

LAND AT TRELOWETH LANE

ST ERTH

HAYLE

CORNWALL

RESULTS OF A HERITAGE IMPACT ASSESSMENT & GEOPHYSICAL SURVEY



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LAND AT TRELOWETH LANE, ST ERTH, HAYLE, CORNWALL RESULTS OF A HERITAGE IMPACT ASSESSMENT & GEOPHYSICAL SURVEY

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Work undertaken for Coral Curtis and Matthew Kendrick of Grassroots Planning (the Agent)
on behalf of the St Aubyn Estate (the Client)

SUMMARY

This report presents the results of a heritage impact assessment (HIA) and geophysical survey carried out by South West Archaeology Ltd. (SWARCH) for a proposed residential development on land at Treloweth Lane, St Erth, Hayle, Cornwall. This work was undertaken in order to assess the potential impact of development of the site and set it within its historical and archaeological context.

The proposed development would be located within two fields belonging historically to the Manor of Treloweth, documented in 1301 but likely to have its origins in the early medieval period. Treloweth was owned by the Tredrea family of the neighbouring eponymous manor, but came into the possession of the St Aubyns of St Michael's Mount and Clowance in the late 17th century. In the 19th century the Manor of Treloweth consisted of two farms, numerous cottages with gardens, and a blowing house at what is now the Lamb and Flag; mining took place along the western edge of the manor.

The location of the site between two arms of the River Hayle and within Anciently Enclosed Land indicates the archaeological potential of the site is high. An analysis of the historic maps very tentatively identified a possible Roman military site east of Treloweth Lane, and a possible late Prehistoric or Romano-British enclosure beneath Treloweth Cottages. However, the results of the geophysical survey of Field 1 – which principally identified modern services – would suggest otherwise. The geophysical survey of Field 2 indicates a possibly poorly surviving undated field system and further disturbance by modern services. On that basis the archaeological potential of the site is assessed as moderate.

*In terms of indirect impacts, most of the designated heritage assets in the wider area have limited visibility to and from the proposed development, or the contribution of setting to overall significance is less important than other factors. The landscape context of many of these buildings and structures is such that they would be partly or wholly insulated from the effects of the proposed development by a combination of local blocking from trees, buildings or that other modern intrusions have already impinged upon their settings. The only site where there is likely to be an appreciable impact is Treloweth Farmhouse and Barn (**negative/minor**). On balance, the impact of the development on local heritage assets and the historic landscape is expected to be **negative/minor**.*

*With this in mind, the overall impact of the proposed development can be assessed as **negative/minor**. The impact of the development on any buried archaeological resource would be **permanent** and **irreversible**.*



MAY 2018

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1.0 INTRODUCTION

LOCATION:	LAND AT TRELOWETH LANE
PARISH:	ST ERTH
COUNTY:	CORNWALL
NGR:	SW 54640 35294
SWARCH REF.	STL18

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by Coral Curtis and Matthew Kendrick of Grassroots Planning Ltd. (the Agent) on behalf of the St Aubyn Estate (the Client) to undertake a heritage impact assessment and geophysical survey for Land at Treloweth Lane, St Erth, Hayle, Cornwall, in advance of a proposed residential development. This work was undertaken in accordance with Cornwall Council and ClfA guidelines.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The proposed site is located west of the village of St Erth, adjacent to Treloweth Close and on the edge of the extant settlement. The two fields are located on a slight north/north-east facing slope at an altitude of 9-19m AOD, the lowest point being the eastern corner of Field 1 and the highest point being at the western part of Field 2 (see Figure 1). These two fields are located close to the end of a shallow spur between two arms of the River Hayle, which was navigable to ships as far as St Erth bridge in the medieval period. The soils of this area are the well-drained fine loamy soils over slate, variably affected by groundwater, of the Denbigh 2 Association (SSEW 1983). These overlie the slates and siltstones of the Mylor Slate Formation (BGS 2018).

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

St. Erth is located in the Hundred and Deanery of Penwith (Lysons 1814). The place-name St. Erth (meaning *St. Ergh's (church)*) is derived from the 13th century church dedication. The alternative church town name, *Lanuthinoch*, is derived from the Old Cornish *Lann* (meaning *church* or *religious enclosure*) and an unknown suffix (Watts 2002). The site is located west of the church town within the Manor of Treloweth, first documented in 1301. The railway station at St. Erth opened as part of the West Cornwall Railway in 1852 as *St Ives Road*, subsequently becoming a junction for the St Ives branch in 1877 when it was renamed *St Erth*.

The site is located within an area characterised by the Cornwall and Scilly HLC as *post-medieval enclosed land*. It is bordered by *plantation/scrub* land with areas of *medieval farmland* to the south and south-west. A limited amount of archaeological fieldwork has been undertaken in this area, all of it relating to the proposed works at the St Erth Multi-Modal Hub (CAU 2006; 2009; 2010; SWARCH 2016; 2017).

1.4 METHODOLOGY

This work was undertaken in accordance with best practice. The desk-based assessment aspect follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (ClfA 2014a revised 2017). The gradiometer survey follows the general guidance as outlined in: *Geophysical Survey in Archaeological Field Evaluation* (English Heritage 2008) and *Standard and Guidance for Archaeological Geophysical Survey* (ClfA 2014b).

The heritage impact assessment follows the guidance outlined in: *Conservation Principles: policies and guidance for the sustainable management of the historic environment* (English Heritage 2008a), *The Setting of Heritage Assets* (Historic England 2015), *Seeing History in the View* (English Heritage 2011), *Managing Change in the Historic Environment: Setting* (Historic Scotland 2010), and with reference to *Guidelines for Landscape and Visual Impact Assessment 3rd Edition* (Landscape Institute 2013).

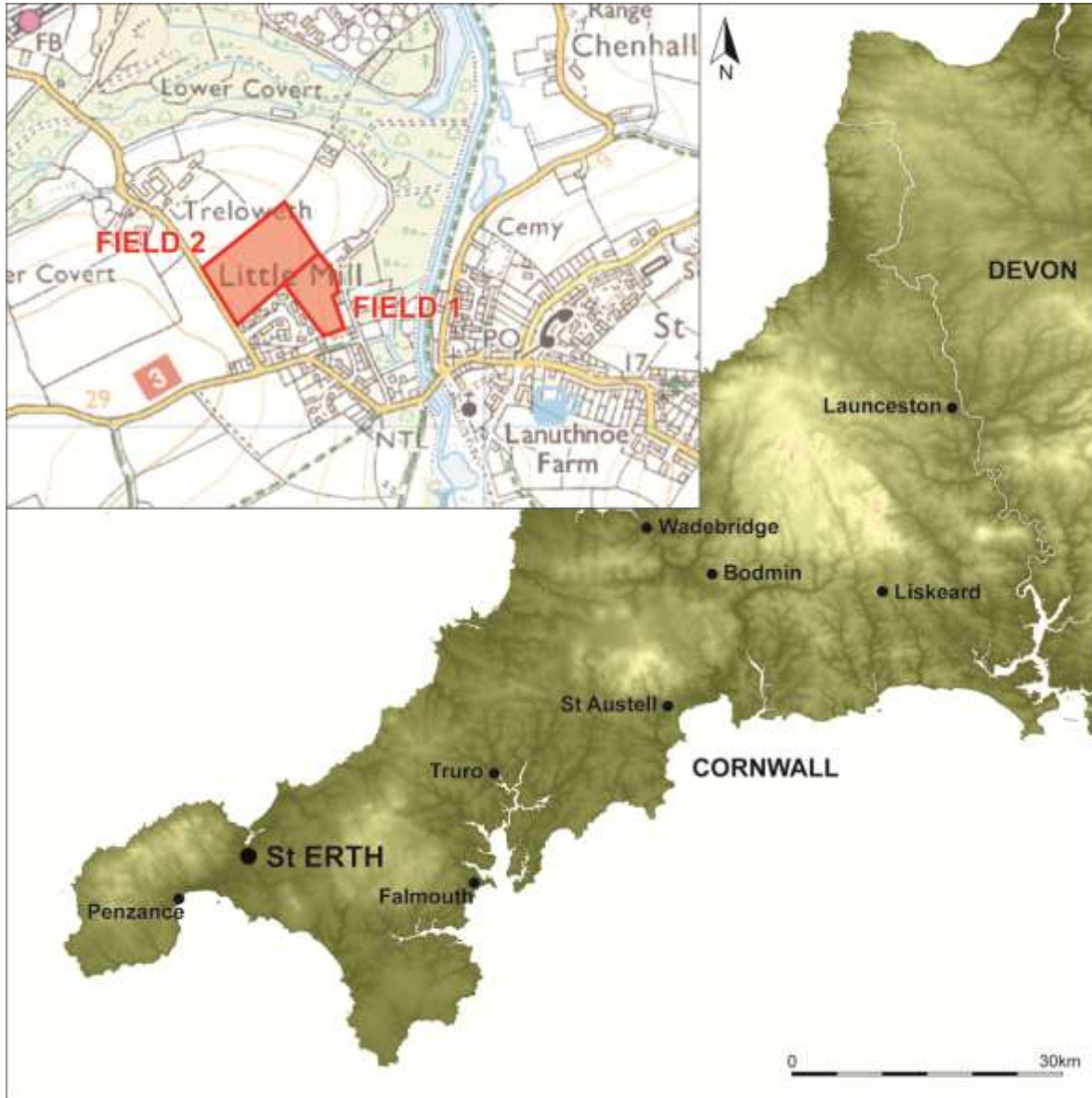


FIGURE 1: SITE LOCATION (THE SITE IS INDICATED).

2.0 HERITAGE IMPACT ASSESSMENT

2.1 HERITAGE IMPACT ASSESSMENT - OVERVIEW

The purpose of this heritage impact assessment is two fold: 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 Department of Transport (DoT) guidance (DMRB vol.11; WEBTAG), used in conjunction with the ICOMOS (2011) guidance and the staged approach advocated in *The Setting of Heritage Assets* (GPA3 Historic England 2015). The methodology employed in this assessment can be found in Appendix 2.

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 2012). The relevant guidance is reproduced below:

Paragraph 128

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 129

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.

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 cartographic and archaeological background to the site; Section 3.6 details the results of the geophysical (gradiometer) survey undertaken. Section 3.7 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 within the ancient ecclesiastical parish of St Erth, part of the Hundred and Deanery of Penwith (the Domesday Hundred of Connerton) (Lysons 1814). St Erth (as *Lannutheno*) was first documented in 1233, the earliest reference to Treloweth comes in 1301. The place name is from the Cornish *tre* (estate or farm) and *leuuit* (pilot, perhaps used as a personal name) (Padel 1985). It was a medieval manor, but Trewinnard, Trelissick and Tredrea were regarded as more important; in 1840 the lands listed as *Treloweth* covered c.200 acres. At the time of writing, as in 1840, Treloweth was held by the St Aubyn family, then of St Michael's Mount and Clowance. Gilbert (1838) notes that Treloweth was held by the family of Tredrea into the later 17th century, when both estates passed via unredeemed mortgage to the St Aubyns. In 1649 Treloweth appears in a *deed to lead to the uses of a fine* (i.e. a conveyance) between William Maddern of Penzance and Michael Vivian of Phillack with Thomas Harris of Marazion [CRO: AU/104].

In 1840 there were two main farms at Treloweth, which faced each other across a central shared townplace. The farm on the northern side of the road was leased by one John Berryman (Higher Treloweth); the farm to the south (Lower Treloweth) was leased by the Rev. William Curgenwen and let to one George Bight. A leat passed just to the west of both farms and followed the contour around to *Little Mill*, possibly the grist mill mentioned in the deed of 1649 (above). All of the houses and gardens along Little Mill Lane formed part of Treloweth; those along Tredrea Lane formed part of Tredrea.

In the 19th century a mine (*Treloweth Mine*) was developed along the eastern side of the manor, between St Erth railway station and the Lamb & Flag; the latter was the site of Treloweth blowing house from at least the early 18th century (HER No.31064).

3.3 CARTOGRAPHIC DEVELOPMENT

The earliest source available to this study is the 1809 OS draft map of the district (Figure 2). This shows the area in some detail, with *Treloweth* and *Hr Treloweth* (i.e. Higher) shown either side of the main road. The estuary of the River Hayle is shown extending to the south of the historic bridge in the village. Leland states: '*Ther cam to this place ons, the haven being onbarrid, and syns choked with tynne works, good talle shippes*', indicating the river was formerly navigable some distance inland (Leland quoted in Polsue 1867, 362).

The St Erth tithe map of 1840 (Figure 3) shows the proposed site straddling two fields (no. 1727 and part of no. 1720). These fields are located on the eastern edge of the lands leased by John Berryman, and while the tithe apportionment does not state the landuse, it is likely to have been

pasture and arable in rotation. The field names are prosaic and straightforward (see Table 1): the north-west field is listed as *Middle Field*; the south-west field forms part of *Morleys Field*. Comparison of the OS draft and tithe map, together with the field names (*new inclosure*), would indicate Little Mill Lane once followed the edge of the estuary, with a causeway across the open estuary to the farmstead at Start; it is highly likely the estuary formerly also extended around Treloweth to the west (field no. 1745 is *Lower Moor*). That being the case, the land under consideration would have formed part of a broad peninsula projecting in the estuary, and such areas are often favoured for settlement and other activity.

In terms of the wider area, a block of fields to the west describes a sub-rectangular area respected by other field boundaries and the tenorial border between Higher and Lower Treloweth (see Figure 4). Its size and shape is reminiscent of a Roman fort, and the location conforms to the observed tendency of Roman military sites in Cornwall to be located at the navigable head of an estuary (Restormal and the Fowey, Nanstallon and the Camel, Calstock and the Tamar). However, for such a site to survive long enough to influence the layout of the medieval fieldscape would be exceptional in a Cornish context. Similarly, just to the east of Lower Treloweth is an orchard (field no. 1833) with a strong curving boundary; it is *possible* this marks the remains of a late Prehistoric or Romano-British enclosure ('round').



FIGURE 2: EXTRACT FROM THE 1809 ORDNANCE SURVEY DRAFT SURVEYOR'S MAP; THE SITE IS INDICATED (BL).

TABLE 1: EXTRACT FROM THE ST ERTH TITHE APPORTIONMENT OF 1840; THE SITE OCCUPIES THE HIGHLIGHTED PLOTS.

Plot number	Landowner	Occupier	Plot name	Landuse
Premises in Tredrea Lane				
1683	Sir John St Aubyn	Henry White	House, Courtlage and Garden	Not recorded
1705		Henry Lobb	Garden	Not recorded
1706			Cottage and Garden	Not recorded
1707		Thomas Buzza	House, Courtlage and Garden	Not recorded
1710		Charles Trezize	Cottage, Courtlage and Garden	Not recorded
1712			Cottage and Courtlage	Not recorded
1711		Gilbert Roberts	Cottage, Courtlage and Garden	Not recorded
1722		John George	Cottage, Courtlage and Garden	Not recorded
Treloweth				
1677	Sir John St Aubyn	James Hodge & Tenants	Three Houses	Not recorded
1682			Two Houses, Courtlages and Garden	Not recorded

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Plot number	Landowner	Occupier	Plot name	Landuse	
Premises in Tredrea Lane					
1678		Richard Nicholas & Tenants	Three Houses and Shop	Not recorded	
1681			Two Houses, Courtlages and Garden	Not recorded	
1679		John Eddyvean & John Blight	Three Houses, Courtlages and Garden	Not recorded	
1680			Garden	Not recorded	
1717		John Berryman	Butchers Field	Not recorded	
1720			Morleys Field	Not recorded	
1721			Cottage and Garden	Not recorded	
1726			Mill Field	Not recorded	
1727			Middle Field	Not recorded	
1728			Mowhay Field	Not recorded	
1729			Park Hales	Not recorded	
1719		-	-	Road	Not recorded



FIGURE 3: EXTRACT FROM THE ST. ERTH TITHE MAP OF 1840; THE SITE IS INDICATED (CRO).

