERNMENT LICENCE 3.0). THE APPROXIMATE OUTLINE OF THE SITE IS INDICATED.

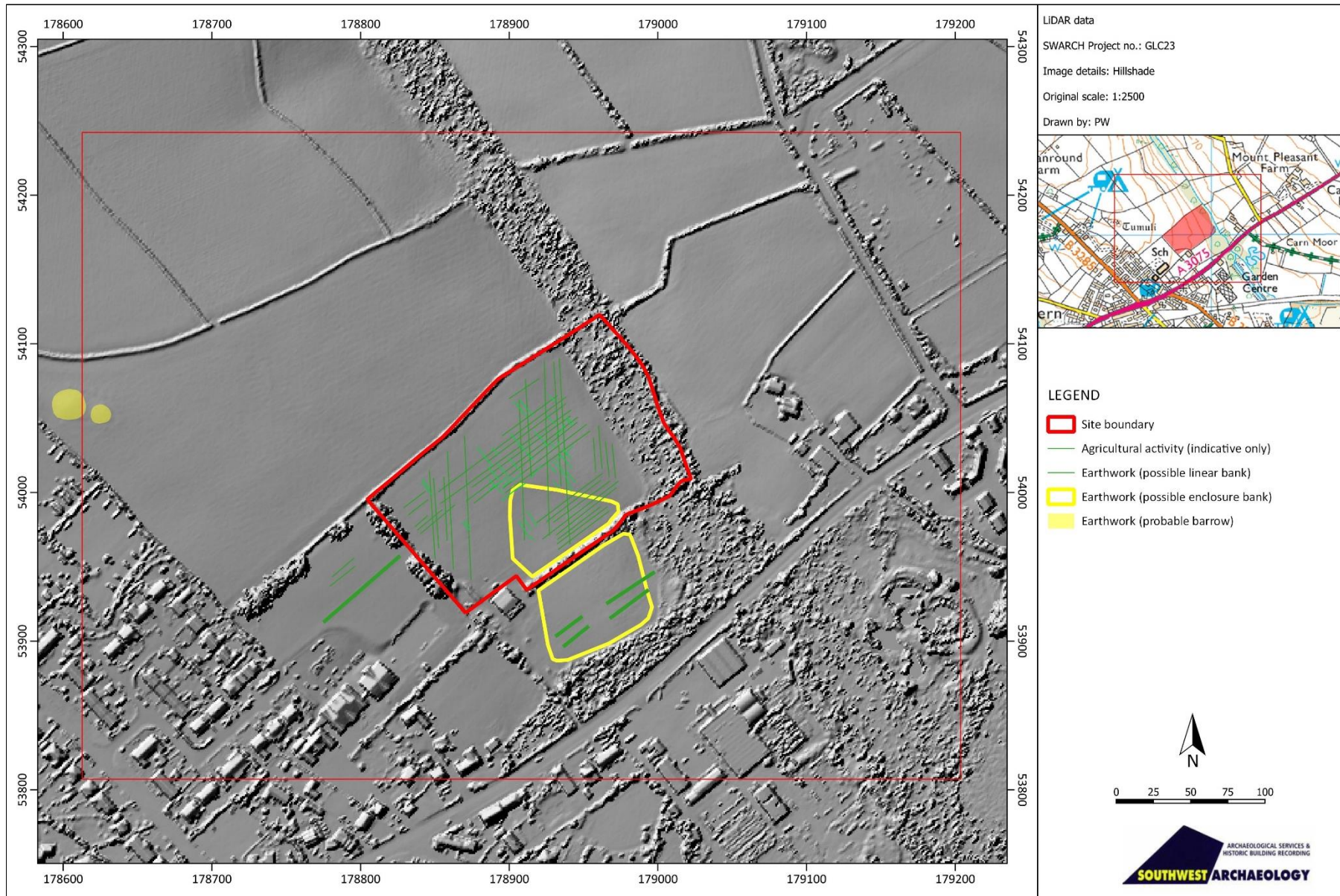


FIGURE 8: IMAGE DERIVED FROM 1M DSM LIDAR DATA SHOWING RELICT FEATURES; LIDAR DATA PRESENTED AS HILLSHADE (DATA USED UNDER THE OPEN GOVERNMENT LICENCE 3.0). THE SITE IS INDICATED.

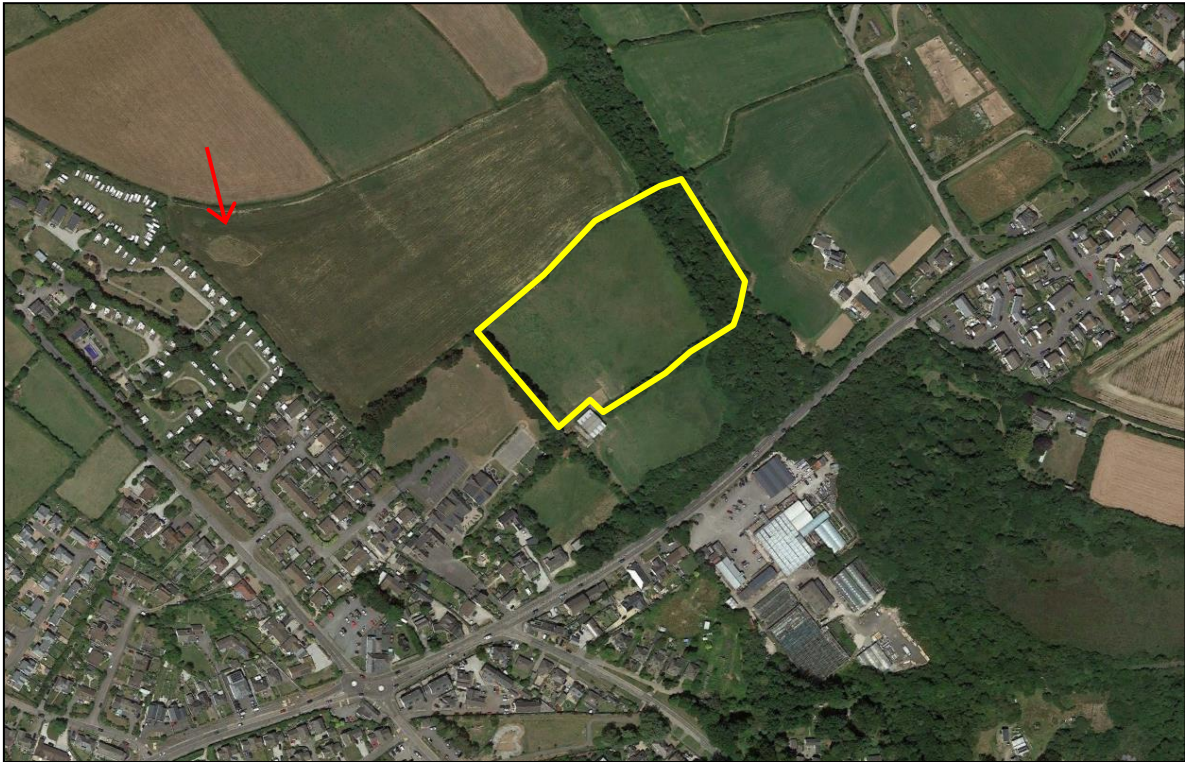


FIGURE 9: AERIAL PHOTO OF THE SITE FROM 2022; ©2023 INFOTERRA LTD & BLUESKY. THE APPROXIMATE OUTLINE OF THE SITE (YELLOW) AND EARTHWORKS INDICATING THE POSITION OF THE BARROWS (RED) ARE INDICATED.

3.5 ARCHAEOLOGICAL BACKGROUND

The site has not been subject to previous archaeological works. The locality has seen limited archaeological fieldwork, mostly in the form of walkover and geophysical surveys, including: the fields to the immediate south as part of the Phase 1 proposals (Boyd *et al* 2018); at Martyns Close (ECO4404), Pollards Close (ECO4346) and Chywel Manor (ECO5063). The geophysical surveys at Pollards Close, and to the south of the site identified features including: a possible track, field-boundaries, drainage features and probable disturbed ground. The Cornwall and Scilly HER lists a series of undesignated assets in the local area, mostly arising from cropmark evidence or documentary and place-name references to medieval and post-medieval sites (see Table 2 and Figure 10).

The land here is determined by the Cornwall Historic Landscape Characterisation (HLC) as *Post-medieval Enclosed Land*: land enclosed in the 17th, 18th and 19th centuries, usually from land that was previously upland rough ground and medieval commons; generally in relatively high, exposed or poorly-drained parts of the county.

3.5.1 PREHISTORIC 4000BC - AD43

The evidence for Prehistoric activity is scattered throughout the landscape in this area. The majority of the records within 1km of the site relate to barrows, both upstanding and identified as cropmarks. St. Pirran's Round lies just outside of the survey area to the north-west.

3.5.2 ROMANO-BRITISH AD43 – AD409

The evidence for Romano-British activity is sparse, and totally absent from the 1km search area, the nearby St. Pirran's round, the only potential nearby site with activity in this period.

3.5.3 EARLY MEDIEVAL AD410 – AD1065

The archaeology of the early medieval period is unrepresented, though the basic framework of the tenurial and ecclesiastical landscape was established during this period. Several of the settlements

in the area are likely to have early medieval origins

3.5.4 MEDIEVAL AD1066 – AD1540

There are two medieval sites recorded within 1km of the proposed site (MCO32552 & MCO32553). Both have been identified as cropmarks and are believed to relate to the banks and ditches of medieval field systems.

3.5.5 POST-MEDIEVAL AND MODERN AD1540 - PRESENT

Population and settlement expanded during the post-medieval period in parallel with the industrialisation of the Cornish landscape (Wheal Hope MCO12797, Tywarnhayle MCO12738, Wheal Albert MCO12806, North Chiverton MCO12312 and Wheal Anna [Account House at DCO4201; GII Listed]). The economy, then as now, was dominated by agriculture, and the most common undesignated heritage assets in this landscape remain the historic hedgerows. The chapel and school were constructed in this period, along with a smithy (MCO9068). More modern assets include a Second World War Radio Station (MCO54458) and railway station (MCO53895).

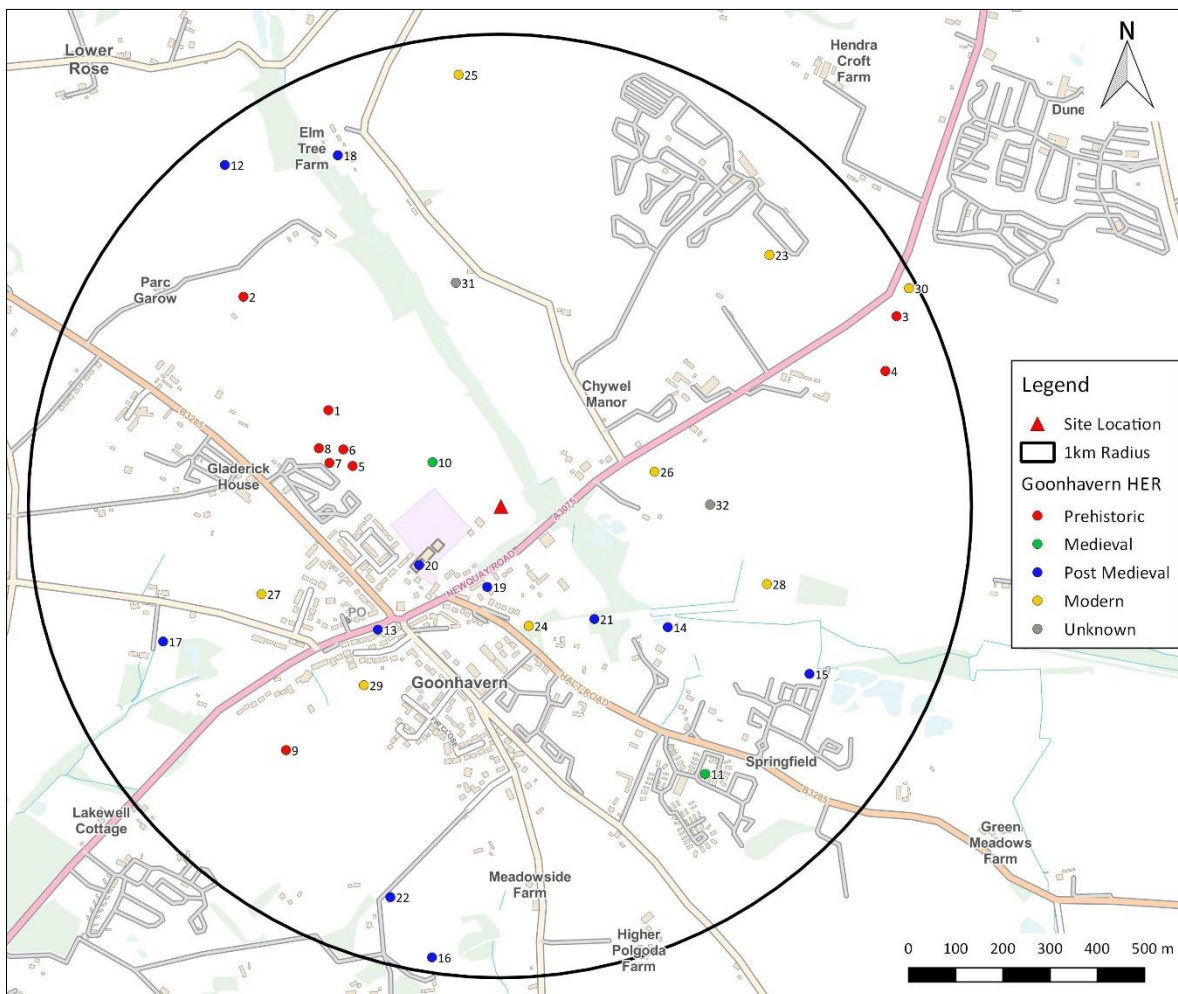


FIGURE 10: NON-DESIGNATED HERITAGE ASSETS WITHIN 1KM OF THE SITE (SOURCE: CORNWALL & SCILLY HISTORIC ENVIRONMENT RECORD). CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2022.

TABLE 2: TABLE OF NEARBY HERITAGE ASSETS (SOURCE: CORNWALL & SCILLY HER).

