

ST ERTH MULTI MODAL HUB

ST ERTH CORNWALL

Results of a Desk-Based Assessment, Walkover & Geophysical Survey



South West Archaeology Ltd. report no. 160324



European Union
European Regional
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St Erth Multi Modal Hub, St Erth, Cornwall Results of a Desk-Based Assessment, Walkover Survey & Geophysical Survey

By J. Bampton, S. Walls & B. Whitlock
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Work undertaken by SWARCH for Robert Trembath
of Ward Williams Associates

EXECUTIVE SUMMARY

South West Archaeology Ltd. was commissioned by Robert Trembath of Ward Williams Associates (the Agent) to undertake a desk-based assessment, walkover survey and geophysical survey on the area associated with the proposed St Erth Multi Modal Hub at St. Erth, Cornwall. The work was carried out as part of the re-application for the development and associated infrastructure, and builds upon assessments carried out by the Cornwall Archaeological Unit in 2006 and 2009, and a geophysical survey undertaken over part of the site by GSB Prospection in 2009.

The site is focused on St. Erth railway station, which is located c.1km to the north-west of the centre of the village of St. Erth, just south of the A30, and the parish boundary with Lelant. The desk-based assessment, walkover survey and geophysical survey identified that any proposed development in this area is likely to disturb buried archaeological deposits or remains of varying levels of significance.

There is certainly strong evidence for the remains of post-medieval mining activity and medieval to post-medieval agricultural activity including field boundaries. There are also the remains of demolished historic buildings of a farm which may be encountered in the proposed South Car Park. There are also tentative hints of other un-dated activity (mostly pits) visible on the geophysics. Modern ploughing activity, grubbing up of knot weed, and the construction of the railway line are likely to have severely truncated the buried archaeological resource particularly in the proposed southern car park and areas to the north of the station.

It is recommended that the degree of truncation and significance of the archaeology in these areas is assessed by evaluation trenches, followed if necessary by a targeted program of archaeological monitoring. Along Treloweth Lane, particularly around the hamlet of Treloweth, there is high potential for medieval (and potentially prehistoric and romano-british) features, structures and remains being encountered within any works and a programme of archaeological monitoring should be undertaken in this area. The proposed works should also take the opportunity to improve the conditions of some of the historic structures which fall within the proposal area, in particular the station platforms, railway bridge and garden walls at Treloweth.



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PROJECT CREDITS

PROJECT DIRECTOR: DR. SAMUEL WALLS
PROJECT OFFICER: JOE BAMPTON
DESK-BASED ASSESSMENT: BETHANY WHITLOCK; JOE BAMPTON
FIELD WORK: DR. SAMUEL WALLS; JOE BAMPTON;
REPORT: JOE BAMPTON; DR. SAMUEL WALLS; BETHANY WHITLOCK
EDITING: DR. SAMUEL WALLS
GRAPHICS: BETHANY WHITLOCK; JOE BAMPTON

1.0 INTRODUCTION

Location: St Erth Multi Modal Hub
Parish: St Erth
County: Cornwall
NGR: centred on SW 542 357
SWARCH ref: SEH16

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by Robert Trembath of Ward Williams Associates (the Agent) to undertake a desk-based assessment, walkover survey and a targeted geophysical survey on a site focused around St Erth railway station in advance of the construction of infrastructure associated with a proposed Multi Modal Hub. This work was carried out in accordance with a Project Design (Boyd 2016) drawn up in line with best practice.

This reports builds upon the work of previous archaeological assessments undertaken by the Cornwall Archaeological Unit (CAU) in 2006 (Cole) and 2009 (Lawson-Jones). A previous geophysical survey was also undertaken over part of the proposed development area in 2009 (GSB 2009).

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The site is located within the parish of St Erth, c.1 km north-west of St Erth; around the area of St Erth train station off the A30 and Treloweth Lane (see Figure 1). The entire site was subject to a walkover and desk-based study. The area subject to geophysical survey area is comprised of a single roughly triangular field of scrub (c.1.8ha) that contains evidence of mine working and Jehovahs Kingdom Hall to its south-west, outside the survey area. The site is relatively flat with even ground, sloping very gently down from the north to south, at a height of c.10m AOD. Treloweth Lane bridges a small tributary to the River Hayle, which is c.700m to the east of the site.

The soils in this area are the well drained fine loamy soils of the Denbigh 2 Formation (SSEW 1983), which overlie the Slate and Siltstone of the Mylor Slate Formation (BGS 2016).

1.3 HISTORICAL BACKGROUND

St. Erth is located within the hundred and deanery of Penwith (Lysons 1814). The place-name St. Erth, meaning 'St. Ergh's (church)', is derived from the 13th century dedication of the church to that saint. The alternative church-town name, *Lanuthinoch*, is derived from the Old Cornish *Lann* meaning 'church-site' and an unknown element probably associated with a different saints name (Watts 2002). The site is located to the north-west of the village of St. Erth and was once probably largely within lands once all belonging to the manor of Treloweth.

The proposal site is focused around the train station of St. Erth, which 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 and then renamed St Erth. The present station dates partly from the 1870s and partly from a later re-structuring in the 1890s. There were several additional siding added to the station in the late 19th and early 20th century (Cole 2006: 9).

1.4 ARCHAEOLOGICAL BACKGROUND

The site is located within an area characterised as post-medieval enclosed land by the Cornwall Council Historic Landscape Characterisation (HLC). It is bordered by plantations/scrub land, and there are areas of medieval farmland to the south and south-west. Medieval farmland is categorised as *Anciently Enclosed Land* (AEL) and formed the agricultural heartland of Cornwall, with the settlements and field systems typically having clear medieval antecedents and the remains of prehistoric and romano-british archaeology are noted as widely surviving within AEL.

The Cornwall Historic Environment Record (see Section 2.3) records several heritage assets in close proximity to the proposed development site, although most of these are post-medieval/19th century in date. St Erth Station is itself a Grade II Listed structure (172607). Several mine shafts were also recorded in the immediate vicinity (e.g. Treloweth mine). Medieval settlements were recorded at Treloweth and Rose-an-Grouse. The archaeological assessment undertaken by CAU (Lawson-Jones 2009) notes mining remains in the area of the proposed developments, and geophysical survey in the field to the south-west of the station (the proposed overflow car park) identified several removed post-medieval field boundaries and a series of possible pits of unknown possibly natural origin (GSB 2009). Further descriptions of nearby heritage assets can be seen in Appendix 1.

1.5 METHODOLOGY

This document follows the methodology outlined in the Project Design (Boyd 2016).