The 1878 OS 1st edition map demonstrates broad continuity in the layout of the fields (Figure 4); already relatively large, boundary loss was minimal. The layout of some of the houses in plots bordering the site altered, but new development between 1840 and 1876 was restricted to the construction of the West Cornwall Railway (opened 1852), and activity around Treloweth Mine (closed c.1876). The reclaimed fields to the north and east of the farm are shown as marsh, with *Lower Moor* shown as mixed woodland. The changes between 1878 1st edition and 1908 OS 2nd edition map are more dramatic (Figure 5): many of the cottages along Little Mill Lane had been lost, as had Lower Treloweth; the two farms had, presumably, been amalgamated by this date. The leat for Little Mill is still shown, but the north-east section had also been lost by this date. The shallow valley to the north is shown crossed by narrow canalised streams and labelled *Lower* and *Upper Covert* (i.e. thickets for game).



FIGURE 4: EXTRACT FROM THE OS 1ST EDITION 25" MAP OF 1878; THE SITE IS INDICATED IN RED; THE BLOCK OF FIELDS DESCRIBING THE POSSIBLE ROMAN SITE IN BLUE; THE POSSIBLE ROUND IS MARKED IN GREEN (CRO).



FIGURE 5: EXTRACT FROM THE OS 2ND EDITION 25" MAP OF 1908; THE SITE IS INDICATED (CRO).

By the 1930s (Figure 6), the Lower Covert is shown with buildings, ponds, footpaths and foot bridges, the last traces of Penponds Farm and Start Farm had been lost, and new farm buildings constructed at Treloweth. In terms of later changes (not illustrated), Treloweth Close was built in the southern part of *Morleys Field*, and a small sewage treatment works constructed at the end of Little Mill Lane, between 1963 and 1965. During the period 1977-1989 an extensive sewage works was constructed with Start Plantation, destroying the remains of the farmstead there. In the same period new houses (Treloweth Cottages) were built within a former orchard on the site of Lower

Treloweth. Between 2005-2009 the area between the Lower Covert and the railway line was developed for commercial use, with a new access road from the south-west. Lastly, in 2017 the field to the south of the railway station was developed as a park-and-ride facility.

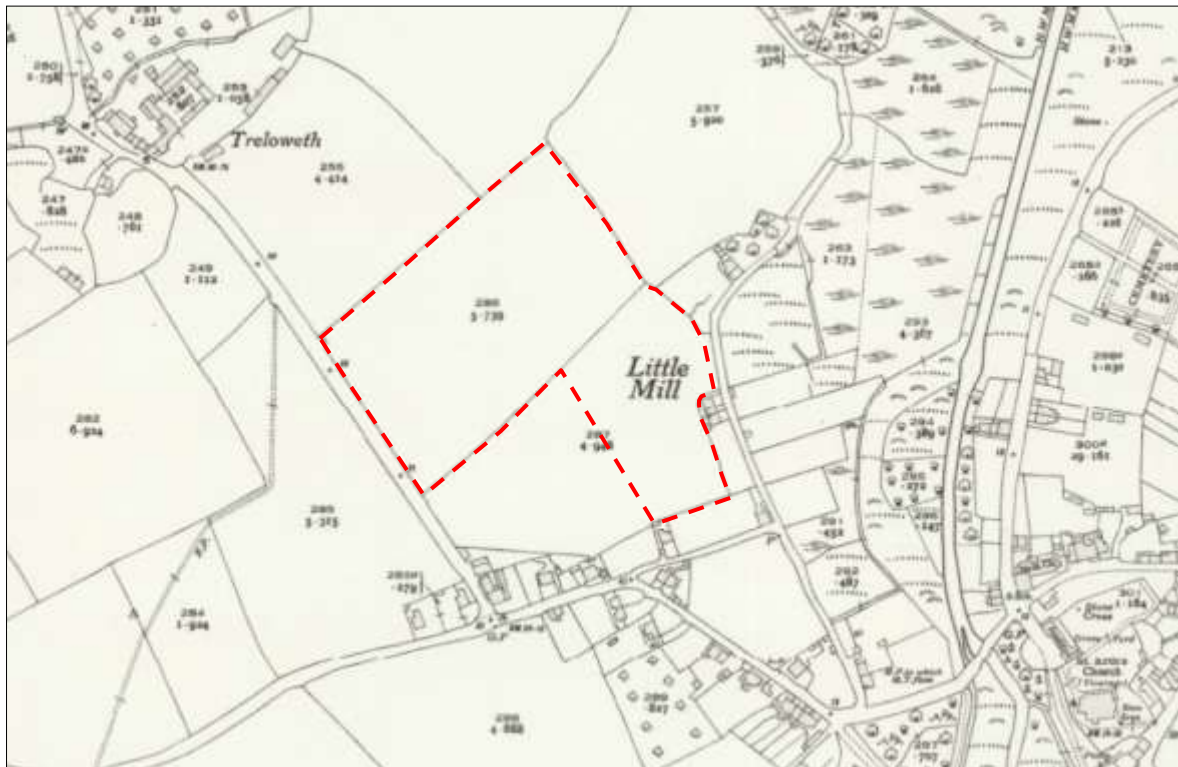


FIGURE 6: EXTRACT FROM THE OS 3RD REVISION 25" MAP OF 1938; THE SITE IS INDICATED (CRO).

3.4 ARCHAEOLOGICAL BACKGROUND

A limited amount of archaeological fieldwork has been undertaken in this area, and most of this relates to the development of a 'multi-modal hub' (i.e. park-and-ride) at St Erth Railway Station. Several assessments and two geophysical surveys have been undertaken here; monitoring works exposed part of a medieval ditch around the site of Penponds Farm and the line of a 19th century road (CAU 2006; 2009; 2010; SWARCH 2016; 2017). The Cornwall and Scilly HER lists evidence for human activity in the surrounding area from the Prehistoric through to the modern period (see Figure 7 and Table 2); however, as the Cornwall and Scilly HLC characterises this area as *medieval farmland*, the absence of Prehistoric and Romano-British sites reflects a lack of fieldwork rather than a genuine absence.

3.4.1 PREHISTORIC AND ROMANO-BRITISH 4000BC – AD410

Very few Prehistoric or Romano-British sites are recorded in the immediate area: a poorly-located Bronze Age axe head (HER: 31980), a field-name at Penponds (*Park-an-Chamber*) (HER: 31123), and the undated cropmark of an enclosure (no reference) just to the south of nos 1-2 Tredrea Lane. However, this absence is likely to be more apparent than real, as Bronze Age barrows and Iron Age and Romano-British settlements are commonly encountered within *Anciently Enclosed Land* and, as discussed above, it is possible (Lower) Treloweth sits within a round, and that – tentatively – there was a possible Roman fort here as well.

3.4.2 EARLY MEDIEVAL AD410 – AD1065

No early medieval sites are recorded in the immediate area around the site. However, the tenurial and ecclesiastical framework of the landscape would have been established by 1086, and the farms and settlements first recorded in the 14th century (see below) are likely to have their origins

in the early medieval period. Two crosses (29166, 31871) are also dated to this period, both in relatively close proximity to the church.

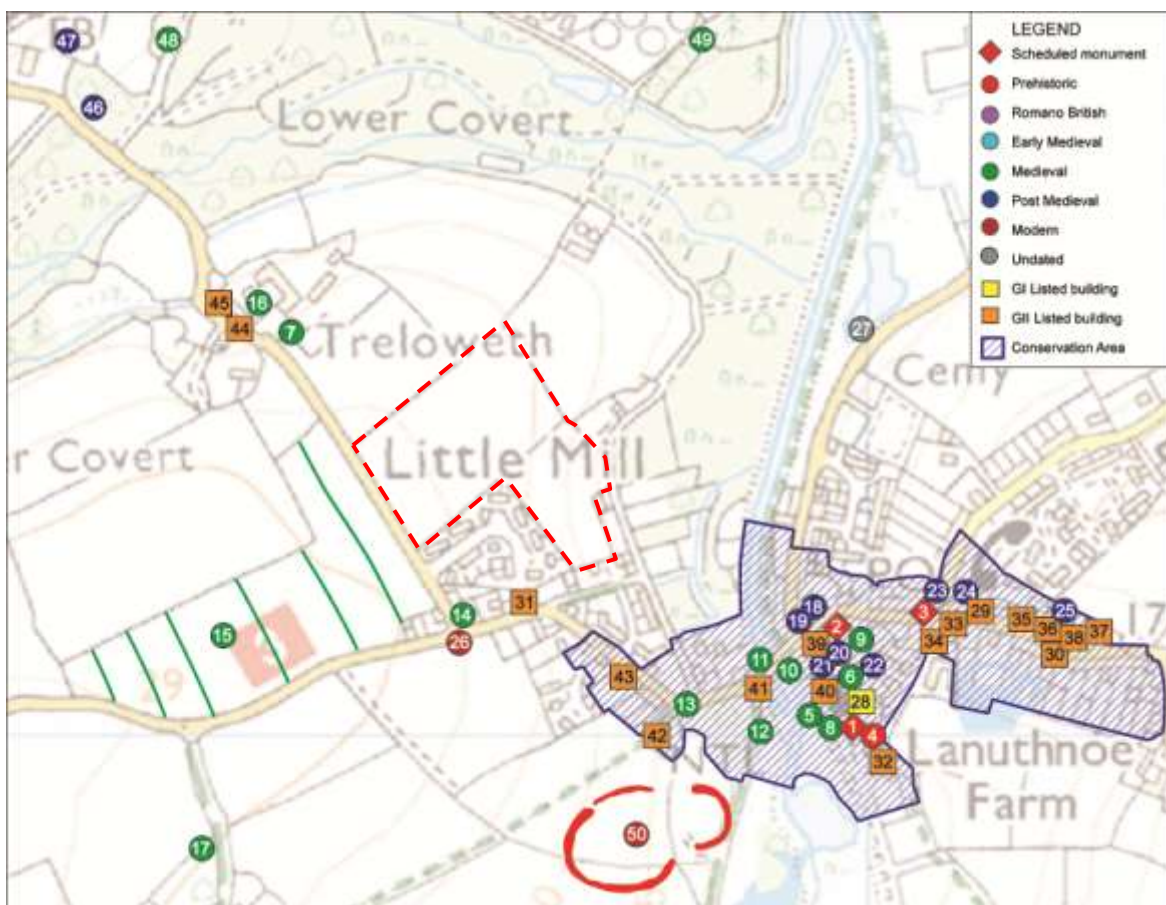


FIGURE 7: MAP OF NEARBY HERITAGE ASSETS (SOURCE: CORNWALL AND SCILLY HER).

3.4.3 MEDIEVAL AD1066 - AD1540

The main farms and settlements in the area are first recorded in the 14th and 13th century AD: *Lannutherno* in 1233 (31076) and *Treloweth (Trelwyth)* in 1301 (29973). The church of St Erth is thought to date to the 15th century although likely sits on the location of an earlier site (331131).

3.4.4 POST-MEDIEVAL AND MODERN AD1540 – PRESENT

The bridge at St Erth is a rebuild of the former 1663 bridge, on a medieval site. The majority of the structures and features within the St Erth Conservation Area date to this period, mainly from the 18th century onwards. A number of buildings within St Erth are Grade II Listed, with the Church of St Erth Grade I Listed (331131).

TABLE 2: TABLE OF NEARBY HERITAGE ASSETS (SEE FIGURE 7) (SOURCE: CORNWALL AND SCILLY HER).

No	HER No.	Name	Record	Description
1	31871	Medieval cross	Monument	The remains of a four-hole cross survive in St Erth churchyard.
2	29166	Medieval cross	Monument	A cross at St Erth churchyard from Battery Mill.
3	31917	Medieval cross	Monument	An <i>in situ</i> cross in St Erth village.
4	31980	Bronze Age findspot	Findspot	An early Bronze Age axe.
5	31073	Early medieval cross	Monument	Fragments of a cross found in the south wall of the church during restoration work in 1875.
6	31076	Early medieval <i>lann</i>	Documentary	The place-name <i>Lannutherno</i> recorded in 1233 and may indicate an early cemetery site.
7	29973	Treloweth	Documentary	Settlement first recorded as <i>Trelwyth</i> in 1301.
8	31074	Medieval cross	Documentary	Appleby records a tapered stone incised with a cross by the south wall of St Erth Church.
9	31132	St Erth	Documentary	The settlement of St Erth is first recorded as <i>Vicarie Sancti Ercii</i> in 1269.