No.	HER No	Name	Description	Period	Designated Asset
1	MCO32551	ROSEHILL FARM - Bronze Age barrow cemetery	A group of four possible barrows, visible as faint cropmarks on vertical aerial photographs	Prehistoric	
2	MCO3308	PERRAN ROUND - Bronze Age barrow	The site of a barrow recorded by Thomas in 1851.	Prehistoric	

PHASE 2 OF LAND AT CHYVOUNDER FARM, GOONHAVERN, PERRANZABULOE, CORNWALL

3	MCO2371	CARNEBO - Bronze Age barrow	One of two barrows recorded by Thomas, now visible as cropmarks on aerial photographs.	Prehistoric	
4	MCO2372	CARNEBO - Bronze Age barrow	One of two barrows recorded by Thomas, now cropmarks on aerial photographs.	Prehistoric	
5	MCO2644	GOONHAVERN - Bronze Age barrow	One of a group of four barrows in a line on a ridge to the north of Goonhavern.	Prehistoric	SAM
6	MCO2643	GOONHAVERN - Bronze Age barrow	One of a group of four barrows in a line on a ridge to the north of Goonhavern.	Prehistoric	SAM
7	MCO2642	GOONHAVERN - Bronze Age barrow	One of a group of four barrows in a line on a ridge to the north of Goonhavern.	Prehistoric	SAM
8	MCO2641	GOONHAVERN - Bronze Age barrow	One of a group of four barrows in a line on a ridge to the north of Goonhavern.	Prehistoric	SAM
9	MCO2645	GOONHAVERN - Bronze Age barrow	A barrow recorded by Thomas in 1850; now visible as a low mound.	Prehistoric	SAM
10	MCO32552	Medieval field boundary, Post Medieval field boundary	Linear banks and ditches, probably medieval or later field boundaries, are visible as cropmarks on vertical aerial photographs in field to the north of Goonhavern.	Medieval	
11	MCO32553	GOONHAVERN - Medieval trackway, Post Medieval trackway, Undated trackway	A linear ditch is visible a cropmark, running diagonally across three modern fields to the south east of Goonhavern.	Medieval	
12	MCO12797	WEST WHEAL HOPE - Post Medieval mine	Hamilton Jenkin shows the location of West Wheal Hope at this position	Post Medieval	
13	MCO9068	GOONHAVERN - Post Medieval blacksmiths	A smithy at Goonhavern crossroads is shown on the OS map of 1878. Building is still marked on the OS map of 1976.	Post Medieval	
14	MCO12738	TYWARNHAYLE - Post Medieval mine	Tywarnhaile Mine is shown at this location on Brenton's map of 1869 and is mentioned by Collins.	Post Medieval	
15	MCO12806	WHEAL ALBERT - Post Medieval mine	Wheal Albert previously worked as Goonhavern mine; working in 1840.	Post Medieval	
16	MCO12312	NORTH CHIVERTON - Post Medieval mine	North Chiverton mine was once part of Wheal Anna and resumed work between 1863 and 1868.	Post Medieval	
17	MCO32550	GOONHAVERN - Post Medieval shaft	A single mine shaft with associated spoil is visible on vertical aerial photographs (p1) to the west of Goonhavern.	Post Medieval	
18	MCO12989	WHEAL HOPE - Post Medieval mine	Wheal Hope was included in South Wheal Budnick. Spargo records work commencing in 1861 (b1) but Hamilton Jenkin says working in 1835.	Post Medieval	
19	MCO32306	GOONHAVERN - Post Medieval nonconformist chapel	Late C19 Bible Christian chapel with attached Sunday school that is probably the earlier chapel, also an attached traphouse.	Post Medieval	II
20	MCO51341	GOONHAVERN - Post Medieval school	Board School, built 1876 (datestone). Gothic style details. Single storey. Plan: E-shaped plan plus porches between the wings.	Post Medieval	II
21	MCO55865	CHACEWATER & NEWQUAY BRANCH - Post Medieval railway	The GWR branch line from Blackwater Junction to Newquay, opened in 1905	Post Medieval	
22	DCO4201	WHEAL ANNA HOUSE	Former count (account) house for Wheal Anna (mine) now a private house.	Post Medieval	II
23	MCO54458	GOONHAVERN - Modern radio station	World War Two radio station	Modern	
24	MCO53895	GOONHAVERN - Modern railway station	The site of Goonhavern Halt.	Modern	
25	ECO4038	Land at Hendra Farm, Treamble Rose, Truro, Cornwall	Survey Assessment	Modern	Event
26	ECO5063	Goonhavern, Cornwall	Geophysical Survey	Modern	Event
27	ECO4404	Land West of Martyns Close	Interpretation, Assessment; Walkover Survey	Modern	Event
28	ECO857	CWT Reserves - Report	Interpretation, Assessment	Modern	Event
29	ECO4346	Land off Pollard's Close, Goonhavern, Cornwall	Geophysical Survey	Modern	Event
30	ECO4372	Land at Monkey Tree Campsite	Interpretation, Assessment; Walkover Survey	Modern	Event

31	MCO20960	GOONHAVERN - Undated field system	-	Unknown	
32	MCO32595	CARNEBO FARM - Undated enclosure	Perpendicular linear ditches are visible as cropmarks on vertical aerial photographs.	Unknown	

3.6 GEOPHYSICAL SURVEY

3.6.1 INTRODUCTION

An area of c.2.2ha was the subject of a magnetometry (gradiometer) survey. The purpose of the survey was to identify and record magnetic anomalies within the proposed site. Identified anomalies may relate to archaeological deposits and structures but the dimensions of the recorded anomalies may not correspond directly with associated features. The following discussion attempts to clarify and characterise the identified anomalies. The survey was undertaken and the data processed by P. Bonvoisin; the report written by P. Webb.

3.6.1 SITE INSPECTION

The site comprises two fields (F1 and F2) divided by electric fencing to create horse paddocks; and an area of woodland (F3). The fields are bounded primarily by hedgerbanks; a mature tree-line along the south-western boundary where it borders the local school; and metallic agricultural fencing along the north-eastern boundary with the woodland of F3. A stable and area of hardstanding are located to the south-west of the Phase 2 survey area.

3.6.2 METHODOLOGY

The gradiometer survey follows the general guidance as outlined in: *EAC Guidelines for the use of geophysics in Archaeology: Questions to Ask and Points to Consider* (Europae Archaeologiae Consilium/European Archaeological Council 2016) and *Standard and Guidance for Archaeological Geophysical Survey* (CifA 2014).

The survey was carried out using a twin-sensor fluxgate gradiometer (Bartington Grad601). These machines are sensitive to depths of up to 1.50m. The survey parameters were: sample intervals of 0.25m, traverse intervals of 1m, a zigzag traverse pattern, traverse orientation was circumstantial, grid squares of 30x30m. The gradiometer was adjusted ('zeroed') every 0.5-1ha. The survey grid was tied into the Ordnance Survey National Grid and set out using a Leica CS15 GNSS Rover GPS. The data was downloaded onto *Grad601 Version 3.16* and processed using *TerraSurveyor Version 3.0.36.0*. The primary data plots and analytical tools used in this analysis were *Shade* and *Metadata*. The details of the data processing are as follows:

Processes:

Clip +/- 1SD; removes extreme data point values.

DeStripe all traverses, median; used to equalise underlying differences between grids (potentially caused by instrument drift or orientation, or directional effects inherent in magnetic instruments).

DeStagger selected grids, all traverses out- and inbound by 0.25m reduces staggering effects within data derived from zig-zag collection method.

TABLE 3: SURVEY DETAILS (UNADJUSTED).

Field	Area Surveyed (ha)	Max (nT)	Min (nT)	Standard Deviation (nT)	Mean (nT)	Median (nT)
F3	0.3733	94.85	-103.44	4.74	-0.14	0.00
F4	1.1402	101.77	-102.90	4.23	0.13	0.00

3.6.3 RESULTS

Table 4 with the accompanying Figures 11-12 show the analyses and interpretation of the geophysical survey data. Detailed survey data can be found in appendix 2; and additional graphic

images of the survey data and numbered grid locations can be found in Appendix 3.

TABLE 4: INTERPRETATION OF GRADIOMETER SURVEY DATA.

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
F1				
1	Moderate positive, probable	Linear	Ditch	Indicative of a cut and infilled feature such as a ditch. Orientated approximately north to south. Responses of between +2.63nT and +16.53nT.
2	Moderate positive & negative, probable	Linear	Double ditch & bank	Indicative of cut and infilled features such as ditches flanking central banked/compacted material typical of traditional Cornish hedgebank construction. Orientated approximately north-east to south-west. Responses of between -10.22nT and +17.42nT.
3	Moderate to strong positive & negative, probable	Linear	Double ditch & bank	Indicative of cut and infilled features such as ditches flanking central banked/compacted material typical of traditional Cornish hedgebank construction. Orientated approximately north-north-west to south-south-east. Responses of between -17.32nT and +22.60nT.
4	Weak positive, possible	Linear	Ditch	Indicative of cut and infilled features such as ditches. Orientated approximately east to west. Responses of between +1.58nT and +8.89nT.
5	Moderate positive & negative, possible	Linear	Ditch & bank or geological feature	Indicative of a cut and infilled feature such as a ditch with associated banked/compacted material. However, width and nature of responses may indicate a natural/geological origin. Orientated approximately east to west. Responses of between -11.39nT and +13.80nT.
	Very weak positive & negative, possible	Linear	Agricultural activity	Linear striations covering the fields with regularity. Weak positive and negative responses Indicative of shallow ploughing. Aligned approximately north-east to south-west and north-west to south-east. Responses of between +/-5nT.
	Strong bipolar (mixed response)	Irregular	Modern disturbance	Indicative of disturbed ground and disturbance caused by proximity to metallic fences and debris. Responses of between -103.44nT and +101.77.
	Strong dipolar (mixed response)	Discrete	Ferrous anomaly	Indicative of metallic objects, Responses of between -102.71nT and +90.39nT.

3.6.1 DISCUSSION

The survey identified five groups of anomalies across the field. These were predominantly linear ditch and/or bank features associated with phases of the existing and historic field-system, and agricultural practices. Anomalies associated with metallic debris were also apparent.

The general response variation across the site was between +/-3nT with occasional clear background geological variation up to +/-5nT. The response strength of probable archaeological activity was typically fairly moderate (between +/-20nT). The weaker responses of some of the anomalies may indicate that these are only likely to survive to a shallow depth.

The anomaly groups identified include: ditch and bank boundaries associated with the current or earlier field-systems removed prior to the mid-19th century (Groups 1-4); and further possible ditch and/or bank features, though which may be geological in origin (Group 5). Agricultural (ploughing) activity, metallic disturbance and metallic objects were also identified.

3.7 ARCHAEOLOGICAL POTENTIAL AND IMPACT SUMMARY

Whilst none of the identified features can at this stage be dated, the position and alignment of some of the anomaly groups is congruent with boundaries of the existing field-system (Groups 2-3) and it is likely that these represent earlier phases of the current field-layout removed by the mid-19th century. The ditch and/or bank features of the other anomaly groups (Groups 1, 4 and 5) however, are offset to the boundaries of the existing field-system, and it is possible they have an earlier origin, the proximity of prehistoric features in the landscape suggesting possible origins

during this period; though some of those with weaker responses, particularly those of Group 5, may have a geological origin.

The degree of preservation of the identified features appears to be poor to moderate. Many of the anomaly responses are moderate; others intermittent and barely discernible from the background geology. This suggests that whilst some features may survive to a good depth, others only survive to a shallow depth, their intermittent nature suggesting only partial survival. However, it is possible that additional, even more ephemeral features, are masked by the background geology and the amount of metallic debris scattered across the site.

The results of the geophysical survey would suggest that the archaeological potential for the site is *moderate*. Whilst several of the identified features relate to historic phases of the current field-system, and which are tentatively suggested as being medieval to post-medieval in date, others along offset alignments may be earlier, perhaps prehistoric, in date.

Any development of the site is likely to encounter and destroy the buried archaeological resource (should it be present), although given the results of the geophysical survey the archaeological potential on this site appears low, and it is not envisaged that any further mitigation will be required.

TABLE 5: SUMMARY OF DIRECT IMPACTS.

Asset	Type	Distance	Value	Magnitude of Impact	Assessment	Overall Assessment
Direct Impacts						
Unidentified archaeological features	Non-designated	On site	Unknown (Low)	Moderate/large	(potential) Low	(potential) Minor Adverse

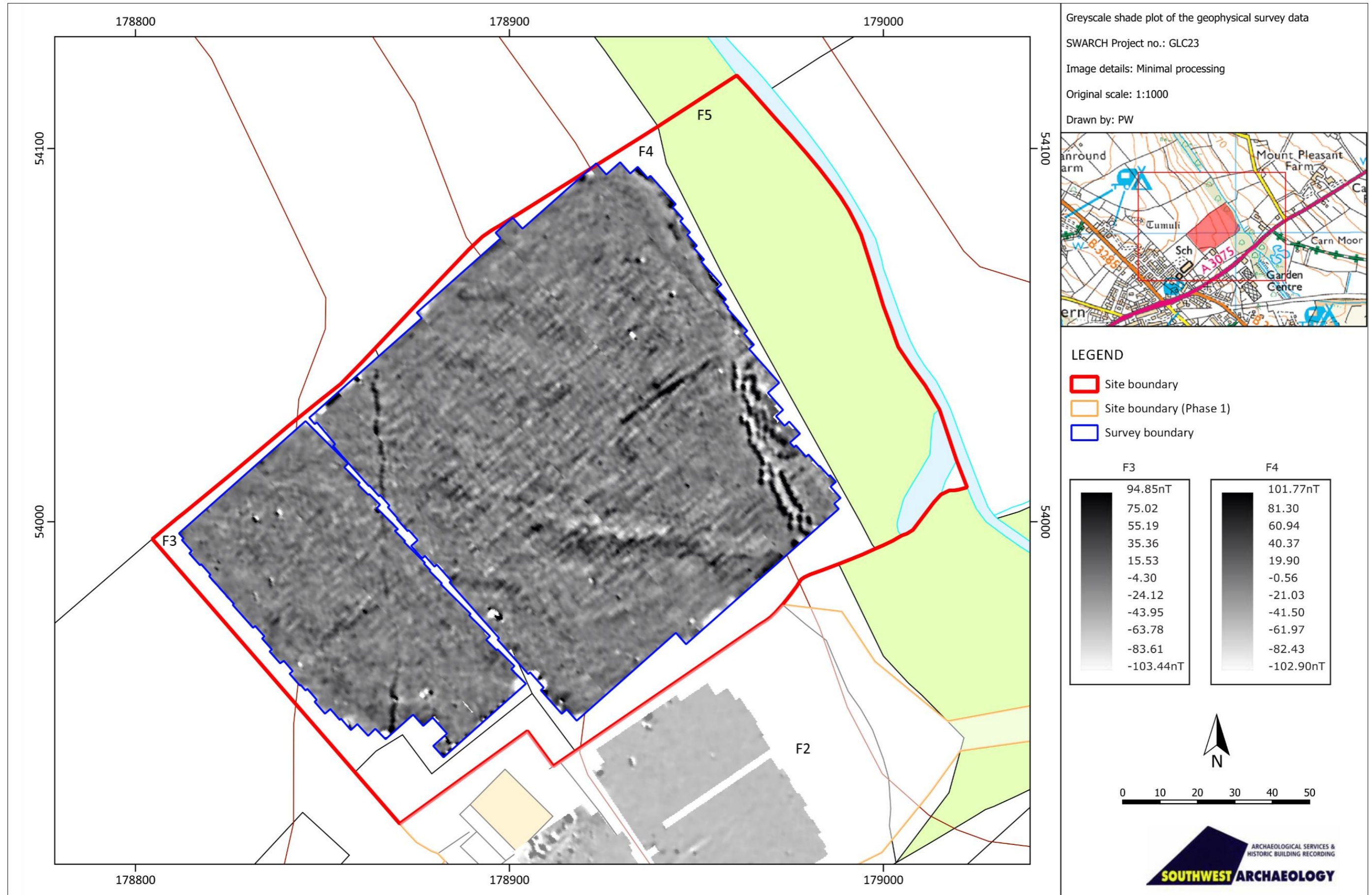


FIGURE 11: GREYSCALE SHADE PLOT OF THE GRADIOMETER SURVEY DATA; MINIMAL PROCESSING.