The desk-based assessment follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (ClfA 2014a) and *Understanding Place: historic area assessments in a planning and development context* (English Heritage 2012).

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

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

The results of the survey will as far as possible inform on the presence or absence, character, extent and in some cases, apparent relative phasing of buried archaeology leading to the formulation of a strategy to mitigate a threat to the archaeological resource.

St Erth Multi Modal Hub, St Erth, Cornwall



Figure 1: Site location (the site is indicated).

2.0 RESULTS OF A DESK-BASED ASSESSMENT

2.1 DOCUMENTARY BACKGROUND

St. Erth is located within the hundred and deanery of Penwith. It is suggested that St. Erth Bridge was built in the mid-14th century and that tall vessels once navigated the River Hayle as far as the bridge (Lysons 1814). The place-name St. Erth, meaning ‘St. Ergh’s (church)’, is derived from the 13th century dedication of the church to that saint. An alternative 13th century church-town name, *Lanuthinoch*, is derived from the Old Cornish *Lann* meaning ‘church-site’ and an unknown element probably associated with a saint’s name (Watts 2002), and suggests an early medieval settlement.

The site is located to the north-west of the village of St. Erth and was once probably within lands belonging to the manor of *Trelowith* (Treloweth), which in 1814 was and had been held by the St. Aubyn family. The St. Aubyn family also held the manor of *Trenhale* or *Trenhayle*, which had formerly belonged to a family of the same name, but by 1814, had been broken up into various divisions and the trace of any likely manor house removed. Other nearby manors within the parish include Tredrea and Trewinnard to the south and Trelissick to the north-east. Although, the land of the site was probably once part of Treloweth manor by the mid-19th century the majority of the site, was part of *Pedan Pons*, an estate held by Sir John St. Aubyn. The estate was probably a division of Treloweth Manor and the name, *Pedan Pons*, which is recorded on the mapping from 1809 and 1839 as *Peden Pons* and *Peden an Pons*, respectively is probably derived from a combination of Cornish for – *Peder/Pedn* meaning ‘head, end, top’ and *Pon/Pons* meaning ‘bridge’. Pedan Ponds could easily have derived from a medieval holding.

2.2 CARTOGRAPHIC EVIDENCE

2.2.1 EARLY CARTOGRAPHIC SOURCES

The earliest useful cartographic source is the Ordnance Survey (OS) Surveyor’s Draft of 1809, which shows the surrounding landscape in some basic detail (Figure 2). It does not define the field system either containing the site or in the surrounding area in much detail if at all, although it does show the old A30 road and Treloweth Lane and possible structures within the site area associated with *Peden Pons*. Of note is the extremely high frequency of farmsteads in the wider area. The large number of farmsteads/dispersed settlements and lack of defined field systems probably indicates a choice made by the cartographer to simplify the landscape. The OS surveyors draft depicts both *Treloweth* (now Treloweth Cottages) and Higher Treloweth (now Treloweth Farmhouse), suggesting subsequent changes in status for these buildings. It also points to the possibility that the site of the present Treloweth Cottages, is likely the location of the historic manor and chapel, rather than the 18th century farmhouse. The HER entry noting a manor house and chapel and Treloweth is therefore probably wrongly located.



FIGURE 2: EXTRACT FROM THE 1809 OS SURVEYOR'S DRAFT MAP (BL) (THE APPROXIMATE LOCATION OF THE SITE IS INDICATED).

2.2.2 THE 1840 ST EARTH AND THE 1839 LELANT TITHE MAPS

The first detailed cartographic sources available to this study are the tithe maps of 1839 and 1840 (Figure 3). The route of the present A30 effectively follows a very similar route to that depicted on the tithe, and formed the parish boundary between Lelant and St. Erth. In 1840 there were only one building (houses) shown along the portion of the A30 relating to the proposal site, these were located to the south-west of the junction with Station Approach. The Grove Gate toll house (now demolished) is located slightly further to the north-east and the Treloweth Smelting Works (The Lamb and Flag) is located further to the south-west.

The original route of Treloweth Lane/Station Approach can be seen to come off of the old A30 and run directly past where the station building now is and continue south-west to meet a still extant boundary surviving to the south-west to the Kingdon Hall. The road then curved south along this boundary to meet the present route, which continued towards Treloweth along a similar alignment to the road today. At what is now the north-east corner of the Kingdom Hall plot a farm track diverted to run across what is now the proposed southern car park, towards the farm at *Peden an Pons*. The field which presently makes up the proposed southern carpark, was at this time divided into several small regular post-medieval enclosures focused around the farm and farm buildings, but contained within more irregular curving boundaries to many of the large out fields. The field which Treloweth Lane (at this time) diverted around, had strong curving boundaries, but it does not appear to have been mined by the time the map was drawn up, nor does a quarry appear to have been excavated to the north in the enclosure numbered 1806.

In contrast the area which now forms the proposed overflow carpark has areas of mining clearly marked on the map, with two apparent shafts and an area of rough ground depicted. This area was divided into a number of regular enclosures at this time.

The re-aligned portion of the road is noticeably wider and the cottages which are shown on the tithe map flanking the historic route of the road probably fall within the footprint of the later road, verges and Kingdom Hall. The remaining (more ancient) length of Treloweth Lane which will be impacted by the proposals, provides some interesting evidence of the roadway and its boundaries at this time, particularly noticeable is the open yard in front of what is now Treloweth Cottages. The only other noticeable change is in area around the culvert running under the road, which at this time is shown as having been a triangular area of waste and road.

It is noticeable at Treloweth that the area which was probably the site of the medieval (and early medieval) manor (i.e. Treloweth Cottages) sits within what appears the remains of a 'round' enclosure. It can perhaps be tentatively suggested that this may represent the remains of a prehistoric/romano-british round.

The accompanying title apportionments indicates that a large amount of the site occupies part of the holdings of *Treloweth*; the fields covered by the geophysical survey formed part of the holding of *Pedan Ponds*, both estates were owned by Sir John St. Aubyn (see Appendix 2). It is probable that these estates were once part of a larger single estate or that *Pedan Ponds* was a subsidiary holding of Treloweth Manor. The field names are mostly prosaic, being locational, topographical, and functional or relating to personal names. Some of the field-names of the plots within the survey area indicate land conditions, either natural or man-managed: plot 1806, 'Clover Field', was probable a damp meadow; plot 1807, 'Oak Meadow', was probably a wooded area; plot 1808, 'Dry Field', was potential drained or particularly dry compared to the generally low-lying fields to the south. Plot nos. 1810 and 1798, 'Way Kellier's' (i.e. roadside copse) and 'Burrows in Well Close' (i.e. rough ground by water source), are also indicative of their nature (or former nature).