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No	HER No.	Name	Record	Description
10	31075	Medieval dovecote	Documentary	A dovecote at St Erth churchtown, but extant remains.
11	31071.01	Medieval ferry	Documentary	Leland, writing in 1538, states that St Erth bridge was built 200 years ago and "afor it ther was a fery".
12	31077	Post-medieval barn	Documentary	A terrier of 1630 records a tithe barn in St Erth churchtown. There are no extant remains.
13	29970	Penpons; medieval settlement	Documentary	Settlement first recorded in 1340; last recorded in 1699 (Henderson) but Penponds Farm to north of Treloweth survived into the late C19.
14	24363.02	Medieval cross at Tredrea	Documentary	Field-name <i>Park-an-Grouse</i> , suggesting the site of a cross. There are no extant remains.
15	52760	Medieval fieldsystem at Little Mill	Documentary	The hilltop west of Little Mill features a succession of linear cropmark and low earth bank boundaries. The boundaries form the remnants of a rectilinear field system considered to be of medieval origin.
16	29973.10	Medieval house and chapel at Treloweth	Documentary	Henderson recorded a house and chapel at Treloweth. These were destroyed and replaced by the present farmhouse.
17	24363.01	Medieval cross at Tredrea	Documentary	A damaged wheel-head cross that stood in the orchard at Tredrea was moved to Trellisick in Feock parish c.1844.
18	138691	Post-medieval Nonconformist chapel	Structure	Wesleyan Methodist chapel plus attached later Sunday school. Chapel was remodelled circa 1900.
19	177161	Post-medieval school	Structure	Weslyan Day School, 1872.
20	177160	Post-medieval school	Structure	National School, founded 1826 and moved into this purpose built school in 1841.
21	40426	Post-medieval blacksmiths workshop	Documentary	A smithy occupied by J. Trevaskus is shown on the tithe map.
22	31907	Post-medieval Nonconformist chapel	Documentary	Site of a primitive Methodist chapel; there are no extant remains.
23	31910	Post-medieval Nonconformist chapel	Documentary	Site of a Bible Christian chapel, recorded on the 1878 OS map but demolished by 1908.
24	31981	Post-medieval gravestone	Findspot	Two C18 gravestones found during building work in 1986, probably removed from the parish church during restoration works in 1874.
25	40376	Post-medieval blacksmiths workshop	Documentary	A smithy shown on the OS map of 1908.
26	MCO56645	C20 signpost	Structure	A short cast iron fingerpost survives on the south side of Tredrea Lane.
27	MCO58370	Undated stone	Documentary	Stone recorded on historic OS maps; no extant remains.
28	Multiple	GI Church of St Erth GII War Memorial ×12 GI tombs/headstones	Structure	GI church of St Erth, consecrated as <i>Lanuthinock</i> . Norman font, C14 tower and C15 nave, chancel, north and south aisles and porch. restored 1873- 4 by JD Sedding. Twelve GV II tombs/headstones in the churchyard; one GI listing for a war memorial within the churchyard.
29	31908	Rock Close Terrace	Structure	GI group of cottages at Rock Close Terrace; datestone 1791.
30	31906	Nos 1-12 Trebartha Place	Structure	GI curved row of cottages; date plaque of 1831 (on No 26).
31	1327654	Treloweth House	Structure	GI house; C18.
32	1143649	Lanouthnoe Cottage	Structure	GI house with integral coach house and stable; datestone 1859.
33	1143648	The Star Inn	Structure	GI public house; probably C18.
34	1160773	Snips and Brian's delicatessen	Structure	GI two houses, one with shopfront and now 2 shops with accommodation over; mid C19.
35	1160785	Anwil House	Structure	GI house, late C18.
36	1143651	Blacksmith's shop	Structure	GI Blacksmith's shop and adjoining cartshed.
37	1160800	Carpenter's shop c.8m SW of Porch Cottages	Structure	GI Carpenter's shop, probably former coach house with stable and grooms' accommodation over; early C19.
38	1327631	Porch Cottages 27 & 29	Structure	GI house with adjoining cottage, c.1800.
39	1143652	Village Hall	Structure	GI National school, now used as hall. Opened in 1841, alterations in 1850, 1855, 1864 and 1902.
40	1160891	Lychgate; Churchyard walls	Structure	GI Lych gate 1925; early C19 churchyard walls.
41	31071	Bridge, Tredrea Rd	Structure	GI road bridge over River Hayle, early C19 rebuilding of former 1663 bridge on site of a medieval bridge; datestone of 1879 presumably date of westward extension or rebuilding of parapets. A major routeway until the construction of Hayle causeway in 1825.
42	1143619	Nos 1 & 3 Tredrea Rd	Structure	GI house, mid C19.
43	1310317	Woodbine	Structure	GI house, probably originally also a shop, c.1860s.
44	1143644	Treloweth Farmhouse, garden walls & gate piers	Structure	GI farmhouse, C17, remodelled and extended in the C18.
45	1160734	Cartshed and stables, SE end of Treloweth	Structure	GI Cartshed and stables with accommodation

No	HER No.	Name	Record	Description
		Farmhouse		
46	31081	Post-medieval mine at Treloweth	Structure	C19 mine site with multiple shafts and extant spoil heaps.
47	-	Post-medieval road	Structure	Archaeological monitoring revealed a C19 road (SWARCH 2017).
48	-	Medieval farm, Penponds	Documentary	Medieval farmstead destroyed by Treloweth Mine. Medieval pottery recovered from monitoring works here (see SWARCH 2017).
49	-	Medieval farm, Start	Documentary	Medieval farmstead abandoned in the C19 and largely destroyed by C20 sewage works.
50	-	Prehistoric or Romano-British enclosure	Cropmark	Cropmark plotted as part of the NMP but seemingly lacking a unique HER number

3.5 AERIAL PHOTOGRAPHY AND LIDAR

Assessment of the readily-available aerial photography and LiDAR data for the site reveals little in the way of diagnostic cropmarks or earthworks. The 2005 aerial photograph does show a light soil mark crossing Field 1 on an approximate west-south-west to east-north-east alignment. However, given the results of the geophysical survey in Field 2, and the fact the western end on Treloweth Lane is marked by a utilities warning post, this soil mark is likely to indicate a modern feature.

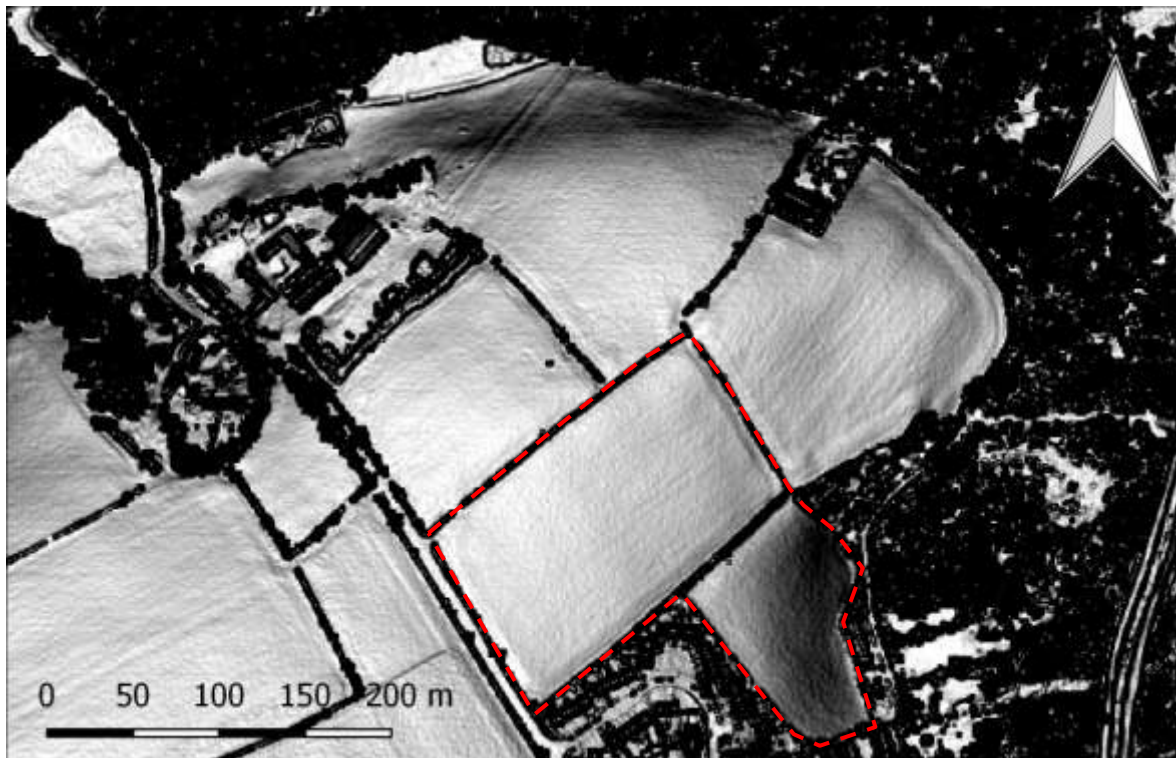


FIGURE 8: IMAGE DERIVED FROM LIDAR DATA; THE SITE IS INDICATED (PROCESSED USING QGIS VER2.18.4, TERRAIN ANALYSIS/SLOPE, VERTICAL EXAGGERATION 3.0). DATA: CONTAINS FREELY AVAILABLE DATA SUPPLIED BY NATURAL ENVIRONMENT RESEARCH COUNCIL (CENTRE FOR ECOLOGY & HYDROLOGY; BRITISH ANTARCTIC SURVEY; BRITISH GEOLOGICAL SURVEY); ©NERC (CENTRE FOR ECOLOGY & HYDROLOGY; BRITISH ANTARCTIC SURVEY; BRITISH GEOLOGICAL SURVEY) 2018.

3.6 GEOPHYSICAL SURVEY

3.6.1 INTRODUCTION

Field 1 covered an area of c.0.8ha and Field 2 covered an area of c.2.1ha. Both were the subject of a magnetometry (gradiometer) survey. The purpose of the survey was to identify and record magnetic anomalies within the proposed site. While identified anomalies may relate to archaeological deposits and structures the dimensions of recorded anomalies may not correspond

directly with any associated features. The following discussion attempts to clarify and characterise the identified anomalies. The survey was undertaken on the 5th of March 2018 by P. Bonvoisin; the survey data was processed by P. Bonvoisin.

3.6.2 METHODOLOGY

The gradiometer survey follows the general guidance as outlined in: *Geophysical Survey in Archaeological Field Evaluation* (English Heritage 2008) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2014b).

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 30×30m. The gradiometer was adjusted ('zeroed') every 0.5-1ha. The survey grid was tied into the Ordnance Survey National Grid. The data was downloaded onto *Grad601 Version 3.16* and processed using *TerraSurveyor Version 3.0.25.0*. 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 +/- 3SD; DeStripe all traverses, median. DeStagger of particular grids.

Details Field 1: 0.8088ha surveyed; Max. 112.40nT, Min. -111.94nT; Standard Deviation 21.05nT, mean 0.01nT, median -0.02nT.

Details Field 2: 2.1052ha surveyed; Max. 121.22nT, Min. -198.54nT; Standard Deviation 16.60nT, mean 0.08nT, median 0.00nT.



FIGURE 9: VIEW ACROSS FIELD 1; VIEWED FROM THE SOUTH, LOOKING NORTH.

3.6.3 SITE INSPECTION

The survey area (Figure 1) covers two fields, Field 1 was surveyed on the 05.03.18, and Field 2 was surveyed on the 18.05.18. The south-west, south and south-east boundaries of Field 2 bordered residential properties. They were comprised of a mix of hedgebanks, chain-link and post-and-wire fences. The north-western boundary of Field 1 bordered Field 2. It was an overgrown hedgebank.

The north-eastern boundary of Field 1 was formed by a hedgebank bordering a garden. Field 2 was bordered on all sides by hedgebanks, with Treloweth Close to the south and open agricultural fields on all other sides, save for Treloweth Lane to the south-west. Both fields within the survey area were under pasture on the 05.03.18. At the time of survey Field 2 had been ploughed and rolled after having been an over winter site for cattle.

No earthworks or archaeological features were observed on- and no finds were recovered from the site. A full complement of site photographs can be found in Appendix 3.



FIGURE 10: VIEW ACROSS FIELD 1; VIEW FROM THE SOUTH-EAST, LOOKING NORTH-WEST.



FIGURE 11: VIEW ACROSS FIELD 2; VIEWED FROM THE NORTH-EAST, LOOKING SOUTH-WEST.

3.6.4 RESULTS

Table 3 with the accompanying Figures 12, 13 and 14 show the analyses and interpretation of the geophysical survey data. Additional graphic images of the survey data and numbered grid locations can be found in Appendix 1.

TABLE 3: INTERPRETATION OF GRADIOMETER SURVEY DATA.

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
1	Weak positive, probable	Fragmented linears	Possible previous trackway	Indicative of a trackway, shown by two parallel discrete cut linears. Responses of c.+9.9nT to +0.9nT.
2	Moderate to strong positive, probable	Amorphous ovoid	Probable pit	Indicative of a cut feature or pit. Responses of c.+28.0nT to +11.4nT.
3	Moderate positive, probable	Elongated ovoid	Probable pit	Indicative of a cut feature or pit. Responses of c.+12.4nT to +2.3nT.
4	Moderate positive, probable	Amorphous ovoid	Probable pit	Indicative of a cut feature or pit. Responses of c.+15.4nT to +3.4nT.
5	Moderate positive, possible	Fragmented linear	Possible ditch	Indicative of a discrete cut feature or ditch. Responses of c.+11.2nT to +3.2nT.
6	Weak positive, possible	Fragmented linear	Possible ditch	Indicative of a discrete cut feature or ditch. Responses of c.+10.6nT to +2.2nT.
7	Weak positive, possible	Linear	Possible ditch	Indicative of a discrete cut feature or ditch. Responses of c.+8.7nT to +3.0nT.
8	Moderate positive with parallel weak negative, possible	Parallel linears	Possible linear pit	Indicative of a cut feature with a bank or raised ground immediately downhill. Responses of c.+11.9nT to -6.6nT.
9	Strong/moderate negative with positive border, probable	Fragmented linear	Possible utility line	Indicative of a buried utility line. Responses of c.-2.2nT to -21.2nT.
10	Moderate negative with positive border, probable	Fragmented linear	Possible utility line	Indicative of a buried utility line. Responses of c.-1.5nT to -18.4nT.
11	Strong/moderate negative with positive border, probable	Fragmented linear	Possible utility line	Indicative of a buried utility line. Responses of c.-0.7nT to -21.2nT.
12	Alternate very strong positive and negative, probable	Thick linear	Probable utility	Indicative of a modern utility. Responses of c.+98nT to -99nT.
13	Strong positive, possible	Ovoid	Possible pit	Indicative of a cut feature or pit. Responses of c.+28.4nT to +8.6nT.
14	Weak positive, probable	Curvilinear	Possible ditch	Indicative of a cut feature or ditch. Responses of c.+7.43nT to +3.9nT.
15	Weak positive, probable	Fragmented curvilinear	Possible ditch	Indicative of a cut feature or ditch. Responses of c.+7.6nT to +3.6nT.
16	Moderate positive, possible	Ovoid	Possible pit	Indicative of a cut feature or pit. Responses of c.+16.0nT to +5.6nT.
17	Moderate positive, probable	Fragmented curvilinear	Possible curvilinear	Indicative of a cut feature, curved linear possibly representing remains of a circular feature. Responses of c.+13.2nT to +3.6nT.
18	Weak positive, probable	Fragmented linear	Possible ditch	Indicative of a cut feature or ditch, possibly related to anomaly group 25. Responses of c.+9.7nT to +3.6nT.
19	Weak positive, probable	Fragmented linear, partial parallel	Possible field division	Indicative of a cut feature or ditch, likely associated with anomaly groups 20 and 21; possibly representing a previous field system. Possibly continues into anomaly group 23. Responses of c.+9.4nT to +3.1nT.
20	Weak positive,	Parallel	Possible field	Indicative of a cut feature or ditch, likely

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
	probable	linears, linear	division	associated with anomaly groups 19 and 21; possibly representing a previous field system. Responses of c. +6.1nT to +1.5nT.
21	Weak positive, probable	Fragmented parallel linears	Possible field division	Indicative of a cut feature or ditch, likely associated with anomaly groups 19 and 20; possibly representing a previous field system. Responses of c. +8.0nT to +0.7nT.
22	Strong positive, probable	Ovoid	Possible pit	Indicative of a cut feature or pit. Responses of c. +21.6nT to + 6.6nT.
23	Weak positive, possible	Amorphous curvilinear	Possible ditch	Indicative of a cut feature, possibly a continuation of anomaly group 19. Responses of c. +7.4nT to +2.4nT.
24	Weak positive, possible	Fragmented curvilinear	Possible ditch	Indicative of a discrete cut feature, or ditch. Responses of c. +6.2nT to +2.4nT.
25	Moderate/weak positive to weak negative, probable	Parallel fragmented linears	Possible ditch and bank	Indicative of a previous boundary or bank with associated ditch. Runs on a roughly ENE axis, possibly represents two separate parallel features. Possibly associated with anomaly group 18. Responses of c. +10.5nT to -8.6nT.
26	Alternate very strong positive and negative, probable	Thick linear	Probable utility	Indicative of a modern utility. Responses of c. +121.2nT to - 198.5nT.

3.6.5 DISCUSSION

The survey identified 26 groups of anomalies; cartographic and visual sources supporting the discussion and comments can be seen above in Sections 3.3-3.5.