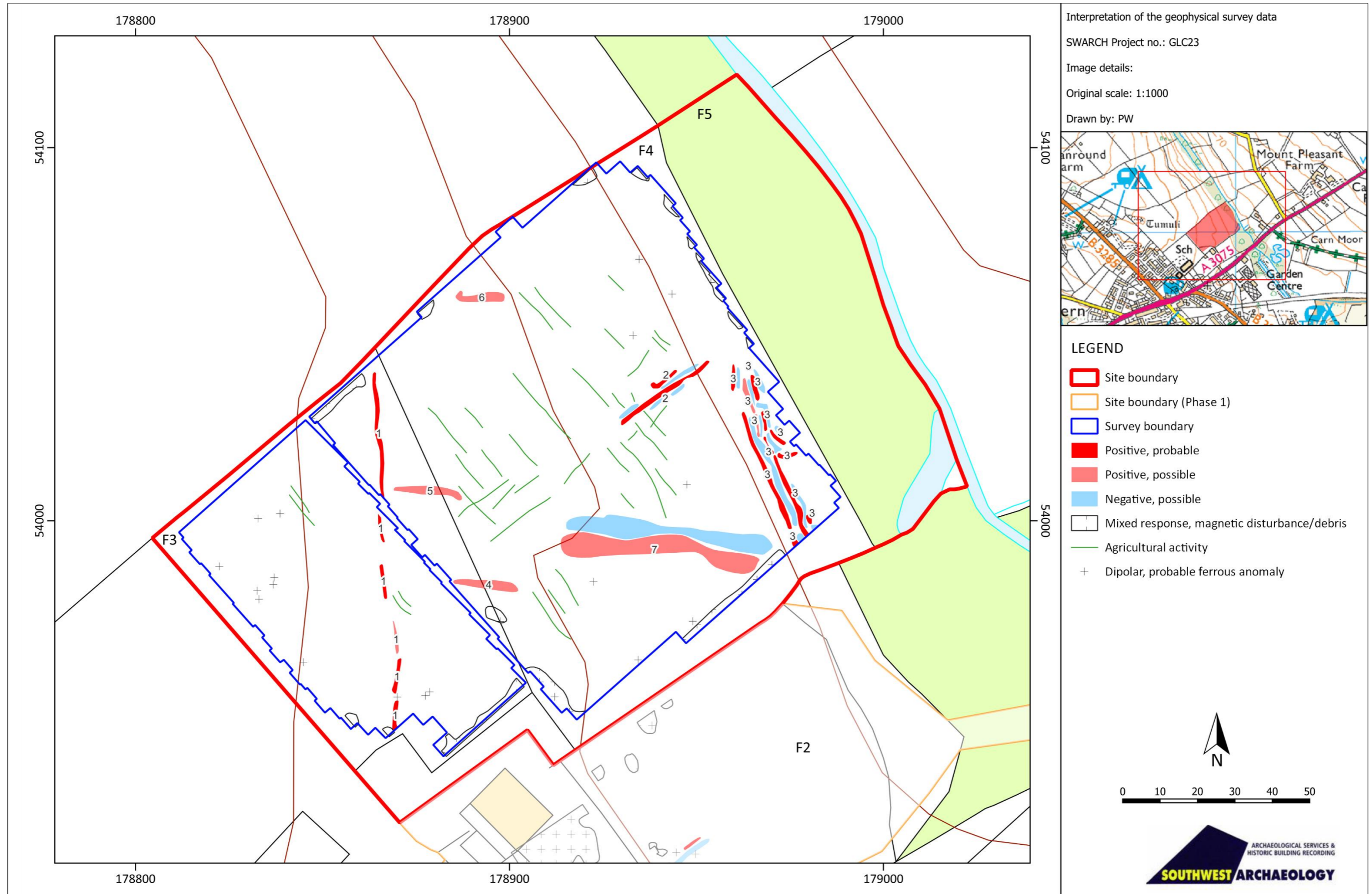


FIGURE 12: INTERPRETATION OF THE GRADIOMETER SURVEY DATA.

4.0 INDIRECT IMPACTS

4.1 STRUCTURE OF THE ASSESSMENT

For the purposes of this assessment, the *indirect effect* of a development is taken to be its effect on the wider historic environment. The principal focus of such an assessment falls upon identified designated heritage assets like Listed buildings or Scheduled Monuments. Depending on the nature of the heritage asset concerned, and the size, character and design of a development, its effect – and principally its visual effect – can impact on designated assets up to 20km away.

The methodology adopted in this document is based on that outlined in *The Setting of Heritage Assets* (GPA3 2nd edition, Historic England 2017), with reference to ICOMOS (2011) and National Highways (DMRB LA 104, 2020) guidance. Two assessments are provided. The first is arrived at by the objective application of DRMB Table 3.8.1 (i.e. environmental value and degree of change determines the significance of effect). The second applies a negligible/minor/moderate/major scale (derived from DRMB Table 3.4N, and which can be correlated with the NPPF substantial/less than substantial scale) based on the professional judgement of the author. The latter assessment is a more subjective one, but, as the term implies, applies the knowledge, skills, and experience of the author in a way that is informed by professional standards, laws, and ethical principles to provide a considered, fair, and impartial assessment as to the likely impact of the proposed development. Appendix 4 goes into greater depth regarding the methodology employed.

This report follows the staged approach to proportionate decision making outlined in *The Setting of Heritage Assets* (Historic England 2017, 6). *Step one* is to identify the designated heritage assets that might be affected by the development. The first stage of that process is to determine an appropriate search radius, and this would vary according to the height, size and/or prominence of the proposed development. For instance, the search radius for a wind turbine, as determined by its height and dynamic character, would be much larger than for a single house plot or small agricultural building. The second stage in the process is to look at the heritage assets within the search radius and assign to one of three categories:

- Category #1 assets: Where proximity to the proposed development, the significance of the heritage asset concerned, or the likely magnitude of impact, demands detailed consideration.
- Category #2 assets: Assets where location, current setting, significance would strongly indicate the impact would be no higher than negligible and detailed consideration both unnecessary and disproportionate. These assets are still listed in the impact summary table.

For *Step two* and *Step three*, and with an emphasis on practicality and proportionality (*Setting of Heritage Assets* p15 and p18), this assessment then groups and initially discusses heritage assets by category (e.g. churches, historic settlements, funerary remains etc.) to avoid repetitious narrative; each site is then discussed individually, and the particulars of each site teased out. The initial discussion establishes the baseline sensitivity of a given category of monument or building to the potential effect, the individual entry elaborates on local circumstance and site-specific factors. The individual assessments should be read in conjunction with the overall discussion, as the impact assessment is a reflection of both.

A 1km radius has been considered suitable for the assessment of any likely impacts upon heritage assets as a result of the proposed development. There are three Listed structures (all Grade II); and two Scheduled Monuments (SM) within 1km of the site. There are no Battlefields, Conservation Areas or Registered Parks and Gardens within 1km of the site.

The assets selected for assessment are: the Bowl Barrows east of Rosehill Farm Scheduled Monument; and the Goonhavern County Primary School and Methodist Chapel Grade II Listed buildings. Based on their perceived value and proximity, these have all been treated as *Category #1* assets.

With an emphasis on practicality and proportionality (see *Setting of Heritage Assets* p15 and p18), only those assets where there is the possibility for an effect greater than negligible (see Table 5 in Appendix 1) are considered here in detail and in summary Table 6. All other Scheduled and Listed assets can be seen listed and mapped in Figure 12, although they have been scoped out of this assessment due to their neutral relationship to the proposed development.

- Category #1 assets: Bowl Barrows east of Rosehill Farm (SM); Goonhavern County Primary School; Goonhavern Methodist Chapel.
- Category #2 assets: All other assets within 1km of the site as listed in Table 6.

4.2 IMPACT BY CLASS OF MONUMENT OR STRUCTURE

4.2.1 INSTITUTIONAL BUILDINGS

Range of structures, usually exhibiting elements of formal planning, often with a view to aesthetics.

A wide range structures relating to formal governance or care, built and/or maintained by local, county or national authorities. This category covers structures built for a specific purpose and includes: work/poor houses, hospitals, asylums, schools, council offices or other facilities. Some of these buildings are 18th century in date, but most are 19th century or later. The earlier structures that fall into this category – principally almshouses – may have been privately built and supported. These structures betray a high degree of formal planning, within which aesthetics, setting and long views could play an important part. The sensitivity of these structures to the visual intrusion of a wind turbine depends on type, age and location.

What is important and why

Some of these structures are good examples of institutional architecture, and may retain period fittings (evidential). They are likely to conform to a particular architectural template, and may be associated with an architect of note; they may or may not retain their original function, which will have a bearing on associational value (historical/associational). There is usually a clear aesthetic/design value, with form following function but ameliorated by design philosophy. The exteriors are more likely to retain authentic period features, as the interiors will have been subject to repeated adaptation and redevelopment. There may be some regard to the layout of associated gardens and the position of buildings within a historical settlement (aesthetic/design). The level of communal value will depend on continuity of function – older structures redeveloped as residential flats will lose the original social value.

Asset Name: Goonhavern County Primary School	
Parish: Perranzabuloe	
Designation: Grade II	Value: Medium
Distance to the site: <50m	Condition: Good
<p><i>Description: Listing:</i> Board school. Datestone 1876. Killas brought to course, granite dressings. Tall brick lateral stacks. Plan: E-shaped plan plus porches between the wings. Original plan has large central schoolroom (for the top class) with folding screen on its right (so that it could be linked to room on its right) an entrance hall and cloakroom left of the schoolroom, and at the left and right forward projecting cross wings each containing two rooms with folding screen between the 2 rooms on the left plus a short central wing projecting at the front containing a small room (now the staff room). Until the 1950s there was a gallery in the front right-hand room. The plan is unchanged except that the folding screens have been replaced with fixed partitions and there is a small C20 extension in front of the left-hand wing. Gothic style details. Exterior: Single storey. Unaltered elevations except where front wing (left) is partly obscured by C20 addition. Original doors and windows. Symmetrical 1:1:1:1-bay front with projecting cross wings with gable ends at left and right, smaller gable end of central projecting wing and small gable-ended entrance porches between the wings. Pointed arched opening with hoodmould to each gable end: doorway to each porch and large 3-light traceried reticulated wooden window</p>	

to each of the other gable ends. Ledged doors have shouldered heads with blind tympana over. Interior: Some original doors and dado panelling; original Gothic style roof structures obscured by C20 acoustic ceilings.
<i>Supplemental comments:</i> The school appears to have since been extended to the north and west, a small block added along the southern elevation and the whole building incorporated within a new, larger school to the north and east.
<i>Conservation value:</i> The school was listed in 1988 for its architectural value.
<i>Authenticity and Integrity:</i> The exterior appears to have been almost entirely masked by extensions along the northern and western elevations. It is assumed that the southern and eastern elevations are still original, but the school could not be accessed to confirm this. It is unknown how much of the interior has been changed.
<i>Topographical Location & Landscape Context:</i> The school is located on slightly sloping ground on the slopes of a shallow river valley on which the wider village also sits.
<i>Setting:</i> The school is enclosed by modern houses and estates on all but the north-eastern side, where it is abutted by the modern school, car park and playing fields beyond. The school can be glimpsed in gaps between the houses along the main road, but the building has been swallowed by the expansion of the village and the school.
<i>Principal Views:</i> Very restricted – views to the south and west are of modern housing, and whilst those to the north and east are towards agricultural/open land, views from the building beyond the playing fields are largely blocked by tree-lines.
<i>Landscape Presence:</i> The school is not visible above the level of the surrounding buildings and the grounds are only noticeable from a close proximity; whilst tree-line screening blocks it from wider landscape views.
<i>Sensitivity of Asset:</i> A greater part of its significance arises from its historical, evidential and communal value. Its aesthetic value has been somewhat dimmed by modern extensions and it is no longer distinct within the settlement.
<i>Contribution of Setting to Significance of Asset:</i> The school is barely visible in its modern setting, and is no longer the feature in the village that it historically would have been.
<i>Scale of Change:</i> The proposed development would be located only a short distance from the school, bordering its playing fields, but despite this the extension/development of the school itself along with tree- and hedgelines along the boundaries block intervisibility between the school and the proposal site. There would be significant audible intrusion and traffic increase during the construction phase, though this would be temporary.
<i>Significance of Effect:</i> Medium value asset + Negligible change = Neutral/slight effect.
<i>Professional Judgement:</i> Neutral to negligible (temporary) Adverse

4.2.2 NON-CONFORMIST CHAPELS

Non-Conformist places of worship, current and former

Non-Conformist chapels are relatively common and tend to be fairly modest structures in all but the largest settlements, lacking towers and many of the ostentatious adornments of older Church of England buildings. They are usually Grade II Listed structures, most dating from the 19th century, and adjudged significant more for their religious and social associations than necessarily any individual architectural merit. They can be found in isolated locations, but are more often encountered in settlements, where they may be associated with other Listed structures. In these instances, the setting of these structures is very local in character and references the relationship between this structure and other buildings within the settlement. The impact of a wind turbine is unlikely to be particularly severe, unless it is built in close proximity.

What is important and why

Nonconformist chapels are typically 18th century or later in date, and some retain interior period fittings (evidential). Some of the better preserved or disused examples are representative of the particularly ethos of the group in question, and buildings may be linked to the original preachers (e.g. John Wesley) (historical value). Congruent with the ethos of the various movements, the buildings are usually adapted from existing structures (early) or bespoke (later), and similar in overall character to Anglican structures of the same period (aesthetic value). They often have strong communal value, where they survive as places of worship (communal value).

<i>Asset Name:</i> Methodist Chapel	
<i>Parish:</i> Perranzabuloe	
<i>Designation:</i> Grade II	<i>Value:</i> Medium
<i>Distance to the site:</i> c.50m	<i>Condition:</i> Fair to good
<i>Description: Listing:</i> Nonconformist chapel, forecourt walls and gate and adjoining school room. Circa early C19 schoolroom. Circa late C19 chapel. Killas rubble walls with brick dressings. Asbestos slate roof with pedimented gable at the entrance front. Plan: Rectangular aisle-less plan probably with galleries on 3 sides. Schoolroom adjoining at rear and small room probably a former vestry (now used as a funeral directors) at far rear. Schoolroom is possibly the original chapel. Exterior: Unaltered 2-storey elevations (chapel) and single-storey schoolroom. Symmetrical 3-window south-west pedimented entrance front with central round-arched doorway. Plinth impost strings (string continues as hoodmould over first-floor windows). Cogged upper cornice to triangular pediment, stepped lower cornice. Round-headed window openings. Original doors and windows. Traceried tympanum over pair of	

V-jointed, boarded doors. Horned sashes with glazing bars and fanlight heads (3 similar windows to each side wall). Schoolroom has 3-window north-west front with doorway on its left. Original door and windows; 4-panel door, 16-pane hornless sashes. Cement coped rubble walls at roadside adjoining front left-hand side of entrance front. Original braced iron gates. Interior: Unaltered interior has gallery with panelled front, moulded plaster ceiling cornices and an elaborate central ceiling rose with acanthus detail.
<i>Supplemental comments:</i> The building is aesthetically pleasing, with red and yellow brick detailing around the windows and doors, and string decoration contrasting with the paler walls. The building appears uninhabited, but in fairly good repair, the adjoining Sunday School looks to have had another use since the closure of the church in 1998, the doors re-painted a pale yellow, having previously been red to match the other doors.
<i>Conservation value:</i> Clear aesthetic value as a vernacular structure. May retain evidential value within the interior. Historical value as an example of its type. Communal value as a former place of worship.
<i>Authenticity and Integrity:</i> The building's exterior appears little altered, with the exception of the Sunday School door. An image from 2014 appears to show damage to some of the windows and the glazing of the front door, but these appear to have been replaced. Some grass and weeds are growing around the exterior walls of the building, but otherwise it appears in good order.
<i>Topographical Location & Landscape Context:</i> The building is located on slightly sloping ground on the slopes of a shallow river valley on which the wider village also sits.
<i>Setting:</i> The chapel lies towards the north-western edge of the village, immediately adjacent to the A3075 and surrounded on all sides by houses and small businesses. The front elevation faces west, towards the centre of the village it once served and its stone and brickwork, along with its height, make it a distinctive feature among the white and cream rendered buildings surrounding it. The adjoining Sunday School and traphouse add to the scale of the building and contribute to making it a focal point of its immediate surroundings.
<i>Principal Views:</i> Limited – the front elevation faces the road, with views possible only along the busy main road and of the houses opposite.
<i>Landscape Presence:</i> The size of the chapel makes it a focal point within its immediate surroundings, though it is not particularly visible from within the wider landscape.
<i>Sensitivity of Asset:</i> A greater part of its significance arises from its historical, evidential and communal value, though it retains its aesthetic value and is still visible within the settlement.
<i>Contribution of Setting to Significance of Asset:</i> The chapel is a focal point from along the main road, its scale and materials drawing the eye. Its location, nestled among the village buildings is a reminder of its function as a community building.
<i>Scale of Change:</i> The proposed development would be located only a short distance from the chapel, but despite this the tree- and hedgelines along the boundaries block intervisibility between the chapel and the proposal site. There would be significant audible intrusion and traffic increase during the construction phase, though this would be temporary.
<i>Significance of Effect:</i> Medium value asset + Negligible change = Neutral/slight effect.
<i>Professional Judgement:</i> Neutral to negligible (temporary) Adverse

4.2.3 PREHISTORIC RITUAL/FUNERARY MONUMENTS

Stone circles, stone rows, barrows and barrow cemeteries

These monuments undoubtedly played an important role in the social and religious life of past societies, and it is clear they were constructed in locations invested with considerable religious/ritual significance. In most instances, these locations were also visually prominent, or else referred to prominent visual actors, e.g. hilltops, tors, sea stacks, rivers, or other visually prominent monuments. The importance of intervisibility between barrows, for instance, is a noted phenomenon. As such, these classes of monument are unusually sensitive to intrusive and/or disruptive modern elements within the landscape. This is based on the presumption these monuments were built in a largely open landscape with clear lines of sight; in many cases these monuments are now to be found within enclosed farmland, and in varying condition. Sensitivity to development is lessened where tall hedgebanks restrict line-of-sight.