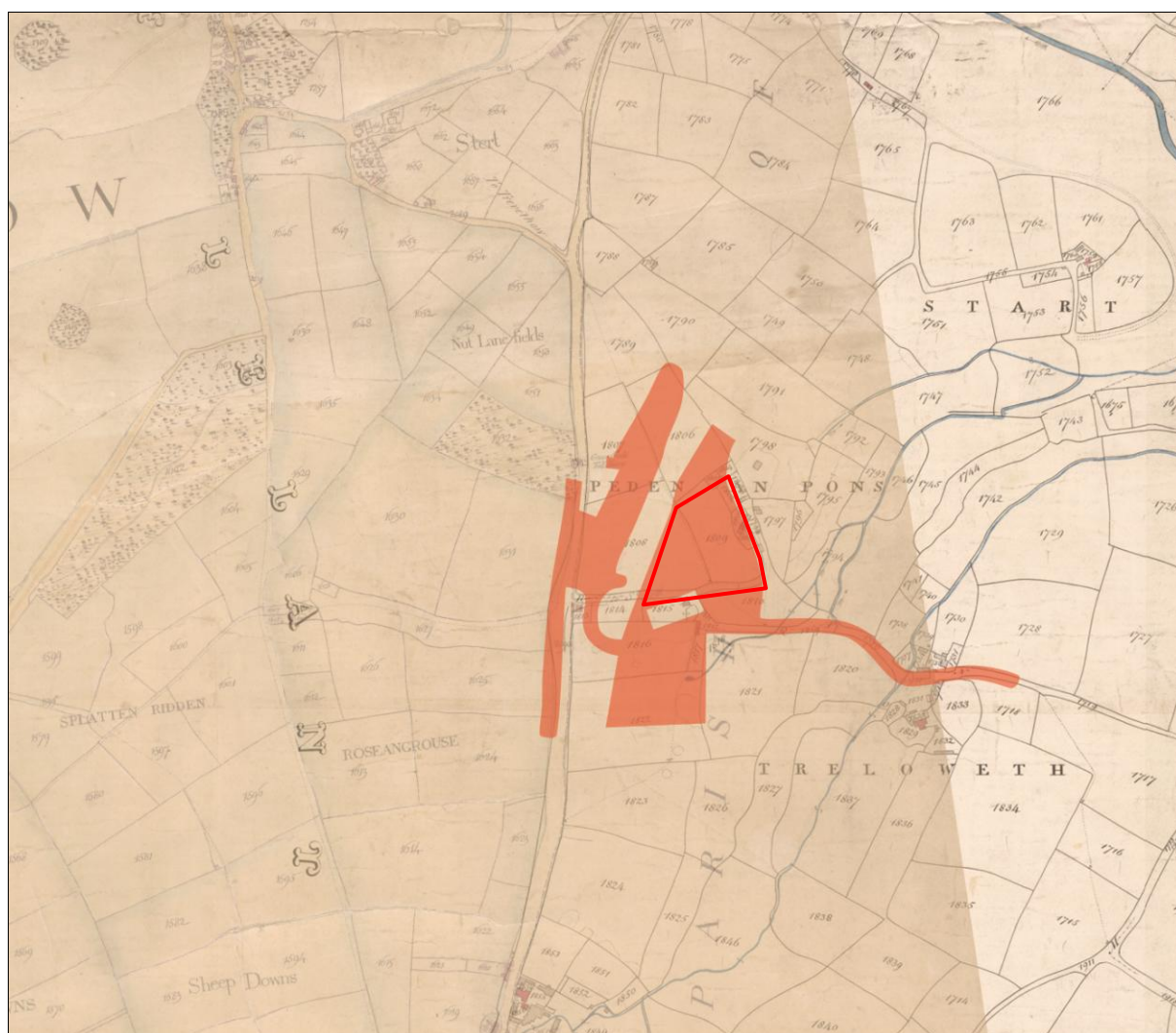


FIGURE 3: EXTRACTS FROM THE 1840 ST ERTH TITHE MAP AND THE 1839 LELANT TITHE MAP (CRO). THE APPROXIMATE LOCATION OF THE DEVELOPMENT IS SHADED IN RED. THE APPROXIMATE LOCATION OF THE GEOPHYSICAL SURVEY AREA IS OUTLINED IN RED.

2.2.3 ORDNANCE SURVEY 1ST EDITION MAP OF 1876

The 1st edition Ordnance Survey map depicts a landscape similar in outline, but subject to significant alteration (Figures 4-5) following the construction of the West Cornwall Railway in the 1850s and construction of St. Erth (until c.1877 known as St. Ives Road) Station c.1852. The station had been expanded in the 1870s, and most of the surviving structures date from this phase of expansion and are shown on this map, i.e. the branch line leading to St. Ives.

Treloweth Lane on the 1st edition still maintained the same route as on the tithe, having been cut across by the railway line. It was not until the 1890s that the road was realigned with the rail bridge, footbridge, platforms, etc. all added to the station. Apart from the railway, and the impact this had in bisecting a number of agricultural fields and in re-organising the areas to the north, there appears to have been few other changes within the proposal area, with the exception of the redundant large extraction pit in the field to the south of the proposed southern car park, and that the area to the north of the proposed car park (the small triangular field against the railway line) also appears to have been quarried away by this date.