Group 1 are weak (+9.9nT to +0.9nT) positive parallel fragmented linears, indicative of a previous trackway; the northern linear is more ephemeral and fragmented. A negative response can be seen between the positive linears, possibly indicating raised ground between possible tracklines.

Groups 2 (+28nT to 11.4nT), 3 (+12.4nT to +2.3nT) and 4 (+15.4nT to +3.4nT) are strong to moderate positive features indicative of cut features and represent possible pits; anomaly group 3 has an associated negative border.

Groups 5 (+11.2nT to +3.2nT), 6 (+10.6nT to +2.2nT) and 7 (+8.7nT to +3.0nT) are moderate to weak positive fragmented linears, indicative of discrete cut features such as ditches. All three anomaly groups appear to run downhill, and could possibly be related to previous alluvial channels; anomaly group 7 is particularly ephemeral and is less likely to correspond to archaeologically significant features. A small area of possible short positive linears appears immediately west of anomaly group 5, however, this area is heavily covered with Di-Polar anomalies making the definition of such features difficult. The anomalous form of these linears suggests a geological response.

Group 8 is a moderate positive to weak negative (+11.9nT to -6.6nT) pair of linears, indicative of a cut feature next to raised ground which is located lower down the slope.

Groups 9 (-2.2nT to -21.2nT), 10 (-1.5nT to -18.4nT) and 11 (-0.7nT to -21.2nT) are strong to moderate negative fragmented linears. Their form is indicative of buried utilities; the junction between these linears appears as magnetic disturbance and likely represents metallic

components at the junction. The location of these utilities corresponds with information from local residents.

Group 12 is a very strong (+98nT to -99nT) alternate negative and positive linear which represents a modern utility line.

Groups 13 (+28.4nT to +8.6nT), 16 (+16nT to +5.6nT) and 22 (+21.6nT to +6.6nT) are strong and moderate ovoid cut features, and representative of possible pits. Anomaly group 16 lies in close proximity to curvilinear features, groups 15 and 17, and therefore might be related.

Group 14 is a weak positive (+7.4nT to +3.8nT) anomaly indicative of a discrete cut feature, it has an amorphous form, possibly representing an irregular pit or section of a bent linear.

Group 15 is a weak positive (+7.6nT to +3.6nT) fractured curvilinear, indicative of a discrete cut feature and possibly representative of a circular feature. The proximity to anomaly groups 16 and 17 may mean that these features are related.

Group 17 is a moderate positive (+13.2nT to + 3.6nT) fractured curvilinear, indicative of a ditch feature or ditch, likely representative of a ditch or circular feature. The proximity to anomaly groups 15 and 16 may mean that these features are related.

Group 18 is a weak positive (+9.7nT to +3.6nT) fractured linear, indicative of a discrete cut feature or ditch. Anomaly group 18 follows the same orientation and axis as the probable sections of anomaly group 25, showing that anomaly group 18 is a possible continuation of group 25.

Groups 19 (+9.4nT to +3.1nT), 20 (+6.1nT to +1.5nT) and 21 (+8.0nT to +0.1nT) are weak positive fractured linears, indicative of cut features or possible previous field boundaries or divisions. The northern ends of groups 19 and 20 have parallel linears, group 21 consists of parallel linears along its whole length. Anomaly group 21 is a possible continuation of group 19. Anomaly groups 19-21 and 25 may relate to the same field system.

Group 23 is a weak positive (+7.4nT to +2.4nT) semi-curvilinear, indicative of a discrete cut feature, possibly associated with anomaly group 19.

Group 24 is a weak positive (+6.2nT to +2.4nT) fractured curvilinear, indicative of a discrete cut feature or ditch.

Group 25 are moderate to weak positive and weak negative (+10.5nT to -8.6nT) parallel linears running on a rough NE to SW axis. Anomaly group 25 consists of a series of parallel linears following the same orientation which are likely part of the same feature. This group likely represents two boundaries or field divisions, with the more southern boundary being less clear in the survey results. Anomaly groups 19-21 and 25 may relate to the same field system.

Group 26 is a strong alternate positive and negative (+121.2nT to -198.5nT) thick linear, indicative of a utility pipe, and possible gas main. The eastern end of this feature terminates at a manhole cover set against the boundary of the field. A similar set of responses in the eastern corner of the site corresponds to anomaly group 12 which runs approximately N-S across field 1.

Di-Polar anomalies are present across the site, and are in a heavier concentration towards the southern extent of Field 1 and the south-western boundary of Field 2; occasional Di-Polars can be seen in association with some of the features within the site, possibly suggesting the presence of

metallic objects within these features. The majority of the Di-Polar anomalies across the site likely represent modern magnetic debris.

Magnetic disturbance is present along the south-western boundary of Fields 1 and 2; this likely corresponds to modern disturbance or metallic debris. An area of magnetic disturbance can be seen where anomaly groups 9, 10 and 11 intersect; this area of disturbance is likely to be associated with a buried inspection chamber. Other areas of magnetic disturbance are present across the site, likely corresponding to magnetic debris or boundaries.

3.7 ARCHAEOLOGICAL POTENTIAL AND IMPACT SUMMARY

The direct *effect* of the development would be the disturbance or destruction of archaeological features or deposits present within the footprint of the development; the *impact* of the development would depend on the presence and significance of archaeological features and deposits.

Based on the results of the desk-based assessment and the geophysical survey of the site, the archaeological potential of the site would appear to be **moderate**. The significance of the archaeological remains that the geophysical survey did identify – a possible track, a previous field system, fragmentary curvilinear features and some probable pits – is of low/moderate significance. Targeted evaluation trenching may be required to confirm the value of archaeological remains on this site.

TABLE 4: SUMMARY OF DIRECT IMPACTS.

Asset	Type	Distance	Value	Magnitude of Impact	Assessment	Overall Assessment
Direct Impacts						
Unidentified archaeological features	U/D	Onsite	Moderate	Moderate	Moderate	Moderate
<i>After mitigation</i>	U/D	Onsite	Moderate/ Slight	Minor	Neutral/Slight	Neutral/Slight

LAND AT TRELOWETH LANE, ST ERTH, HAYLE, CORNWALL

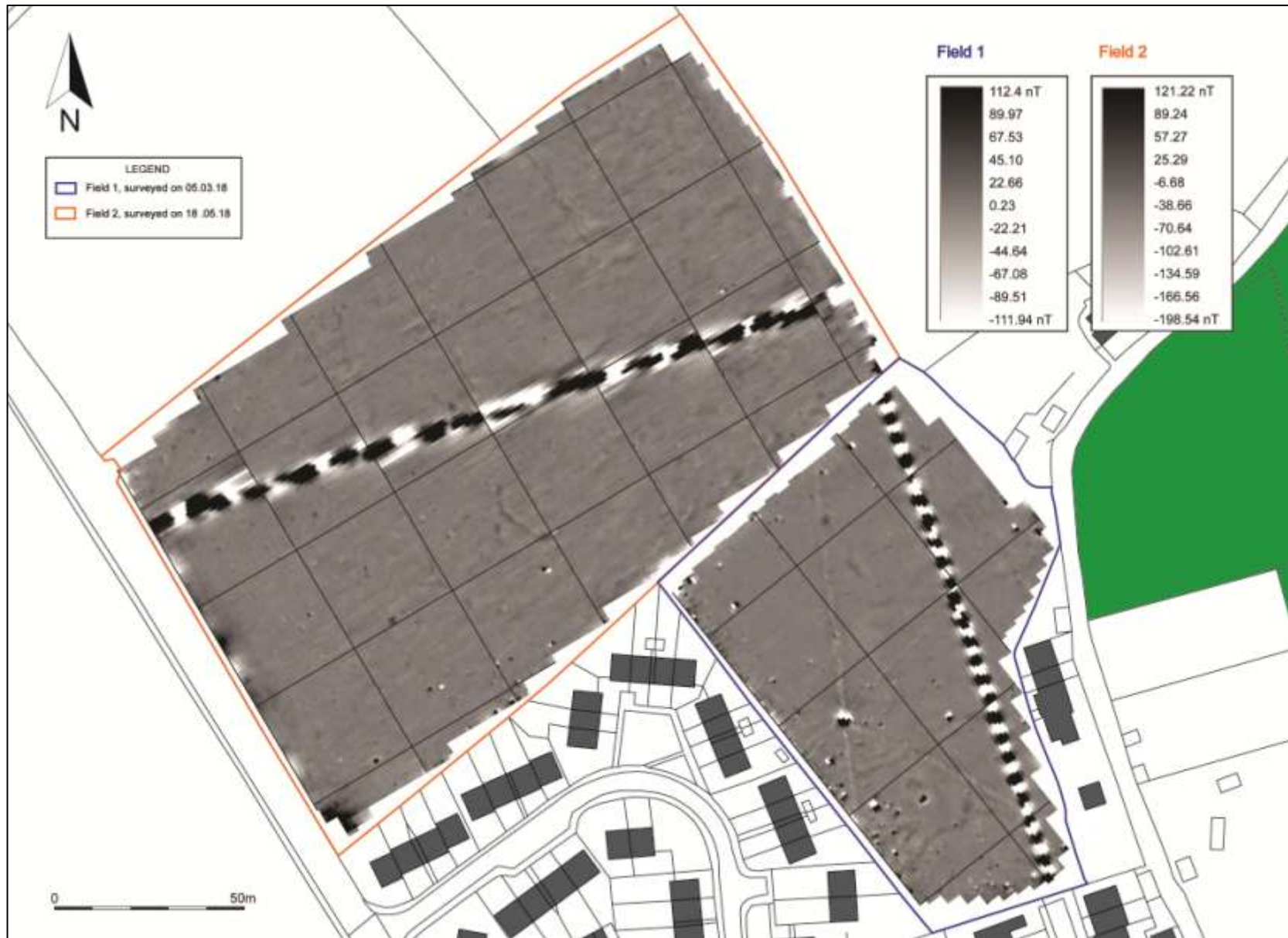


FIGURE 12: SHADE PLOT OF GRADIOMETER SURVEY DATA; MINIMAL PROCESSING.



FIGURE 13: INTERPRETATION OF GRADIOMETER SURVEY DATA, FIELD 1; WITH FEATURES NUMBERED.

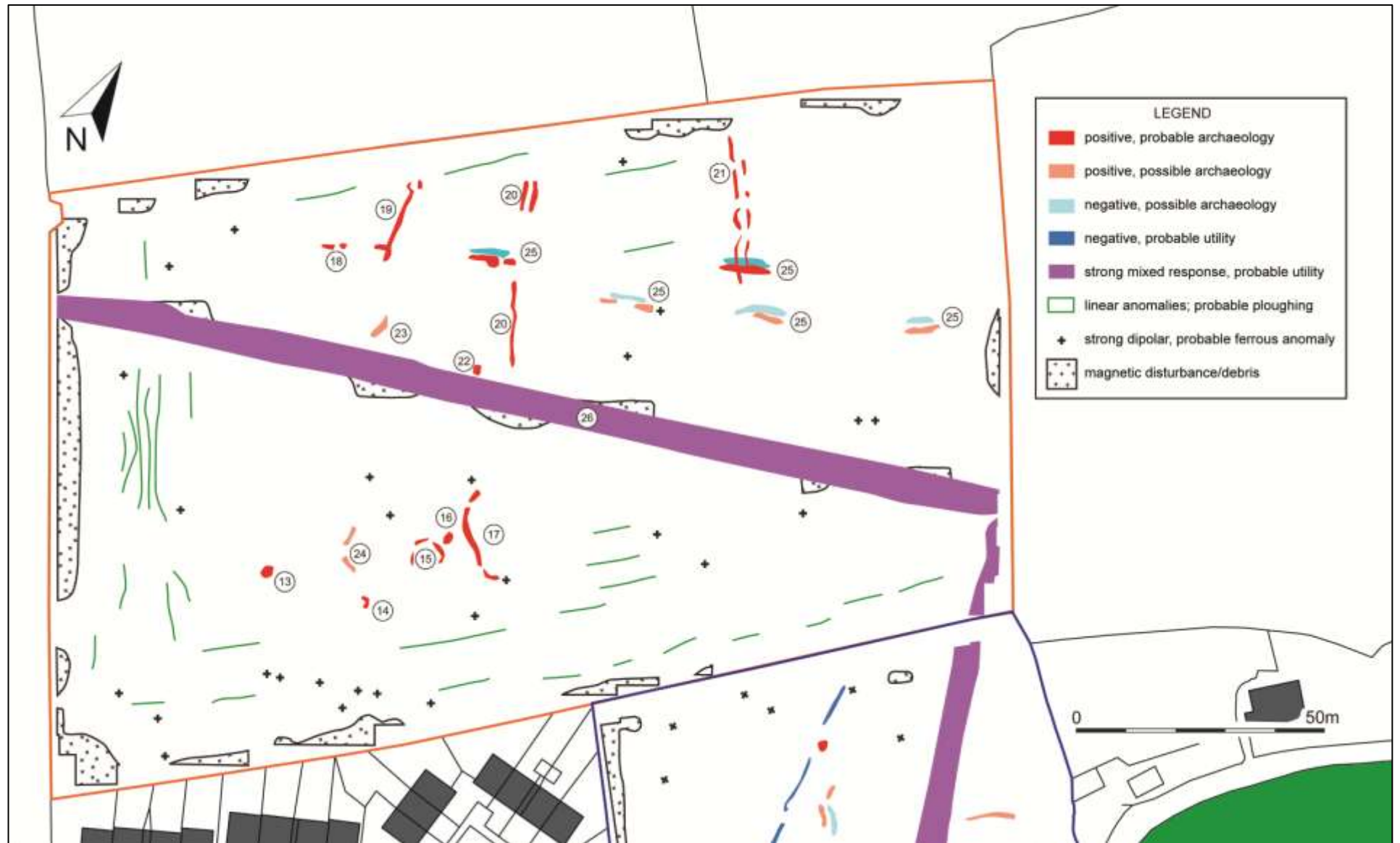


FIGURE 14: INTERPRETATION OF GRADIOMETER SURVEY DATA, FIELD 2; WITH FEATURES NUMBERED.

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 Historic England 2015), with reference to ICOMOS (2011) and DoT (DMRB, WEBTAG) guidance. The assessment of effect at this stage of a development is an essentially subjective one, but one based on the experience and professional judgement of the authors. Appendix 1 details the methodology employed.

This report follows the staged approach to proportionate decision making outlined in *The Setting of Heritage Assets* (Historic England 2015, 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 and current setting would indicate that the impact of the proposed development is likely to be limited, but some uncertainty remains
- Category #3 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.

4.2 QUANTIFICATION

The size of the proposed residential development would indicate a search radius of 500m is sufficient to identify those designated heritage assets where an appreciable effect might be experienced. A search radius of up to 1km is appropriate for high-value assets where distance views are integral to the significance of the asset in question.

There are a number of designated heritage assets in the assessed area: two GII Listed structures (Treloweth House and Treloweth Farmhouse). St Erth Conservation Area lies *within 100m of the site* and contains multiple GII Listed structures with one GI building (Church of St Erth).

With an emphasis on practicality and proportionality (see *Setting of Heritage Assets* p15 and p18), only those assets where there is the possibility for a effect greater than negligible (see Table 8 in Appendix 1) are considered here in detail.