What is important and why

Prehistoric ritual sites preserve information on the spiritual beliefs of early peoples, and archaeological data relating to construction and use (evidential). The better examples may bear names and have folkloric aspects (historical/illustrative) and others have been discussed and illustrated in historical and antiquarian works since the medieval period (historical/associational). It is clear they would have possessed design value, although our ability to discern that value is limited; they often survive within landscape palimpsests and subject to the 'patina of age', so that fortuitous development is more appropriate. They almost certainly once possessed considerable communal value, but in the modern age their symbolic and spiritual significance is imagined or attributed rather than authentic. Nonetheless, the location of these sites in the historic landscape has a strong bearing on the overall contribution of setting to significance: those sites located in 'wild' or 'untouched' places – even if those qualities are relatively recent – have a stronger spiritual

resonance and illustrative value than those located within enclosed farmland or forestry plantations.

Asset Name: Group of three bowl barrows east of Rosehill Farm	
Parish: Perranzabuloe	
Designation: SAM	Value: High
Distance to the site: 150m	Condition: Unclear
<p><i>Description: Listing:</i> The monument includes a group of three bowl barrows situated 150m east of Rosehill Farm. The barrows are in a line on an approximate east-west alignment on a ridge north of Goonhavern. Two of the group survive as visible mounds whilst the position of the other is indicated by the sparstone and local stone derived from the underlying Devonian geological formations which lie on the ground surface above its position. The two barrows which survive with mounds are those in the centre and to the east of the monument and these are 20m apart. The easternmost barrow mound is 15m in diameter and 0.2m in height whilst the mound of the central barrow is 23m in diameter and 0.5m in height. The barrow on the western side of the group has no visible mound but the stone debris which represents it denotes its position and this covers an oval area about 20m by 12m in a position just over 20m west of the central barrow. Excluded from the scheduling is all fencing, although the ground beneath it is included.</p>	
<i>Supplemental comments:</i> None.	
<p><i>Conservation value:</i> Scheduled for their high evidential value, barrows provide evidence for funerary and ritual practices during prehistoric periods. No previous archaeological excavations have been carried out, and it is expected that archaeological and environmental evidence will survive.</p>	
<p><i>Authenticity and Integrity:</i> The barrows have been reduced by ploughing, leaving only low mounds, and some confusion over whether three or four exist.</p>	
<p><i>Topographical Location & Landscape Context:</i> The monument stands as a (low) visible monument above ground towards the summit of a ridge, the ground falling away to all sides.</p>	
<p><i>Setting:</i> The barrows are situated in the corner of an agricultural field, with a holiday park immediately to the west and agricultural fields to all other sides.; the fields bounded by hedgelines.</p>	
<p><i>Principal Views:</i> Views both to a from the monument would have been important, particularly across river valleys. However, these are limited by existing areas of woodland, hedgerows and modern development.</p>	
<p><i>Landscape Presence:</i> The monument has only a limited landscape presence having been ploughed down to only a low level and with a modern holiday park immediately surrounding it.</p>	
<p><i>Sensitivity of Asset:</i> The principal value of this monument is evidential/archaeological, which is neither enhanced nor diminished by the proposed development, though as part of a wider funerary landscape its position within this landscape would have been of importance. However, this has now been partially lost.</p>	
<p><i>Contribution of Setting to Significance of Asset:</i> Paramount. Barrows and round cairns formed part of a wider landscape of ceremony and ritual incorporating many other monuments and intended to be intervisible, of as part of a wider funerary landscape as a means of memorializing the dead. The lack of a shared ritual culture with our ancestors does not detract from our own appreciation of a setting and/or its use.</p>	
<p><i>Scale of Change:</i> The proposed development would be located only a short distance and downslope from the monument, the height of the buildings meaning that it would be visible above the existing hedgerow screening. However, the slope would also limit the number of houses visible and the proposed development would appear as an extension to the existing settlement, limiting its impact. There would be significant audible intrusion and traffic increase during the construction phase, though this would be temporary.</p>	
<p><i>Significance of Effect:</i> High value asset + Minor change = Moderate/slight effect.</p>	
<p><i>Professional Judgement:</i> Minor Adverse</p>	

4.2.4 HISTORIC LANDSCAPE

General Landscape Character

The landscape of the British Isles is highly variable, both in terms of topography and historical biology. Natural England has divided the British Isles into numerous ‘character areas’ based on topography, biodiversity, geodiversity and cultural and economic activity. The County Councils and AONBs have undertaken similar exercises, as well as Historic Landscape Characterisation.

Some character areas are better able to withstand the visual impact of development than others. Rolling countryside with wooded valleys and restricted views can withstand a larger number of sites than an open and largely flat landscape overlooked by higher ground. The English landscape is already populated by a large and diverse number of intrusive modern elements, e.g. electricity pylons, factories, modern housing estates, quarries, and turbines, but the question of cumulative impact must be considered. The aesthetics of individual developments is open to question, and site specific, but as intrusive new visual elements within the landscape, it can only be **adverse**.

The proposed site would be located within the *Newquay and Perranporth Coast* LCA (Cornwall Council). This is described as:

- The *Newquay and Perranporth Coast* LCA comprises a gently-undulating landscape cut by deep narrow valleys and exposed to the maritime influence; the north-west facing coastline to the east of the area is exposed with numerous surfing beaches and small sandy coves backed by dramatic cliffs; to the west are extensive Coastal Sand Dunes. Inland there are sheltered valleys with narrow woodlands and small areas of wetland along the small streams which run to the coast and pastoral and arable land enclosed with Cornish hedges. The maritime cliffs remain largely underdeveloped and includes small areas of heath and rough ground. The area attracts large numbers of tourists and surfers which has led to a proliferation of holiday accommodation, especially in associated with the holiday resort of Newquay and settlements such as Perranporth. Caravan and camp sites and associated roadside development have a major impact on the landscape character especially during the summer months. Newquay Cornwall Airport and RAF St Mawgan lie to the north on the coastal plateau.

The overall sensitivity of these LCAs to development varies: for the *Newquay and Perranporth Coast*, sensitivity is assessed as *moderate-high* (Cornwall Council 2013b).

The proposed development would be located towards the eastern edge of the *Newquay and Perranporth* LCA. It would be situated within a landscape of fairly large open fields on a ridge with valleys to the east and west (unnamed watercourses). Most of the general observations of the LCA are borne out here. The proposal site is located on the edge of the settlement of Goonhavern and would be consistent with the development of towns and villages in this LCA, rapid modern expansion, but not impacting the coast or having an appreciable impact on the pastoral landscape; occupying a small area between modern developments.

The location of the proposal area, on the edge of existing settlement, slightly downslope from the summit of a river valley and readily screened by existing woodland and hedges means that viewpoints are limited, and that where it would be visible, existing modern intrusions within the landscape diminish the effect of any visibility. Mitigation in the form of additional local screening may limit this impact further. The overall effect on the historic landscape here of a small residential development is likely to be **Negligible to Minor Adverse**.

4.2.5 AGGREGATE IMPACT

The aggregate impact of a proposed development is an assessment of the overall effect of a single development on multiple heritage assets. This differs from cumulative impact (below), which is an assessment of multiple developments on a single heritage asset. Aggregate impact is particularly difficult to quantify, as the threshold of acceptability will vary according to the type, quality, number and location of heritage assets, and the individual impact assessments themselves. Based on the restricted number of assets where any appreciable effect is likely, the aggregate impact of this development is **Negligible Adverse**.

4.2.6 CUMULATIVE IMPACT

Cumulative impacts affecting the setting of a heritage asset can derive from the combination of different environmental impacts (such as visual intrusion, noise, dust and vibration) arising from a single development or from the overall effect of a series of discrete developments. In the latter case, the cumulative visual impact may be the result of different developments within a single view, the effect of developments seen when looking in different directions from a single viewpoint, of the sequential viewing of several developments when moving through the setting of one or more heritage assets.

The Setting of Heritage Assets 2011a, 25.

*The key for all cumulative impact assessments is to focus on the **likely significant** effects and in*

particular those likely to influence decision-making.
GLVIA 2013, 123.

An assessment of cumulative impact is, however, very difficult to gauge, as it must take into account existing, consented and proposed developments. The threshold of acceptability has not, however, been established, and landscape capacity would inevitably vary according to landscape character. Together with the proposed and existing small developments in the immediate environs of Goonhavern, most of which would be infilling/extending areas of existing development, the proposed site would see the extension of what was a small post-medieval settlement. On this basis, an overall assessment of **Minor Adverse** is appropriate.

4.2.7 INDIRECT IMPACT SUMMARY

Table 6 (below) provides a summary of the likely impact of the proposed development on both category #1 and category #2 heritage assets. As with the individual assessments (above), this table presents the results of both the likely significance of effect *and* our professional judgement as to the likely impact of the proposed development (as per Tables 3 and 4 in Appendix 1; the *significance of effect* is colour-coded as per Table 4). These assessments are for the operational function of the proposed development; constructional impacts are generally short-lived (if more intense) and outside of renewables, most developments have a degree of permanence.

TABLE 6: SUMMARY OF IMPACTS, INCLUDING THE CATEGORY #2 ASSETS SCOPED OUT OF THE MAIN ASSESSMENT.

Asset	Type	Distance	Value	Scale of Change	Significance of Effect	Professional Judgement
Category #1 Assets						
Goonhavern County Primary School	GII	<50m	Medium	Negligible	Neutral/Slight	Neutral to Negligible (temporary) Adverse
Goonhavern Methodist church with forecourt walls, gate and adjoining schoolroom	GII	50m	Medium	Negligible	Neutral/Slight	Neutral to Negligible (temporary) Adverse
Group of three bowl barrows 150m east of Rosehill Farm	SAM	150m	High	Minor	Moderate/Slight	Minor Adverse
Category #2 assets						
Bowl Barrow 150m south of Treworthal Farm	SAM	635m	High	No change	Neutral	Neutral
Wheal Anna House	GII	825m	Medium	No change	Neutral	Neutral
Landscape Character						
Historic Landscape	n/a	n/a	High	Minor	Slight or Moderate	Negligible to Minor Adverse
Aggregate Impact	n/a	n/a				Negligible Adverse
Cumulative Impact	n/a	n/a				Minor Adverse

4.2.8 RECOMMENDATIONS AND MITIGATION

It is recommended that any proposals to develop this site should attempt to limit further intrusion on the character of the former prehistoric landscape in which the site is located. These should be appropriately incorporated into any design plans for the site, retaining in particular the surviving open character of the landscape by minimising the visibility of houses from hilltop viewpoints by ensuring suitable screening.

Any development should be sensitive to the setting and context of the nearby scheduled barrows and therefore be in keeping with the style, scale and density of the rest of the Goonhavern settlement.

5.0 CONCLUSION

The site is located at Chyvounder Farm at the northern edge of Goonhavern, north of the A3075 in the parish of Perranzabuloe. Settlement at Goonhavern is first recorded in 1300, though the village itself is largely post-medieval and associated with significant mining activity, for which historic mapping indicates a prospection pit in the north-eastern corner of the site. The site is set within a wider prehistoric landscape containing numerous Bronze Age barrows and Iron Age to Romano-British settlement sites. In 1841 the proposal site was part of the estates of Tywarnhayle and were owned by Elizabeth Demble and occupied by Joseph Pollard; the surrounding lands largely under the ownerships of John Thomas and Henry Peter.

The proposal site occupies two fields and an area of woodland on gently sloping ground within a historic fieldscape characterised as *Post-medieval Enclosed Land*: land enclosed in the 17th, 18th and 19th centuries. Archaeological fieldwork in the area has been relatively limited, mostly in the form of walkover and geophysical surveys largely identifying historic field-boundaries, drainage features and possible trackways. Much of the rest of the archaeological evidence in the area is derived from cropmark evidence.

In terms of designated heritage assets, there are three Listed structures (all Grade II); and two Scheduled Monuments (prehistoric barrows) within 1km of the site. Whilst additional associated prehistoric barrow Scheduled Monuments are situated within 2.5km in the wider landscape, local blocking, the topography and existing modern development were considered to insulate them from any visual effect.

As a result only the Scheduled barrows north-west of the proposal site (minor adverse); and Grade II Listed school and former Methodist chapel (both neutral to negligible adverse) were deemed to suffer any adverse effect. The aggregate effect was deemed to be minimal (negligible adverse), though the cumulative effective with the nearby small-scale developments, and effect on the historic landscape were assessed as minor adverse.

With this in mind, the overall impact of the proposed development can be assessed as **negligible adverse**. The geophysical survey would indicate that the archaeological potential for the site is **low** and the impact of the development would be **minor adverse** overall.

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APPENDIX 1: IMPACT ASSESSMENT METHODOLOGY

Heritage Impact Assessment - Overview

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonably practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area or archaeological monument (the ‘heritage asset’). Secondly, to assess the likely effect of a proposed development on the heritage asset (direct impact) and/or its setting (indirect impact). The methodology employed in this assessment is based on the approaches advocated in *Managing Significance in Decision-Taking in the Historic Environment* [GPA2 Historic England 2015] and *The Setting of Heritage Assets 2ND Edition* [GPA3 Historic England 2017], used in conjunction with the ICOMOS [2011] and National highways [DMRB LA 104 2020] guidance. This Appendix contains details of the statutory background and staged methodology used in this report.

National Policy

General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2012 revised 2021)¹. The relevant guidance is reproduced below:

Paragraph 194

In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted, and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 195

Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset’s conservation and any aspect of the proposal.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990², in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

In addition, the Ancient Monuments and Archaeological Areas Act 1979³, the Protection of Wrecks Act 1973⁴, and the Historic Buildings and Ancient Monuments Act 1953⁵ also contain relevant statutory provisions.

Unitary councils, county councils, and district councils usually have local policies and plans, based on national guidelines, that serve to guide local priorities.

Development within a Historic Environment

Any development within a historic environment has the potential for both *direct* and *indirect* impacts. Direct impacts can be characterised as the physical effect the development may have on heritage assets within, or immediately adjacent to, the redline boundary. These impacts are almost always adverse, i.e. they represent the disturbance or destruction of archaeological features and deposits within the footprint of the Scheme. Indirect impacts can be characterised as the way the development affects the visual, aural, and experiential qualities (i.e. setting) of a

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf.

² <https://www.legislation.gov.uk/ukpga/1990/9/contents>.

³ <https://www.legislation.gov.uk/ukpga/1979/46/contents>.

⁴ <https://www.legislation.gov.uk/ukpga/1973/33/contents>.

⁵ <https://www.legislation.gov.uk/ukpga/Eliz2/1-2/49/contents>.

designated heritage asset in the wider area, where the significance of that asset is at least partly derived from those qualities. These impacts can be adverse, beneficial, or neutral.

The *designated heritage assets* (see below) potentially impacted by a development are, by definition, a known quantity and, to a greater or lesser extent, their significance is appreciated and understood. In general, undesignated heritage assets of comparable value to designated assets are also readily identifiable. Nonetheless, understanding of the value and significance of the designated heritage assets must be achieved via a staged process identification and assessment in line with the relevant guidance.