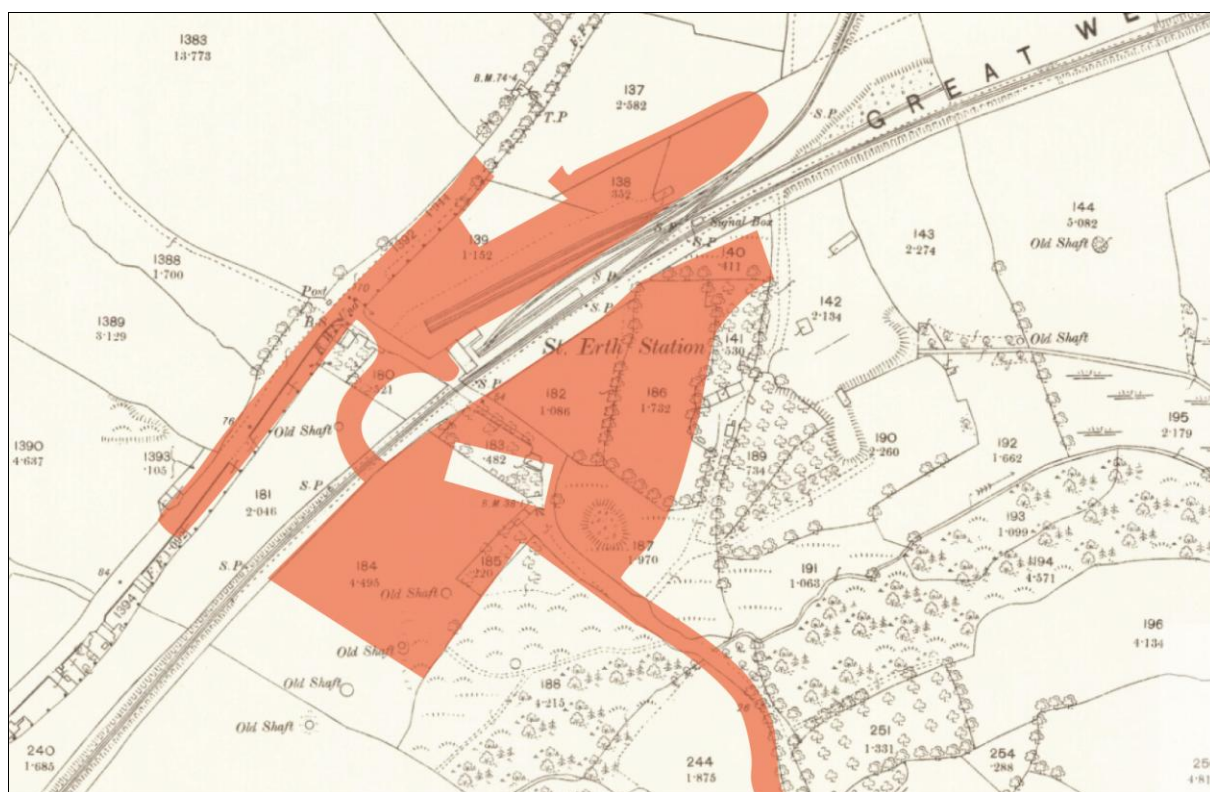


FIGURE 4: EXTRACT FROM THE OS 1ST EDITION 25" MAP, SURVEYED 1876, PUBLISHED 1878 (CORNWALL SHEET LXIX.5, CRO). THE LOCATION OF THE SITE IS INDICATED.

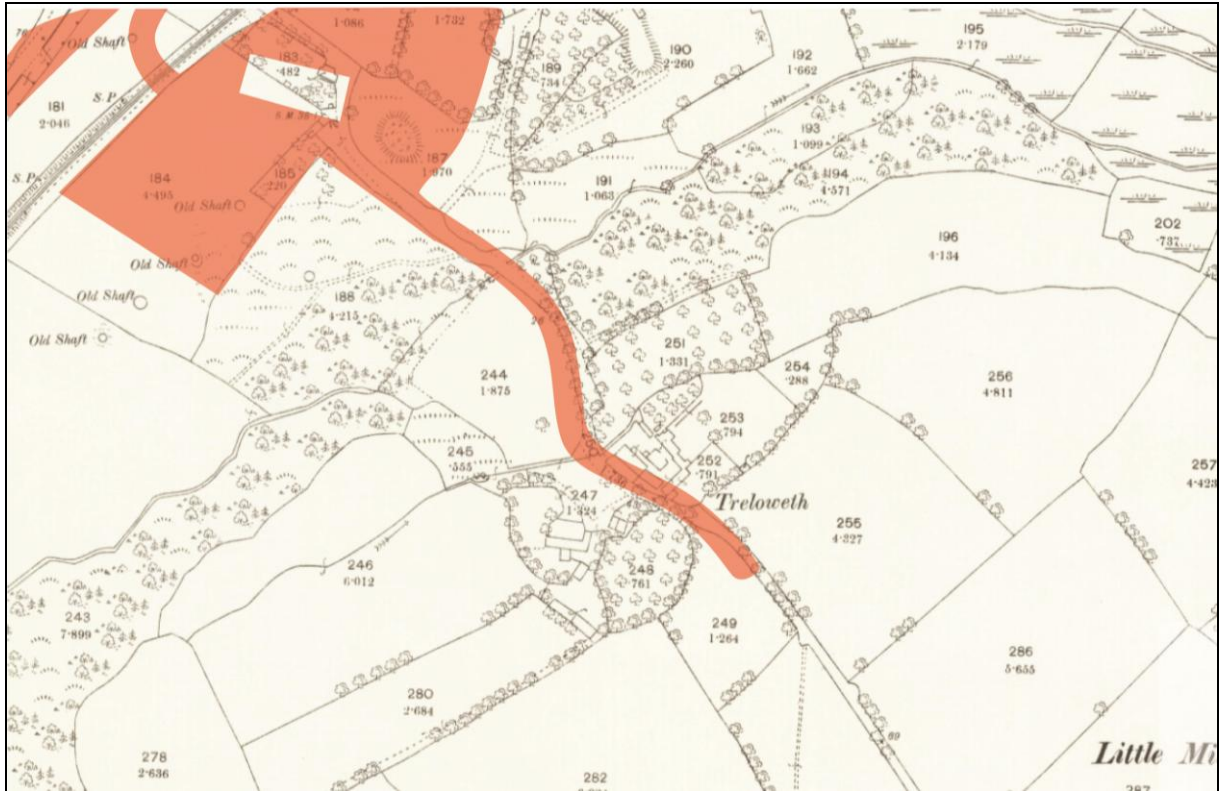


FIGURE 5: EXTRACT FROM THE OS 1ST EDITION 25" MAP, SURVEYED 1876, PUBLISHED 1878 SHOWING THE ROADWAY LEADING TO TRELWETH (CORNWALL SHEET LXIX.5, CRO). THE LOCATION OF THE SITE IS INDICATED.

2.3 ORDNANCE SURVEY 2ND EDITION MAP OF 1908

The Ordnance Survey 2nd Edition Map in contrast shows a number of significant changes (Figures 6-7), noticeably to the railway station, which has additional infrastructure and buildings shown (as discussed above) There are also changes along Treloweth Lane, which has been diverted at its north-west end, to go under the railway line, and had boundaries formalised along those portions crossing waterways, which had previously had triangular areas of waste included with the road. The other notable changes are that Pedan Pons farm appears to no longer be occupied by this date (not coloured in), and that a number of the cottages and other buildings had been completely demolished, e.g. almost all of the buildings on what is now the Treloweth Cottages site (the former manor) had been removed by this date, as had almost all of the cottages flanking the north-west end of Treloweth Lane, with the exception of the building flanking the A30. A number of houses had been added along the route of the A30 by this date (including one in the proposal area), and perhaps some of these were as direct replacements for the demolished cottages.