- Category #1 assets: none
- Category #2 assets: the Church of St Erth, Treloweth Farmhouse; Treloweth House; St Erth Conservation Area;
- Category #3 assets: all other GII and SAM assets within 1km.

4.3 IMPACT BY CLASS OF MONUMENT OR STRUCTURE

4.3.1 CHURCHES AND PRE-REFORMATION CHAPELS

Church of England parish churches and chapels; current and former places of worship

Most parish churches tend to be associated with a settlement (village or hamlet), and therefore their immediate context lies within the setting of the village (see elsewhere). Church buildings are usually Grade II* or Grade I Listed structures, on the basis they are often the only surviving medieval buildings in a parish, and their nature as places of religious worship.

In more recent centuries the church building and associated structures functioned as *the* focus for religious devotion in a parish. At the same time, they were also theatres of social interaction, where parishioners of differing social backgrounds came together and renegotiated their social contract.

In terms of setting, many churches are still surrounded by their churchtowns. Viewed within the context of the settlement itself, churches are unlikely to be affected by the construction of a wind turbine unless it is to be located in close proximity. The location of the church within its settlement, and its relationship with these buildings, would remain unchanged: the church often being the visual focus on the main village street.

This is not the case for the church tower. While these structures are rarely open to the public, in rural communities they are frequently the most prominent visual feature in the landscape, especially where the church is itself located in a topographically prominent location. The towers of these structures were clearly *meant* to be highly visible, ostentatious reminders of the presence of the established church with its message of religious dominance/assurance. However, churches were often built and largely maintained by their laity, and as such were a focus for the *local* expression of religious devotion. It was this local devotion that led to the adornment of their interiors and the elaboration of their exteriors, including the tower.

Where parishes are relatively small, the tower would be visible to the residents of multiple parishes. This would have been a clear expression of the religious devotion – or rather, the competitive piety – of a particular social group. The competitive piety that led to the building of these towers had a very local focus, and very much reflected the aspirations of the local gentry. If the proposed development is located within the landscape in such a way to interrupt line-of-sight between church towers, or compete with the tower from certain vantages, then it would very definitely impact on the setting of these monuments.

As the guidance on setting makes clear, views from or to the tower are less important than the contribution of the setting to the significance of the heritage asset itself. The higher assessment for the tower addresses the concern it will be affected by a new and intrusive element in this landscape.

Churchyards often contained Listed gravestones or box tombs, and associated yard walls and curtilage are usually also Listed. The setting of all of these assets is usually extremely local in character, and local blocking, whether from the body of the church, church walls, shrubs and trees, and/or other buildings, always plays an important role.

What is important and why

Churches are often the only substantial medieval buildings in a parish, and reflect local aspirations, prosperity, local and regional architectural trends; they usually stand within graveyards, and these may have pre-Christian origins (evidential value). They are highly visible structures, identified with particular geographical areas and settlements, and can be viewed as a quintessential part of the English landscape (historical/illustrative). They can be associated with notable local families, usually survive as places of worship, and are sometimes the subject of paintings. Comprehensive restoration in the later 19th century means many local medieval churches are associated with notable ecclesiastical architects (historical/associational). The 19th century also saw the proliferation of churches and parishes in areas like Manchester, where industrialisation and urbanisation went hand-in-hand. Churches are often attractive buildings that straddle the distinction between holistic design and piecemeal/incremental development, all overlain and blurred with the 'patina of age' (aesthetic/design and aesthetic/fortuitous). They have great communal value, perhaps more in the past than in the present day, with strong commemorative, symbolic, spiritual and social value.

Asset Name: Church of St. Erth	
<i>Parish:</i> St Erth	<i>Designation:</i> Grade I
<i>Value:</i> High	<i>Distance to Development:</i> c.270m
<p><i>Summary:</i> St Erth church is dedicated to St Ercus and consecrated as "Lanuthinock". Both names are of Celtic saints. Henderson suggests that "Lanuthno" (the name given to the church lands) may be the earlier name. A Norman church stood on the site and the only survival from the period is the font bowl, discovered beneath the floor during the C19 restoration. The tower, situated at the west end, is C14 and is built in three stages without buttresses. There are grotesque heads below the battlements. The remainder of the church is C15, including the nave, chancel, north and south aisles and porch. The arcades have six bays; the south having plain capitals, but the north has moulded capitals and leaf decoration. Old woodwork remains in the roof. The church was restored in 1873 - 4 by JD Sedding and two dormer windows were added to the roof to give more light.</p> <p><i>Listing:</i> GV 1 Parish church. C15 restored in 1747 by Vicar Collins, partly rebuilt in 1872-3 using much of the original material. Granite ashlar tower and south porch, otherwise granite rubble with granite dressings. Grouted scantle slate roofs with granite coped gable ends. Plan: Nave/chancel ; west tower ; north aisle, south aisle with chapel at east end and south porch. Exterior: Complete circa early C15 3-stage embattled unbuttressed west tower with original west doorway and 1 original 3-light traceried louvred windows to the upper stage. North aisle was mostly rebuilt in the C19 but the windows are C15, including 5-light traceried window to the east gable end. Chancel gable end projects and has C19 5-light window. South aisle has 5-light C15 window to east gable end, otherwise C19 copies incorporating some C15 masonry. Fine late C15 porch has large 4-centred arched doorway with its moulded arch carried on octagonal panelled jambs with heavy moulded bases and caps. Slender weathered buttress on either side of the doorway and 2 similar buttresses to each side wall. The upper stage of each buttress has blind Trefoil-headed panels. Over the doorway is a shaped-headed sundial dated 1820. Interior: C15 features: steep 2-centred tower arch; rood stair with doorway (north wall); 6-bay arcades between the nave/chancel and aisles with standard A (Pevsner) piers and 4-centred arches (carved capitals to north arcade, moulded capitals to south arcade); fine waggon roofs with much original timber (aisles and porch) with carved bosses. The roof over the Trewinnard chapel (east end of south aisle) has cross-braced panels and</p>	

guttering. This chapel was restored in 1913 and it is possible that much of the timber was replaced then, or at the 1872-3 restoration. Walls have C19 plaster. Fittings: Norman bowl incorporated into late C19 Norman style font; C17 painted copy of letter from King Charles I; painted Arms of King George I; otherwise C19 and C20 fittings including copy of C15 rood screen; copies of late medieval bench ends; organ by W Sweetland of Bath dated 1881 and carved oak alter reredos of 1903 (in memory of Nicholas and Julieine Harvey). Monuments: Stone wall monument to Davies Giddy (1767-1839) of Tredrea, qv, and a 1912 memorial window in south wall to the Hawkins family of Trewinnard.

Conservation Value: Listed for its architectural value, but also valued for its aesthetic appearance and churchyard setting, historical associations (Tredrea, Trewinnard families) and communal value.

Authenticity and Integrity: The church and yard appears to be in good condition, but the comprehensive character of the C19 renovation has diminished its architectural integrity.

Setting: The church is located towards the southern end of the village within a walled churchyard; a narrow lane runs just to the west of the churchyard. This is a low-lying location close to the river/floodplain; historically the river was navigable up to the church during the medieval period. There are residential areas to the north and east; those dwellings closest to the church are largely 20th century in date. The river valley to the south and south-east appear to contain reclaimed industrial areas, with a large fish pond/business and numerous mature trees.

Contribution of Setting to the Significance of the Asset: Important. The church is a notable feature in the village, but its lowland location and well-vegetated setting restricts views to and from the church, diminishing its visual presence. Views from more elevated viewpoints in the landscape show its tower rising above the trees (e.g. from St Erth Hill to the east), but the tower is lost in some views against the backdrop of the settlement.

Magnitude of Effect: The proposed development would not be visible from the churchyard, but is likely to be visible from the tower roof. From viewpoints to the east the proposed development would be visible in the background. There will be marginally more intervisibility depending on the season.

Magnitude of Impact: High value asset + Minor change = Moderate/Slight impact.

Overall Impact Assessment: **Negligible** impact.

4.3.2 HISTORIC SETTLEMENTS

Clusters of Listed Buildings within villages or hamlets; occasionally Conservation Areas

The context of the (usually) Grade II Listed buildings within settlement is defined by their setting within the village settlement. Their significance is determined by their architectural features, historical interiors or role/function in relation to the other buildings. The significance of their setting to the experience of these heritage assets is of key importance and for this reason the curtilage of a property and any small associated buildings or features are often included in the Listing and any changes must be scrutinised under relevant planning law.

Most village settlements have expanded significantly during the 20th century, with rows of cottages and modern houses and bungalows being built around and between the older 'core' Listed structures. The character of the settlement and setting of the heritage assets within it are continually changing and developing, as houses have been built or farm buildings have been converted to residential properties. The setting of the heritage assets within a village, dependant on the form and location of the settlement, can be harmed by unsympathetic development. The relationships between the houses, church and other Listed structures need not alter, and it is these relationships that define their context and setting in which they are primarily to be experienced, but frequently the journey taken by the experimenter to reach that setting can be affected.

The larger settlements and urban centres usually contain a large number of domestic and commercial buildings, only a very small proportion of which may be Listed or protected in any way. The setting of these buildings lies within the townscape, and the significance of these

buildings, and the contribution of their setting to that significance, can be linked to the growth and development of the individual town and any associated industries. The original context of any churches may have changed significantly since construction, but it usually remains at the heart of its settlement. Given the clustering of numerous individual buildings, and the local blocking this inevitably provides, a distant housing development is unlikely to prove particularly intrusive.

What is important and why

Historic settlements constitute an integral and important part of the historic landscape, whether they are hamlets, villages, towns or cities. The physical remains of previous occupation may survive beneath the ground, and the built environment contains a range of vernacular and national styles (evidential value). Settlements may be archetypal, but development over the course of the 20th century has homogenised most, with streets of terraced and semi-detached houses and bungalow growths arranged around the medieval core (limited historical/illustrative value). As dynamic communities, there will be multiple historical/associational values relating to individuals, families, occupations, industry, retail etc. in proportion to the size and age of the settlement (historical/associational). Settlements that grew in an organic fashion developed fortuitously into a pleasing urban environment (e.g. Ledbury), indistinguishable suburbia, or degenerate urban/industrial wasteland (aesthetic/fortuitous). Some settlements were laid out quickly or subject to the attention of a limited number of patrons or architects (e.g. late 19th century Redruth and the architect James Hicks, or Charlestown and the Rashleigh family), and thus strong elements of design and planning may be evident which contribute in a meaningful way to the experience of the place (aesthetic/design). Component buildings may have strong social value, with multiple public houses, clubs, libraries (communal/social), chapels and churches (communal/spiritual). Individual structures may be commemorative, and whole settlements may become symbolic, although not always in a positive fashion (e.g. the Valleys of South Wales for post-industrial decline) (communal/symbolic). Settlements are complex and heterogeneous built environments filled with meaning and value; however, beyond a certain size threshold distant sight-lines become difficult and local blocking more important.

<i>Asset Name: St Erth Conservation Area</i>	
<i>Parish: St Erth</i>	<i>Value: Medium</i>
<i>Designation: CA</i>	<i>Distance to Development: c.50m</i>
<p><i>Summary:</i> St Erth's Conservation Area contains 53 separate Listed structures, one of which is GI (St Erth Church), the rest are GII including the bridge (Listed below). The majority of the Listed structures within the Conservation Area of c. 18th and 19th century houses and cottages, but also includes walls and multiple assets related to the church.</p> <p>St Erth Bridge; c. 710m from site</p> <p><i>Listing:</i> Road bridge over River Hayle. Circa early C19 rebuilding of former 1663 bridge on site of a medieval bridge, datestone 1879 presumably date of westward extension or rebuilding of parapets. Granite rubble with granite dressings. Iron cramps to original copings. Plan: 3:1 span bridge over divided river channels. 3 spans over main channel with triangular-on-plan refuges over the cutwaters both upstream and downstream. The ends of the parapets are slightly scrolled on plan. The other end of the bridge (west) has wide single span and the parapet walls continue for a considerable distance flanking a causeway. All the spans have round arches. Old copings are cambered and are linked by iron cramps, later copings are chamfered.</p>	
<p><i>Conservation Value:</i> The CA is designated primarily for its evidential and aesthetic value: buildings within the CA were constructed in typical Cornish vernacular styles, often painted stone rubble with slate roofing.</p>	
<p><i>Authenticity and Integrity:</i> The historic settlement has been subsumed within modern developments, both in the spaces between the historic buildings, and extending the village in all directions.</p>	
<p><i>Setting:</i> Encompassing the historic properties within the village, it extends primarily along Fore Street and Chapel Hill, continuing across the river to the west. The historic settlement was originally set on the west facing slope of the River Hayle, within AEL. The location of the settlement on the River Hayle is an</p>	

important factor in its foundation and development.
<i>Contribution of Setting to the Significance of the Asset:</i> Incidental. The principal contribution of setting is functional, a village that developed organically over time around activities relating to the river. The focus of the settlement is therefore inward, towards the valley and the river, rather than outward into the landscape.
<i>Magnitude of Effect:</i> The proposed development would be located less than 100m from the western edge of the Conservation Area and would further surround it with modern development. The size of the development is considerable and would make the development of the village on the east of the river difficult to determine at a glance. Views would be largely screened from within the Conservation Area.
<i>Magnitude of Impact:</i> Medium value asset and Minor effect = Slight impact.
<i>Overall Impact Assessment:</i> Negligible.

4.3.3 FARMHOUSE AND FARM BUILDINGS

Listed farmhouses with Listed agricultural buildings and/or curtilage; some may have elements of formal planning/model farm layout

These have been designated for the completeness of the wider group of buildings or the age or survival of historical or architectural features. The significance of all of these buildings lies within the farmyard itself, the former historic function of the buildings and how they relate to each other. For example, the spatial and functional relationships between the stables that housed the cart horses, the lincage in which the carts were stored, the lofts used for hay, the threshing barn to which the horses brought the harvest, or to the roundhouse that would have enclosed a horse engine and powered the threshing machine. Many of these buildings were also used for other mechanical agricultural processes, the structural elements of which are now lost or rare, such as apple pressing for cider or hand threshing, and may hold separate significance for this reason. The farmhouse is often listed for its architectural features, usually displaying a historic vernacular style of value; they may also retain associated buildings linked to the farmyard, such as a dairy or bakehouse, and their value is taken as being part of the wider group as well as the separate structures.

The setting of the farmhouse is in relation to its buildings or its internal or structural features; farmhouses were rarely built for their views, but were practical places of work, developed when the farm was profitable and neglected when times were hard. In some instances, model farms were designed to be viewed and experienced, and the assessment would reflect this. Historic farm buildings are usually surrounded by modern industrial farm buildings, and if not, have been converted to residential use, affecting the original setting. Wind turbines will usually have a restricted impact on the meaning or historical relevance of these sites.

What is important and why

Farmhouses and buildings are expressions of the local vernacular (evidential) and working farms retain functional interrelationships (historical/associational). Farms are an important part of the rural landscape, and may exhibit levels of formal planning with some designed elements (aesthetic/designed but more often aesthetic/fortuitous). However, working farms are rarely aesthetically attractive places, and often resemble little more than small industrial estates. The trend towards the conversion of historic farm buildings and the creation of larger farm units severely impacts on historical/associational value.

