

LAND AT NEWTON FARM TAVISTOCK ROAD LAUNCESTON CORNWALL

Results of a Desk-Based Assessment, Geophysical Survey
and Heritage Impact Appraisal



South West Archaeology Ltd. report no. 170718



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LAND AT NEWTON FARM, LAUNCESTON, CORNWALL RESULTS OF A DESK-BASED ASSESSMENT, GEOPHYSICAL SURVEY & HERITAGE IMPACT APPRAISAL

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Work undertaken by SWARCH for Kim Dodge of West Country Land Enterprises Ltd.

Summary

South West Archaeology Ltd. (SWARCH) was commissioned to undertake a desk-based assessment, geophysical survey, and heritage impact appraisal and for related off-site analysis and reporting on land at Newton Farm, Tavistock Road, Launceston, Cornwall, in advance of a planning application for residential development.

The site of the proposed development comprises three fields on either side of the A388 Tavistock Road, to the south-east of the historic town of Launceston. The fields form part of the historic holding of Newton Farm, a 19th century Listed farmhouse, which was built on the site of medieval settlement. The walkover survey did not identify any significant earthworks; and the impact appraisal suggests that the effect of the proposed development on designated heritage assets in the local area would be limited.

The geophysical survey identified a small number of anomalies representing a possible enclosure as well as likely medieval and later boundaries and trackways. Much of the site was covered by probable ridge and furrow features and later agricultural activity. The possible rectangular enclosure and other features in the northern half of Field 3 (the western field) appear to be of the greatest archaeological potential.

Further investigation of the buried archaeological resource would be required to validate the geophysical survey and inform or provide mitigation for the archaeological resource prior to any future proposed development.



July 2017

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1.0 INTRODUCTION

Location:	Land at Newton Farm, Launceston
Parish:	Launceston CP
County:	Cornwall
NGR:	SX 34601 83338
Planning no.	Pre-planning
SWARCH ref.	LNF17

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by Kim Dodge of West Country Land Enterprises Ltd. (the Client) to undertake a desk-based assessment, geophysical survey and heritage impact appraisal for land at Newton Farm, Launceston, Cornwall, as part of the pre-application requirements for a proposed residential development. This work was undertaken in accordance with best practice and ClfA guidelines.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The site is located c.2km to the south-east of the historic core of Launceston, and comprises three fields on a south-west facing slope at an altitude of c.118-135m AOD. The site is in two sections, located on either side of Tavistock Road (the A388). The fields are to the north-west of Newton Farm (Figure 1). The soils of this area are the well-drained fine loamy soils of the Denbigh 2 Association (SSEW 1983), which overlie the mudstone and sandstone of the Crackington Formation (BGS 2017).

1.3 HISTORICAL BACKGROUND

Launceston lies in the north-division of the hundred of East, and deanery of Trigg-Major. It is an ancient market and borough town, located on the mail-coach road from London to the Land's-end (now the A30). The manor of Launceston was owned by the Earls of Cornwall, and following its seizure by William the Conqueror, was given to his half brother Robert, Earl of Morteyne. The 13th century castle was an important post during the civil war, being occupied at various points by both the Royalists and Parliamentarians. The town was made a free borough during the 13th century, and was incorporated in 1555.

Settlement at Newton is first recorded in 1302, the name meaning 'new farmstead'; the current farmhouse not being constructed until the 19th century, though it may incorporate earlier elements. During the mid 19th century the farmhouse was owned and occupied by Nicholas Langman.

1.4 ARCHAEOLOGICAL BACKGROUND

The site is located to the south-east of Launceston and south of Stourcombe, both of which have historic origins. A limited amount of archaeological investigation has been carried out in the area, most notably at Launceston Castle during the 1960-1980's. The majority of the evidence for the archaeological background of the area is derived from documentary and upstanding remains, the Cornwall and Scilly HER identifying settlement activity in the region dating from the Prehistoric through to the Post-medieval and modern periods.

1.5 METHODOLOGY

This work was undertaken in accordance with best practice. The desk-based assessment follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (CIfA 2014a) and *Understanding Place: historic area assessments in a planning and development context* (English Heritage 2012). 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).



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

2.0 DESK-BASED ASSESSMENT

2.1 DOCUMENTARY HISTORY

Launceston lies in the north-division of the hundred of East, and deanery of Trigg-Major. It is an ancient market and borough town, formerly called *Dunheved*, located on the mail-coach road from London to the Land's-end (now the A30) (Lysons 1814). The manor of Launceston was owned by the Earls of Cornwall, and following its seizure by William the Conqueror, was given to his half brother Robert, Earl of Morteyne, and during the Domesday survey contained 2 mills, 40 acres of pasture, 3 slaves, 1 villager and 13 smallholders (Williams and Martin 2003). The 13th century castle was an important post during the civil war, being occupied at various points by both the Royalists and Parliamentarians. The town was made a free borough during the 13th century, and was incorporated in 1555 (Lysons 1814).

The name *Launceston* derives from the Cornish *lann* meaning 'manor' and *Stefan*, the saints name 'Stephen' with the suffix '*ton*' added under the Saxons. The Domesday survey identifies Launceston as *Dunhevet*, from the Cornish '*dun*' and '*heafod*' meaning 'hill-end', the name lasting until the canons of St. Stephens moved to the site in 1155 (Watts 2010).

Settlement at Newton is first recorded in 1302, the name meaning 'new farmstead' (Gover 1948); the current farmhouse, however, not being constructed until the 19th century, though it may incorporate earlier elements (HER entry, see below).

The 1841 census records Newton as being occupied by the farmer Nicholas Langman (age 45) and his family, including wife Grace (45); children Samuel (10), Hannah (6), Nicholas (4), and Julia (1). His brother John (40) is also recorded as living at the property and as being disabled. An agricultural labourer, William Morrison (14) and servant Mary Stonesbury (20) are also recorded as living at Newton. The same family continued to live and work at Newton Farm into the 1850s, by which time it is recorded as being over 110 acres, with staff now including Mary Lyle (19); and the farm hands John Finnemore (25) and John Spry (12).

2.2 CARTOGRAPHIC DEVELOPMENT

2.2.1 EARLY CARTOGRAPHIC SOURCES

There are a number of early county maps for Cornwall, but none of these depict the landscape around Launceston in any meaningful detail; the first source to show Newton Farm is the 1806 and 1808 Ordnance Survey surveyors draft map (see Figures 2 and 3) which show the site as being located on agricultural land to the north-east of Newton, in a low-lying area between the upland Gordon Hill and Hurdon Down.

However, it is not until the tithe map of c.1840 (Lawhitton, Figure 4) and c.1842 (St. Mary Magdalene, Figure 5) that there is a detailed cartographic source of the site and surrounding fields. It implies that the fields, with their gently-curving boundaries were laid out across an earlier medieval strip field system, though to the south the fields immediately surrounding Newton appear to have straighter boundaries and are likely to reflect later enclosure. The corresponding apportionments (Tables 1 and 2) indicate that most of the field names were relatively prosaic, relating to land-use, nearby features, or the local topography; it also shows that the land was part of Newton, owned and occupied by Nicholas Langman. The apportionment lists the fields here as *Middle East Hay*, *Homer East Hay*, and *Higher East Hay*; all being under pasture.

The title maps indicate that the layout of the fields within the proposed development area are as present, with a structure on the boundary between *Middle* and *Homer East Hay*; whilst there are also buildings in the location of both Newton House and Newton Cottages to the east of the site.



FIGURE 2: EXTRACT FROM THE 1806 ORDNANCE SURVEY SURVEYORS DRAFT MAP FOR LAUNCESTON (BL) (THE LOCATION OF THE NORTH-EASTERN CORNER OF THE SITE IS INDICATED).



FIGURE 3: EXTRACT FROM THE 1808 ORDNANCE SURVEY SURVEYORS DRAFT MAP FOR SOUTH PETHERWIN (BL) (THE LOCATION OF THE WESTERN AND SOUTH-EASTERN PARTS OF THE SITE ARE INDICATED).

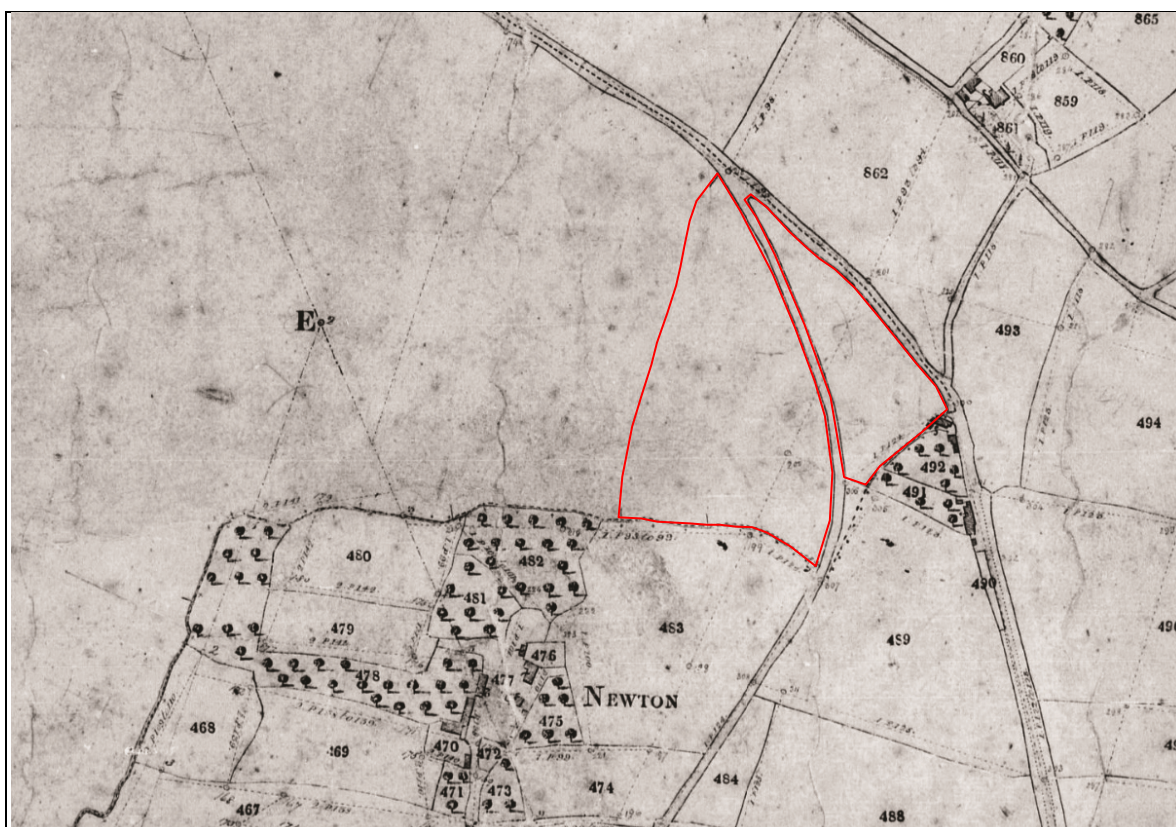


FIGURE 4: EXTRACT FROM THE 1840 LAWHITTON TITHE MAP (SOURCE: THE GENEALOGIST) (THE OUTLINE OF THE SITE IS INDICATED).

Field No.	Owner	Tenant	Field Name	Field Use
Newton				
475	Nicholas Langman	Nicholas Langman	Engine Orchard	Orchard
476			Mowhay	Mowhay
477			Houses and yard	Houses & yards
478			Long Orchard	Orchard
479			New Meadow	Pasture
480			Hay Meadow	Pasture
481			Pond Orchard	Orchard
482			Moor Orchard	Orchard
483			Well Park	Pasture
489			Brandis Park	Arable
491			Orchard & House	House, yard & orchard
Part Hexworthy				
492	Nicholas Langman and Mary Brendon	Charles Brown and others	Houses and Garden	Houses, orchard and garden

TABLE 1: EXTRACT FROM THE 1840 LAWHITTON TITHE MAP (SOURCE: THE GENEALOGIST).

2.2.2



FIGURE 5: EXTRACT FROM THE 1842 ST. MARY MAGDALENE TITHE MAP (SOURCE: THE GENEALOGIST) (THE OUTLINE OF THE SITE IS INDICATED).

Field No.	Owner	Tennant	Field Name	Field Use
Hay Commons				
49	Richard Dingley	Richard Dingley	Little Hay Common, Marsh	Pasture
56			Little Hay Common	Pasture & meadow
57			Lower slip	Meadow & pasture
East Hay				
50	William Spear	George Lobb	East Hay Marsh	Pasture
55	Essery		East Hay	Meadow & pasture
Part of Newton				
51	Nicholas Langman	Nicholas Langman	Middle East Hay	Pasture
52			Homer East Hay	Pasture
53			Plot	Arable
54			Higher East Hay	Pasture

TABLE 2: EXTRACT FROM THE 1842 ST. MARY MAGDALENE TITHE MAP (SOURCE: THE GENEALOGIST).

2.2.3 ORDNANCE SURVEY 1ST AND 2ND EDITION MAPS OF 1883 AND 1907

The 1883 1st edition Ordnance Survey map (Figure 6) indicates that despite the expansion of Launceston, the landscape surrounding the site altered little between 1840 and 1881. It shows that there had been limited boundary rationalisation and division, including the amalgamation of *East Hay Marsh* and *East Hay*; whilst there is also the loss of some of the orchards surrounding Newton.

By 1907 there continued to be very limited development, though settlement is now depicted at Ercildoune to the west of Stourcombe (now Stourscombe), and there has been further loss of orchard around Newton. It is not until the later 20th century that significant development occurs South West Archaeology Ltd.

in the expansion of Launceston and substantial growth of Stourcombe into the fields to the immediate north and north-east of the site.