St Erth Multi Modal Hub, St Erth, Cornwall

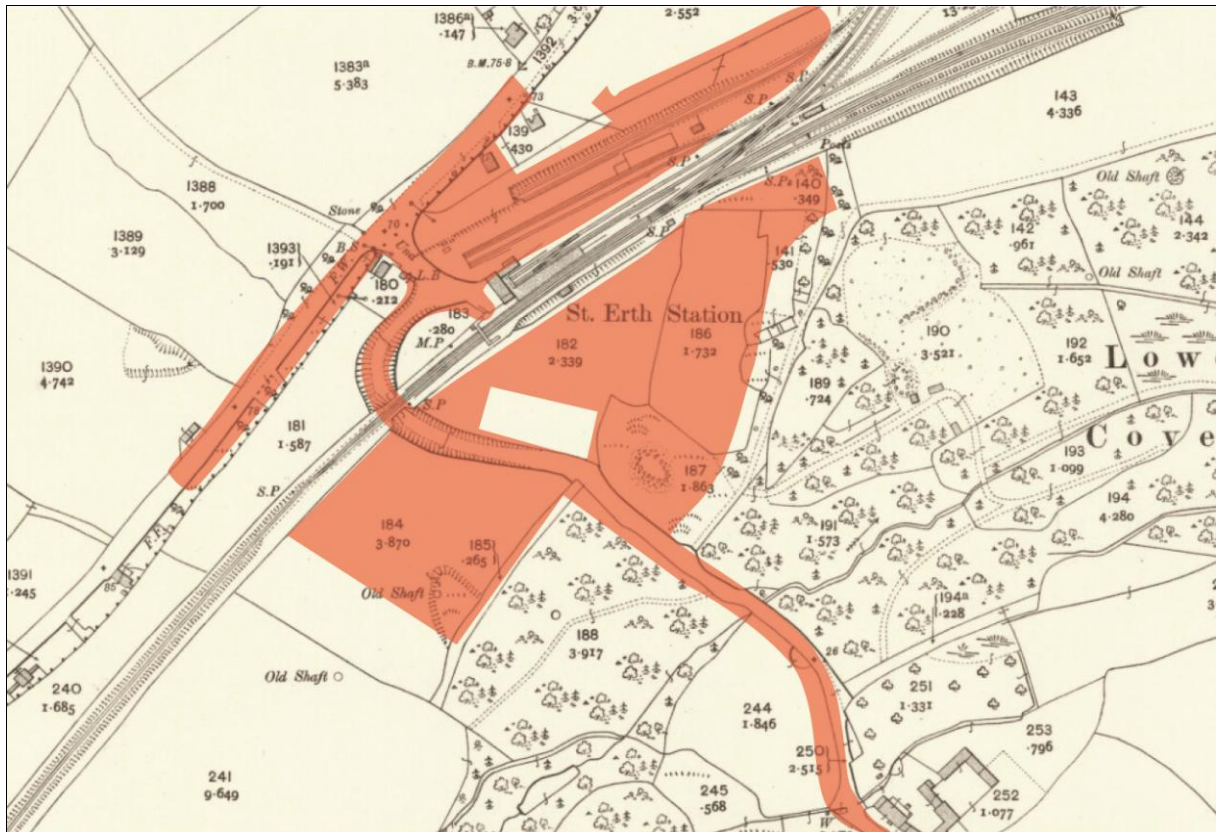


FIGURE 6: EXTRACT FROM THE 1908 OS 2ND EDITION 25" MAP (CORNWALL SHEET LXIX.5, CRO). THE LOCATION OF THE SITE IS INDICATED.

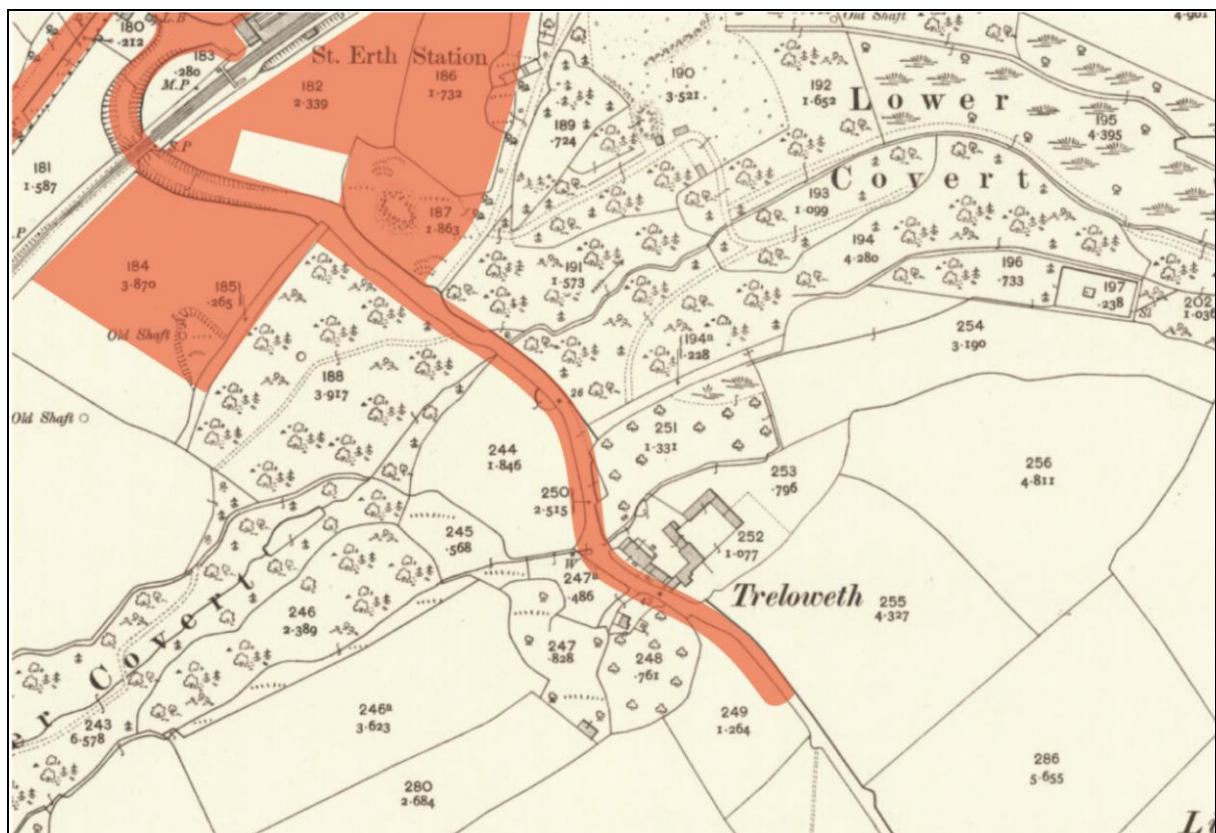


FIGURE 7: EXTRACT FROM THE 1908 OS 2ND EDITION 25" MAP, SHOWING THE ROADWAY LEADING TO TRELWETH (CORNWALL SHEET LXIX.5, CRO). THE LOCATION OF THE SITE IS INDICATED.