Asset Name: Treloweth Farmhouse, front garden walls and gate piers and adjoining cartshed and stables	
<i>Parish:</i> St Erth	<i>Designation:</i> GII
<i>Value:</i> Medium	<i>Distance to Development:</i> c.180m

Summary: The settlement of Treloweth is first recorded as 'Trelewyth' in 1301. The name is Cornish and contains the elements 'tre' 'estate', 'farmstead' (suggesting a site of early medieval origin) and 'leuuit' 'pilot', probably used as a personal name.

Listing: GV II Farmhouse. C17, remodelled and extended in the C18. Dressed coursed granite added in the C18 to former granite rubble front. Granite dressings. Steep half-hipped grouted scantle slate roof with brick chimneys over the end walls and probably later axial chimney over middle of roof. 2 C18 or earlier crested ridge tiles. Cast iron ogee gutters. Plan: Original plan uncertain but C17 walling survives to the lower parts of most of the present front and returns at either end for part of the depth of the house. In the C19 largely rebuilt as a double depth plan with 3 rooms along the front: kitchen, left; probably originally unheated room, middle, entrance hall, right of middle; parlour right; dairy behind kitchen; stair hall behind middle room and pantry behind parlour. Later lean-to on left. Exterior: 2-storeys. Slightly asymmetrical south-west front with doorway right of middle and small window left of middle. C18 6-panel door and overlight with intersecting glazing bars. Distyle Tuscan porch. C20 horned sashes in pairs except for 12-pane sash left of doorway. Rear has original C18 12-pane stair sash with thick glazing bars and old 2-light window to pantry. Other windows are C20 paired sashes or casements in original C18 openings. Interior: Largely unaltered since the C18: large kitchen fireplace with oven and reused C17 dressed masonry; C18 dog-leg stair with column-turned balusters, some C18 panelled doors and C18 strutted collar roof structure. Painted rubble walls surrounding rectangular front garden. The walls are ramped up at either end and the entrance aligns with the house doorway. Granite monolithic piers with pointed heads.

Listing: GV II Cartshed and stables with accommodation over right-hand stable. Painted rubble walls. Scantle slate roof adjoining higher wall at either end. Plan: Large cartshed or implement shed flanked by stable on either side. The right-hand stable has a room over (known as Nellie's room, named after former occupant). Exterior: Single storey. Open-fronted cartshed in the middle with central granite monolithic pier. Stables at far left and right with doorways on the right and small windows on the left. Right-hand stable has small window under the eaves to light groom's accommodation partly in roof space. Interior: not inspected.

Conservation Value: Listed for its architectural value, within a group of historic farm buildings. There will be aesthetic value, in the use of vernacular materials and functional use. This remains a working farm, so retains its historical function and associations, and the associated issues, but the modern farm is separated from the house and Listed barn by a historic courtyard of farm buildings.

Authenticity and Integrity: The house appears little changed since remodelling and extension in the 18th and 19th centuries. Use of the farmhouse and associated structures maintains authenticity.

Setting: The Listed structures are situated on Treloweth Lane and back onto a complex of modern farm buildings. Modern residential properties are located within the mature trees across the road to the south-west. The farm is set within a wider pastoral landscape; the hedges lack trees for the most part, but the valley to the west (*Upper and Lower Covert*) and the enclosure around the site of Lower Treloweth, are covered in deciduous trees.

Contribution of Setting to the Significance of the Asset: Incidental. The principal contribution of setting is the farmhouse within a working farm, showing continuity of use. The tree-lined approach from the east and west is of some aesthetic value, with the modern farm set back away from public view.

Magnitude of Effect: The proposed development would be located c.200m to the south-east. There are unlikely to be views to the site from the immediate setting farmhouse and associated features, with screening provided by intervening trees and tall hedgerows. Modern development is already present at St Erth reducing the effect of potential development. The development site is not visible from this location and new residential buildings will likely not be visible. A key issue would be the effect on the approach to the farm from the village along Treloweth Lane, extending the residential zone closer to the formerly-isolated farmhouse.

Magnitude of Impact: Medium value asset + Minor change = Slight impact.

Overall Impact Assessment: **Negative/Minor** impact.

4.3.4 LISTED COTTAGES AND STRUCTURES WITHIN HISTORIC SETTLEMENTS

Clusters of Listed Buildings within villages or hamlets; occasionally Conservation Areas

The context of the (usually) Grade II Listed buildings within settlement is defined by their setting within the village settlement. Their significance is determined by their architectural features, historical interiors or role/function in relation to the other buildings. The significance of their setting to the experience of these heritage assets is of key importance and for this reason the curtilage of a property and any small associated buildings or features are often included in the Listing and any changes must be scrutinised under relevant planning law.

Most village settlements have expanded significantly during the 20th century, with rows of cottages and modern houses and bungalows being built around and between the older 'core' Listed structures. The character of the settlement and setting of the heritage assets within it are continually changing and developing, as houses have been built or farm buildings have been converted to residential properties. The setting of the heritage assets within a village, dependant on the form and location of the settlement, can be harmed by unsympathetic development. The relationships between the houses, church and other Listed structures need not alter, and it is these relationships that define their context and setting in which they are primarily to be experienced, but frequently the journey taken by the experiment to reach that setting can be affected.

The larger settlements and urban centres usually contain a large number of domestic and commercial buildings, only a very small proportion of which may be Listed or protected in any way. The setting of these buildings lies within the townscape, and the significance of these buildings, and the contribution of their setting to that significance, can be linked to the growth and development of the individual town and any associated industries. The original context of any churches may have changed significantly since construction, but it usually remains at the heart of its settlement. Given the clustering of numerous individual buildings, and the local blocking this inevitably provides, a distant housing development is unlikely to prove particularly intrusive.

What is important and why

Historic settlements constitute an integral and important part of the historic landscape, whether they are hamlets, villages, towns or cities. The physical remains of previous occupation may survive beneath the ground, and the built environment contains a range of vernacular and national styles (evidential value). Settlements may be archetypal, but development over the course of the 20th century has homogenised most, with streets of terraced and semi-detached houses and bungalow growths arranged around the medieval core (limited historical/illustrative value). As dynamic communities, there will be multiple historical/associational values relating to individuals, families, occupations, industry, retail etc. in proportion to the size and age of the settlement (historical/associational). Settlements that grew in an organic fashion developed fortuitously into a pleasing urban environment (e.g. Ledbury), indistinguishable suburbia, or degenerate urban/industrial wasteland (aesthetic/fortuitous). Some settlements were laid out quickly or subject to the attention of a limited number of patrons or architects (e.g. late 19th century Redruth and the architect James Hicks, or Charlestown and the Rashleigh family), and thus strong elements of design and planning may be evident which contribute in a meaningful way to the experience of the place (aesthetic/design). Component buildings may have strong social value, with multiple public houses, clubs, libraries (communal/social), chapels and churches (communal/spiritual). Individual structures may be commemorative, and whole settlements may become symbolic, although not always in a positive fashion (e.g. the Valleys of South Wales for post-industrial decline) (communal/symbolic). Settlements are complex and heterogeneous built environments filled with meaning and value; however, beyond a certain size threshold distant sight-lines become difficult and local blocking more important.

<i>Asset Name:</i> Treloweth House	
<i>Parish:</i> St Erth	<i>Designation:</i> Grade II

<i>Value:</i> Medium	<i>Distance to Development:</i> c.60m
<p><i>Summary: Listing:</i> House. C18. Dressed, coursed granite front (almost ashlar), otherwise painted rubble. Steep hipped grouted scantle slate roof with modillions to a front eaves cornice. Large brick chimneys over the side walls. Plan: Double depth plan with 2 rooms at the front flanking an entrance hall leading to stair hall between rear service rooms within integral outshut. Exterior: 2-Storeys. Nearly symmetrical 3 window south south east front with doorway central to fenestration. Probably original door and windows; 4-panel door with top panels later glazed; 16-pane hornless ashes with thick glazing bars to tall ground floor openings and similar 12-pane sashes with high meeting rails to square first floor openings. C20 conservatory porch. Interior: Not inspected but may well have good C18 features including a staircase, chimneypieces and joinery.</p>	
<p><i>Conservation Value:</i> Appears to have been little altered externally, of aesthetic value. There will be further evidential value and undoubtedly historical associations as this appears to be a fairly elaborate small house rather than a cottage.</p>	
<p><i>Authenticity and Integrity:</i> Retains original form, with some repairs. The interior may retain original features.</p>	
<p><i>Setting:</i> The house lies within the western extension of the St. Erth, on a narrow roadside plot with other historic and modern properties. The lane is lined with a mix of stone walls/stone-faced hedgebanks with tall hedge shrubs and some mature trees. A fairly recent driveway to the south of the house is fitted with modern tiles/bricks, but the front of the house is covered in Wisteria.</p>	
<p><i>Contribution of Setting to the Significance of the Asset:</i> Incidental. The house retains its roadside setting, and the hedges and trees diminish the overall effect of the expansion of settlement. It remains an attractively-composed dwelling and the setting contributes to its overall aesthetic.</p>	
<p><i>Magnitude of Effect:</i> The proposed development would not be visible from the house and its immediate setting, with screening provided by the houses along Treloweth Close. The building is not sufficiently large or distinct enough to be visible on a landscape scale.</p>	
<p><i>Magnitude of Impact:</i> Medium value asset + Negligible change = Neutral/Slight impact.</p>	
<p><i>Overall Impact Assessment:</i> Negligible impact.</p>	

4.3.5 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 **negative**.

The proposed site would be constructed on the eastern edge of the *Mount’s Bay* Landscape Character Area (LCA):

- The inland part of this LCA is characterised as rolling lowland defined by gentle shoulders of higher land with the Hayle River and smaller streams draining into the Hayle estuary; predominantly being *Ancient Enclosed Land* with a strong settlement pattern along the A30 corridor. Cornish hedges with tall plant growth delineating straight boundaries around medium-sized fields characterise much of the area. Small scattered farmsteads are typical with

a strong local vernacular and are often the successors to small medieval-derived hamlets. The construction of a new residential development in this area is not in keeping with a settlement pattern dominated by small scattered farms, but its scale would not greatly alter its overall character. On that basis the impact is assessed as **negligible to negative/minor**.

4.3.6 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**.

4.3.7 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. The principal issue for this development is the cumulative effect on the church and the Conservation Area. The proposed development is of some size and the settlement to the west of the river will be of a similar size to the settlement on the east of the river should the development take place. To the north-west of the development site is a large scale regeneration and development project at St. Erth Station (PA11/09753). Modern developments within and around St. Erth have already changed the character of the settlement and masked its historic character. With that in mind, an assessment of **negative/minor** is appropriate.

TABLE 5: SUMMARY OF IMPACTS.

Asset	Type	Distance	Value	Magnitude of Impact	Assessment	Overall Assessment
Indirect Impacts						
Church of St. Erth	GI	270m	High	Minor	Moderate/Slight	Negligible
Treloweth Farmhouse, front garden walls and gate piers, cartshed and stables	GII	200m	Medium	Minor	Slight	Negative/Minor
Treloweth House	GII	60m	Medium	Negligible	Neutral/Slight	Negligible
St Erth Conservation Area, including Bridge	CA GII SAM	50m	Medium	Minor	Slight	Negligible
Direct Impacts						
Woodbine	GII	130m	Medium	None	Neutral	Neutral
1-3 Tredrea Road	GII	190m	Medium	None	Neutral	Neutral
St Erth Village Hall	GII	220m	Medium	None	Neutral	Neutral
Cross 60m N Church	GII SAM	240m	High	None	Neutral	Neutral

LAND AT TRELOWETH LANE, ST ERTH, CORNWALL

Lychgate & walls	GII	240m	Medium	None	Neutral	Neutral
War Memorial	GII	260m	Medium	None	Neutral	Neutral
12 Listed gravestones	GII	c.280m	Medium	None	Neutral	Neutral
Wayside Cross	GII SAM	290m	High	None	Neutral	Neutral
Snips & Brian's Deli	GII	330m	Medium	None	Neutral	Neutral
Star Inn	GII	330m	Medium	None	Neutral	Neutral
Lanouthnoe Cottage	GII	340m	Medium	None	Neutral	Neutral
Rock Close Terrance	GII	360m	Medium	None	Neutral	Neutral
Tredrea Manor Cottage	GII	410m	Medium	None	Neutral	Neutral
Anvil House	GII	420m	Medium	None	Neutral	Neutral
Trebartha Place	GII	420- 520m	Medium	None	Neutral	Neutral
Blacksmiths Shop	GII	430m	Medium	None	Neutral	Neutral
Tredrea Farmhouse & wall	GII*	450m	High	Negligible	Slight	Negligible
Building W Tredrea Fmhouse	GII	450m	Medium	None	Neutral	Neutral
Barn W of Tredrea Fmhouse	GII	450m	Medium	None	Neutral	Neutral
Stile at Tredrea	GII	450m	Medium	None	Neutral	Neutral
Carpenter's Shop	GII	460m	Medium	None	Neutral	Neutral
Porch Cottages	GII	480m	Medium	None	Neutral	Neutral
1-3 Battery Lane	GII	520m	Medium	None	Neutral	Neutral
St Erth Station	GII	570m	Medium	None	Neutral	Neutral
Milestone at SW543361	GII	730m	Medium	None	Neutral	Neutral
Lamb & Flag Smelting Works	GII	800m	Medium	None	Neutral	Neutral
Moorgrove, Coachhouse & Stable, Gatepiers	GII	930m	Medium	None	Neutral	Neutral
Historic Landscape	n/a	n/a	High	Minor	Neutral/Slight	Negligible to Negative/Minor
Aggregate Impact	n/a	n/a				Negligible
Cumulative Impact	n/a	n/a				Negative/Minor

5.0 CONCLUSION

The proposed development would be located within two fields belonging to the former hamlet and Manor of Treloweth, first documented in 1301 but likely to have its origins on the early medieval period. Treloweth is partly located on a shallow spur of land that once projected into the estuary of the River Hayle, this river being navigable up to the bridge at St Erth during the medieval period. At that time Treloweth was owned by the Tredrea family of the neighbouring eponymous manor, but came into the possession of the St Aubyns of St Michael's Mount and Clowance in the late 17th century. In the 19th century the Manor of Treloweth consisted of two farms, numerous cottages with gardens, and a blowing house at what is now the *Lamb and Flag*; mining took place along the western edge of the manor.

The location of the site between two arms of the River Hayle and within *Anciently Enclosed Land* would suggest the archaeological potential of the site is high. An analysis of the historic maps very tentatively identified a *possible* Roman military site east of Treloweth Lane, and a possible late Prehistoric or Romano-British enclosure beneath Treloweth Cottages. The results of the geophysical survey across Field 2 indicate the presence of a possible undated field system. However, it also showed the disturbance of the site by modern services and the results of the geophysical survey of Field 1 – which principally identified modern services – would suggest a more moderate archaeological potential. On that basis the archaeological potential of the site is assessed as *moderate*.

In terms of indirect impacts, most of the designated heritage assets in the wider area have limited visibility to and from the proposed development, or the contribution of setting to overall significance is less important than other factors. The landscape context of many of these buildings and structures is such that they would be partly or wholly insulated from the effects of the proposed development by a combination of local blocking from trees, buildings or that other modern intrusions have already impinged upon their settings. The only site where there is likely to be an appreciable impact is Treloweth Farmhouse and Barn (**negative/minor**). On balance, the impact of the development on local heritage assets and the historic landscape is expected to be **negative/minor**.