In contrast, unknown archaeological assets are, by definition, unidentified, unquantified and their significance is not understood. Clear understanding of the value and significance of the archaeology must therefore be achieved via a staged process of documentary and archaeological investigation in line with the relevant guidance.

Significance in Decision-Making

It is the determination of *significance* that is critical to assessing level of impact, whether the effect is determined to be beneficial or adverse. The PPG states: *Heritage assets may be affected by direct physical change or by change in their setting. Being able to properly assess the nature, extent, and importance of the significance of a heritage asset, and the contribution of its setting, is very important to understanding the potential impact and acceptability of development proposals*⁶.

The relevant Historic England guidance is *Managing Significance in Decision-Taking in the Historic Environment*⁷. The following is a staged process for decision-taking, largely based on that document.

1. Identity the heritage asset(s) that might be impacted.
2. Understand the significance of the affected asset(s).
3. Understand the impact of the proposal on that significance.
4. Avoid, minimise, and mitigate impact in a way that meets the objectives of the NPPF.
5. Look for opportunities to better reveal or enhance significance.
6. Justify any harmful impacts in terms of the sustainable development objective of conserving significance and the need for change.
7. Offset negative impacts on aspects of significance by enhancing through recording, disseminating, and archiving archaeological and historical interest of the important elements of the heritage assets affected.

In general, impact assessment addresses Steps 1-3 and 7, but may include Steps 4-6 where the required information is available from the developer/client/agent, and where design is an iterative process rather than *fait accompli*.

For designated heritage assets, which have been designated *because* they are deemed significant, Step 1 is relatively straightforward, and Step 2 is also, to a degree quantified, as the determination of significance, to a greater or lesser extent, took place then the heritage asset was designated⁸. For undesignated heritage of assets comparable value, or for archaeological sites that may have not been investigated (or were unknown or poorly understood prior to identification), a staged process of assessment is required (below).

Once an assessment of value and significance has been made, either by reference to designation or comparable importance if non-designated, the significance of the effect (Table 3) and an assessment based on professional judgement (Table 4) can be determined. The former is logical and objective, the latter is a more nuanced but subjective, and the accompanying discussion provides the more narrative but subjective approach advocated by Historic England. This is a useful balance between rigid logic and nebulous subjectivity (e.g. the significance of effect on a Grade II Listed building can never be greater than moderate/large; an impact of substantial adverse is almost never achieved). This is in adherence with GPA3⁹. The term used – professional judgement – is defined here as applying knowledge, skills, and experience in a way that is informed by professional standards, laws, and ethical principles to provide a considered, fair, and impartial assessment as to the likely impact of a proposed development.

In the NPPF, adverse impact is divided into the categories: *total loss, substantial harm, and less than substantial*

⁶ <https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment>. Paragraph 007.

⁷ Historic England 2015: *Managing Significance in Decision-Taking in the Historic Environment Good Practice Advice in Planning Note 2*. Paragraph 6.

⁸ With the caveat that Listed building descriptions vary in quality between authorities, and interiors may not have been inspected.

⁹ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 19.

harm. The bar for substantial harm was set at a very high level in 2013 by the case *Bedford BC v SSCLG38*. However, following a recent High Court action¹⁰ it is possible a *major adverse impact* may now qualify as a *substantial harm*. Any lesser adverse impact will constitute a *less than substantial harm*. Table 5 shows how this report correlates the two systems.

It is important to state that, whereas the assessment of direct effects to archaeological sites (where the identified heritage asset falls within the footprint of the development and thus is very likely to be damaged or destroyed) is relatively straightforward, the assessment of indirect effects (where the effect is communicated by the impact on the *setting* of a heritage asset) is more nebulous and harder to convincingly predict.

In this context it is useful to remember that *setting is not itself a heritage asset, nor a heritage designation... its importance lies in what it contributes to the significance of the heritage asset or to the ability to appreciate that significance*¹¹. Thus it is not simply the contribution to significance that is important, but also how a setting facilitates or hinders an appreciation of the significance of a heritage asset. *The contribution of setting to the significance of a heritage asset is often expressed by reference to views*¹², but ...setting is different to general amenity. Views out from heritage assets that neither contribute to significance nor allow appreciation of significance are a matter of amenity rather than of setting¹³. Thus it is possible for views between and across heritage assets and a development to exist without there necessarily being an effect.

In addition, and as PPG states¹⁴: *The extent and importance of setting is often expressed by reference to the visual relationship between the asset and the proposed development and associated visual/physical considerations. Although views of or from an asset will play an important part in the assessment of impacts on setting, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust, smell, and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but are not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each.*

The concept of setting is explored in more detail below (see *Definitions*).

Value and Importance

While every heritage asset, designated or otherwise, has some intrinsic merit, the act of designation creates a hierarchy of importance that is reflected by the weight afforded to their preservation and enhancement within the planning system. The system is far from perfect, impaired by an imperfect understanding of individual heritage assets, but the value system that has evolved does provide a useful guide to the *relative* importance of heritage assets. Provision is also made for heritage assets where value is not recognised through designation (e.g. undesignated ‘monuments of Schedulable quality and importance’ should be regarded as being of *high* value); equally, there are designated monuments and structures of *low* relative merit. Table 1 is based on the current DRMB, Table 3.3N; Table 2 refers back to the 2011 DRMB which more usefully defines value in relation to designation.

TABLE 1: THE HIERARCHY OF VALUE/IMPORTANCE (BASED ON THE DMRB LA104 2020 TABLE 3.2N).

Value (Sensitivity) of Receptor / Resource	Typical description
Very High	Very high importance and rarity, international scale and very limited potential for substitution
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution
Low	Low or medium importance and rarity, local scale
Negligible	Very low importance and rarity, local scale.

TABLE 2: THE HIERARCHY OF VALUE/IMPORTANCE (BASED ON THE DMRB VOL.11 TABLES 5.1, 6.1 & 7.1).

Hierarchy of Value/Importance	
Very High	Structures inscribed as of universal importance as World Heritage Sites; Other buildings of recognised international importance; World Heritage Sites (including nominated sites) with archaeological remains; Archaeological assets of acknowledged international importance;

¹⁰ UK Holocaust Memorial in Victoria Tower Gardens in Westminster, reference APP/XF990/V/193240661.

¹¹ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 9.

¹² Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 10. The sentiment is also expressed in the PPG glossary.

¹³ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 16.

¹⁴ <https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment>. Paragraph 013.

Hierarchy of Value/Importance	
	Archaeological assets that can contribute significantly to international research objectives; World Heritage Sites inscribed for their historic landscape qualities; Historic landscapes of international value, whether designated or not; Extremely well-preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).
High	Scheduled Monuments with standing remains; Grade I and Grade II* (Scotland: Category A) Listed Buildings; Other Listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the Listing grade; Conservation Areas containing very important buildings; Undesignated structures of clear national importance; Undesignated assets of Schedulable quality and importance; Assets that can contribute significantly to national research objectives. Designated historic landscapes of outstanding interest; Undesignated landscapes of outstanding interest; Undesignated landscapes of high quality and importance, demonstrable national value; Well-preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).
Medium	Grade II (Scotland: Category B) Listed Buildings; Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations; Conservation Areas containing buildings that contribute significantly to its historic character; Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures); Designated or undesignated archaeological assets that contribute to regional research objectives; Designated special historic landscapes; Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value; Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	Locally Listed buildings (Scotland Category C(S) Listed Buildings); Historic (unlisted) buildings of modest quality in their fabric or historical association; Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures); Designated and undesignated archaeological assets of local importance; Archaeological assets compromised by poor preservation and/or poor survival of contextual associations; Archaeological assets of limited value, but with potential to contribute to local research objectives; Robust undesignated historic landscapes; Historic landscapes with importance to local interest groups; Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	Buildings of no architectural or historical note; buildings of an intrusive character; Assets with very little or no surviving archaeological interest; Landscapes with little or no significant historical interest.
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance; The importance of the archaeological resource has not been ascertained.

TABLE 3: SIGNIFICANCE OF EFFECTS MATRIX (BASED ON DRMB LA 104 2020 TABLE 3.8.1; ICOMOS 2011, 9-10).

	Value of Heritage Asset	Scale and Severity of Change/Impact				
		No Change	Negligible Change	Minor Change	Moderate Change	Major Change
		Significance of Effect (either adverse or beneficial)				
Environmental Value (Sensitivity)	WHS sites that convey OUV	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

TABLE 7: PROFESSIONAL JUDGEMENT OF IMPACT (BASED ON DMRB LA 104 2020 TABLE 3.4N).

Magnitude of Impact		Typical Description
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features, or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features, or elements; improvement of attribute quality.
Minor	Adverse	Some measurable change in attributes, quality, or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features, or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features, or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features, or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features, or elements.
No change		No loss or alteration of characteristics, features, or elements; no observable impact in either direction.

TABLE 5: SCALES OF IMPACT AS PER THE NPPF, AS RELATED TO TABLE 4.

Scale of Impact		
No Change	<i>Neutral</i>	No impact on the heritage asset.
Less than Substantial Harm	<i>Negligible Adverse</i>	Where the developments may be visible or audible but would not affect the heritage asset or its setting, due to the nature of the asset, distance, topography, or local blocking.
	<i>Minor Adverse</i>	Where the development would have an effect on the heritage asset or its setting, but that effect is restricted due to the nature of the asset, distance, or screening from other buildings or vegetation.
	<i>Moderate Adverse</i>	Where the development would have a pronounced impact on the heritage asset or its setting, due to the sensitivity of the asset and/or proximity. The effect may be ameliorated by screening or mitigation.
Substantial Harm	<i>Major Adverse</i>	Where the development would have a severe and unavoidable effect on the heritage asset or its setting, due to the particular sensitivity of the asset and/or close physical proximity. Screening or mitigation could not ameliorate the effect of the development in these instances.
Total Loss	<i>Total Loss</i>	The heritage asset is destroyed.

Staged Investigation – Direct Impact

The staged approach for the assessment of direct impacts references the publication *Significance in Decision-Taking in the Historic Environment*¹⁵. The aim of this assessment is to establish the *archaeological baseline* for the site and determine the likely significance of the archaeological resource. This staged approach starts with desk-based assessment¹⁶, may conclude with intrusive investigations, and may reference some or all of the following:

1. Documentary research (published works, primary and secondary sources in record offices).
2. Existing archaeological reports or surveys for the site.
3. Historic maps.
4. Archaeological research (historic environment records (HER), event records (HER), Historic England National List; Portable Antiquity Scheme (PLS) records, grey literature reports (available from the Archaeological Data Service).
5. Historic Landscape Characterisation (HLC).
6. Aerial photography (National Mapping Programme, historic aerial photographs (Historic England, Cambridge, Britain from Above), recent commercial photography (Google Earth)).
7. LiDAR analysis (Environment Agency data, TELLUS data).
8. Oral testimony.
9. Walkover survey (or for historic buildings, a historic building appraisal¹⁷).
10. Geophysical survey, if suitable (magnetometry, electrical resistance, ground-penetrating radar)¹⁸.
11. Archaeological trench evaluation¹⁹, if appropriate.

¹⁵ Historic England 2015: Managing Significance in Decision-Taking in the Historic Environment: *Historic Environment Good Practice Advice in Planning Note 2*.

¹⁶ ClfA 2014 updated 2020: *Standard and guidance for historic environment desk-based assessment*.

¹⁷ Historic England 2016: *Understanding Historic Buildings: A Guide to Good Recording Practice*.

¹⁸ ClfA 2014 updated 2020: *Standard and guidance for archaeological geophysical survey*. Schmidt, A., Linford, P. Linford, N. David, A. Gaffney, C., Sarris, A. & Fassbinder, J. 2016: *EAC Guidelines for the Use of Geophysics in Archaeology*.

¹⁹ ClfA 2014 updated 2020: *Standard and guidance for archaeological field evaluation*.

Following the conclusion of this staged process, an assessment of the archaeological potential of the site is produced and (if appropriate) recommendations made, including for further investigation, analysis, and publication to be undertaken, as mitigation for the proposed development. This document will normally only cover Items 1-10.

Type of Impact

Developments can readily be divided into several phases which are marked by different types and level of impact. However, the only one relevant to direct impact is the *construction phase*. Construction works have direct, physical effects on the buried archaeology of a site. Direct effects may extend beyond the nominal footprint of a site e.g. where related works or site compounds are located off-site. *Operational* and *decommissioning* phases are only relevant where elements of the buried archaeological resource survive, but in most instances (excluding PV sites and wind turbines), these impacts are permanent and irreversible.

Staged Investigation – Indirect Impact

The staged approach for the assessment of indirect impacts references the *Setting of Heritage Assets*²⁰. The aim of this assessment is to identify the designated heritage assets outside the redline boundary that might be impacted upon by the proposed development, determine if an effect on their significance via setting is possible, and establish the level of impact. The staged approach advocated by GPA3 contains the following steps²¹:

1. Identify which heritage assets and their settings are affected.
2. Assess the degree to which these settings make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated.
3. Assess the effects of the proposed development, whether beneficial or harmful, on that significance or on the ability to appreciate it.
4. Explore ways to maximise enhancement and avoid or minimise harm.
5. Make and document the decision and monitor outcomes.

Step one is to identify the designated heritage assets that might be affected by the development. The first stage of that process is to determine an appropriate search radius, and this would vary according to the height, size and/or prominence of the proposed development. For instance, the search radius for a wind turbine, as determined by its height and dynamic character, would be much larger than for a single house plot or small agricultural building. For this assessment, the second part of the process is to examine the heritage assets within the search radius and assign them to one of three categories:

- Category #1 assets: Where proximity to the proposed development, the significance of the heritage asset concerned, or the likely magnitude of impact, demands detailed consideration.
- Category #2 assets: Assets where location, current setting, significance would strongly indicate the impact would be no higher than negligible and detailed consideration both unnecessary and disproportionate. These assets are scoped out of the assessment but may still be listed in the impact summary table.

Dependant on the nature of the development, this work may be informed, but not governed, by a generated ZTV (zone of theoretical visibility) or ZVI (zone of visual influence).

Pursuant to *Steps Two and Three*, a series of site visits are made to Category #1 designated heritage assets. Each asset is considered separately and appraised on its significance, condition, and setting/context by the assessor. The potential impacts the development are assessed for each location, taking into account site-specific factors and the limitations of that assessment (e.g. no access, viewed from the public road etc.). Photographic and written records are compiled during these visits. If a ZTV has been used in the assessment, the accuracy of the ZTV is corroborated with reference to field observations.

Step 4 is possible where the required information is available from the developer/client/agent, and where design is an iterative process rather than *fait accompli*. In many instances, adverse outcomes (and more rarely, beneficial outcomes) are unavoidable, as mitigation would have to take place at the heritage asset concerned or within an intervening space, and not the proposed site itself.

Assessment and documentation, *Step 5*, takes place within this document. The individual asset tables are completed

²⁰ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 9.

²¹ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 9.

for each assessed designated heritage asset, and, with an emphasis on practicality and proportionality,²² assets are grouped by category (e.g. churches, historic settlements, funerary remains etc.) and provided with a generic preamble that avoids repetitious narrative. This initial preamble establishes the baseline sensitivity of a given category of monument or building to the potential effect; the individual entries that follow then elaborate on local circumstance and site-specific factors. The individual assessments are to be read in conjunction with the overall discussion, as the assessment of impact is reflection of both.