2.3.1 SUBSEQUENT CHANGES

By 1936 the majority of the buildings of *Pedan Pons* had been removed apart from a single unnamed structure within what had been a garden area, this had been demolished by 1964. In the 1980's the access road to the recycling centre appears to have been upgraded and widened. The majority of the boundaries that were associated with the former farmstead at Pedan Pons appear to have become neglected and slighted. The Kingdom Hall and Treloweth Cottages were constructed in the later 20th century. The area around the railway has changed less dramatically, although the area to the north and along the A30 saw numerous residential, commercial and industrial developments through the course of the 20th century.

2.4 NEARBY HERITAGE ASSETS

The Cornwall Historic Environment Record (see Figure 8 and Table 1) records several heritage assets in close proximity to the proposed development site, although most of these are post-medieval or 19th century in date. An archaeological assessment produced for much of the proposal site by the Cornwall Archaeological Unit (Lawson-Jones 2009) identified a number of features in the area, including field boundaries, mining remains and infrastructure associated with the railway, these are included in Figure 8 and Table 1.

Notable heritage assets include the medieval settlement at Treloweth (MCO17489), where a medieval chapel and house are recorded (MCO10956), but have been replaced, apparently by the present farmhouse, but more likely by Treloweth Cottages. It has been suggested that there is a Bronze Age barrow (MCO3513) in the field immediately to the south-east of the station due to the field name (Park-an-Chamber), but no evidence for a barrow has been found, and this seems unlikely in this location. Finally, St Erth Station itself is Grade II Listed (1143618) and, together with Truro, is one of the best and most complete stations in Cornwall. Otherwise, the assets recorded by the Cornwall HER and the CAU assessment (2009) mostly relate to 19th century mining activity and post medieval field boundaries.

St Erth Multi Modal Hub, St Erth, Cornwall

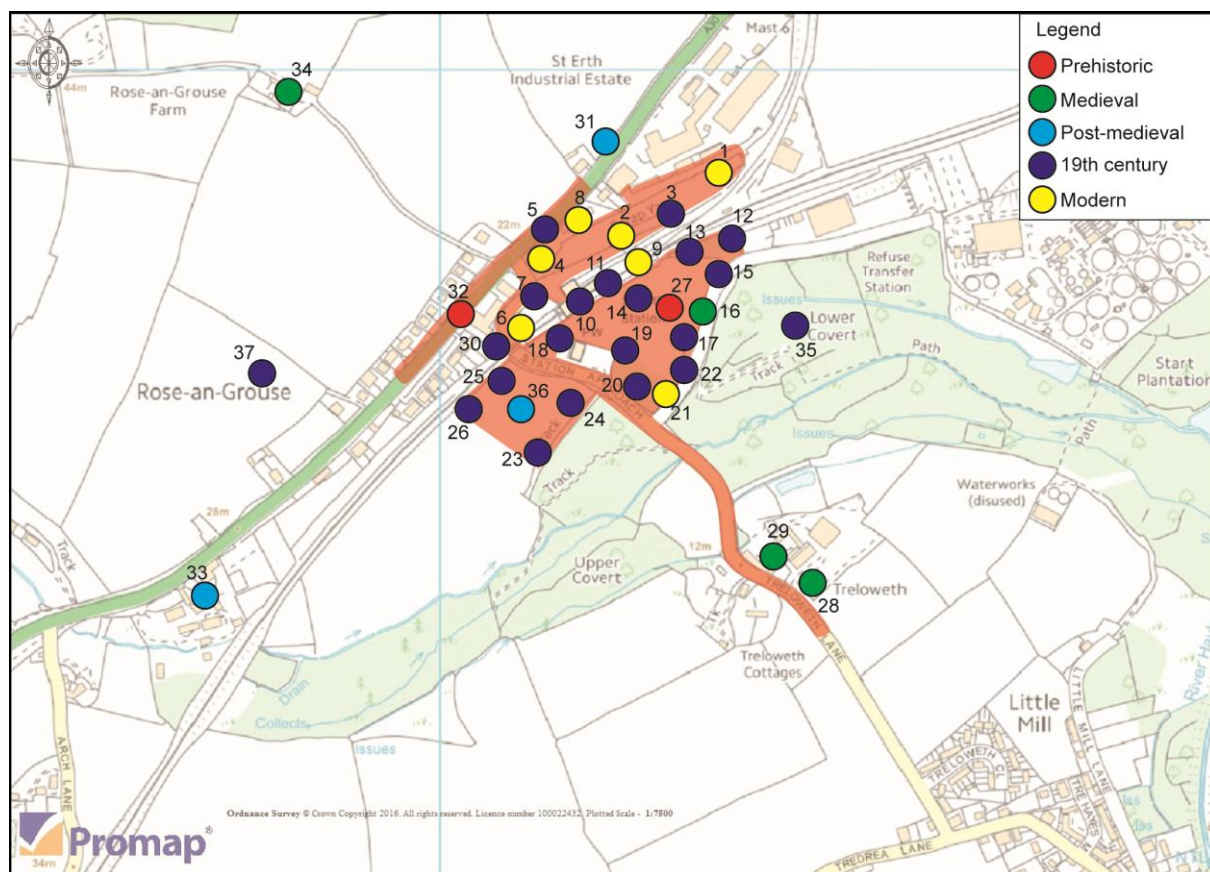


FIGURE 8: NEARBY HERITAGE ASSETS (SOURCE: CORNWALL HER; CAU 2009; GSB 2009). THE SITE IS INDICATED.