With this in mind, the overall impact of the proposed development can be assessed as **negative/minor**. The impact of the development on any buried archaeological resource would be **permanent and irreversible**.

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 Ordnance Survey Second Edition 25 Inch Map

APPENDIX 1: ADDITIONAL GRAPHICAL IMAGES OF THE GRADIOMETER SURVEY



FIGURE 15: GEOPHYSICAL SURVEY GRID LOCATION AND NUMBERING.

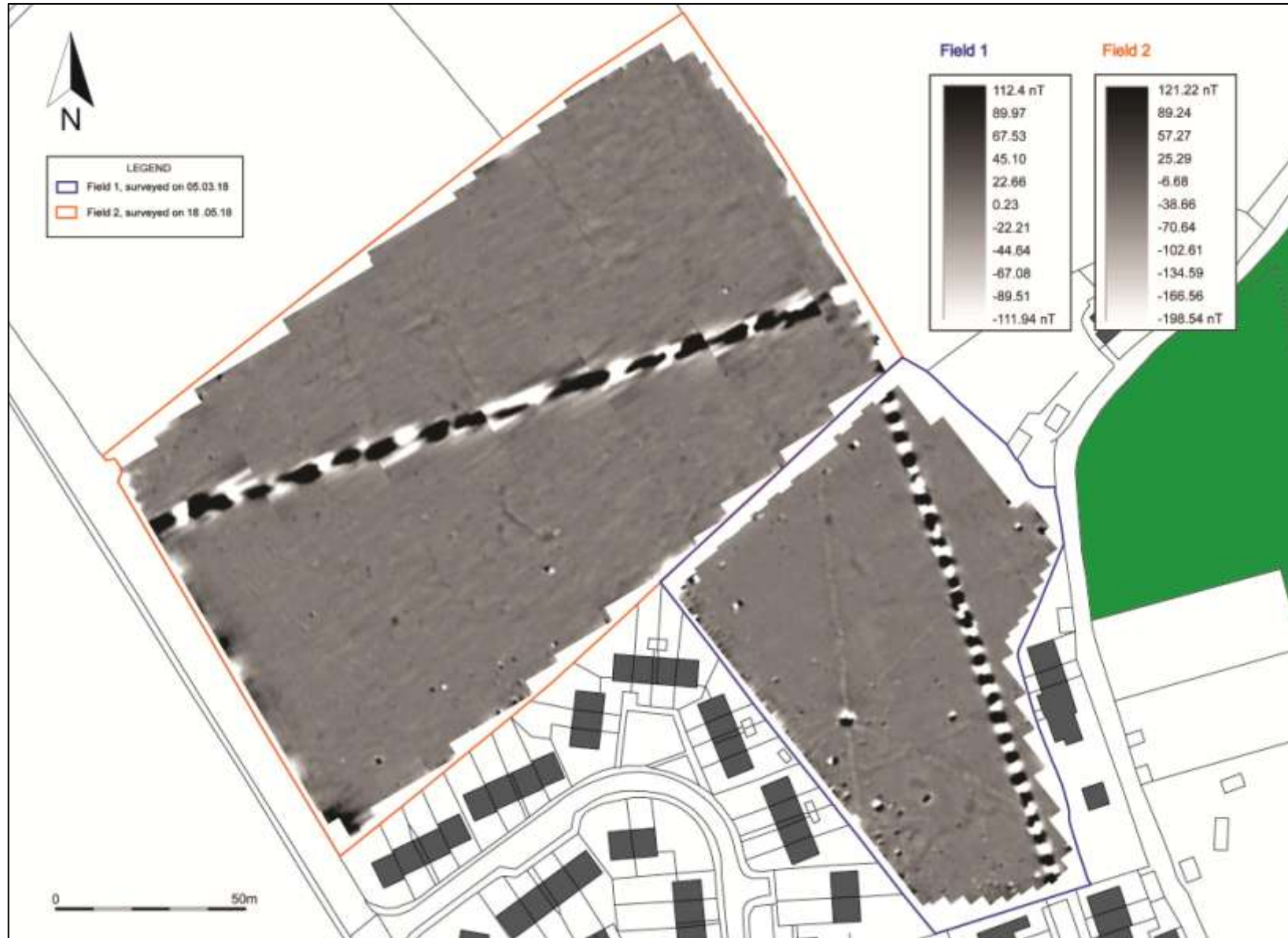


FIGURE 16: SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING.

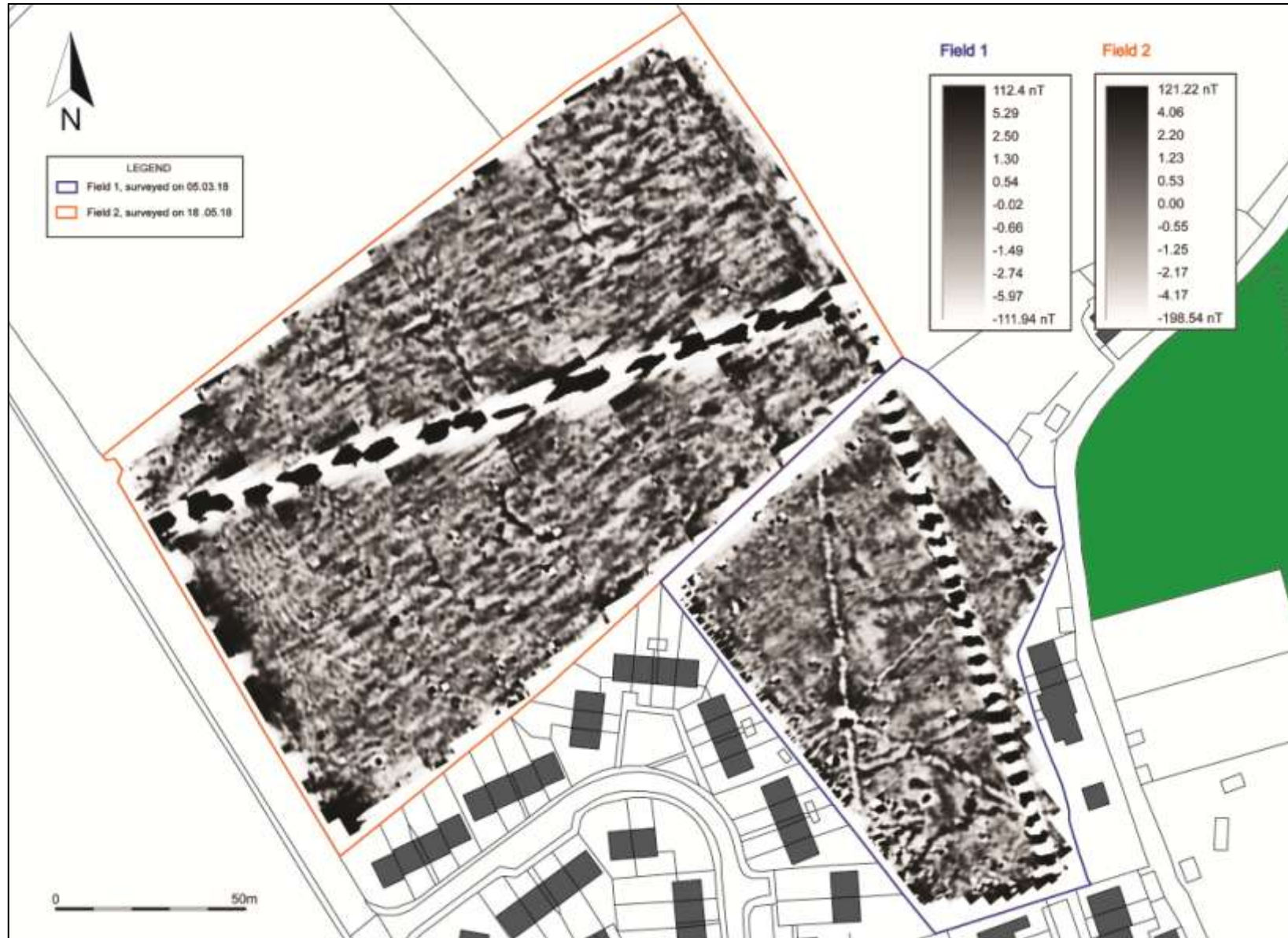


FIGURE 17: SHADE PLOT OF GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALISED; GRADIATED SHADING.

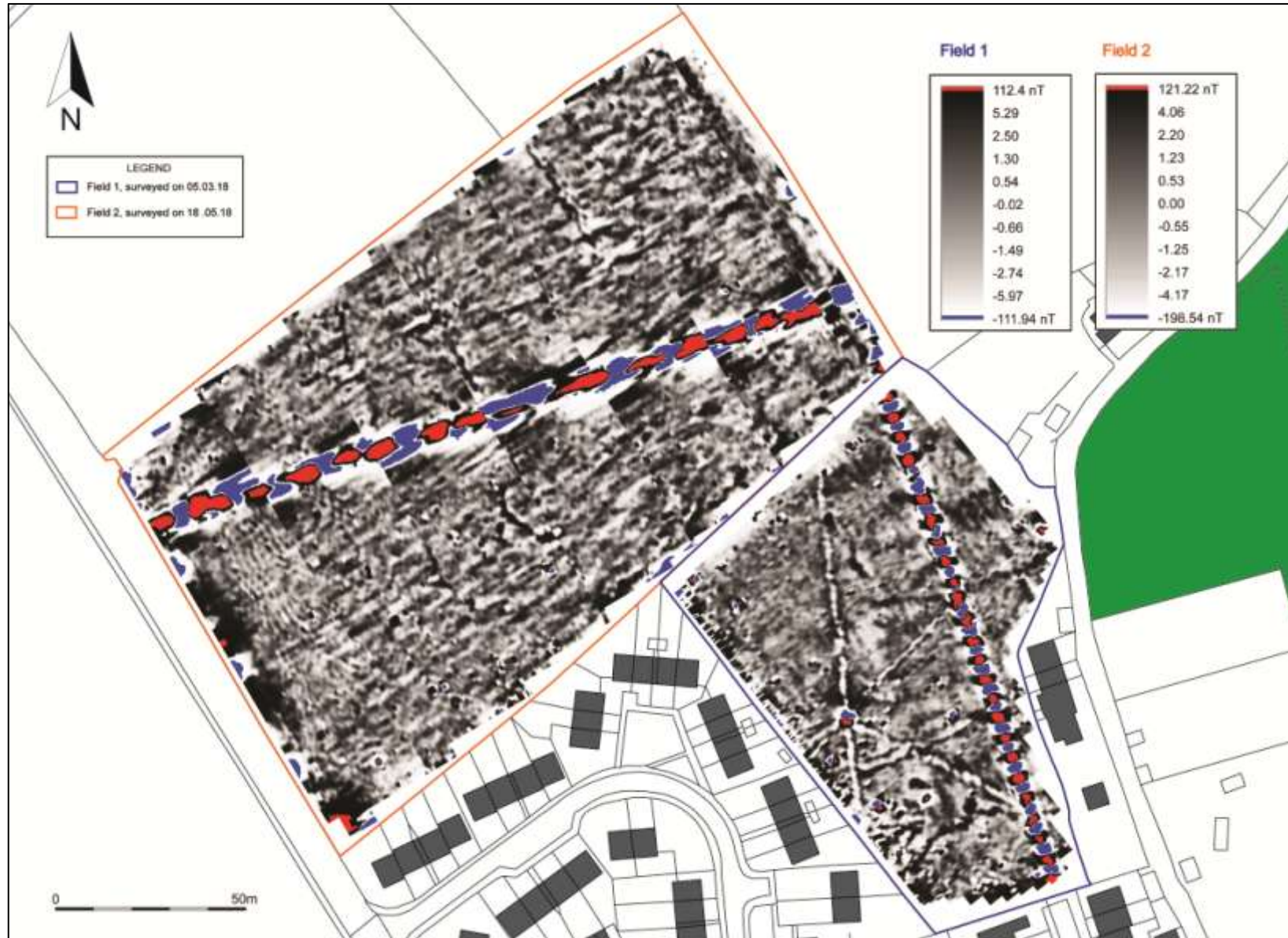


FIGURE 18: RED GREYSCALE BLUE SHADE PLOT OF GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALISED; GRADIATED SHADING.

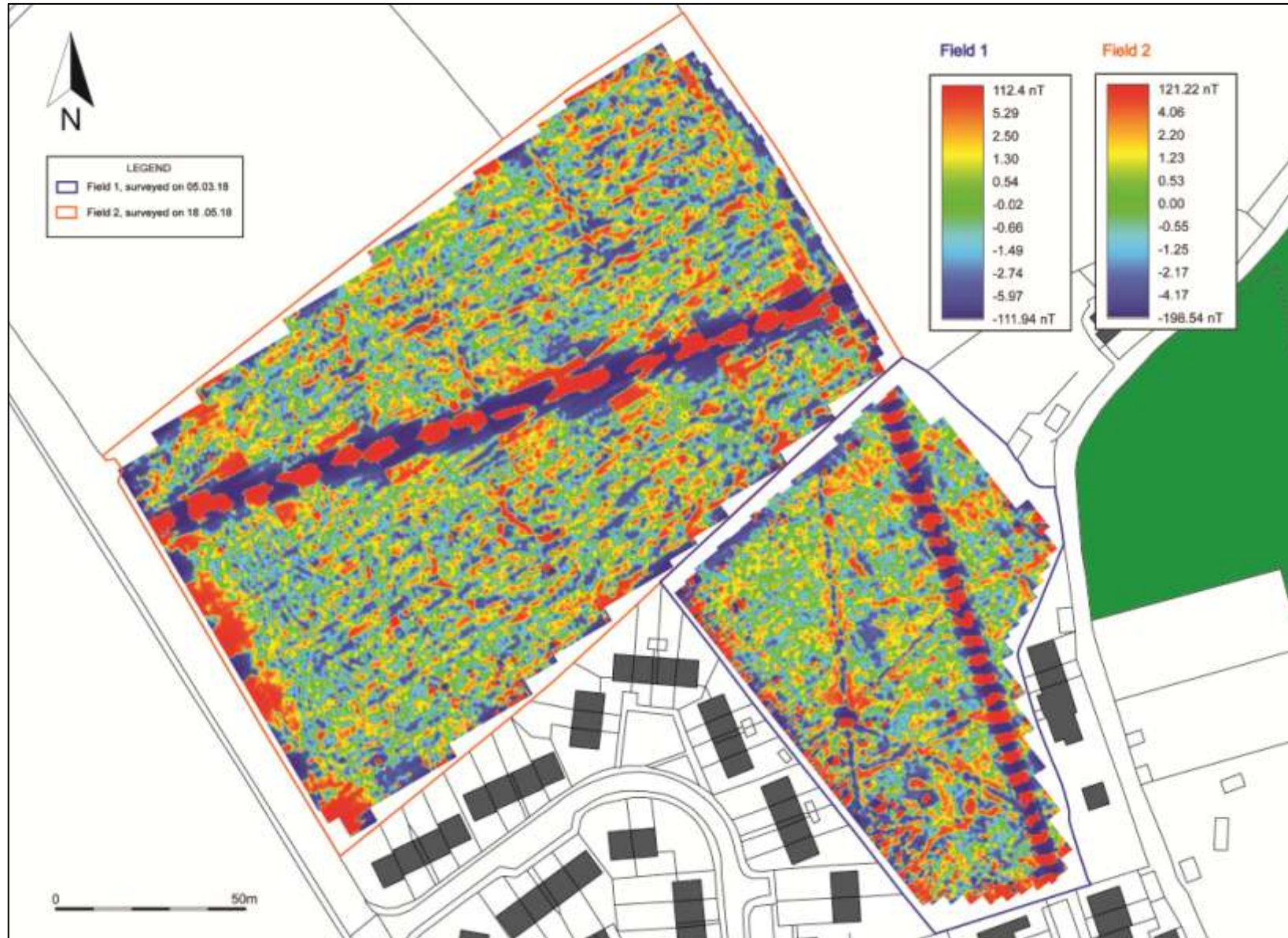


FIGURE 19: RED-BLUE-GREEN(2) SHADE PLOT OF GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALISED; GRADIATED SHADING.