In this report, Category #1 heritage assets receive their own written assessment, as per the pro forma below:

Asset Name: The name of the heritage asset, usually as it appears in its Listing or Scheduling	
<i>Parish:</i> The ecclesiastical parish in which the asset lies	<i>Within the ZTV:</i> Whether assets stands within the ZTV of the development (if relevant)
<i>Designation:</i> Its official designation (e.g. Grade II)	<i>Value:</i> According to Tables 1 and 2
<i>Distance to the site:</i> Determined as the crow flies	<i>Condition:</i> A visual assessment of its condition
<i>Description:</i> Here the official descriptive text from Historic England (or relevant heritage body) is reproduced. In the case of non-designated heritage assets, the description is provided by the HER entry or field observations (e.g. 'A three-cell cross-passage house, eight-over-eight sashes to the front elevation, with a central six-panel door etc.').	
<i>Supplemental Comments:</i> Any additional information on the asset, noted during the site visit, especially if at variance with the official description (e.g. 'the house has a lateral stack to the rear, and the windows have been replaced since it was Listed').	
<i>Conservation Value:</i> A description of the heritage value of the asset, usually based on the four <i>Conservation Values</i> (evidential, historical, aesthetic, communal) presented in English Heritage 2008. It may include the related but separate <i>interests</i> outlined in the NPPF (archaeological, architectural and artistic, historic). (E.g. 'an attractively composed cottage with garden, with high evidential value as the interior was not inspected during the Listing process etc.')	
<i>Authenticity and Integrity:</i> These concepts come from ICOMOS, and relate to the physical condition of the asset, and the degree to which it survives as a genuine embodiment of the thing it purports to be (e.g. 'the house is in good condition, having been recently renovated, but its windows have been replaced').	
<i>Topographical Location & Landscape Context:</i> A quick description of the physical topography of the place (e.g. 'on a south-facing slope towards the base of the long ridge').	
<i>Setting:</i> A description of the setting of the asset. Usually, but not always, limited to its immediate setting, with some reference to its wider setting (e.g. 'the whole surrounded by open fields').	
<i>Principal Views:</i> Principal views covers both designed or intended views, and those fortuitous views that nonetheless better reveal the heritage value of the asset (e.g. 'down the lane to the main façade', or 'from the house along the avenue to the triumphal arch').	
<i>Landscape Presence:</i> This covers those landmark assets visible across wide areas (e.g. 'the tower of the church is visible from the neighbouring villages').	
<i>Sensitivity of Asset:</i> A discussion of the sensitivity of the asset to change within its immediate setting or broader landscape context if relevant, with reference to the identified conservation values (e.g. 'the principal value of this monument is evidential/archaeological, which is neither enhanced nor diminished by the proposed development' or 'the principal value of this structure is aesthetic/artistic, which would be greatly diminished by development within its gardens').	
<i>Contribution of Setting to Significance of Asset:</i> A brief assessment of how setting enhances the significance of a heritage asset, or better reveals the significance of a heritage asset (e.g. 'the house stands within is gardens/park with views down the valley to and from a folly tower on the hillside' or 'the gardens were laid out by the designer to compliment the western façade of the house').	
<i>Scale of Change:</i> A brief description of how the proposed development would affect the setting of the heritage asset, for better or for worse, usually including a discussion of the degree of screening the asset enjoys, as determined by the site visit (e.g. the proposed new dwelling would be located across the lane from the house, but screened by the existing farm buildings from the main façade').	
<i>Significance of Effect:</i> As per Table 3, derived from DRMB LA 104 2020; ICOMOS 2011, 9-10.	
<i>Professional Judgement:</i> As per Table 4, ultimately derived from DMRB LA 104 2020 Table 3.4N.	

As discussed (elsewhere, this document), the critical assessment is to determine the contribution of setting to the significance of the heritage asset, and/or the ability of the setting to facilitate an appreciation of that significance. Views are important but not paramount, and views to and from a proposed development can exist without adverse effect. Some assets are intrinsically more sensitive to change in their environment than others; a useful shorthand for this can be found in Table 6.

²² Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraphs 2, 17, 19, 21, 23, 41.

TABLE 6: IMPORTANCE OF SETTING TO INTRINSIC SIGNIFICANCE.

Importance of Setting to the Significance of the Asset	
Paramount	Examples: Round barrow; follies, eye-catchers, stone circles
Integral	Examples: Hillfort; country houses
Important	Examples: Prominent church towers; war memorials
Incidental	Examples: Thatched cottages
Irrelevant	Examples: Milestones

The Setting of Buried or Conceptual Assets

Some heritage assets have no remaining surface expression and survive *only* as buried archaeological features. Some Scheduled Monuments were designated on the basis of significant cropmarks or else were mapped by the Ordnance Survey in the 19th century and have been ploughed flat. Registered Battlefields may not even have an archaeological expression, and function as conceptual assets.

GPA3 states²³: *Heritage Assets that comprise only buried remains may not be readily appreciated by a casual observer. They nonetheless retain a presence in the landscape and, like other heritage assets, may have a setting.*

These points apply equally, in some rare, to designated heritage assets such as Scheduled Monuments or Protected Wreck Sites that are periodically, partly, or wholly submerged, e.g. in the intertidal zone on the foreshore. The location and setting of historic battles, otherwise with no visible traces, may include important strategic views, routes by which opposing forces approached each other and a topography and landscape features that played a part in the outcome.

In general, without strong historical associations (e.g. battlefields) it is difficult to assess the likely impact of a proposed development on a buried heritage asset. If meaning can be derived from an appreciation of landscape context – e.g. an elevated location for a lost hillfort or barrow – then a consideration of setting, and the ability of setting to better reveal the significance of a site, remains relevant. Where that is not possible, the significance of physical setting is much diminished.

Type of Impact

Developments can readily be divided into several phases which are marked by different types and level of impact: the *construction phase*, the *operational phase*, and the *decommissioning phase*. In most instances, impacts are impermanent and reversible, as a turbine can be dismantled, a tower block demolished, or trees may grow up to screen an ugly elevation.

Construction Phase

Construction works have direct, physical effects on the buried archaeology of a site, and a pronounced but indirect effect on neighbouring properties. Direct effects may extend beyond the nominal footprint of a site e.g. where related works or site compounds are located off-site. Indirect effects are both visual and aural, and may also affect air quality, water flow and traffic in the local area.

Operational Phase

The operational phase of a development is either temporary (e.g. wind turbine or mobile phone mast) or effectively permanent (housing development or road scheme). The effects at this stage are largely indirect and can be partly mitigated over time through design and/or planting. Large development can have an effect on historic landscape character, as they transform areas from one character type (e.g. agricultural farmland) into another (e.g. suburban).

Decommissioning Phase

Relevant to wind turbines and PV sites, less relevant to other forms of development. These impacts would be similar to those of the construction phase.

In general, the operational impacts are assessed in this document. Construction phase impacts may be considered, but while more intense are usually short-term in nature. The potential impact of the decommissioning phase, for most projects, is harder to predict and, outside of renewable developments with their fixed use-lives, should effectively be considered permanent.

²³ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 8.

Group Assessment

Individual assessments give some indication as to how a development may affect a particular cottage, historic park, or hillfort, but collective assessment is also necessary, reflecting the effect on the historic environment in general.

Cumulative Impact

A single development will have a direct physical and an indirect visual impact, but a second and a third site in the same area will have a synergistic and cumulative impact above and beyond that of a single site. PPG states²⁴: *When assessing any application which may affect the setting of a heritage asset, local planning authorities may need to consider the implications of cumulative change. They may also need to consider the fact that developments which materially detract from the asset's significance may also damage its economic viability now, or in the future, thereby threatening its ongoing conservation.*

GPA3 states²⁵: *Where the significance of a heritage asset has been compromised in the past by unsympathetic development affecting its setting, to accord with NPPF policies consideration still needs to be given to whether additional change will further detract from, or can enhance, the significance of the asset. Negative change could include severing the last link between an asset and its original setting; positive change could include the restoration of a building's original designed landscape or the removal of structures impairing key views of it.*

However, the cumulative impact of a proposed development can be difficult to determine, as consideration must be given to consented and pre-determination proposals as well as operational or occupied sites.

Aggregate Impact

A single development will usually affect multiple individual heritage assets. In this assessment, the term *aggregate impact* is used to distinguish this from cumulative impact. In essence, this is the impact on the designated parts of the historic environment as a whole, rather than multiple developments on a single asset.

²⁴ <https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment>. Paragraph 013.

²⁵ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 9.3.

Definitions

Heritage Assets

The NPPF Glossary defines heritage assets as: *A building, monument, site, place, area, or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing)*²⁶. This is a fairly broad definition for an expanding range of features, as what is considered of little heritage interest today may – due to location, rarity, design, associations, etc. – be considered of heritage value in the future.

Significance

The NPPF Glossary defines significance as: *The value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic, or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting*²⁷.

Conservation Principles

In making an assessment, this report adopts the conservation values (*evidential, historical, aesthetic and communal*) laid out in the English Heritage 2008 publication *Conservation Principles*²⁸. These are used to determine and express the relative importance of a given heritage asset. The definition of those terms is summarised below:

Evidential Value

Evidential value (or research potential) is derived from the potential of a structure or site to provide physical evidence about past human activity and may not be readily recognised or even visible. This is the primary form of data for periods without adequate written documentation. However, it is an assessment of *potential* – known value falls under the umbrella of historical value (below).

Historical Value

Historical value (narrative) is derived from the ways in which past people, events and aspects of life can be connected via a place to the present; it can be illustrative or associative.

Illustrative value is the visible expression of evidential value; it has the power to aid interpretation of the past through making connections with, and providing insights into, past communities and their activities through a shared experience of place. Illustrative value tends to be greater if a place features the first or only surviving example of a particular innovation of design or technology.

Associative value arises from a connection to a notable person, family, event or historical movement. It can intensify understanding by linking the historical past to the physical present, always assuming the place bears any resemblance to its appearance at the time. Associational value can also be derived from known or suspected links with other monuments (e.g. barrow cemeteries, church towers) or cultural affiliations (e.g. Methodism).

Buildings and landscapes can also be associated with literature, art, music or film, and this association can inform and guide responses to those places.

Historical value depends on sound identification and the direct experience of physical remains or landscapes. Authenticity can be strengthened by change, being a living building or landscape, and historical values are harmed only where adaptation obliterates or conceals them. The appropriate use of a place – e.g. a working mill, or a church for worship – illustrates the relationship between design and function and may make a major contribution to historical value. Conversely, cessation of that activity – e.g. conversion of farm buildings to holiday homes – may essentially destroy it.

Aesthetic Value

Aesthetic value (emotion) is derived from the way in which people draw sensory and intellectual stimulation from a place or landscape. Value can be the result of *conscious design*, or the *fortuitous outcome* of landscape evolution; many places combine both aspects, often enhanced by the passage of time.

Design value relates primarily to the aesthetic qualities generated by the conscious design of a building, structure,

²⁶ <https://www.gov.uk/guidance/national-planning-policy-framework/annex-2-glossary>.

²⁷ <https://www.gov.uk/guidance/national-planning-policy-framework/annex-2-glossary>.

²⁸ English Heritage 2008: *Conservation Principles: policies and guidance for the sustainable management of the historic environment*.

or landscape; it incorporates composition, materials, philosophy, and the role of patronage. It may have associational value, if undertaken by a known architect or landscape gardener, and its importance is enhanced if it is seen as innovative, influential or a good surviving example. Landscape parks, country houses and model farms all have design value. The landscape is not static, and a designed feature can develop and mature, resulting in the 'patina of age'.

Some aesthetic value developed fortuitously over time as the result of a succession of responses within a particular cultural framework e.g. the seemingly organic form of an urban or rural landscape or the relationship of vernacular buildings and their materials to the landscape. Aesthetic values are where a proposed development usually has their most pronounced impact: the indirect effects of most developments are predominantly visual or aural and can extend many kilometres from the site itself. In many instances the impact of a development is incongruous, but that is itself an aesthetic response, conditioned by prevailing cultural attitudes to what the historic landscape should look like.

Communal Value

Communal value (togetherness) is derived from the meaning a place holds for people and may be closely bound up with historical/associative and aesthetic values; it can be commemorative, symbolic, social, or spiritual.

Commemorative and symbolic value reflects the meanings of a place to those who draw part of their identity from it, or who have emotional links to it e.g. war memorials. Some buildings or places (e.g. the Palace of Westminster) can symbolise wider values. Other places (e.g. Porton Down Chemical Testing Facility) have negative or uncomfortable associations that nonetheless have meaning and significance to some and should not be forgotten. Social value need not have any relationship to surviving fabric, as it is the continuity of function that is important. Spiritual value is attached to places and can arise from the beliefs of a particular religion or past or contemporary perceptions of the spirit of place. Spiritual value can be ascribed to places sanctified by hundreds of years of veneration or worship, or wild places with few signs of modern life. Value is dependent on the perceived survival of historic fabric or character and can be very sensitive to change. The key aspect of communal value is that it brings specific groups of people together in a meaningful way.

Significance in the NPPF

The NPPF operates on a slightly differently set of criteria to the Conservation Principles, a divergent trajectory that will doubtless be addressed when the Conservation Principles are revised. Under the NPPF, value is expressed as *archaeological interest*, *architectural and artistic interest*, and *historic interest*. The following is taken from the NPPF PPG²⁹ document, followed by commentary:

Archaeological Interest

As defined in the Glossary to the National Planning Policy Framework, there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point. This interest most closely accords with evidential value. While it usefully extends that definition to include known elements, the emphasis on *archaeological* interest unhelpfully seems to preclude the built environment.

Architectural and Artistic Interest

These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skill, like sculpture. This interest most closely accords with aesthetic value, but the use of the term *architectural* seems prejudiced against vernacular forms of built heritage, and fortuitous aesthetics.

Historic Interest

An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history, but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity. This interest most closely accords with historical value, and extends to include communal value, though with diminished emphasis.

²⁹ <https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment>. Paragraph 006.

Concepts from World Heritage Guidance

World Heritage Sites are assessed with reference to their own, non-statutory, guidance³⁰. This includes the useful concepts of *authenticity* and *integrity*³¹:

Authenticity

Authenticity is the ability of a property to convey the attributes of the outstanding universal value of the property. *The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful.* Outside of a World Heritage Site, authenticity may usefully be employed to convey the sense a place or structure is a truthful representation of the thing it purports to portray. Converted farm buildings, for instance, survive in good condition, but are drained of the authenticity of a working farm environment.

Integrity

Integrity is the measure of wholeness or intactness of the cultural heritage and its attributes. Outside of a World Heritage Site, integrity can be taken to represent the survival and condition of a structure, monument, or landscape. The intrinsic value of those examples that survive in good condition is undoubtedly greater than those where survival is partial, and condition poor.

Designated Heritage Assets

The majority of the most important ('nationally important') heritage assets are protected through *designation*, with varying levels of statutory protection. These assets fall into one of six categories, although designations often overlap, so a Listed early medieval cross may also be Scheduled, lie within the curtilage of Listed church, inside a Conservation Area, and on the edge of a Registered Park and Garden that falls within a World Heritage Site. The NPPF Glossary defines a designated heritage asset as: *A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation*³².

Listed Buildings

A Listed building is an occupied dwelling or standing structure which is of special architectural or historical interest. These structures are found on the *Statutory List of Buildings of Special Architectural or Historic Interest*. The status of Listed buildings is applied to 300,000-400,000 buildings across the United Kingdom. Recognition of the need to protect historic buildings began after the Second World War, where significant numbers of buildings had been damaged in the county towns and capitals of the United Kingdom. Buildings that were considered to be of 'architectural merit' were included. The Inspectorate of Ancient Monuments supervised the collation of the list, drawn up by members of two societies: The Royal Institute of British Architects and the Society for the Protection of Ancient Buildings. Initially the lists were only used to assess which buildings should receive government grants to be repaired and conserved if damaged by bombing. The *Town and Country Planning Act 1947* formalised the process within England and Wales, Scotland and Ireland following different procedures. Under the 1979 *Ancient Monuments and Archaeological Areas Act* a structure cannot be considered a Scheduled Monument if it is occupied as a dwelling, making a clear distinction in the treatment of the two forms of heritage asset. Any alterations or works intended to a Listed Building must first acquire Listed Building Consent, as well as planning permission. Further phases of 'listing' were rolled out in the 1960s, 1980s and 2000s; English Heritage advise on the listing process and administer the procedure, in England, as with the Scheduled Monuments.