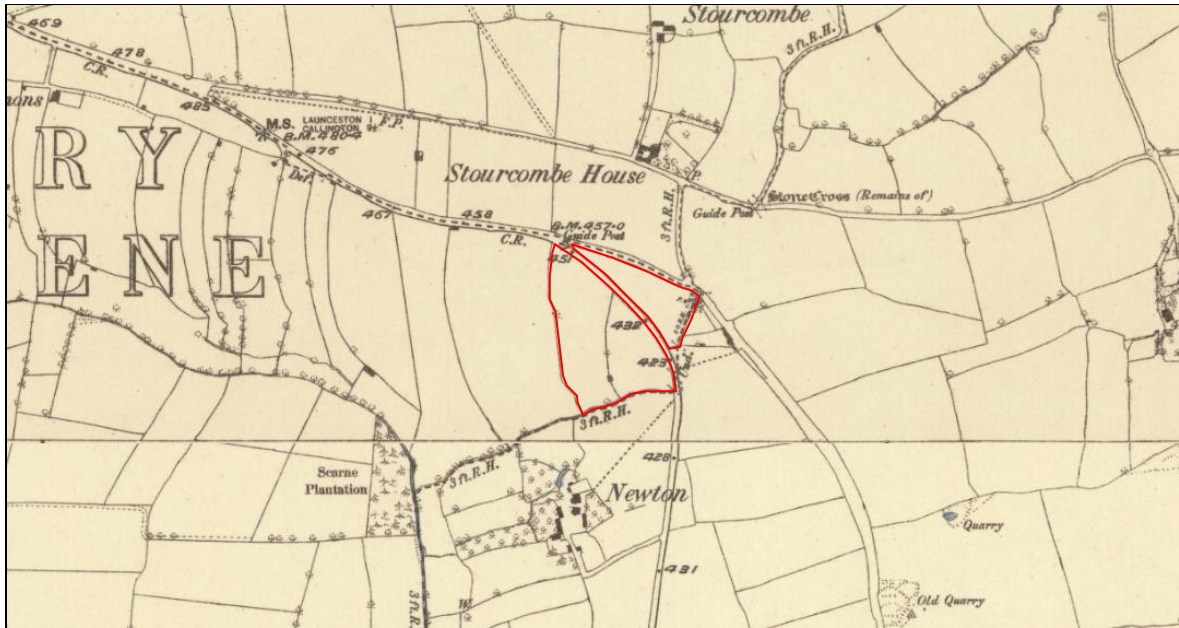


FIGURE 6: EXTRACT FROM THE 1883 ORDNANCE SURVEY 1ST EDITION MAP (SURVEYED 1881) (CRO) (THE SITE IS INDICATED).

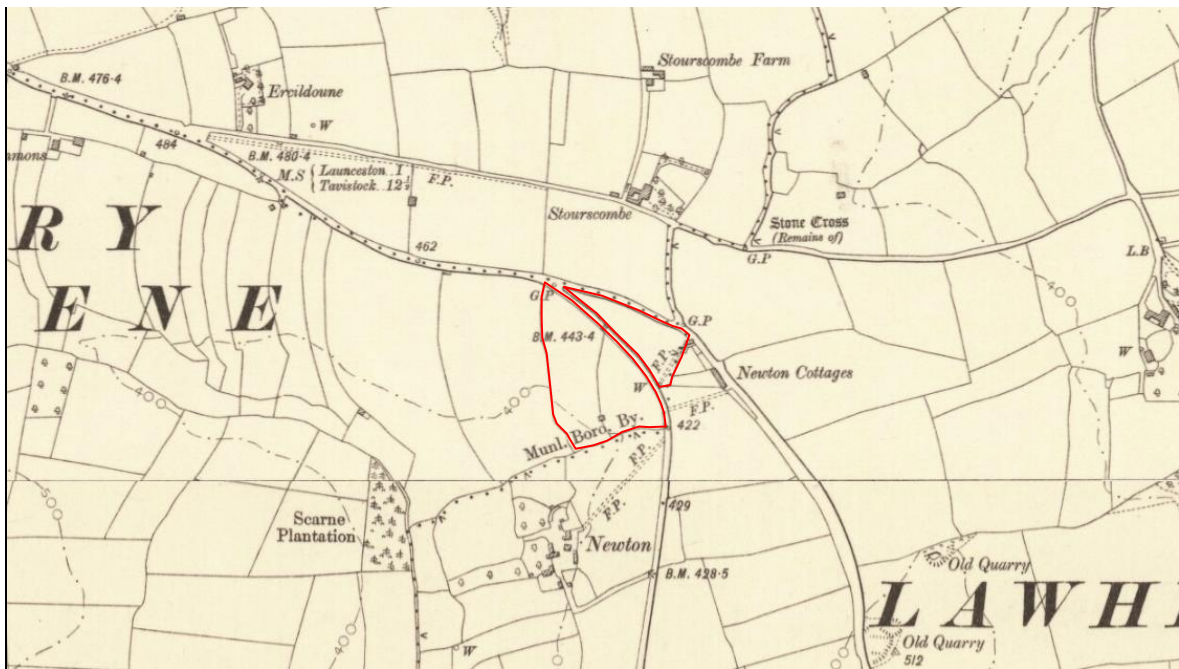


FIGURE 7: EXTRACT FROM THE 1907 ORDNANCE SURVEY 2ND EDITION MAP (REVISED 1905) (CRO) (THE SITE IS INDICATED).

3.0 ARCHAEOLOGICAL BACKGROUND

3.1.1 BASELINE DATA

The site is located to the south-east of Launceston and south of Stourcombe, both of which have historic origins. A limited amount of archaeological investigation has been carried out in the area, with: excavations of Launceston castle during the 1960-1980's; geophysical survey and excavation of the former leper hospital at St. Leonards (Harding *et al* 1997); monitoring of an electrical cable between East Curry and Launceston (ECO1941); and geophysical survey of the Launceston College sports grounds (ECO2528). The majority of the evidence for the archaeological background of the area is derived from documentary and upstanding remains, the Cornwall and Scilly HER identifying settlement activity in the region dating from the Prehistoric through to the Post-medieval and modern periods (see below).

No archaeological investigations have been carried out, and no monuments are recorded on the proposal site itself.

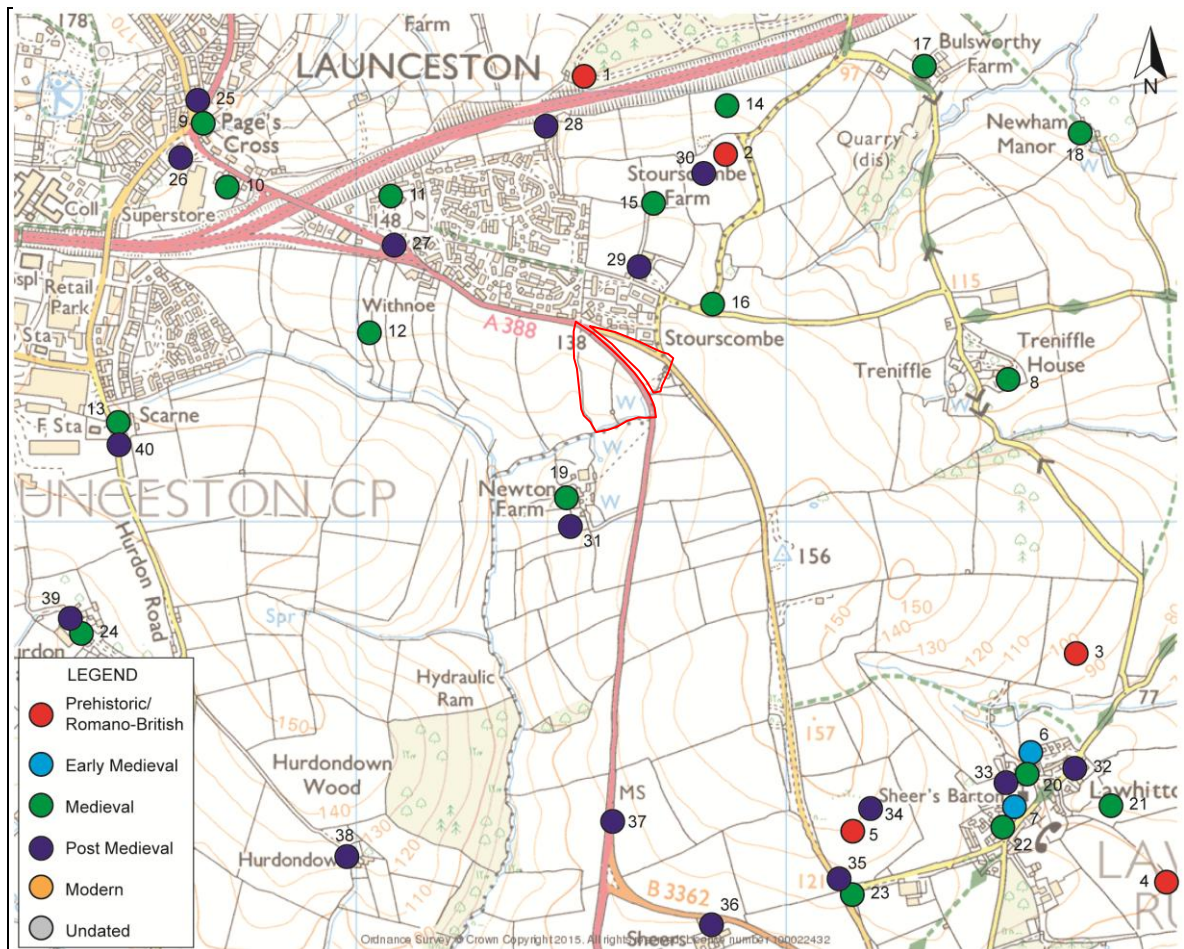


FIGURE 8: MAP OF NEARBY HERITAGE ASSETS (SOURCE: CORNWALL AND SCILLY HER) (CONTAINS OS DATA © CROWN COPYRIGHT AND DATABASE RIGHTS 2016).

LAND AT NEWTON FARM, TAVISTOCK ROAD, LAUNCESTON, CORNWALL

No.	HER No.	Name	Record	Description
1	MCO8163	Launceston – Iron Age round, Romano-British round	Documentary	The field-name ‘Round Hill’ suggests the site of a round, but there are no remains.
2	MCO39815	Stourscombe – Iron Age round, Romano-British round	Cropmark	An oval, univallate enclosure, 78m x 46m is visible on aerial photographs.
3	MCO21673	Lawhitton – Prehistoric enclosure, Prehistoric field system	Cropmark	Two pairs of parallel field boundaries and a rectangular enclosure are visible on aerial photographs.
4	MCO8164	Lawhitton – Iron Age round, Romano-British round	Documentary	The field-name ‘Cullberry; suggests the site of a round, but there are no remains.
5	MCO7689	Cal Hill – Iron Age round, Romano-British round	Earthwork	The site of a possible round is recorded on OS mapping and is partially visible as earthwork structures. However, it has been heavily landscaped.
6	MCO39827	Lawhitton – Early Medieval field boundary	Cropmark	A field boundary, 340m long, which probably also served as a drain, is visible on aerial photography.
7	MCO15352	Lawhitton – Early Medieval settlement	Documentary	The settlement and manor of Lawhitton is first recorded in 905 when it is spelt ‘Landwithan’.
	MCO28606	Lawhitton – Early Medieval architectural fragment	Structure	On the ridge of the roof of The White House is a stone or tile representation of a bishop’s mitre. The house is situated on the site of the bishop’s palace.
	MCO28608	Lawhitton – Early Medieval lann	Documentary	Lawhitton is first recorded in 836, and is suggested as the site of a lann, though there are no surviving remains.
	DCO10378	Church of St. Michael	Listed building	Grade II* listed church. 15 th century with 13 th century tower and 19 th century restoration.
8	MCO11501	Treniffle – Early Medieval settlement	Documentary	The settlement of Treniffle is first recorded in 1284, when it is spelt ‘Trenythel’
9	MCO5609	Launceston – Medieval cross	Documentary	The place-name ‘Page’s Cross’ suggests the site of a cross, but there are no remains.
10	MCO22622	Launceston – Medieval pottery works	Documentary	Field name, possibly indicating a source of potting clay.
11	MCO14403	Ercildounce – Medieval settlement	Documentary	The settlement of Ercildounce is first recorded in 1397, when it is spelt ‘Entewildoune’.
12	MCO22627	Launceston – Medieval strip field	Earthworks	A strip field system is recorded on Hay Common in 1478, and is plotted on tithe and subsequent mapping. The fields exist running down the slope in 35m wide strips.
13	MCO16722	Scarne – Medieval settlement	Documentary	The settlement of Scarne is first recorded in 1384.
14	MCO22619	Gallows Park – Medieval gallows, Post-Medieval gallows	Documentary	The field name recorded in the Tithe Award c.1840 is ‘Gallows Park’ indicating the site of a gallows.
15	MCO16914	Stourscombe – Medieval settlement	Documentary	The settlement of Stourscombe is first recorded in 1200.
16	MCO6254	Stourscombe – Medieval cross	Structure	‘Whittee Cross’ at Stourscombe is mentioned in a charter of 1555, and is recorded on the 1 st and 2 nd edition OS maps, but was found to have been removed in 1951. Nothing is visible.
17	MCO13631	Bulsworthy – Medieval settlement	Documentary	The settlement of Bulsworthy is first recorded in 1284 when it is spelt ‘Boltesforde’.
18	MCO15893	Newham – Medieval settlement	Documentary	The settlement of Newham is first recorded in 1327, when it is spelt ‘Nywam’.
19	MCO15914	Newton – Medieval settlement	Documentary	The settlement of Newton is first recorded in 1302.
20	MCO7012	Lawhitton – Medieval holy well	Demolished structure	The site of a holy well at Barton Farm is recorded on OS mapping, but no remains are visible.
21	MCO11224	Lawhitton – Medieval manor house	Documentary	A manor house at Lawhitton is recorded on the 1840 tithe map, though no remains are visible.
	MCO28610	Lawhitton – Medieval pound	Demolished structure	A pound at Lawhitton is mentioned in 1514 and 1586, but no remains are visible.
22	MCO6040	Treniffle Cross – Medieval cross	Structure	A four hole cross head now stands against a column at Lawhitton parish church.
	MCO11308 / 1219239	Sheers Barton – Medieval palace, Medieval manor house	Listed building	Sheer’s Barton is the former site of a Bishop’s Palace. The White House now stands on the site.
23	MCO5469	Lawhitton – Medieval cross	Documentary	The name ‘Lawhitton Cross’ and field-name ‘Cross Parks’ suggests the site of a cross, but there are no remains.
24	MCO15044	Hurdon – Medieval settlement	Documentary	The settlement of Hurdon is first recorded in 1250.
25	MCO52631	Launceston – Post-medieval	Demolished	The site of a toll-house is recorded on the south-