	Source/reference	Site Name	Record	Notes
1	CAU 2009	Site of post	Documentary	One of two posts recorded on the 1936 OS map; not extant.
		Raised platform structure	Monument	Concrete raised platform structure measuring 9.6 x 6.5 x 0.9m.
		Red brick structure	Monument	A small structure, measuring 1.3 x 1.1 x 0.7m, survives as an access point to services.
		Site of post	Documentary	One of two posts recorded on the 1936 OS map; not extant.
3	CAU 2009	Wharf	Monument	First recorded on the 1907 OS map, this feature survives to a height of 1.1m.
		Railway siding	Monument	First recorded on the 1907 OS map, the location of the siding can still be identified through the survival of two wharfs to its north and south.
		Building	Documentary	A two-cell structure was recorded on the 1907 OS map, but had been removed prior to the 1936 edition.
		Wharf	Monument	This raised platform, which survives to a height of 1m, was first recorded on the 1907 OS map.
3	CAU 2009	Building	Monument	A structure measuring 7 x 5m is recorded on the 1907, 1936 and modern OS maps. The concrete floor of the former building survives.
4	CAU 2009	Building	Monument	The modern OS map marks a building (22 x 7m) in this location; although no longer standing, the concrete floor survives.
		Building	Monument	The modern OS maps marks a building (10 x 2m) in this location; although no longer upstanding, part of the concrete floor survives.
		Weigh bridge	Monument	The remains of the weigh bridge can be seen at ground level.
		Building	Monument	Shown on the 1936 OS map for the first time, and recorded as extant on modern mapping. The field survey showed a modern bus shelter in this location.
		Modern boundary	Monument	Recorded as a 2.3m wide, 0.8m high earth and stone bank that separates the lawned garden from the tarmac/concrete western end of the property.

St Erth Multi Modal Hub, St Erth, Cornwall

		Slope running across Fourwinds garden	Landscape	ENE to WSW aligned, 0.4m high slope running across the former lawned Fourwinds garden.
5	CAU 2009	Site of boundary	Documentary	Shown on all mapping since 1840. Defines the southern edge of the A30 and the northern edge of Fourwinds.
6	CAU 2009	Site of boundary	Documentary	Boundary shown on Tithe map and 1880 OS map, probably removed by 1907. MD/PM.
		Boundary defining eastern edge of Station Approach road	Monument	Located to the west of the station, this small road cuts deeply into the surrounding ground. First shown on mapping in 1907.
		Telecommunications boxes and rail line lights	Monument	Consist of an upright electrical control box and separate lights located beyond the edge of the platform ramp at the approach to the bridge. Not historically significant.
		Telecommunications boxes and rail line lights	Monument	Consists of an upright electrical control box and separate lights located beyond the edge of the platform ramp at the approach to the bridge. Not historically significant.
		Stone setting	Monument	During survey a shaped black stone with smooth curved edges and a horizontal flat surface was noted in the western part of Area A.
7	CAU 2009	Site of boundary	Documentary	Boundary shown on Tithe map and 1880 OS map. Mostly removed by 1907, but a small section survives between the car park and the overgrown western edge of Area A.
		Site of boundary	Documentary	Boundary shown on Tithe map and 1880, 1907 and 1936 OS maps, but no longer extant.
8	CAU 2009	Site of garden boundary	Documentary	Boundary shown on 1936 OS map only, no longer extant.
		Fourwinds	Building	Domestic property, first shown on the 1907 OS map. Now demolished.
		Boundary	Documentary	Shown only on the 1936 OS map, appears to have been a garden sub-division. No longer extant.
		Fourwinds garage/outbuilding	Building	A small building located to the east of Fourwinds. Now demolished.
		Boundary	Monument	Runs north to south, separating Fourwinds from Ashford House and forming the north-eastern edge of Area A. First shown on the 1907 OS map and on all subsequent mapping.
		Boundary	Monument	Defines southern edge of Fourwinds. First shown on the 1907 OS map, associated with the development of the rail station and the construction of Fourwinds.
9	CAU 2009	Telecommunications boxes and rail line lights	Monument	Consists of an upright electrical control box and separate lights located beyond the edge of the west bound platform ramp. Not historically significant.
		Small building	Monument	First shown on the 1907 OS map, this building is positioned just north of the southern platform. It is totally overgrown, inaccessible and ramshackle.
10	DCO11348 172607 1143618	Footbridge	Monument	Shown on the 1907 OS map and all subsequent maps.
		Southern (west bound) platform and canopy	Monument	Linked to the main central platform by the footbridge.
		Main 'L' shaped Station buildings and telephone box	Building	Shown on the 1880 OS map and all subsequent maps as an 'L' shaped building, consisting of an east-west and north-south arm.
		The guards hut	Building	First shown on the 1907 OS map.
		Main/central (east bound) platform and canopy	Monument	The majority of the main/central platform predates 1880. The platform and canopy form part of the Listed Building.
		Branch line and platform	Monument	The branch line terminates at its junction with the main office. The platform and canopy form part of the Listed Building.
11	CAU 2009	Later station building	Building	Not included within the Listed Building designation. First shown on the 1936 OS map. Stands on the northern periphery of the station complex.
		Site of building	Documentary	Shown on the 1907 OS map to the immediate west of the NW corner of the footbridge. No longer extant.
12	CAU 2009	Former field boundary	Documentary	First recorded on the 1840 Tithe Map. The boundary was still extant in 1987, but has since been removed.
		Field boundary	Monument	A short stretch of an earthen bank survives at this location. This feature has not been recorded on any mapping.
		Former field boundary	Documentary	It was first recorded on the 1840 Tithe Map, but had been removed by 1880.
		Former field boundary	Documentary	First recorded on the 1840 Tithe Map, but had been removed by 1880.
13	CAU 2009	Field boundary	Monument	First recorded on the 1840 Tithe Map, this boundary survives as an eroded, dome-shaped earthen bank.
14	CAU 2009	Former field boundary	Documentary	It was first recorded on the 1840 Tithe Map, and was still extant on the 1987 OS map, but has since been removed.