Some exemption is given to buildings used for worship where institutions or religious organisations (such as the Church of England) have their own permissions and regulatory procedures. Some structures, such as bridges, monuments, military structures, and some ancient structures may also be Scheduled as well as Listed. War memorials, milestones and other structures are included in the list, and more modern structures are increasingly being included for their architectural or social value.

Buildings are split into various levels of significance: Grade I (2.5% of the total) representing buildings of exceptional (international) interest; Grade II* (5.5% of the total) representing buildings of particular (national) importance; Grade II (92%) buildings are of merit and are by far the most widespread. Inevitably, accuracy of the Listing for individual structures varies, particularly for Grade II structures; for instance, it is not always clear why some 19th

³⁰ ICOMOS 2011: *Guidance on Heritage Impact Assessment for Cultural World Heritage Properties: a publication of the international Council on Monuments and Sites.*

³¹ UNESCO 2021: *Operational Guidelines for the Implementation of the World Heritage Convention.* Paragraphs 79-95.

³² <https://www.gov.uk/guidance/national-planning-policy-framework/annex-2-glossary>.

century farmhouses are Listed while others are not, and differences may only reflect local government boundaries, policies and individuals.

Other buildings that fall within the curtilage of a Listed building are afforded some protection as they form part of the essential setting of the designated structure, e.g. a farmyard of barns, complexes of historic industrial buildings, service buildings to stately homes etc. These can be described as having *group value*.

Conservation Areas

Local authorities are obliged to identify and delineate areas of special architectural or historic interest as Conservation Areas, which introduces additional controls and protection over change within those places. Usually, but not exclusively, they relate to historic settlements, and there are c.7000 Conservation Areas in England.

Scheduled Monuments

In the United Kingdom, a Scheduled Monument is considered an historic building, structure (ruin), or archaeological site of national importance. Various pieces of legislation, under planning, conservation, etc., are used for legally protecting heritage assets given this title from damage and destruction; such legislation is grouped together under the term 'designation', that is, having statutory protection under the *Ancient Monuments and Archaeological Areas Act 1979*. A heritage asset is a part of the historic environment that is valued because of its historic, archaeological, architectural or artistic interest; those of national importance have extra legal protection through designation. Important sites have been recognised as requiring protection since the late 19th century, when the first 'schedule' or list of monuments was compiled in 1882. The conservation and preservation of these monuments was given statutory priority over other land uses under this first schedule. County Lists of the monuments are kept and updated by the Department for Culture, Media and Sport. In the later 20th century sites are identified by English Heritage (one of the Government's advisory bodies) of being of national importance and included in the schedule. Under the current statutory protection any works required on or to a designated monument can only be undertaken with a successful application for Scheduled Monument Consent.

Registered Parks and Gardens

Culturally and historically important 'man-made' or 'designed' landscapes, such as parks and gardens are currently "listed" on a non-statutory basis, included on the 'Register of Historic Parks and Gardens of special historic interest in England' which was established in 1983 and is, like Listed Buildings and Scheduled Monuments, administered by Historic England. Sites included on this register are of national importance, many associated with stately homes of Grade II* or Grade I status. Emphasis is laid on 'designed' landscapes, not the value of botanical planting. Sites can include town squares and private gardens, city parks, cemeteries and gardens around institutions such as hospitals and government buildings. Planned elements and changing fashions in landscaping and forms are a main focus of the assessment.

Registered Battlefields

Battles are dramatic and often pivotal events in the history of any people or nation. Since 1995 Historic England maintains a register of 46 battlefields in order to afford them a measure of protection through the planning system. The key requirements for registration are battles of national significance, a securely identified location, and its topographical integrity – the ability to 'read' the battle on the ground.

World Heritage Sites

Arising from the UNESCO World Heritage Convention in 1972, Article 1 of the Operational Guidelines (2015, no.49) states: 'Outstanding Universal Value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity'. These sites are recognised at an international level for their intrinsic importance to the story of humanity, and should be accorded the highest level of protection within the planning system.

Setting

The assessment of direct effects to archaeological sites (where the identified heritage asset falls within the footprint of a development and thus is very likely to be damaged or destroyed) is relatively straightforward, the assessment of indirect effects (where the effect is communicated via impact on the *setting* of a heritage asset) is more nebulous and harder to convincingly predict.

The NPPF Glossary defines the setting of a heritage asset as: *The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting*

*may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral*³³.

The principal guidance on this topic is contained within one publication: *The Setting of Heritage Assets: Good Practice Advice* 3³⁴. Where the impact of a proposed development is largely indirect, the importance of the setting to the significance of the heritage asset becomes the primary consideration of the impact assessment. The following extracts are from GPA3³⁵:

The NPPF makes it clear that the extent of the setting of a heritage asset 'is not fixed and may change as the asset and its surroundings evolve'. Setting is not itself a heritage asset, nor a heritage designation, although land comprising a setting may itself be designated (see below Designed settings). Its importance lies in what it contributes to the significance of the heritage asset or to the ability to appreciate that significance.

While setting can be mapped in the context of an individual application or proposal, it cannot be definitively and permanently described for all time as a spatially bounded area or as lying within a set distance of a heritage asset. This is because the surroundings of a heritage asset will change over time, and because new information on heritage assets may alter what might previously have been understood to comprise their setting and the values placed on that setting and therefore the significance of the heritage asset.

There are two ways in which change within the setting of a heritage asset may affect its significance:

- Where the setting of the heritage asset contributes to the significance of the heritage asset (e.g. the historic park around the stately home; the historic streetscape to the Listed shopfronts).
- Where the setting contributes to the ability to appreciate the significance of the heritage asset (e.g. clear views to a principal façade; well-kept garden to a Listed cottage).

GPA3 states: *The contribution of setting to the significance of a heritage asset is often expressed by reference to views, a purely visual impression of an asset or place...*³⁶ *The Setting of Heritage Assets*³⁷ lists a number of instances where views contribute to the particular significance of a heritage asset:

- Those where the composition within the view was a fundamental aspect of the design or function of the heritage asset.
- Those where town- or village-scape reveals views with unplanned or unintended beauty.
- Those with historical associations, including viewing points and the topography of battles.
- Those with cultural associations, including landscapes known historically for their picturesque and landscape beauty, those which became subjects for paintings of the English landscape tradition, and those views which have otherwise become historically cherished and protected.
- Those where relationships between the asset and other heritage assets or natural features or phenomena such as solar or lunar events are particularly relevant.
- Those assets, whether contemporaneous or otherwise, which were intended to be seen from one another for aesthetic, functional, ceremonial, or religious reasons, including military and defensive sites, telegraphs or beacons, prehistoric funerary and ceremonial sites, historic parks and gardens with deliberate links to other designed landscapes and remote 'eye-catching' features or 'borrowed' landmarks beyond the park boundary.

However, as stated in PPG³⁸: *Although views of or from an asset will play an important part in the assessment of impacts on setting, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust, smell, and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places.*

Furthermore, as stated in GPA3³⁹: *Similarly, setting is different from general amenity. Views out from heritage assets that neither contribute to significance nor allow appreciation of significance are a matter of amenity rather than of setting.*

³³ <https://www.gov.uk/guidance/national-planning-policy-framework/annex-2-glossary>.

³⁴ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.).

³⁵ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraphs 8, 9.

³⁶ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 10.

³⁷ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 11.

³⁸ <https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment#assess-substantial-harm>. Paragraph 013.

³⁹ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 16.

These documents make it clear that views to, from, or including, a heritage asset can be irrelevant to a consideration of setting, where those views do not contribute to either the significance of the asset, or an ability to appreciate its significance.

In addition, visibility alone is no clear guide to visual impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons⁴⁰ has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development, some of which are seasonal or weather-related.

Thus, the principal consideration of assessment of indirect effects cannot be visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of the heritage asset, and the sensitivity of that setting to the visual or aural intrusion of the proposed development.

GPA3 also details other area concepts that exist in parallel to, but separate from, setting. These are *curtilage*, *historic character*, and *context*⁴¹.

Curtilage

Curtilage is a legal term describing an area around a building and, for listed structures, the extent of curtilage is defined by consideration of ownership, both past and present, functional association and layout. The setting of a heritage asset will include, but generally be more extensive than, its curtilage. The concept of curtilage is relevant to Listed Building Consent, and where development occurs within the immediate surroundings of the Listed structure.

Historic Character

The historic character of a place is the group of qualities derived from its past uses that make it distinctive. This may include: its associations with people, now and through time; its visual aspects; and the features, materials, and spaces associated with its history, including its original configuration and subsequent losses and changes. Character is a broad concept, often used in relation to entire historic areas and landscapes, to which heritage assets and their settings may contribute. The concept of character area⁴² can be relevant to developments where extensive areas designations (Registered Parks and Gardens, Registered Battlefields, Conservation Areas, and World Heritage Sites; also towns and larger villages) are divisible into distinct character areas that a development may impact differently due to proximity, visibility etc.

Context

The context of a heritage asset is a non-statutory term used to describe any relationship between it and other heritage assets, which is relevant to its significance, including cultural, intellectual, spatial or functional. Contextual relationships apply irrespective of distance, sometimes extending well beyond what might be considered an asset's setting, and can include the relationship of one heritage asset to another of the same period or function, or with the same designer or architect. A range of additional meanings is available for the term 'context', for example in relation to archaeological context and to the context of new developments, as well as customary usages. Setting may include associative relationships that are sometimes referred to as 'contextual'. This concept is a useful, though non-statutory one, as heritage assets may have a relationship with the surrounding landscape that is non-visual and based e.g. on their historical economy. This can be related to landscape context (below), but which is a physically deterministic relationship.

Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform and modified by cultural and biological factors like field boundaries, settlements, trees, and woodland. Together, these contribute to local character and extent of the setting.

Landscape context is based on topography and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views.

⁴⁰ Hull, R.B. & Bishop, I.D. 1988: 'Scenic Impacts of Electricity Transmission Towers: the influence of landscape types and observer distance', *Journal of Environmental Management* 27, 99-108.

⁴¹ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraph 7.

⁴² Historic England 2017: *Understanding Place: Historic Area Assessments*.

Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context, for example, where church towers function as landmarks in the wider landscape.

Principal Views, Landmark Assets, and Visual Impact

Further to the consideration of views (above), historic and significant views are the associated and complementary element to setting, but can be considered separately as developments may appear in a designed view without necessarily falling within the setting of a heritage asset *per se*. As such, significant views fall within the aesthetic value of a heritage asset and may be *designed* (i.e. deliberately conceived and arranged, such as within parkland or an urban environment) or *fortuitous* (i.e. the graduated development of a landscape ‘naturally’ brings forth something considered aesthetically pleasing, or at least impressive, as with particular rural landscapes or seascapes), or a combination of both (i.e. the *patina of age*).

On a landscape scale views, taken in the broadest sense, are possible from anywhere to anything, and each may be accorded an aesthetic value according to subjective taste (this is the *amenity value* of views⁴³). Given that terrain, the biological and built environment, and public access restrict our theoretical ability to see anything from anywhere, in this assessment the term *principal view* is employed to denote both the deliberate views created within designed landscapes, and those fortuitous views that may be considered of aesthetic value and worth preserving, where they contribute to significance.

It should be noted, however, that there are distance thresholds beyond which perception and recognition fail, and this is directly related to the scale, height, massing, and nature of the heritage asset in question. For instance, beyond 2km the Grade II cottage comprises a single indistinct component within the wider historic landscape, whereas at 5km or even 10km a large stately home or castle may still be recognisable. By extension, where assets cannot be seen or recognised i.e. entirely concealed within woodland, or too distant to be distinguished, then visual harm to setting is moot. To reflect this emphasis on recognition, the term *landmark asset* is employed to denote those sites where the structure (e.g. church tower), remains (e.g. earthwork ramparts) or – in some instances – the physical character of the immediate landscape (e.g. a distinctive landform like a tall domed hill) make them visible on a landscape scale. In some cases, these landmark assets may exert landscape *primacy*, where they are the tallest or most obvious man-made structure within line-of-sight. However, this is not always the case, typically where there are numerous similar monuments (multiple engine houses in mining areas, for instance) or where modern developments have overtaken the heritage asset in height and/or massing.

Where a new development has the potential to *visually dominate* a heritage asset, even if the contribution of setting to the significance of a heritage asset is minimal, it is likely to impact on the ability of setting to facilitate an appreciation of the heritage asset in question and can be regarded as an adverse effect.

Visibility alone is not a clear guide to visual impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development (see Table 7 **ERROR! REFERENCE SOURCE NOT FOUND.**), some of which are seasonal or weather-related.

⁴³ Historic England 2017: *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (2nd ed.). Paragraphs 14-16.

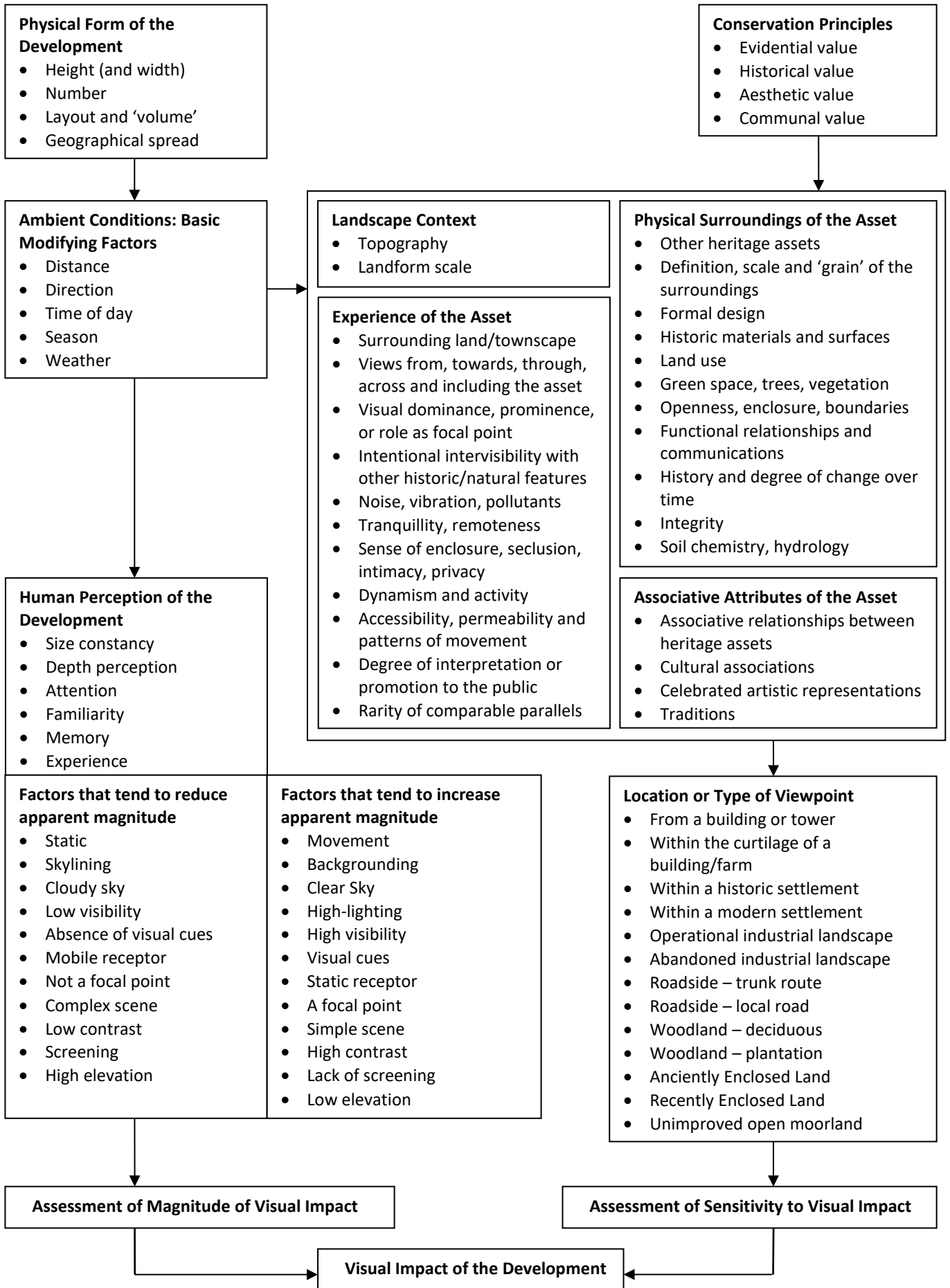


TABLE 7: THE CONCEPTUAL MODEL FOR VISUAL IMPACT ASSESSMENT PROPOSED BY THE UNIVERSITY OF NEWCASTLE (2002, 63), MODIFIED TO INCLUDE ELEMENTS OF ASSESSMENT STEP 2 FROM THE SETTING OF HERITAGE ASSETS (HISTORIC ENGLAND 2017, 11, 13).