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No.	HER No.	Name	Record	Description
		toll house	structure	east side of Page's Cross controlling roads into Launceston. It was demolished in the 20 th century to facilitate road improvement.
26	MCO22624	Launceston – Post-medieval workhouse	Demolished structure	The Launceston Union workhouse was built in 1838 at Page's Cross. Now demolished.
27	MCO54186	Withnoe – Post-medieval milestone	Documentary	A milestone is recorded on OS mapping.
28	MCO37954	Launceston – Post-medieval quarry	Documentary	A quarry is recorded on OS mapping.
29	MCO10929	Stourscombe – Post-medieval house	Extant structure	Stourscombe House is first recorded in 1888.
30	MCO39816	Stourscombe – Post-medieval quarry	Earthwork	A quarry is recorded on OS mapping and is visible on aerial photographs.
31	MCO15915 / DCO9175 / 1219235	Newton – Post-medieval farmhouse	Listed building	Grade II listed early 19 th century farmhouse, possibly incorporating parts of an earlier building.
	MCO55995	Newton – 19 th century bee boles	Extant structure	Five bee boles are visible as plaster lined recesses in a roughly coursed slate-stone wall opposite Newton Farmhouse. They are likely to be 19 th century.
32	MCO28607	Lawhitton – Post-medieval workhouse	Extant structure	The tithe apportionment of 1840 records the field-name 'Poor House' and extant remains are visible.
33	MCO11225	Lawhitton – Post-medieval manor house	Demolished structure	The site of a barton is recorded on the 1 st edition OS map. The present Victorian house stands close to the site.
34	MCO39826	Lawhitton – Post-medieval quarry	Earthwork	A quarry is marked on the 1 st edition OS map and is visible on aerial photography.
35	MCO55270	Lawhitton – Post-medieval milestone	Documentary	The site of a milestone is recorded on OS mapping.
36	MCO16753	Sheers Barton – Post-medieval settlement	Extant structure	The settlement of Sheer's Barton is first recorded on the 1 st edition OS map 1888.
37	DCO14508	Milestone on the A388 north-east of Sheers Barton	Listed building	Grade II listed milestone.
38	MCO15045	Hurdon Down – Post-medieval settlement	Extant structure	The settlement of Hurdondown is first recorded on the 1 st edition OS map 1888.
39	DCO10798 / 1206519	Hurdon Farmhouse	Listed building	Grade II listed mid-late 19 th century slatestone rubble farmhouse.
	MCO22620	Hurdon – Post-medieval horse whim	Documentary	Small enclosure at Hurdon called 'Round House Orchard' on the tithe map possibly indicates the site of a horse-powered threshing machine or whim.
40	DCO8712 / 1280177	Scarne Farm buildings and attached outbuildings	Listed building	Grade II listed late 18 th century farmhouse.
	MCO55229	Scarne – Post-medieval milestone	Documentary	A milestone is recorded on OS mapping.
	MCO56897	Scarne – Post-medieval cattle shelter	Demolished building	The site of a shelter shed north of Scarne Farmhouse.
	MCO56898	Scarne – Post-medieval shippon	Demolished building	The site of a shippon/cow house north of Scarne Farmhouse.

TABLE 3: TABLE OF NEARBY HERITAGE ASSETS (SOURCE: CORNWALL AND SCILLY HER).

3.1.2 PREHISTORIC 4000BC - AD43

There is limited evidence for Prehistoric activity in the surrounding landscape; with a handful of possible Iron Age or Romano-British enclosures (MCO7689, MCO8163, MCO8164, MCO21673, MCO39815) providing evidence for settlement and agricultural activity during this period; and few of these survive beyond place-name evidence.

3.1.3 EARLY MEDIEVAL AD410 – AD1065

The settlement of Lawhitton (MCO28606) is first recorded during the 9th century and may be associated with evidence for the agricultural use of the landscape in the surrounding field systems (MCO39827).

3.1.4 MEDIEVAL AD1066 - AD1540

The Medieval period saw significant increase in the number of settlements in the region, with those at Treniffle (MCO11501), Bulsworthy (MCO13631), Hurdon (MCO15044) and Stourscombe (MCO16914) first recorded during the 13th century; and those at Ercildounce (MCO14403), Newham (MCO15893), Newton (MCO15914), and Scarne (MCO16722) during the 14th century. There is evidence for agricultural use of the landscape in the surrounding field systems (MCO22627).

3.1.5 POST-MEDIEVAL AND MODERN AD1540 - PRESENT

The increasing population during the post-medieval period can be seen through the creation of new settlements at Hurdon Down (MCO15045) and Sheer's Barton (MCO16753), linked to the increasing industrialisation of Cornwall during the 19th century. The shift of the population away from agricultural subsistence and into towns can be seen in the requirement for new workhouses at Launceston (MCO22624) and Lawhitton (MCO28607); and the development of Launceston itself, with toll houses (MCO52631) controlling access of goods. However, agriculture remained important, several farmhouses being constructed during the 18th and 19th centuries, including at Scarne (DCO8712), Newton Farm (MCO15915) and Hurdon (MCO22620).

Newton Farm, to the immediate south-west of the site, is a Grade II Listed farmhouse described as an early 19th century farmhouse, but which may incorporate earlier elements; there is a later 19th century kitchen range adjoining to the east. It is built of roughly-coursed slatestone rubble with hung slates and slate roofs, with a principal elevation that faces south-south-east. It retains some good interior period fixtures. A separate listing refers to a small stretch of wall containing five bee boles which are roughly-plastered recesses in a free-standing stone wall, south of the farmhouse. These structures are located within an enclosure bounded by tall Cornish hedgebanks with a scattering of established deciduous trees. The enclosure itself lies within a fieldscape of long narrow and slightly curving fields, the origins of which lie in the medieval period. The farmstead was first documented in c.1302.

3.2 LIDAR AND AERIAL PHOTOGRAPHY

Analysis of LIDAR data for the site indicates that the surrounding landscape contains medieval and later ridge and furrow, some of which can be seen to continue into the site itself on an approximate east by west alignment; and is likely to mask and have removed many earthworks that might have been present. Despite this, a small number of potential features are visible, including a linear, likely to be a removed field boundary, running approximately east by west across all three fields, though most prominently in Field 3. Towards the north-west corner of Field 3 a further square feature is apparent; whilst to the south-east a sinuous linear feature can be seen to run across the corner of Field 2.



FIGURE 9: IMAGE DERIVED FROM 1M DTM LIDAR DATA, SHOWING THE SITE (INDICATED) (PROCESSED USING QGIS VER2.18.2, TERRAIN ANALYSIS/SLOPE, VERTICAL EXAGGERATION 3.0). DATA: © ENVIRONMENT AGENCY COPYRIGHT AND DATABASE RIGHTS 2017; CONTAINS OS DATA © CROWN COPYRIGHT AND DATABASE RIGHTS 2017. THE SITE (RED), POSSIBLE ARCHAEOLOGICAL FEATURES (YELLOW) AND EXISTING FIELD BOUNDARIES (GREEN) ARE INDICATED.

3.3 HISTORIC LANDSCAPE CHARACTERISATION

Much of the landscape surrounding Launceston is characterised as *medieval farmland* (defined as: *the agricultural heartland with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure*), which forms part of the category of *Anciently Enclosed Land*. Pockets of land within this, however, and particularly to the south and west around Lawhitton and Little Comfort are characterised as *post-medieval enclosed land* (defined as: *land enclosed in the 17th, 18th and 19th centuries, usually from land that was previously Upland Rough Grazing and often medieval commons, generally in relatively high, exposed or poorly-drained parts of the county*). The site itself is within a group of fields classed as *medieval farmland*, with *post-medieval enclosed land* to the north and west.

The county HLC represents a broad-brush approach to landscape analysis and it is clear in this instance that all of the land around Newton Farm falls into the category of *medieval farmland*.

4.0 WALKOVER SURVEY

A walkover assessment was undertaken to complement the desk-based work. This survey was undertaken by P. Webb on 20th June 2017; the weather was dry and sunny. The baseline photography can be found in Appendix 1. All of the fields were under pasture at the time of the survey. No features of clear archaeological interest were noted, and a series of recent trial pits and water testing points were identified.

The site covers an approximately rectangular area of south-sloping ground, bounded to the north largely by the A388 and Stourscombe; to the west and south by agricultural fields; and to the east by an un-named road leading to Leburnick and Rezare. The site is divided into two broad areas by the modern A388 running between Fields 1 and 2 (Figure 9). The site is split into three fields (F1, F2, and F3): F1, a triangular field forming the north-east corner to the immediate north of the A388 and north-west of Newton Cottages; F2, a triangular field forming the south-east corner to the south of the A388 and north-east of Newton Farm; and F3, a sub-rectangular field forming the western side of the site to the immediate west of F2. Access to the site was through five bar metal gateways in the north-east and south-east corner of F1 (there was also a blocked gateway mid-way along the southern boundary); through the southern boundary of F2; and into F3 from F2.

All three of the fields are bounded, except to the south of F2 and F3, by stone-faced earth hedgebanks standing up to 1.20m high and approximately 2m wide, with internal wire and post fences. Hawthorn hedges and brambles grow along the hedgebanks; and isolated deciduous trees are located along these boundaries. To the south of F2 and F3 runs a shallow stream with increased vegetation and tree growth, with reed growth extending into the southern ends of both fields. To the south-west corner of F3 is a copse including crack willow, which together with the reeds indicate heavy waterlogging of these areas.

No earthworks of likely archaeological origin were identified during the survey, the ground following an undulating downward slope to the south in all fields. To the south of F2 and F3 the ground drops more steeply, particularly in F3, towards the stream and may indicate the shrinking of the watercourse. There is a depression between the gateways in the south-west corner of F2 caused by either deliberate clearance of access routes, or their erosion through use, whilst further slight hollows and raised points within the flood plain area are likely to have been caused by the creation of the storm drain.

A series of trial pits and associated water inspection points could be seen to have been excavated across the site, indicating that the natural ground of the area comprised shillet and stony clays. Two modern drain manhole covers were also identified to the south-west of F2, and it is likely that the associated drain is represented by the sinuous feature identified in this location on the LiDAR data.

The walkover did not identify any visible earthwork remains of archaeological features. It is possible that further features survive that are not represented by visible earthworks, though the construction of a drain at the southern end of the site, and likely flood plain would suggest that any features within these areas are unlikely to survive.

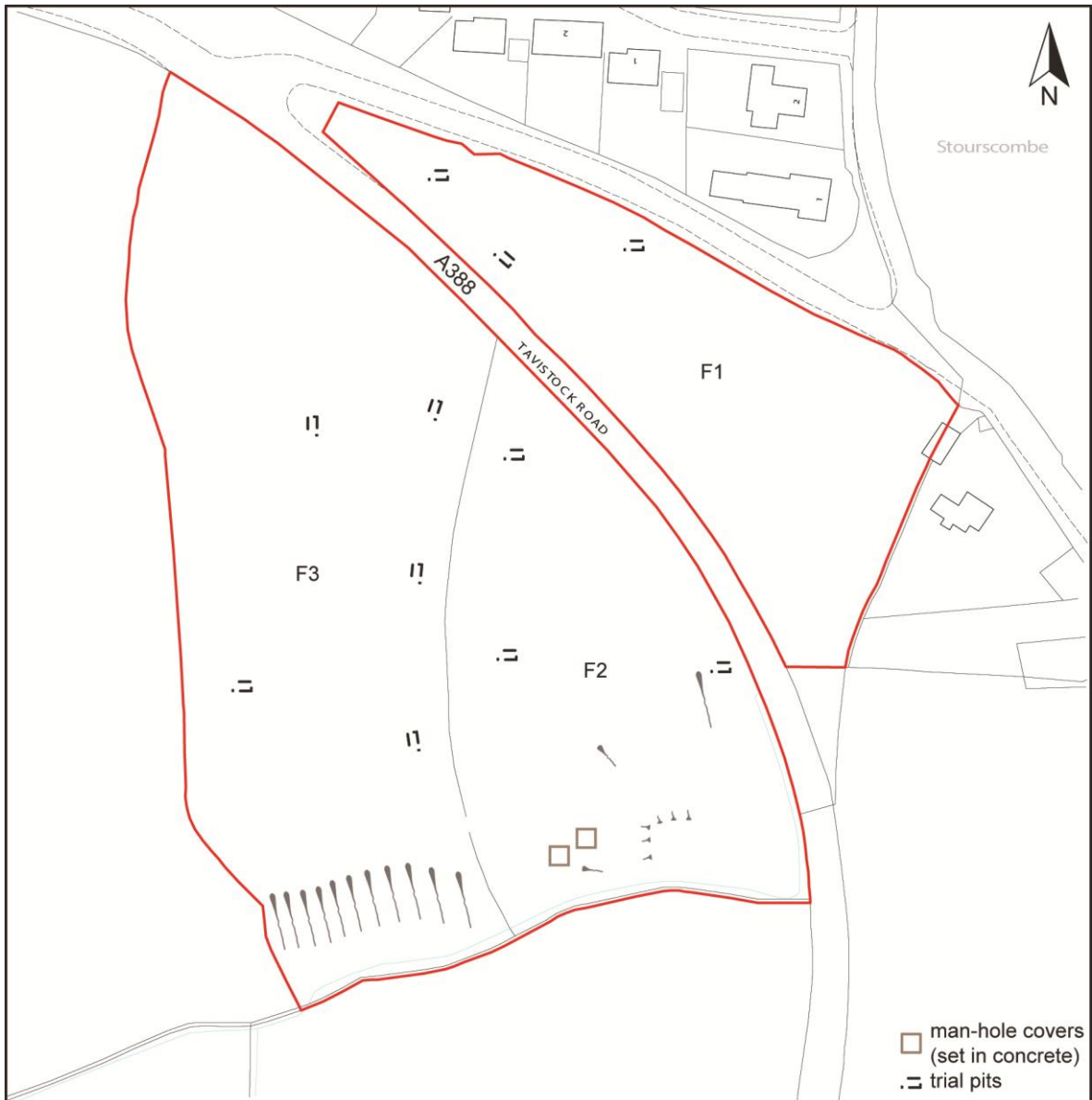


FIGURE 10: SITE PLAN SHOWING FIELD DIVISIONS AND APPROXIMATE LOCATIONS OF FEATURES NOTED DURING THE WALKOVER SURVEY.