APPENDIX 2: IMPACT ASSESSMENT METHODOLOGY

Heritage Impact Assessment - Overview

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonable 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 its setting (indirect impact). This methodology employed in this assessment is based on the staged approach advocated in *The Setting of Heritage Assets* (GPA3 Historic England 2015), used in conjunction with the ICOMOS (2011) and DoT (DMRB vol.11; WEBTAG) guidance. This Appendix contains details of the 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). The relevant guidance is reproduced below:

Paragraph 128

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 129

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.

Cultural Value – 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.

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 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. There are 19,000-20,000 Scheduled Monuments in England.

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** and there are currently 1,600 sites on the list, 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.

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 6: 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; 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

Hierarchy of Value/Importance	
	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.

Concepts – Conservation Principles

In making an assessment, this document adopts the conservation values (*evidential, historical, aesthetic and communal*) laid out in *Conservation Principles* (English Heritage 2008), and the concepts of *authenticity* and *integrity* as laid out in the guidance on assessing World Heritage Sites (ICOMOS 2011). This is in order to determine the relative importance of *setting* to the significance of a given heritage asset.

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. This is the least equivocal value: evidential value is absolute; all other ascribed values (see below) are subjective. However,

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 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 its 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.

Authenticity

Authenticity, as defined by UNESCO (2015, no.80), 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, as defined by UNESCO (2015, no.88), 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.

Summary

As indicated, individual developments have a minimal or tangential effect on most of the heritage values outlined above, largely because almost all effects are indirect. The principle values in contention are aesthetic/designed and, to a lesser degree aesthetic/fortuitous. There are also clear implications for other value elements (particularly historical and associational, communal and spiritual), where views or sensory experience is important. As ever, however, the key element here is not the intrinsic value of the heritage asset, nor the impact on setting, but the relative contribution of setting to the value of the asset.

Setting – The Setting of Heritage Assets

The principle guidance on this topic is contained within two publications: *The Setting of Heritage Assets* (Historic England 2015) and *Seeing History in the View* (English Heritage 2011). While interlinked and complementary, it is useful to consider heritage assets in terms of their *setting* i.e. their immediate landscape context and the environment within which they are seen and experienced, and their *views* i.e. designed or fortuitous vistas experienced by the visitor when at the heritage asset itself, or those that include the heritage asset. This corresponds to the experience of its wider landscape setting.

Where the impact of a proposed development is largely indirect, *setting* is the primary consideration of any HIA. It is a somewhat nebulous and subjective assessment of what does, should, could or did constitute the lived experience of a monument or structure. The following extracts are from the Historic England publication *The Setting of Heritage Assets* (2015, 2 & 4):

The NPPF makes it clear that the setting of a heritage asset is the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve.

Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes, pertaining to the heritage asset's surroundings.

While setting can be mapped in the context of an individual application or proposal, it does not have a fixed boundary and 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 because what comprises a heritage asset's setting may change as the asset and its surroundings evolve or as the asset becomes better understood or due to the varying impacts of different proposals.

The HIA below sets out to determine the magnitude of the effect and the sensitivity of the heritage asset to that effect. The fundamental issue is that proximity and visual and/or aural relationships may affect the experience of a heritage asset, but if setting is tangential to the significance of that monument or structure, then the impact assessment will reflect this. This is explored in more detail below.

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 determine the 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. 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.

Views

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*, see below). The following extract is from the English Heritage publication *Seeing History in the View* (2011, 3):

Views play an important part in shaping our appreciation and understanding of England's historic environment, whether in towns or cities or in the countryside. Some of those views were deliberately designed to be seen as a unity. Much more commonly, a significant view is a historical composite, the cumulative result of a long process of development.

The Setting of Heritage Assets (2015, 3) lists a number of instances where views contribute to the particular significance of a heritage asset:

- Views where relationships between the asset and other historic assets or places or natural features are particularly relevant;
- Views with historical associations, including viewing points and the topography of battlefields;
- Views where the composition within the view was a fundamental aspect of the design or function of the heritage asset;
- Views between heritage assets and natural or topographic features, or phenomena such as solar and lunar events;
- Views between heritage assets which were intended to be seen from one another for aesthetic, functional, ceremonial or religious reasons, such as military or defensive sites, telegraphs or beacons, Prehistoric funerary and ceremonial sites.

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. 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. 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.

Yet 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 2), 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. The schema used to guide assessments is shown in Table 2 (below).

Type and Scale of Impact

The effect of a proposed development on a heritage asset can be direct (i.e. the designated structure itself is being modified or demolished, the archaeological monument will be built over), or indirect (e.g. a housing estate built in the fields next to a Listed farmhouse, and wind turbine erected near a hillfort etc.); in the latter instance the principal effect is on the setting of the heritage asset. A distinction can be made between construction and operational phase effects. Individual developments can affect multiple heritage assets (aggregate impact), and contribute to overall change within the historic environment (cumulative impact).

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 provision of screening. Large development would have an effect on historic landscape character, as they transform areas from one character type (e.g. agricultural farmland) into another (e.g. suburban).

Cumulative Impact: a single development will have a physical and a 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. The cumulative impact of a proposed development is particularly difficult to estimate, given the assessment must take into consideration operational, consented and proposals in planning.

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.

Scale of Impact

The effect of development and associated infrastructure on the historic environment can include positive as well as negative outcomes. However, all development changes the character of a local environment, and alters the character of a building, or the setting within which it is experienced. change is invariably viewed as negative, particularly within respect to larger developments; thus while there can be beneficial outcomes (e.g. positive/moderate), there is a presumption here that, as large and inescapably modern intrusive visual actors in the historic landscape, the impact of a development will almost always be **neutral** (i.e. no impact) or **negative** i.e. it will have a **detrimental impact** on the setting of ancient monuments and protected historic buildings.

This assessment incorporates the systematic approach outlined in the ICOMOS and DoT guidance (see Tables 6-8), used to complement and support the more narrative but subjective approach advocated by Historic England (see Table 5). This provides 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 negative/substantial is almost never achieved). This is in adherence with GPA3 (2015, 7).

TABLE 7: MAGNITUDE OF IMPACT (BASED ON DMRB VOL.11 TABLES 5.3, 6.3 AND 7.3).

Factors in the Assessment of Magnitude of Impact – Buildings and Archaeology	
Major	Change to key historic building elements, such that the resource is totally altered; Change to most or all key archaeological materials, so that the resource is totally altered; Comprehensive changes to the setting.
Moderate	Change to many key historic building elements, the resource is significantly modified; Changes to many key archaeological materials, so that the resource is clearly modified; Changes to the setting of an historic building or asset, such that it is significantly modified.
Minor	Change to key historic building elements, such that the asset is slightly different; Changes to key archaeological materials, such that the asset is slightly altered; Change to setting of an historic building, such that it is noticeably changed.
Negligible	Slight changes to elements of a heritage asset or setting that hardly affect it.
No Change	No change to fabric or setting.
Factors in the Assessment of Magnitude of Impact – Historic Landscapes	
Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.
Moderate	Changes to many key historic landscape elements or components, visual change to many key aspects of the historic landscape, noticeable differences in noise quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.
Minor	Changes to few key historic landscape elements, or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in minor changes to historic landscape character.
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.
No Change	No change to elements, parcels or components; no visual or audible changes; no changes arising from in amenity or community factors.

TABLE 8: SIGNIFICANCE OF EFFECTS MATRIX (BASED ON DRMB VOL.11 TABLES 5.4, 6.4 AND 7.4; ICOMOS 2011, 9-10).

Value of Assets	Magnitude of Impact (positive or negative)				
	No Change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

TABLE 9: SCALE OF IMPACT.

Scale of Impact	
<i>Neutral</i>	No impact on the heritage asset.
<i>Negligible</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>Negative/minor</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>Negative/moderate</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.
<i>Negative/substantial</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.

TABLE 10: IMPORTANCE OF SETTING TO INTRINSIC SIGNIFICANCE.

Importance of Setting to the Significance of the Asset	
Paramount	Examples: Round barrow; follies, eyecatchers, stone circles
Integral	Examples: Hillfort; country houses

LAND AT TRELOWETH LANE, ST ERTH, CORNWALL

Important	Examples: Prominent church towers; war memorials
Incidental	Examples: Thatched cottages
Irrelevant	Examples: Milestones

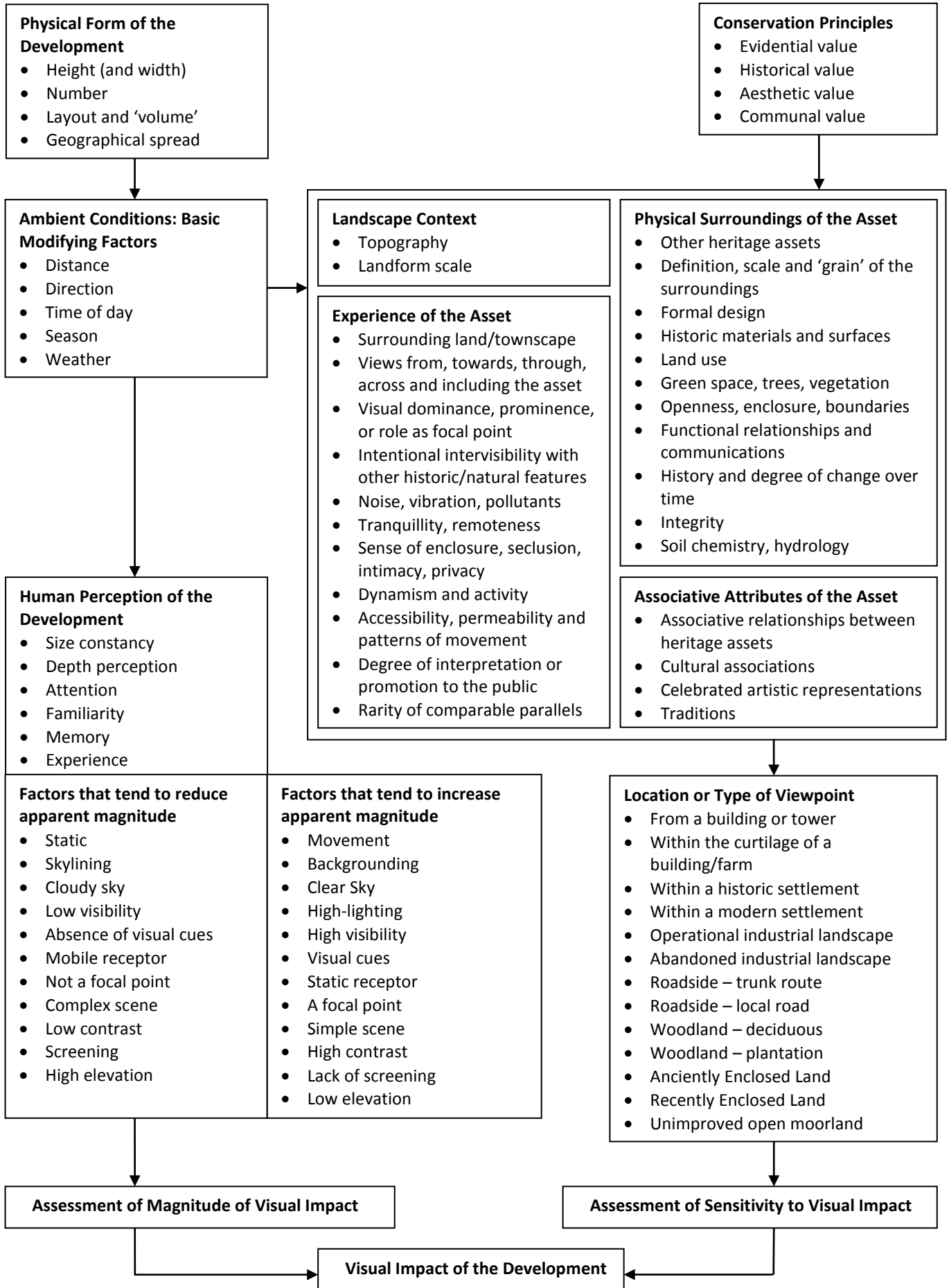


TABLE 11: THE CONCEPTUAL MODEL FOR VISUAL IMPACT ASSESSMENT PROPOSED BY THE UNIVERSITY OF NEWCASTLE (2002, 63), MODIFIED TO INCLUDE ELEMENTS OF ASSESSMENT STEP 2 FROM THE SETTING OF HERITAGE ASSETS (HISTORIC ENGLAND 2015, 9).

APPENDIX 3: PHOTOGRAPHIC ARCHIVE



1. VIEW OF THE EASTERN BOUNDARY OF FIELD 1; VIEWED FROM THE SOUTH.



2. VIEW OF THE WESTERN BOUNDARY OF FIELD 1; VIEWED FROM THE SOUTH-WEST.



3. VIEW OF THE NORTHERN BOUNDARY OF FIELD 1; VIEWED FROM THE WEST.



4. VIEW ACROSS FIELD 1; VIEWED FROM THE WEST.



5. VIEW ALONG THE WESTERN BOUNDARY OF FIELD 1; VIEWED FROM THE NORTH.



6. VIEW ALONG THE WESTERN BOUNDARY OF FIELD 1; VIEWED FROM THE NORTH. SHOWING THE CHURCH TOWER (INDICATED).



7. VIEW ALONG NORTH-WESTERN BOUNDARY OF FIELD 2; VIEWED FROM THE SOUTH-WEST.



8. VIEW ACROSS FIELD 2; VIEWED FROM THE NORTH-WEST.



9. VIEW ACROSS FIELD 2; VIEWED FROM THE NORTH.



10. VIEW TOWARDS TRELOWETH FARM FROM FIELD 2; VIEWED FROM THE SOUTH-EAST.



11. TRELOWETH HOUSE; VIEWED FROM THE SOUTH.



12. VIEW OF TRELOWETH; FARMHOUSE; VIEWED FROM THE SOUTH.



13. VIEW OF THE BARN ADJACENT TO TRELOWETH FARMHOUSE; VIEWED FROM THE WEST.



14. VIEW OF THE CHURCH; VIEWED FROM THE SOUTH-WEST.



15. VIEW OF ST ERTH BRIDGE CROSSING THE RIVER; VIEWED FROM THE SOUTH.



16. VIEW ALONG THE WESTERN SECTION OF ST ERTH BRIDGE; VIEWED FROM THE SOUTH-EAST.



17. VIEW ALONG THE EASTERN SECTION OF ST ERTH BRIDGE; VIEWED FROM THE WEST.



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