APPENDIX 2: METADATA FOR GEOPHYSICAL SURVEY PROCESSING

GRADIOMETRY

GENERAL DATA FOR ALL FIELDS/SITE:

SITE

NAME: GLC23
LOCATION: North-east of Chyvounder Farm, Goonhavern
COLLECTION METHOD: ZigZag
SENSORS: 2 @ 1m spacing
DUMMY VALUE: 32702
X&Y INTERVAL: 0.25m
INSTRUMENT TYPE: Bartington Grad 601
UNITS: nT
SURVEYED AREA: 1.5148ha

PROGRAM

NAME: TerraSurveyor
VERSION: 3.0.37.30

Statistics adjusted after processing

Processes used:

DeStripe: used to equalise underlying differences between grids (potentially caused by instrument drift or orientation, directional effects inherent in magnetic instrument, or differences in instrument set-up during survey *e.g.* using two gradiometers).

DeStagger: reduces staggering effects within data derived from zig-zag collection method.

FIELD F3

STATS

MAX: 94.85
MIN: -103.44
STD. DEV: 4.74
MEAN: -0.10
MEDIAN: 0.00
COMPOSITE AREA: 0.72ha
SURVEYED AREA: 0.3733ha

PROCESSES

PROCESSES: 2

- 1 Base Layer
- 2 DeStripe Median Traverse: Grids: All

FIELD F4

STATS

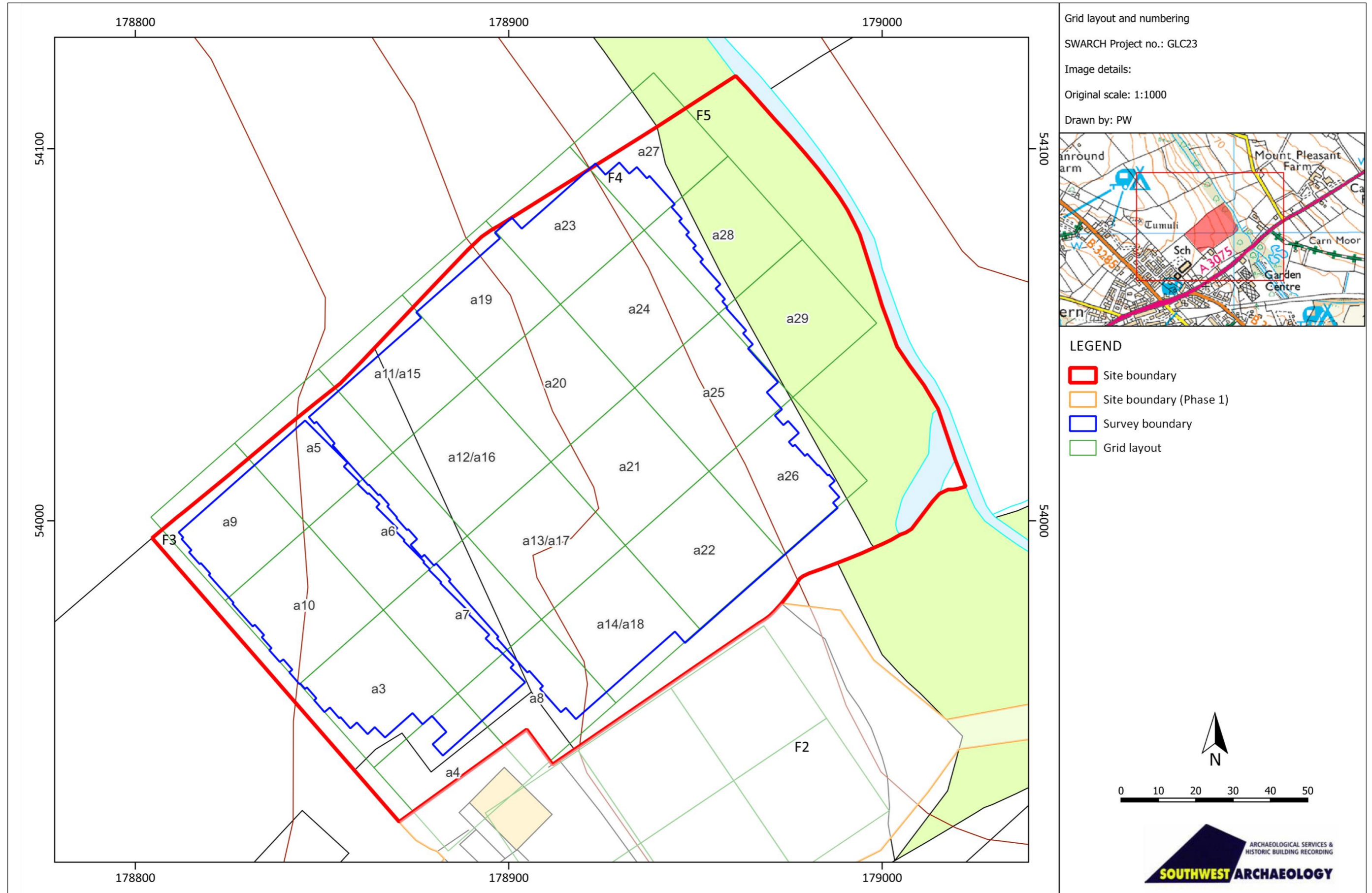
MAX: 101.75
MIN: -102.71
STD. DEV: 4.22
MEAN: 0.14
MEDIAN: 0.00
COMPOSITE AREA: 1.8ha
SURVEYED AREA: 1.1415ha

PROCESSES

PROCESSES: 6

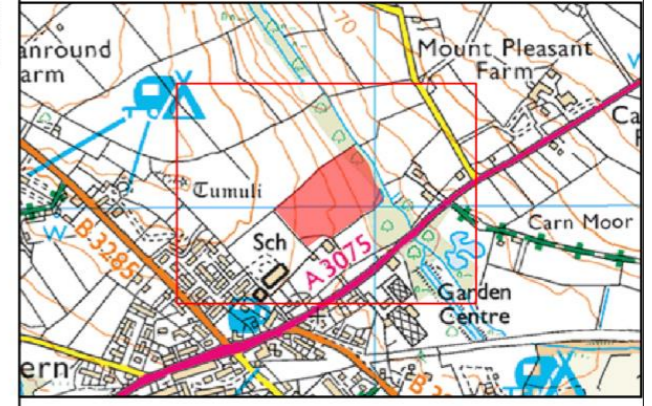
- 3 Base Layer
- 4 DeStripe Median Traverse: Grids: All
- 5 DeStagger: Grids: a26-a.xgd By: 0 intervals, 75.00cm
- 6 DeStagger: Grids: a25-a.xgd By: 0 intervals, 50.00cm
- 7 DeStagger: Grids: a22-a.xgd By 0 intervals, 75.00cm
- 8 DeStripe Median Traverse: Grids: All

APPENDIX 3: ADDITIONAL IMAGES OF THE GEOPHYSICAL SURVEY



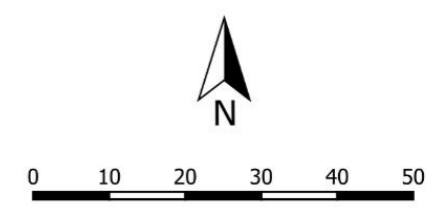
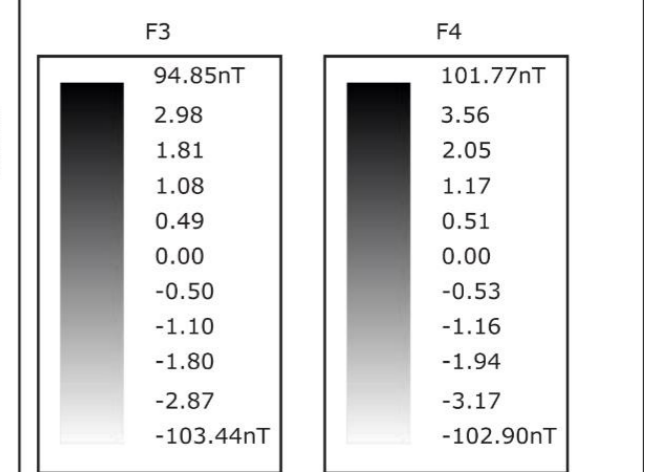


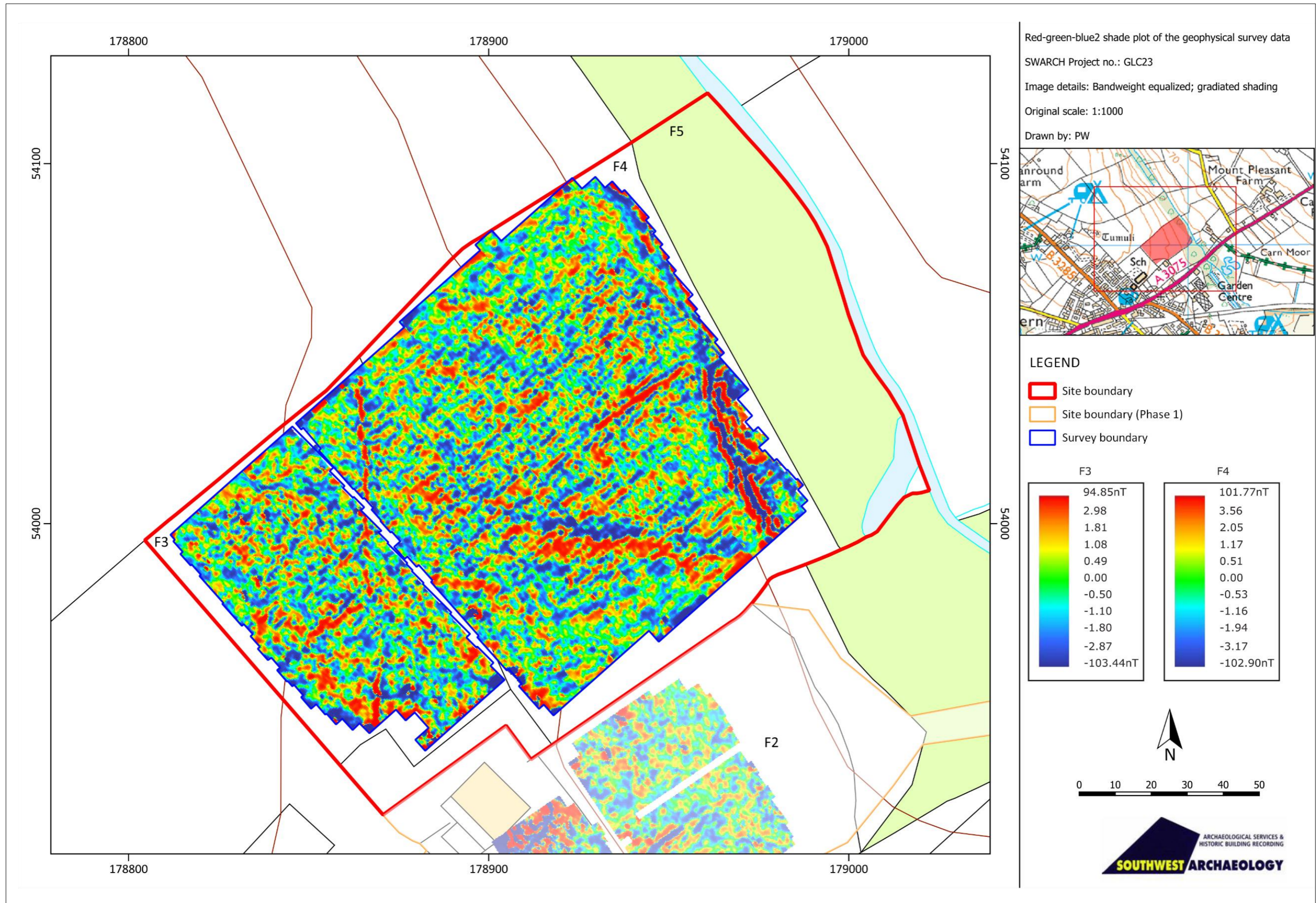
Greyscale shade plot of the geophysical survey data
 SWARCH Project no.: GLC23
 Image details: Bandweight equalized; gradiated shading
 Original scale: 1:1000
 Drawn by: PW



LEGEND

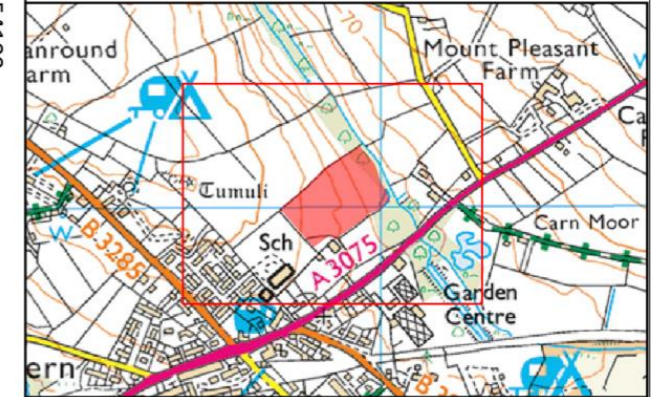
- Site boundary
- Site boundary (Phase 1)
- Survey boundary





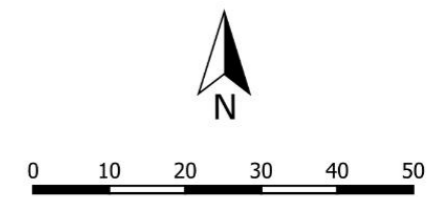
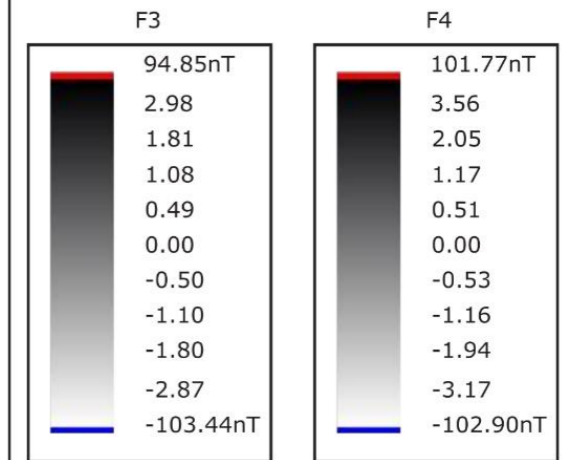


Red-grey-blue shade plot of the geophysical survey data
 SWARCH Project no.: GLC23
 Image details: Bandweight equalized; gradiated shading
 Original scale: 1:1000
 Drawn by: PW



LEGEND

- Site boundary
- Site boundary (Phase 1)
- Survey boundary



APPENDIX 4: SUPPORTING PHOTOGRAPHS



1. VIEW TOWARDS THE FORMER METHODIST CHAPEL AND SUNDAY SCHOOL; VIEWED FROM THE NORTH.



2. GOONHAVERN FORMER METHODIST CHAPEL AND SUNDAY SCHOOL; VIEWED FROM THE WEST.



3. VIEW TOWARDS THE PROPOSAL SITE FROM THE FORMER METHODIST CHAPEL; VIEWED FROM THE SOUTH.



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