5.0 IMPACT APPRAISAL

5.1 INTRODUCTION

A brief appraisal of the likely effect of the proposed development on designated heritage assets has been undertaken. The principal guidance on this topic is contained within two EH publications: *The Setting of Heritage Assets* (2011, revised 2015) and *Seeing History in the View* (2011). While interlinked and complementary, it is useful to consider the following sites 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 of the asset in its landscape context when viewed from a third location. In addition, it must be stated that impact assessments are not predicated on proximity or aesthetic appreciation alone and are a balanced judgement as to the relative contribution of setting to the significance of the heritage asset concerned. As the relevant guidance (NPPG) makes clear ‘...in general terms, substantial harm is a high test, so it may not arise in many cases’.

Note that this is an appraisal, and only limited fieldwork based on assets within the immediate vicinity of the site, was undertaken.

5.2 DESIGNATED ASSETS

There are a limited number of designated assets within 1.5km of the site (six Grade II listed buildings, see Figure 11), and it was clear from the site visit that there would be limited impact, the majority not being visible from the site. To the east Treniffle and Newham Manor are on the opposite facing hillside; whilst to the west views of Scarne; and to the south-west views of Hurdon are all restricted by the local topography; Scarne also being dominated by nearby substantial modern development.

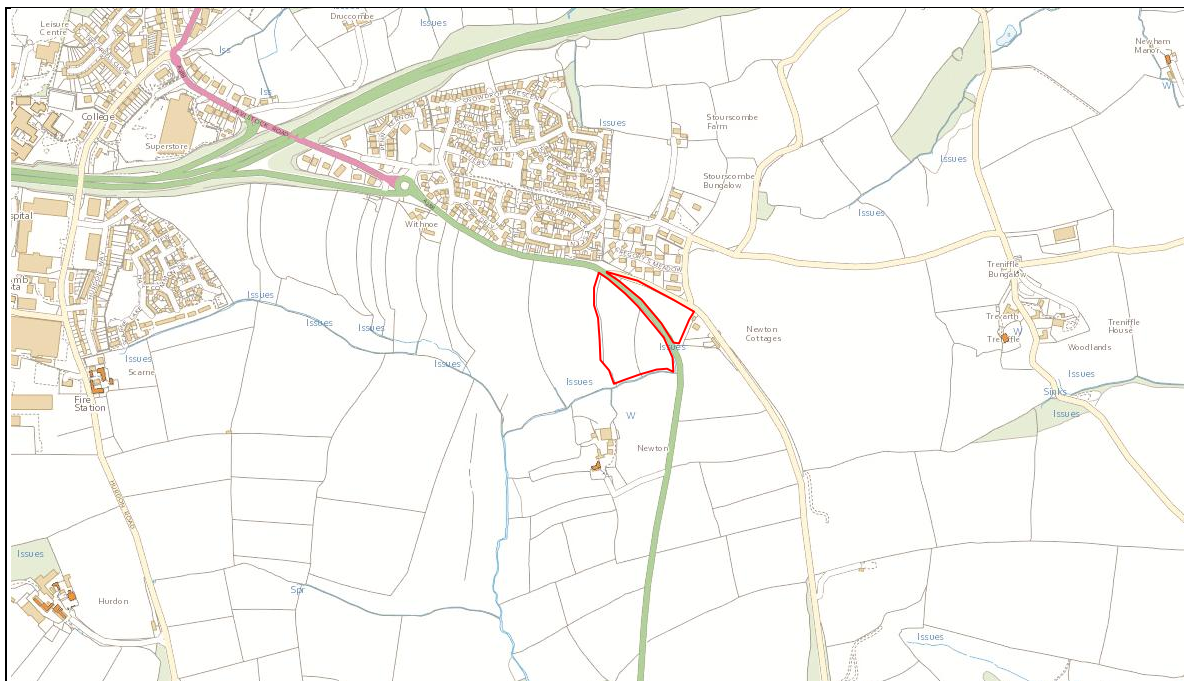


FIGURE 11: MAP OF NEARBY DESIGNATED HERITAGE ASSETS. THE SITE IS INDICATED (SOURCE: CORNWALL AND SCILLY HER) (CONTAINS OS DATA © CROWN COPYRIGHT AND DATABASE RIGHTS 2016).

The closest designated assets, are the 19th century Newton Farm and associated bee bole structures, to the south-west of the development site, are located within an enclosure bounded by tall Cornish hedgebanks with a scattering of established deciduous trees. The enclosure itself lies within a fieldscape of long narrow and slightly curving fields, the origins of which lie in the medieval period.

The immediate setting of the Listed structures – the farmstead and surrounding fields – would be affected by the proposed development, situated in fields forming part of the surrounding farmland, and it may have a limited affect on the principal value of the structures, changing the landscape function from agricultural farmland (Newton Farm is still a working farm) to settlement. The proposed site would, however, only be visible in certain views from around the farmstead, the immediate views being screened during summer months by deciduous trees. Similarly the assets would be screened in views across the farmstead from more elevated points further to the east (e.g. from the A388). The issue is, therefore, the importance of those views to the significance of the asset.

The principal elevation of the farmhouse faces south, down the valley, and wider views to the north, east, and west are all limited by the valley within which the structures are located. While the farmhouse and its farmstead are located within an aesthetically-pleasing pastoral landscape, the modern parts of this farm – as with most farms – simultaneously enhances the associational value of the working farmyard while detracting from the aesthetic appeal of its historic elements. Seen within the wider context of this agricultural landscape, meaningful views to the farmstead within its setting would be from the west, looking across the valley to the farmhouse, yard and buildings nestled within their fields; these views would be affected by the proposed development, though would be tempered by the settlement of Stourscombe, of which the development would appear to form part. In terms of views across the farm from the east, the farmstead is partly concealed in those views by the gentle fall of the slope and its hedgebanks and trees. On that basis the effect of the proposed development would be limited, overall a **negative/minor** impact.

5.3 SUMMARY

Restricted intervisibility and the character and location of most of the heritage assets in this area mean the impact of the proposed development would be very limited, even for those designated assets in closest proximity (i.e. at Newton Farm) the development would largely appear as part of the wider modern developments of Launceston and Stourscombe.

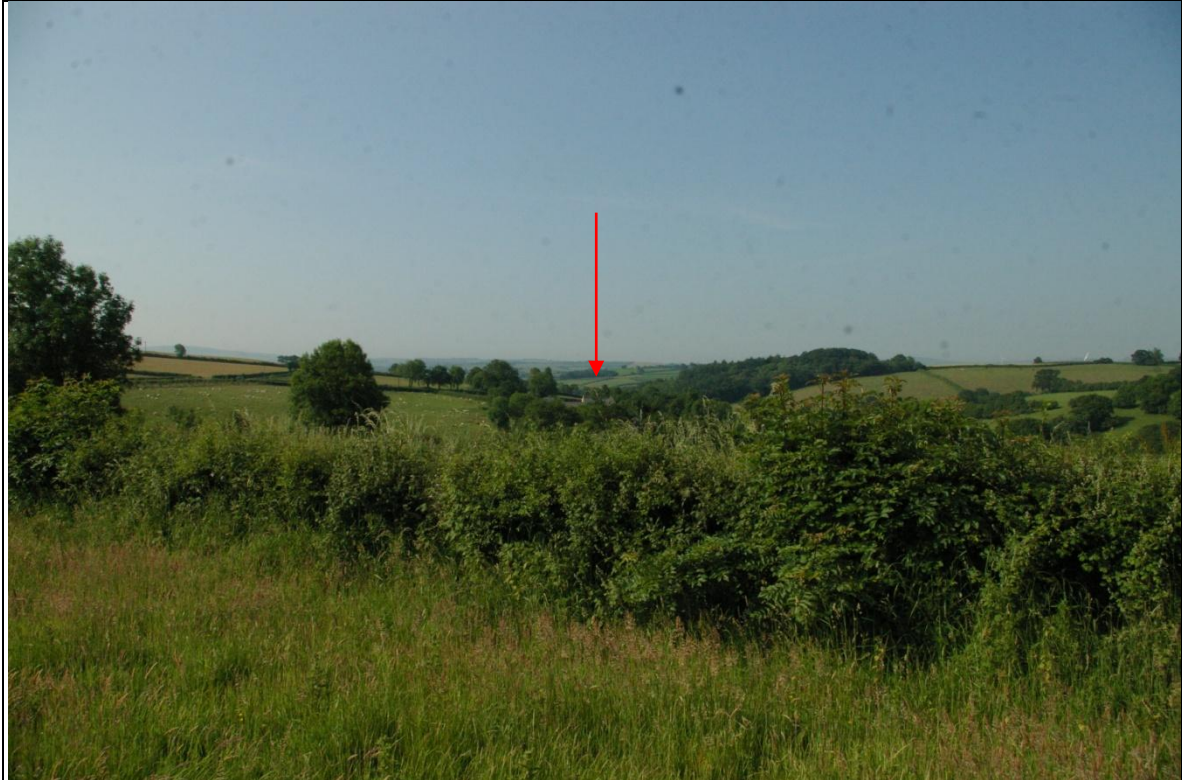


FIGURE 12: VIEW OF NEWTON FARM FROM THE NORTH-WEST CORNER OF FIELD 1, SHOWING THE EXISTING TREE SCREENING. NEWTON FARM IS INDICATED.



FIGURE 13: VIEW OF NEWTON FARM FROM THE SOUTH-EAST CORNER OF FIELD 1, SHOWING THE MORE LIMITED PROTECTION FROM EXISTING TREE SCREENING. NEWTON FARM IS INDICATED.



FIGURE 14: VIEW OF NEWTON FARM FROM THE NORTH END OF FIELD 3, SHOWING THE EXISTING TREE SCREENING. THE LOCATION OF NEWTON FARM IS INDICATED.

6.0 GEOPHYSICAL SURVEY

6.1 INTRODUCTION

An area of c.3.17ha, across three fields, was the subject of a magnetometry (gradiometer) survey. The purpose of this survey was to identify and record magnetic anomalies within the proposed site. Whilst identified anomalies may relate to archaeological deposits and structures the dimensions of these 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 20th of June 2017 by P. Webb and P. Bonvoisin; the survey data was processed by P. Bonvoisin.

The survey identified 24 groups of anomalies totalling c.40 possible archaeological features of possible prehistoric, medieval and later dates, including: a possible hollow-way/sunken track; a rectangular enclosure with numerous potentially associated ditches and pits; and possible former field boundaries. In addition the survey identified linear anomalies associated with ridge and furrow agriculture and modern plough damage across the entire site; and modern features including service pipes.

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 30x30m. 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.

Details, Field 1: 0.56075ha surveyed; Max. 148.25nT, Min. -199.76nT; Standard Deviation 12.38nT, Mean -0.41nT, Median -0.01nT.

Details, Field 2: 0.72935ha surveyed; Max. 103.29nT, Min. -111.18nT; Standard Deviation 12.78nT, Mean -0.27nT, Median 0.00nT.

Details, Field 3: 1.1545ha surveyed; Max. 99.52nT, Min. -128.99nT; Standard Deviation 7.83nT, Mean -0.24nT, Median 0.00nT.

6.3 RESULTS

Table 4 with the accompanying Figures 15 and 16 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 2.

LAND AT NEWTON FARM, TAVISTOCK ROAD, LAUNCESTON, CORNWALL

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
1	Mixed response, probable archaeology	Positive linear/area with associated negative area	Possible Holloway or sunken track	The survey response indicated a sunken track or feature with flanking banks. Aligned on an approximate east to west axis and not apparent on any of the seen historical mapping. Responses of c.-17nT to +19nT.
2	Positive, probable archaeology	Linear curving at eastern end	Possible enclosure	The form and response of this feature indicates a slightly curved ditch. Indicative of one side of a possible rectangular enclosure also comprising groups 3 and 7. Responses of c.+4nT to +18nT.
3	Positive, probable archaeology	Linear	Possible enclosure	The form and response of this feature indicates a linear ditch. Indicative of one side of a possible rectangular enclosure also comprising groups 2 and 7. Responses of c.+3nT to +9nT.
4	Positive, probable archaeology	Fragmented linear	Possible fragmented ditch	Indicative of a discrete turning linear ditch feature, may be related to the possible enclosure. Responses of c.+7nT to +20nT.
5	Positive, probable archaeology	Discrete pits	Possible pits	Indicative of a discrete cut feature, possible pits. Responses of c.+15nT to +25nT.
6	Positive, probable archaeology	Discrete pits	Possible pits	Indicative of a discrete cut feature, possible pits. Responses of c.+18nT to +23nT.
7	Positive, possible archaeology	Amorphous linear	Possible enclosure	The form and response of this feature indicates a linear ditch with attached amorphous pronged feature. Indicative of one side of a possible rectangular enclosure also comprising groups 2 and 3. Responses of c.+2nT to +11nT.
8	Positive, possible archaeology	Linear	Possible ditch	Indicative of a linear ditch feature, may be related to the possible enclosure. Responses of c.+6nT to +10nT.
9	Positive, possible archaeology	Thin crossing linears	Possible ditch	Indicative of two linear ditch features, possibly related to groups 10 to 12. Responses of c.+3nT to +9nT.
10	Positive, possible archaeology	Positive circular features	Possible pits	Indicative of two discrete cut features such as pits, possibly related to groups 9, 11 and 12. Responses of c.+4nT to +13nT.
11	Positive, possible archaeology	Amorphous linear	Possible cut feature	Indicative of an amorphous cut feature, possibly related to groups 9,10 and 12. Responses of c.+1nT to +7nT.
12	Positive, possible archaeology	Pronged linear	Possible ditch	Indicative of a linear ditch feature, separates to prongs at the southern end. Possible related to groups 9 to 11 and the possible enclosure feature. Responses of c.+2nT to +11nT.
13	Positive, probable archaeology	Linear	Possible ridge/earthwork	Indicative of ridge feature, may be related to the ridge and furrow across the site. Responses of c.-3nT to -7nT.
14	Negative, probable archaeology	Linear	Possible ridge/earthwork	Indicative of ridge feature, may be related to the ridge and furrow across the site. Responses of c.-4nT to -12nT.
15	Negative, probable archaeology	Fragmented linear	Possible ridge/earthwork	Indicative of a ridge feature. Possibly related to group 16. Responses of c.-7nT to -20nT.
16	Negative, probable archaeology	Linear	Possible ridge/earthwork	Indicative of a ridge feature, possibly related to group 15, due to proximity to manhole covers and strength of response may be modern disturbance. Possibly a continuation of group 19. Responses of c.-8nT to -34nT.
17	Negative, probable archaeology	Curved Linear	Possible ridge/earthwork	Indicative of a bank or earthwork, may be related to group 21. Responses of c.-4nT to -22nT.
18	Negative, probable archaeology	Linear	Possible ridge/earthwork	Indicative of short banks or ridges, similar in form, to the ridge and furrow but following two different axes. Responses of c.-2nT to -8.5nT.
19	Negative, possible archaeology	Linear	Possible ridge/earthwork	Indicative of a ridge feature, possibly related to the ridge and furrow, due to proximity to manhole covers and strength of response may be modern disturbance. Possibly a continuation of group 16. Responses of c.-13nT to -27nT.
20	Negative, possible archaeology	Linear	Possible ridge/earthwork	Indicative of a ridge feature, possibly related to group 15. Responses of c.-3.5nT to -14nT.
21	Negative, possible archaeology	Linear	Possible ridge/earthwork	Indicative of a bank or earthwork, may be related to group 17. Responses of c.-2.8nT to -6nT.
22	Mixed response, probable archaeology	Pit with associated negative response	Possible pit and bank	Indicative of a pit with associated raised earthworks, likely related to the possible enclosure. Responses of c.-6nT to +22nT.
23	Mixed response,	Large linear	Ditch or possible	The survey response indicates a large cut feature with

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
	possible archaeology	with associated negative response	modern disturbance	a bank to the south, due to its location and orientation it may represent the boundary for the area of ridge and furrow. Responses of c.-27nT to +30nT.
24	Negative and positive linears, possible archaeology	Associated negative and positive linear features	Probable ridge and furrow features	Covers much of the site, mostly along a roughly north-south orientation. At the southern ends of the middle and western fields, other linear features may be associated. Responses of c.-11nT to +13nT.

TABLE 4: INTERPRETATION OF GRADIOMETER SURVEY DATA.

6.4 DISCUSSION

The survey identified 24 groups of anomalies totalling c.40 possible archaeological features of possible prehistoric, medieval and later dates, including: a possible hollow-way/sunken track towards the northern end of the site; a rectangular enclosure or field system with numerous potentially associated ditches and pits to the north of Field 3; and possible former field boundaries to the south of Fields 1 and 2. In addition the survey identified linear anomalies associated with ridge and furrow agriculture and modern plough damage across the entire site; and modern features including service pipes. Whilst all features are currently undated, the possible enclosure could date to any period from prehistory or later; whilst the field boundaries, ploughing features and possible associated trackway are likely medieval or later in date. Cartographic and visual sources supporting the discussion and comments can be seen in the desk-based assessment above.

Group 1 are a series of moderate (c.-17nT to +19nT) positive parallel linear anomalies with associated areas of negative responses. Combined with the spacing of the feature, this is indicative of a possible hollow-way or sunken track. This feature is not evident on the cartographic evidence of the area, suggesting that it predates the mapping.

Groups 2 (+4nT to +18nT), weak to moderate positive linear feature indicative of a linear ditch, forming part of a possible rectangular enclosure. Associated with Groups 3 and 7. These three groups indicate the presence of a square cornered enclosure towards the northern end of Field 3.

Group 3 (+3nT to +9nT) The form and response of this feature indicates a linear ditch. Indicative of one side of a possible rectangular enclosure also comprising groups 2 and 7.

Group 4 are moderate (+7nT to +20nT) positive perpendicular linear anomalies, indicating a fragmented ditch or similar features. The location and alignment of the anomalies suggest that they may be related to interior features of the possible enclosure bounded by groups 2, 3 and 7.

Group 5 are moderate (+15nT to +25nT) positive ovoid anomalies indicative of discrete cut features such as pits or tree throws. The proximity to the possible enclosure suggests that these features may be related. These anomalies are similar in readings and form to Group 6.

Group 6 are moderate (+18nT to +23nT) positive ovoid anomalies indicative of discrete cut features such as pits or tree throws. Given the proximity of some to existing field boundaries, it is possible the tree throws is the more appropriate interpretation. These anomalies are similar in readings and form to Group 5.

Group 7 are weak (+2nT to +11nT) positive linear anomalies, indicates a ditch with possible truncation/disturbance. Indicative of one side of a possible rectangular enclosure also comprising Group 2 and potentially Group 3.

Group 8 is a low to moderate (+6nT to +10nT) positive linear anomaly indicative of a short stretch of linear ditch. Its position and alignment within the possible enclosure suggest that these features may be related.

Group 9 is a weak to moderate (+3nT to +9nT) pair of positive crossed linear anomalies possibly representing two ditches of separate phases of activity. Similar readings and close proximity may indicate that anomalies 9 to 12 are related; these anomalies are also in close proximity to the possible enclosure and may be associated.

Group 10 is a weak to moderate (+4nT to +13nT) set of positive amorphous ovoid features indicative of discrete cut features such as pits or tree throws. Similar readings and close proximity may indicate that anomalies 9 to 12 are related; these anomalies are also in close proximity to the possible enclosure and may be associated.

Group 11 is a weak to moderate (+1nT to +7nT) positive amorphous feature, possibly fragmented from group 12. Similar readings and close proximity may indicate that anomalies 9 to 12 are related; these anomalies are also in close proximity to the possible enclosure and may be associated.

Group 12 is a weak to moderate (+2nT to +11nT) positive pronged linear anomaly. Similar readings and close proximity may indicate that anomalies 9 to 12 are related; these anomalies are also in close proximity to the possible enclosure and may be associated.

Group 13 is a weak to moderate (-3nT to -7nT) negative curved linear anomaly. This feature shares similar form and readings to the ridge and furrow within the site, though appears on a slight variation of the alignment.

Group 14 is a weak to moderate (-4nT to -12nT) negative curved linear anomaly indicative of a banked feature. This feature follows the indicated curve of the limits of the ridge and furrow at the southern end of Field 3 and may represent a small bank or linear earthwork marking the boundary of this activity.

Group 15 is a moderate (-7nT to -20nT) negative fragmented linear anomaly indicative of a banked feature. This follows a similar orientation to ridge and furrow to the south, possibly indicating a former boundary to ridge and furrow in the south-east corner of the field; though may be a feature of geological origin. Group 20 may be a continuation of this linear.

Group 16 is a moderate to high (-8nT to -34nT) negative linear anomaly. The high readings and proximity to the manhole covers may represent modern disturbance.

Group 17 is a weak to moderate (-4nT to -22nT) negative curved linear anomaly indicative of a raised narrow bank or earthwork. This feature may be associated with group 21.

Group 18 is a pair of weak to moderate (-2nT to -8.5nT) negative short linear features indicative of small banks similar in presentation to the ridge and furrow but following a different axis.

Group 19 is a moderate (-13nT to -27nT) negative turning linear feature indicative of a banked feature; its strength indicating that it may be modern disturbance. This group is similar and possibly related to group 16.

Group 20 is a pair of weak to moderate (-3.5nT to -14nT) negative slightly curved linear features indicative of banked features, possibly ridges related to group 15. Their position in relation to modern manholes, however, suggests possible drainage features.

Group 21 are a pair of weak (-2.8nT to -6nT) negative curved linear features, indicative of raised narrow banks or earthworks. These may be a continuation of group 17.

Group 22 is a large moderate (-6nT to +22nT) positive ovoid feature, flanked by negative areas. The results are indicative of a discrete cut feature such as a pit surrounded by banks or raised ground. Group 22 is located inside the possible enclosure and may be a related feature.

Group 23 is a moderate (-27nT to +30nT) large positive cut feature or ditch, with an associated negative area to the south, probably representing a bank. This feature runs perpendicular to much of the ridge and furrow and may indicate the southern boundary of the area of ridge and furrow.

Group 24 comprises ridge and furrow which is present across the entire site; this is visible in the survey results as a series of mostly parallel negative with associated positive linear responses. The majority of these features are orientated north-south, with a slight curve indicating that they follow medieval field layouts. At the southern ends of Field 2 the ridge and furrow follows a north-east to south-west axis indicating the end of the ploughed field. In Field 3, Group 14 may be a small bank indicating the southern extent of the area of ridge and furrow.

Several discrete features have been marked as modern disturbance due to their extremely high readings making them unlikely to have an archaeological origin. Di-Polar anomalies are present across the site in no particular pattern and likely represent modern or metallic debris. Magnetic disturbance is also located across the site, mostly associated with the existing field boundaries, and particularly associated with gateways and modern manhole covers. This may mean that the survey results in the south-west corner of Field 2, including Groups 16, 19, and 20, may be modern disturbance rather than being of archaeological origin.

LAND AT NEWTON FARM, TAVISTOCK ROAD, LAUNCESTON, CORNWALL

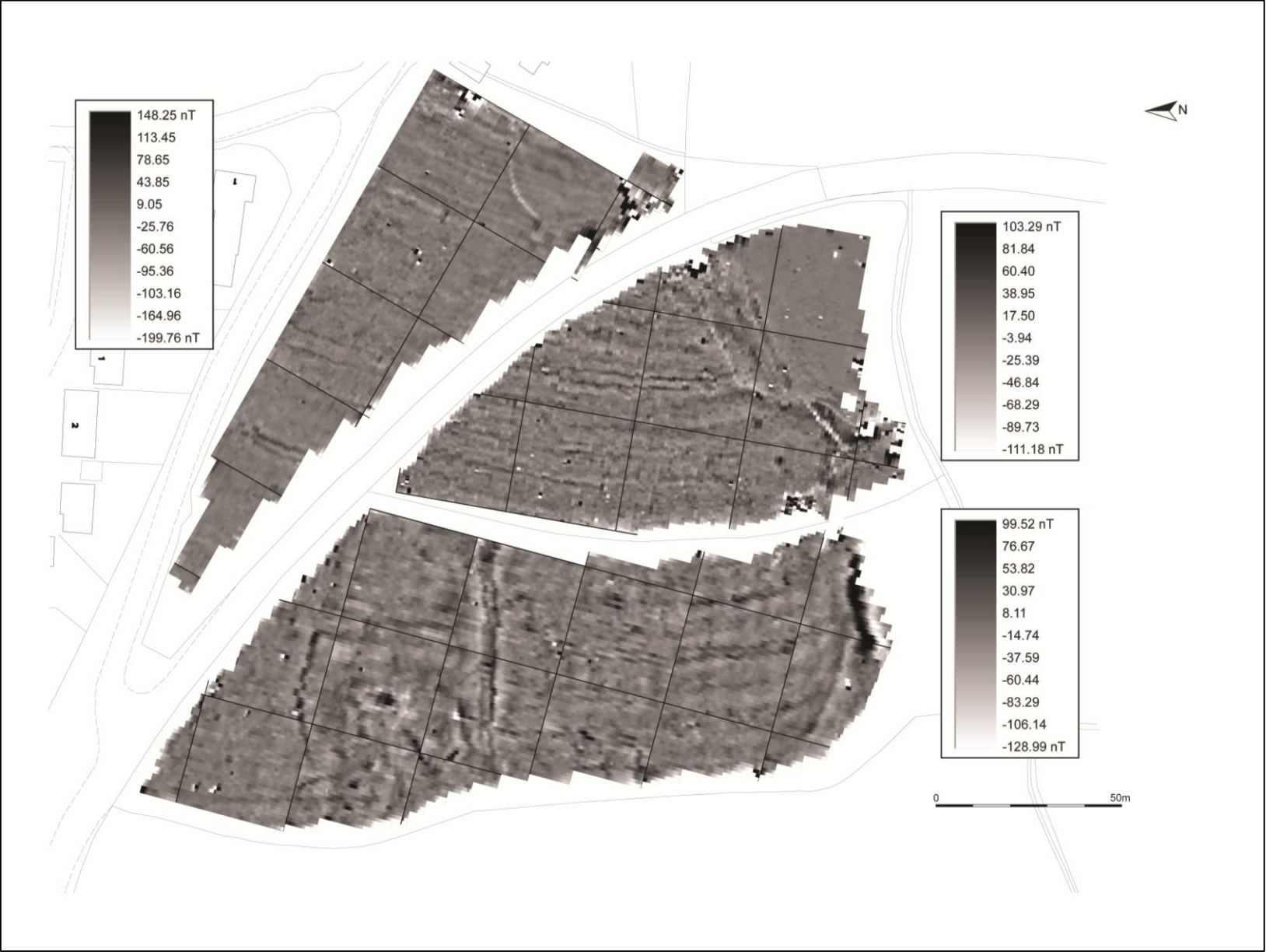


FIGURE 15: SHADE PLOT OF GRADIOMETER SURVEY DATA; MINIMAL PROCESSING.



FIGURE 16: INTERPRETATION OF GRADIOMETER SURVEY DATA.

7.0 CONCLUSION

The site of the proposed development lies c.2km to the south-east of the historic core of Launceston. It comprises three fields, divided by Tavistock Road (the A388) on a south-west facing slope at an altitude of c.118-135m AOD. The site forms part of the historic holding of Newton Farm, a 19th century listed farmhouse built on the site of an earlier medieval settlement; and within a wider landscape of a field system with clear medieval antecedents.

The limited impact appraisal that was undertaken would suggest that the effect of the proposed development on designated heritage assets in the local area is limited. The walkover survey also did not identify any notable earthworks within the proposal site, but this is not surprising given the recent agricultural use of the site.

The results of the geophysical survey indicate that there is the potential for the survival of feature and deposits of possible prehistoric origins, though most of the anomaly groups are likely of medieval or later date. The possible rectangular enclosure and other features in the northern half of Field 3 (the western field) appear to be of the greatest archaeological potential, although all three fields have clearly been subject to extensive truncation through ploughing.

Further investigation of the buried archaeological resource would be required to validate the geophysical survey and inform or provide mitigation for the archaeological resource.

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Lawhitton c.1840
St Mary Magdalene c.1840

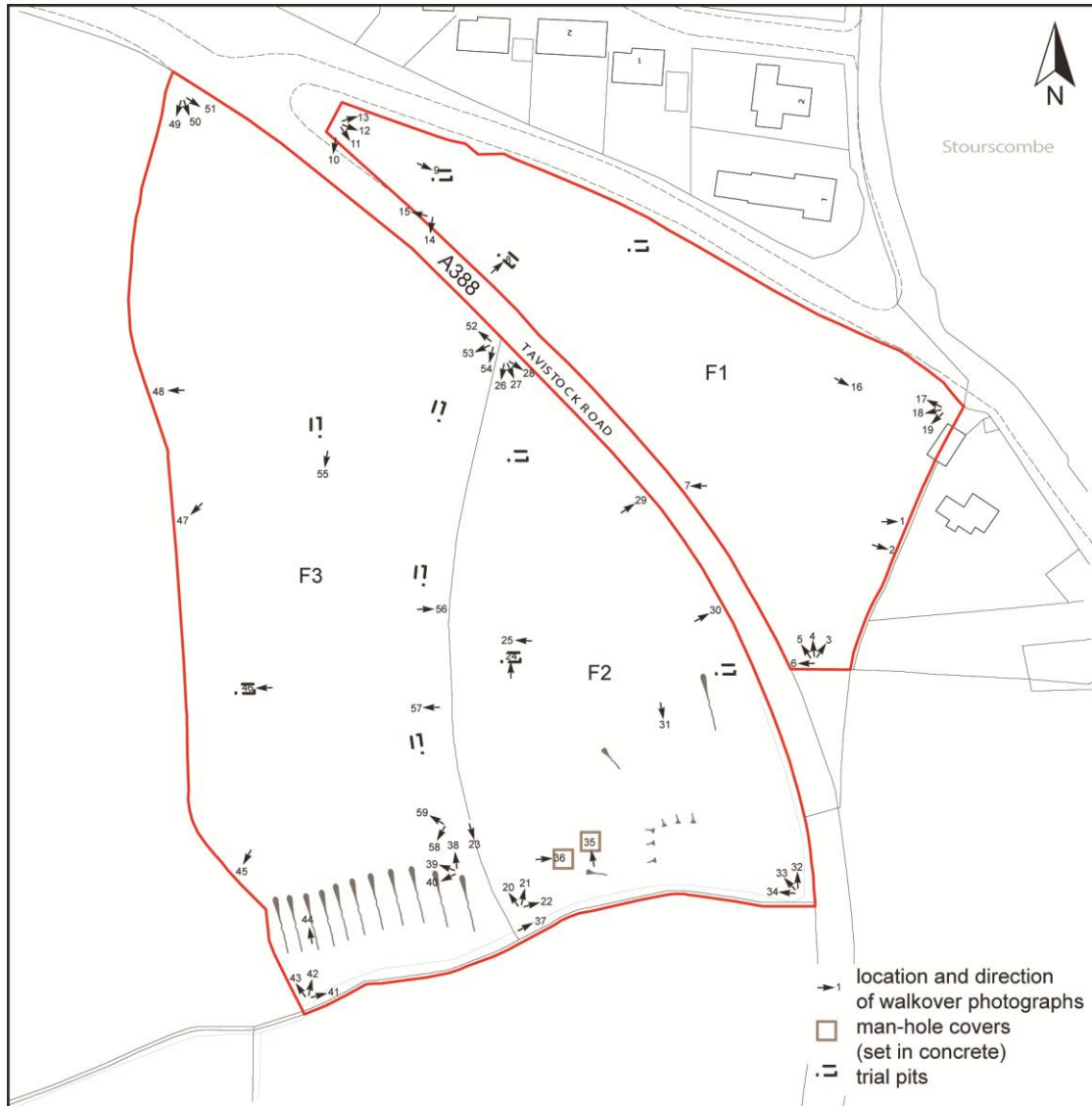
British Library (BL):

- | | |
|--------------------------------------|------------------------|
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| | South Petherwin c.1808 |

Cornwall Record Office

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APPENDIX 1: BASELINE PHOTOGRAPHY FROM THE WALKOVER SURVEY



SITE PLAN SHOWING LOCATION AND DIRECTION OF PHOTOGRAPHS TAKEN DURING WALKOVER SURVEY.



1. DETAIL OF THE EASTERN HEDGEBANK BOUNDARY OF F1; VIEWED FROM THE WEST (1M SCALE).



2. DETAIL OF THE EASTERN HEDGEBANK BOUNDARY OF F1; VIEWED FROM THE WEST (1M SCALE).



3. VIEW ALONG THE EASTERN BOUNDARY OF F1 FROM THE SOUTH-EAST CORNER; VIEWED FROM THE SOUTH-EAST (NO SCALE).



4. VIEW ACROSS F1 FROM THE SOUTH-EAST CORNER; VIEWED FROM THE SOUTH-EAST (NO SCALE).



5. VIEW ALONG THE SOUTH-WESTERN BOUNDARY OF F1, FROM THE SOUTH-EAST CORNER; VIEWED FROM THE SOUTH-EAST (NO SCALE).



6. DETAIL OF THE SOUTH-EASTERN HEDGEBANK BOUNDARY AND GATEWAY OF F1; VIEWED FROM THE EAST (1M SCALE).



7. DETAIL OF THE BLOCKED GATEWAY IN THE SOUTH-WESTERN BOUNDARY OF F1; VIEWED FROM THE SOUTH-EAST (1M SCALE).



8. DETAIL OF A TRIAL PIT TOWARDS THE SOUTH-WEST BOUNDARY OF F1; VIEWED FROM THE SOUTH-WEST (1M SCALE).



9. DETAIL OF A TRIAL PIT TOWARDS THE NORTH-WEST CORNER OF F1, WITH NEWTON HOUSE IN THE BACKGROUND; VIEWED FROM THE NORTH-WEST (1M SCALE).



10. VIEW TO THE SOUTH OF F1, FROM THE NORTH-WEST CORNER, SHOWING LIMITED LANDSCAPE DISTURBANCE AND MODERN WIND TURBINES; VIEWED FROM THE NORTH (NO SCALE).



11. VIEW TOWARDS NEWTON FARM FROM THE NORTH-WEST CORNER OF F1, SHOWING LIMITED VIEWS FROM A LOW LEVEL; VIEWED FROM THE NORTH (NO SCALE).



12. VIEW ALONG THE SOUTH-WESTERN BOUNDARY OF F1 FROM THE NORTH-WEST CORNER; VIEWED FROM THE NORTH-WEST (NO SCALE).



13. VIEW ALONG THE NORTHERN BOUNDARY OF F1, FROM THE NORTH-WEST CORNER; VIEWED FROM THE WEST (NO SCALE).



14. VIEW TOWARDS NEWTON FARM (CENTRE OF PICTURE) FROM F1, SHOWING LEVEL OF CURRENT TREE SCREENING; VIEWED FROM THE NORTH-EAST (NO SCALE).



15. VIEW TOWARDS LAUNCESTON FROM F1, SHOWING EXISTING MODERN DEVELOPMENT; VIEWED FROM THE SOUTH-EAST (NO SCALE).



16. VIEW OF NEWTON HOUSE; VIEWED FROM THE EAST (NO SCALE).



17. VIEW ALONG THE NORTHERN BOUNDARY OF F1, FROM THE NORTH-EAST CORNER; VIEWED FROM THE SOUTH-EAST (NO SCALE).



18. VIEW ACROSS F1, TOWARDS F2; VIEWED FROM THE NORTH-EAST (NO SCALE).



19. VIEW TOWARDS NEWTON FARM (LEFT OF CENTRE) FROM THE NORTH-WEST CORNER; VIEWED FROM THE NORTH (NO SCALE).



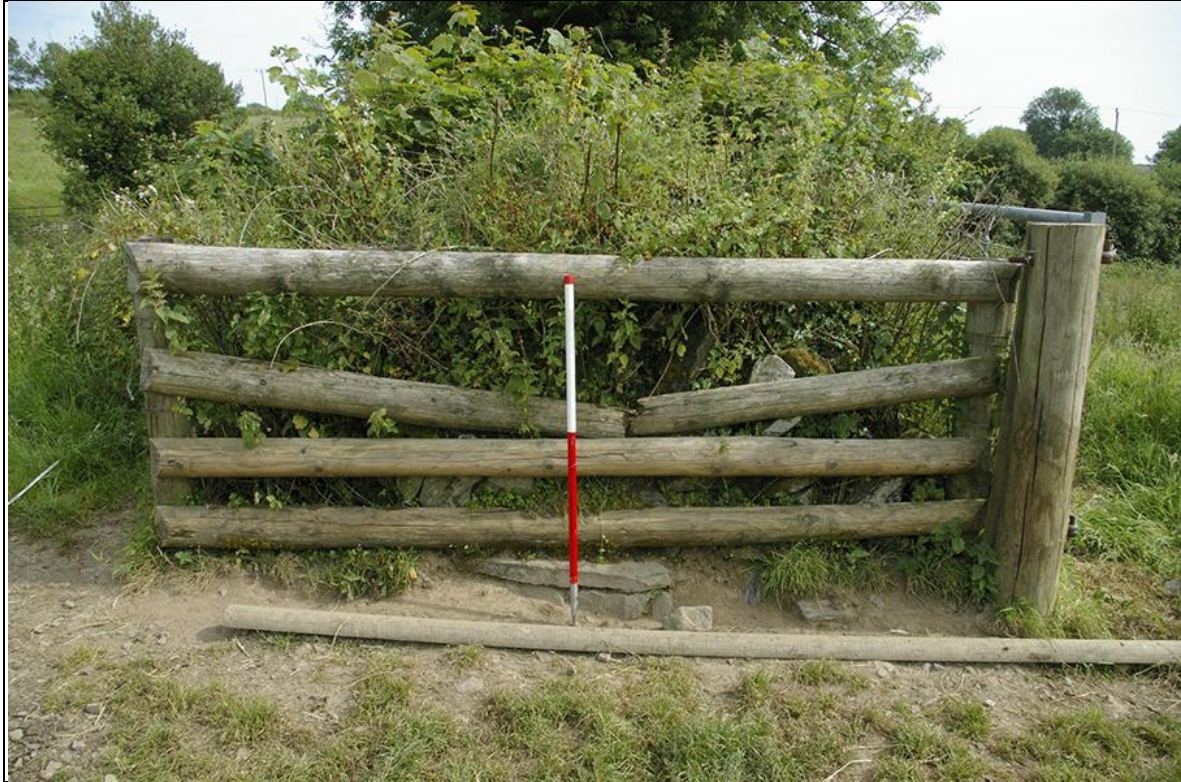
20. VIEW ALONG THE WESTERN BOUNDARY OF F2; VIEWED FROM THE SOUTH (NO SCALE).



21. VIEW ACROSS F2 FROM THE SOUTH-WEST CORNER; VIEWED FROM THE SOUTH-WEST (NO SCALE).



22. VIEW ALONG THE SOUTHERN BOUNDARY OF F2, FROM THE SOUTH-WEST CORNER; VIEWED FROM THE WEST (NO SCALE).



23. DETAIL OF THE HEDGEBANK BOUNDARY AND GATEWAY BETWEEN F2 AND F3; VIEWED FROM THE NORTH (1M SCALE).



24. DETAIL OF A TRIAL PIT TOWARDS THE MIDDLE OF F2; VIEWED FROM THE SOUTH (1M SCALE).



25. DETAIL OF A WATER INSPECTION POINT WITHIN F2; VIEWED FROM THE EAST (1M SCALE).



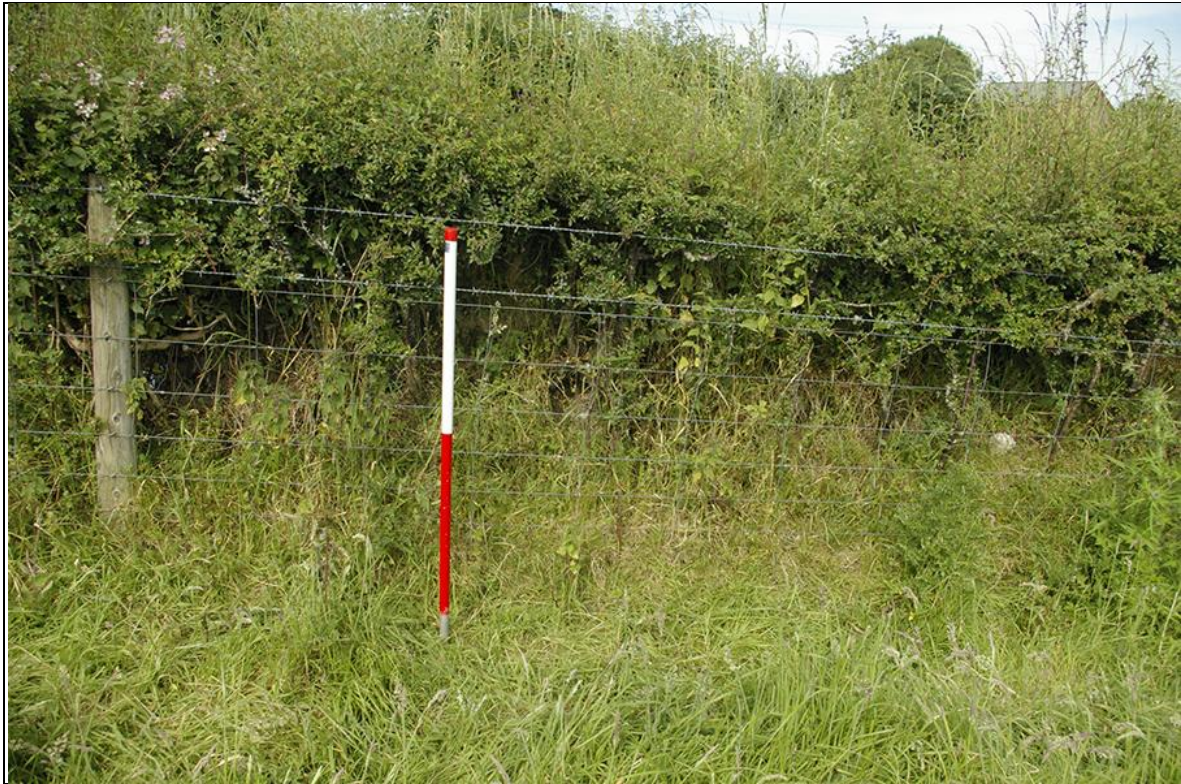
26. VIEW ALONG THE WESTERN BOUNDARY OF F2, FROM THE NORTHERN CORNER; VIEWED FROM THE NORTH (NO SCALE).



27. VIEW ACROSS F2, FROM THE NORTHERN CORNER; VIEWED FROM THE NORTH (NO SCALE).



28. VIEW ALONG THE NORTH-EASTERN BOUNDARY OF F2, FROM THE NORTH CORNER; VIEWED FROM THE NORTH-WEST (NO SCALE).



29. DETAIL OF THE NORTH-EASTERN BOUNDARY OF F2; VIEWED FROM THE SOUTH-WEST (1M SCALE).



30. DETAIL OF CONCRETE PLINTH AT NORTH-EAST BOUNDARY F2; VIEWED FROM THE WEST-SOUTH-WEST (1M SCALE).



31. VIEW OF SLIGHT RAISED EARTHWORKS WITHIN FLOOD PLAIN AT SOUTHERN BOUNDARY OF F2; VIEWED FROM THE NORTH (1M SCALE).



32. VIEW ALONG THE EASTERN BOUNDARY OF F2, FROM THE SOUTH-EAST CORNER; VIEWED FROM THE SOUTH (NO SCALE).



33. VIEW ACROSS F2 FROM THE SOUTH-EASTERN CORNER; VIEWED FROM THE SOUTH-EAST (NO SCALE).



34. VIEW ALONG THE SOUTHERN BOUNDARY OF F2, FROM THE SOUTH-EAST CORNER; VIEWED FROM THE EAST (NO SCALE).



35. DETAIL OF A STORM DRAIN TOWARDS THE SOUTH-WEST CORNER OF F2; VIEWED FROM THE SOUTH (1M SCALE).



36. DETAIL OF A STORM DRAIN TOWARDS THE SOUTH-WEST CORNER OF F2; VIEWED FROM THE SOUTH-WEST (1M SCALE).



37. DETAIL OF FOOTBRIDGE OVER THE STREAM AT THE SOUTHERN BOUNDARY OF F2; VIEWED FROM THE WEST (1M SCALE).



38. VIEW ALONG THE EASTERN BOUNDARY OF F3, FROM THE SOUTH-EASTERN CORNER; VIEWED FROM THE SOUTH (NO SCALE).



39. VIEW ACROSS F3, TOWARDS LAUNCESTON, FROM THE SOUTH-EAST CORNER; VIEWED FROM THE SOUTH-EAST (NO SCALE).



40. VIEW ALONG THE SOUTHERN BOUNDARY OF F3 SHOWING INTENSIVE REED GROWTH, FROM THE SOUTH-EAST CORNER; VIEWED FROM THE EAST (NO SCALE).



41. VIEW ALONG THE SOUTHERN BOUNDARY OF F3, FROM THE SOUTH-WEST CORNER; VIEWED FROM THE WEST (NO SCALE).



42. VIEW ACROSS F3 FROM THE SOUTHERN END, SHOWING THE STEEP BANK TO THE MAIN PART OF THE FIELD; VIEWED FROM THE SOUTH (NO SCALE).



43. VIEW UP THE BANK AT THE SOUTHERN END OF F3, FROM THE SOUTH-WEST CORNER; VIEWED FROM THE SOUTH (NO SCALE).



44. VIEW ALONG BANK AT THE SOUTHERN END OF F3, FROM THE SOUTH-WEST CORNER; VIEWED FROM THE SOUTH-WEST (1M SCALE).



45. DETAIL OF A SHORT PORTION OF WOODEN FENCE FRONTING THE WESTERN BOUNDARY OF F3 TOWARDS THE SOUTH-WEST CORNER; VIEWED FROM THE EAST (1M SCALE).



46. DETAIL OF A TRIAL PIT WITHIN F3; VIEWED FROM THE EAST (1M SCALE).



47. DETAIL OF THE FENCE AND HEDGEBANK FORMING THE WESTERN BOUNDARY TO F3; VIEWED FROM THE NORTH-EAST (1M SCALE).



48. DETAIL OF THE FENCE AND HEDGEBANK FORMING THE WESTERN BOUNDARY TO F3; VIEWED FROM THE EAST (1M SCALE).



49. VIEW ALONG THE WESTERN BOUNDARY OF F3, FROM THE NORTH-WEST CORNER; VIEWED FROM THE NORTH (NO SCALE).



50. VIEW ACROSS F3, WITH NEWTON FARM JUST VISIBLE IN THE TREE-LINE (RIGHT OF CENTRE), FROM THE NORTH-WEST CORNER; VIEWED FROM THE NORTH-WEST (NO SCALE).



51. VIEW ALONG THE NORTHERN BOUNDARY OF F3, FROM THE NORTH-WEST CORNER; VIEWED FROM THE WEST (NO SCALE).



52. VIEW ALONG THE NORTHERN BOUNDARY OF F3, FROM THE NORTH-EAST CORNER; VIEWED FROM THE EAST (NO SCALE).



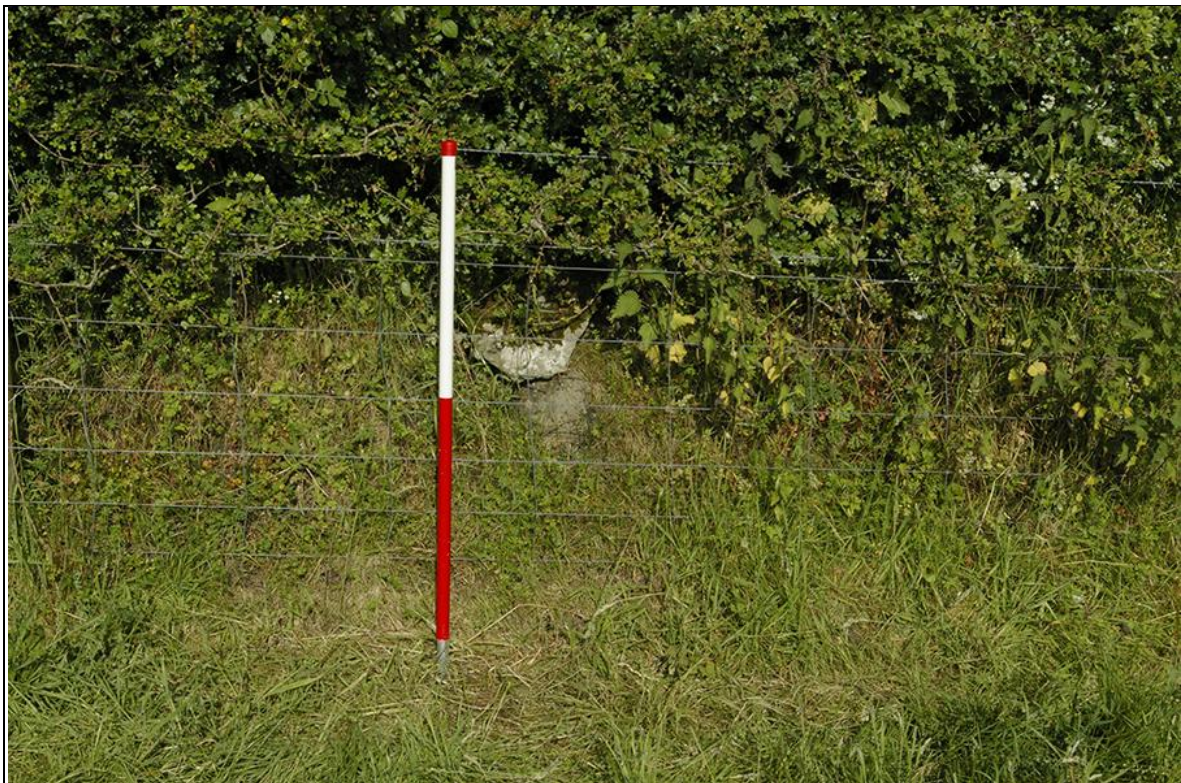
53. VIEW ACROSS F3 FROM THE NORTH-EAST CORNER; VIEWED FROM THE NORTH-EAST (NO SCALE).



54. VIEW ALONG THE EASTERN BOUNDARY TO F3, FROM THE NORTH-EAST CORNER; VIEWED FROM THE NORTH (NO SCALE).



55. VIEW ACROSS F3 WITH NEWTON FARM VISIBLE AMONGST THE TREES (CENTRE); VIEWED FROM THE NORTH (NO SCALE).



56. DETAIL OF THE FENCE AND HEDGEBANK FORMING THE EASTERN BOUNDARY OF F3; VIEWED FROM THE WEST (1M SCALE).



57. DETAIL OF A TRIAL PIT TOWARDS THE SOUTH-EAST CORNER OF F3; VIEWED FROM THE EAST (1M SCALE).

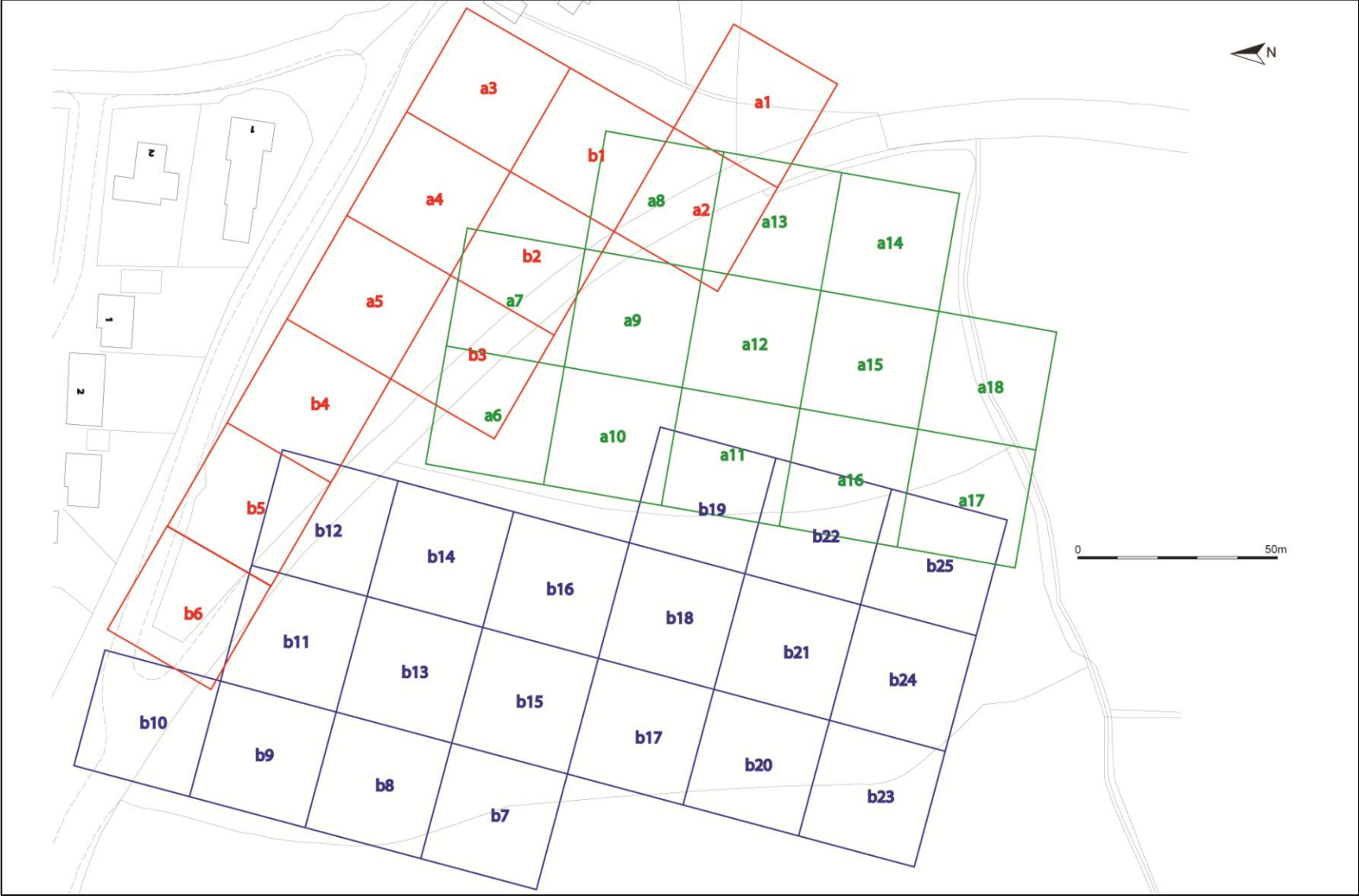


58. DETAIL OF THE BANK AT THE SOUTHERN END OF F3; VIEWED FROM THE NORTH-EAST (1M SCALE).



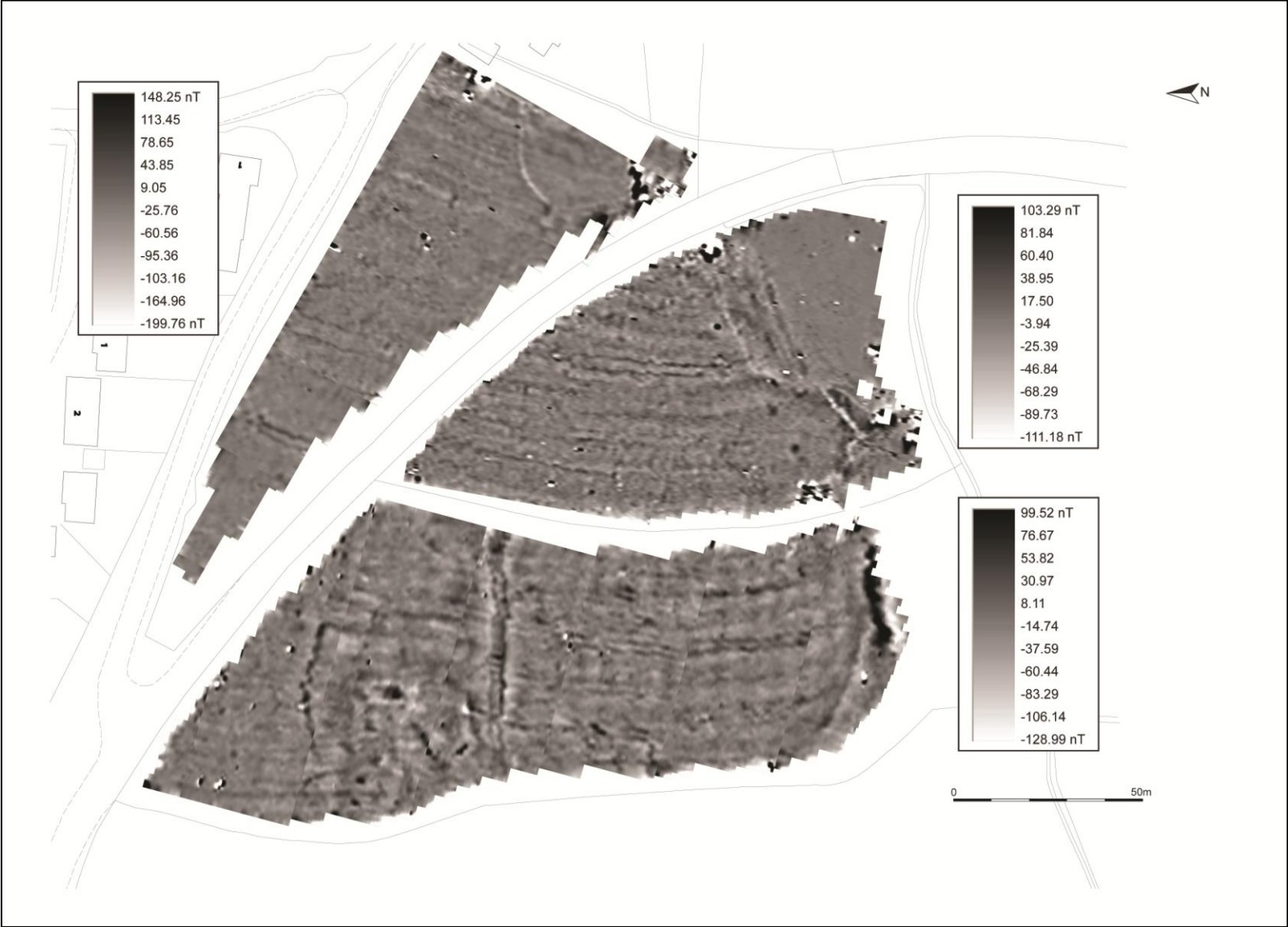
59. VIEW ACROSS F3, FROM THE TOWARDS THE SOUTH-EAST CORNER; VIEWED FROM THE SOUTH-EAST (NO SCALE).

APPENDIX 2: ADDITIONAL GRAPHICAL IMAGES OF THE GRADIOMETER SURVEY



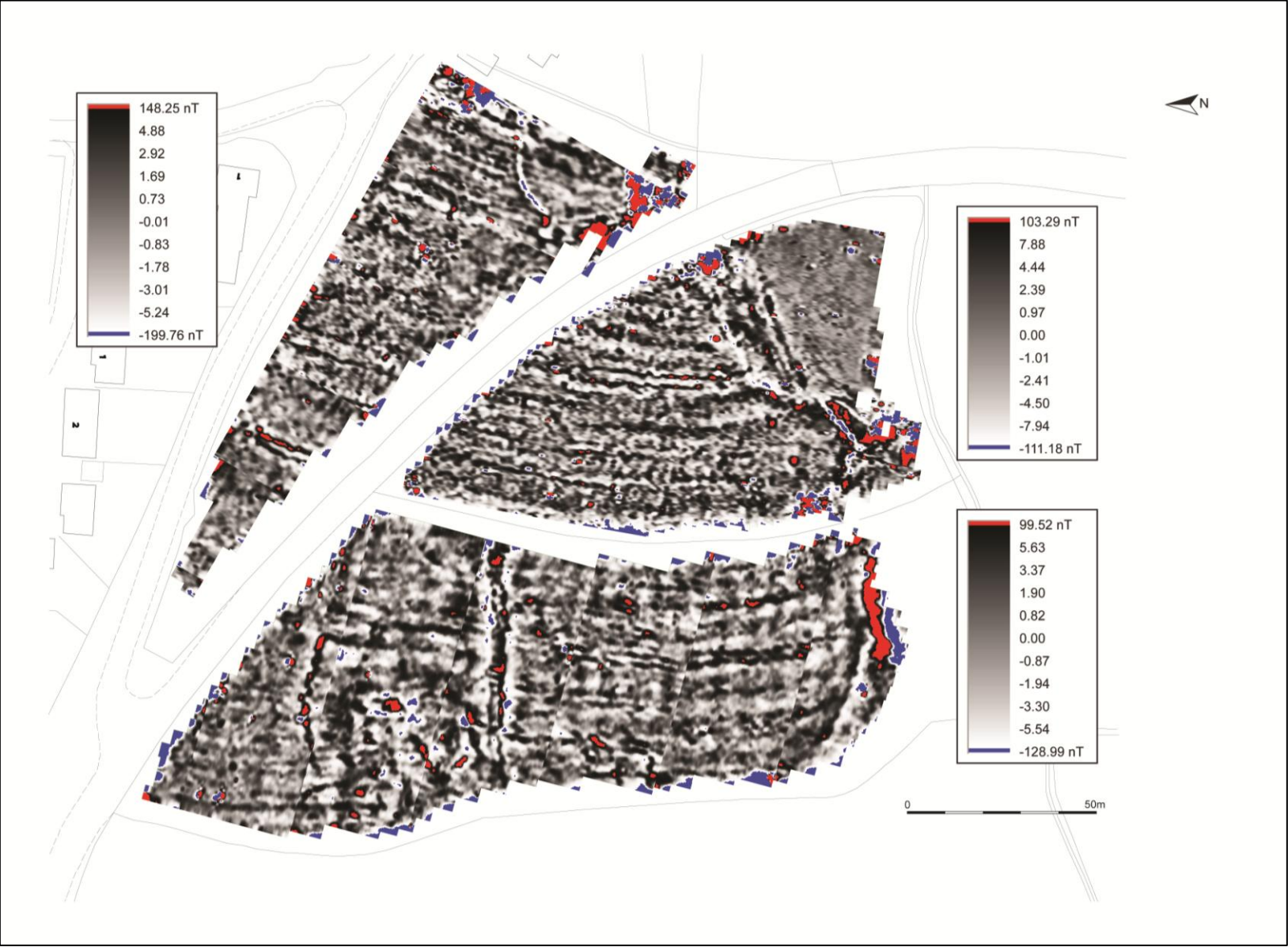
GEOPHYSICAL SURVEY GRID LOCATION AND NUMBERING, F1 IN RED, F2 IN GREEN AND F3 IN BLUE.

LAND AT NEWTON FARM, TAVISTOCK ROAD, LAUNCESTON, CORNWALL



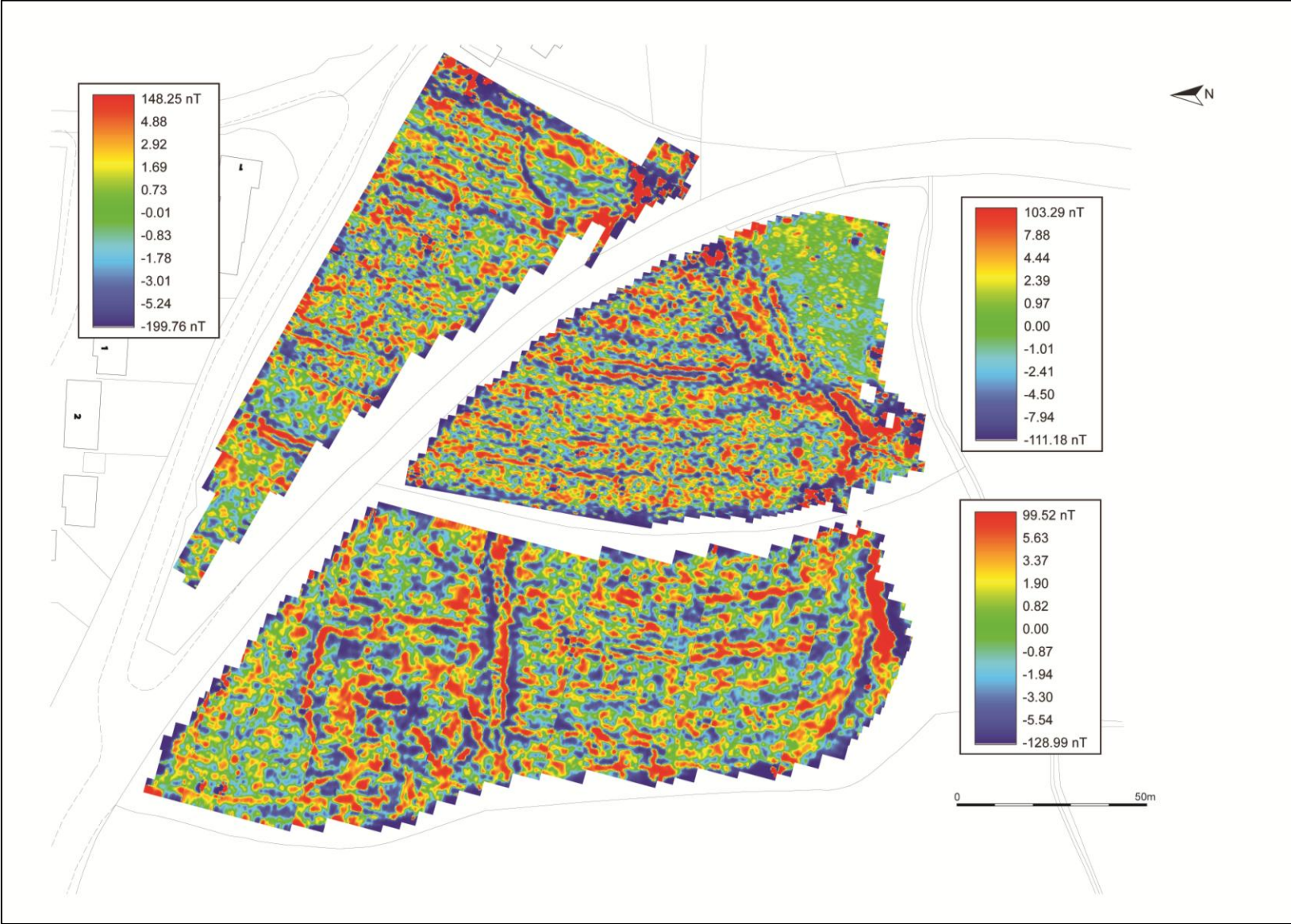
SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING.

LAND AT NEWTON FARM, TAVISTOCK ROAD, LAUNCESTON, CORNWALL



RED-GREY-BLUE SHADE PLOT OF GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALISED; GRADIATED SHADING.

LAND AT NEWTON FARM, TAVISTOCK ROAD, LAUNCESTON, CORNWALL



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



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