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		Field boundary	Monument	First recorded in the Tithe Map, this boundary was recorded as long and twisting on the 1880-1936 and modern OS maps. Only fragmentary sections of the bank survive.
15	CAU 2009	Field boundary	Monument	First recorded on the 1840 Tithe Map, and survives as a slight bank, also marked by the position of sycamore trees.
		Field boundary	Monument	First recorded on the 1840 Tithe Map. The line of the boundary can be noted by the position of four ash trees, although little else survives.
		Building	Documentary	First recorded on the Tithe Map, a roofless structure was also recorded on the 1880-1936 OS maps, but nothing survives today.
		Former field boundary	Documentary	First recorded on the 1840 Tithe Map, but had been lost prior to 1880.
16	CAU 2009	Farmhouse	Documentary	First recorded on the 1813 OS map, the <i>Peden an Pons</i> holding could be medieval in date. Some remains of the farmhouse are still extant below ground.
17	CAU 2009	Building	Documentary	A building was recorded in a garden to the south of 'Peden and Pons' settlement on the 1880 OS map, but is no longer extant. 1840-1880.
18	CAU 2009	Former roadway	Documentary	A roadway is recorded leading part the western side of the 'Peden and Pons' holding on the 1813 OS map, Tithe Map and 1880 OS map. Between 1880-1907 a new road was constructed to the west, and the older road lost.
		Former field boundary	Documentary	This boundary was positioned on the northern side of the road leading past the western side of the 'Peden and Pons' holding, and was last recorded on the 1880 OS map.
		Former field boundary	Documentary	This boundary was positioned on the western side of the road leading past the western side of the 'Peden and Pons' holding, and was last recorded on the 1880 OS map.
		Former field boundary	Documentary	This was the eastern boundary of a field to the northwest of a dwelling recorded on the Tithe Map. It was last recorded on the 1880 OS map.
		Former field boundary	Documentary	This was the southern boundary of a field to the northwest of a dwelling recorded on the Tithe Map. It was last recorded on the 1880 OS map.
19	CAU 2009	House	Documentary	First recorded on the 1813 OS map, it was also noted on the 1880 OS map but had been lost by 1907 when road modifications in this area were recorded.
		Building	Documentary	A small building was recorded on the 1840 Tithe Map, but is not recorded on the 1880 OS map and no evidence of it exists today.
		Field boundary	Monument	First recorded on the 1840 Tithe Map, as the western edge of Way Killiers, and survives as a poorly preserved bank.
20	CAU 2009	Mining remains	Monument	Spoil heap recorded on OS maps since 1880. Evidence of a possible shaft associated with the workings of Treloweth mine were found.
21	CAU 2009	Field boundary	Monument	20 th century stone-faced bank constructed to the west of the road to the 'Peden and Pons' holding.
22	CAU 2009	Former field boundary	Documentary	First recorded on the 1840 Tithe Map, as the division boundary of Park-an-Chamber. It was still extant on the 1987 OS map, but has since been removed.
23	CAU 2009	Site of shaft	Documentary	Shown on 1840 Tithe map and 1880 OS map. Lies within the sett for Treloweth copper mine. One of a line of four shafts following a SW to NE running lode.
		Site of shaft	Documentary	Shown on 1840 Tithe map and 1880 and 1907 OS maps. Lies within the sett for Treloweth copper mine. One of a line of four shafts following a SW to NE running lode.
		Site of mine trackway linking shafts	Documentary	Shown on the 1840 Tithe map. May survive as a sub-surface line of compacted mine waste hardcore.
		Re-deposited mine waste	Monument	A broad, c.25m spread of mine waste running NE to SW along the western edge of the curvilinear boundary mentioned above.
	MCO50946 52759	Site of mapped spoil heap associated with shaft	Monument	Shown on 1840 Tithe map, 1880 and 1907 OS maps. Ephemeral 0.2m high, 10 x 12m mound in the field – majority probably ploughed out.
24	CAU 2009	Site of shaft	Documentary	Shown on 1880 OS map. Lies within the sett for Treloweth copper mine. One of a line of four shafts following a SW to NE running lode.
		Former pool and stream	Documentary	Shown on the 1840 Tithe map as a pool to the NNE of a shaft, and a stream running downslope to the south and then east. Uncertain function.

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		Extant north-eastern boundary	Monument	Shown, but with marked alterations since 1840. Extant, stone-faced and in a reasonable state of repair, but overgrown. The entrance into this field is marked by a 2m wide gate flanked by granite gateposts.
		Former field boundary	Documentary	Shown on 1840, 1880 and 1907 mapping. May survive as a ditch – the approximate alignment appears to approximately define the northern edge of a particularly water-logged section of the field.
		Extant, slightly curvilinear boundary	Monument	Field boundary shown on all mapping since 1840. Recorded as an un-maintained, low-lying earthen bank.
		Lane	Monument	First shown on the 1907 OS map. Appears to be a more substantial replacement of a previous mine footpath. Predominantly compacted mine waste.
		Former dwelling house	Monument	Shown and listed on the 1840 Tithe as a house and garden. Removed during road realignment, but potential for remains to exist within the immediate area e.g. in the form of structural foundations.
25	CAU 2009	Former field boundary	Documentary	Shown on the Tithe map but mostly removed by 1880. Absent by 1907.
		Extant north-western boundary	Monument	Shown on the 1880 OS map and all subsequent mapping. Constructed at the time as the railway running along its immediate northern edge. Stone faced and well-maintained, but slightly overgrown.
26	CAU 2009	Former field boundary	Documentary	Shown on the Tithe map and 1880 and 1907 OS maps. Not visible as a surface feature, but possible sub-surface remains in the form of a ditch or ephemeral bank.
27	MCO3513 31123	St Erth Bronze Age Barrow	Documentary	The field name 'Park-an-Chamber' suggests the site of a barrow, but there are no remains.
28	MCO17489 29973	Treloweth medieval settlement	Documentary	The settlement of Treloweth is first recorded as 'Trelwyth' in 1301.
29	MCO10956 29973.10	Treloweth medieval chapel & house	Documentary	A house and associated chapel at Treloweth were destroyed and replaced by the present farmhouse, which is of 18 th century date.
30	MCO55341	19 th century railway bridge	Monument	A bridge carrying the GWR main line over the public road.
31	MCO52699 176892	Post-medieval toll house	Documentary	Post-medieval toll house, demolished in the 20 th century.
32	MCO1279 31082	Cup-marked stone	Monument	A cup marked stone was found in the garden of 'Brightside', Rose-an-Grouse.
33	MCO27560 31064 7286	Lamb and Flag – post-medieval smelting house	Building	One of the most important smelting houses until 1840, but was closed in 1883. Grade II Listed.
34	MCO16112 29971	Rose an Grouse medieval settlement	Documentary	The settlement of Rose-an-Grouse is first recorded in 1376. It is suggested that the original Rose-an-Grouse Farm was named Treloweth.
35	MCO3513 31081	Treloweth – 19 th century mine	Documentary	Hamilton Jenkin says the early workings of Treloweth Mine date between 1812-1820.
36	GSB 2009	Post-medieval boundaries	Survey	Geophysical survey identified post-medieval (?) field boundaries.
37	MCO50943 52758	19 th century mine shaft	Aerial photographs	The remains of a possible shaft are visible on aerial photographs.

TABLE 1: TABLE OF NEARBY HERITAGE ASSETS (SOURCE: CORNWALL HER; CAU 2009; GSB 2009).

2.5 WALKOVER SURVEY

A walkover survey was conducted across the site on 9th March 2016. The site comprises a short length of the A30 and flanking verges, the north-western half of Treloweth Lane, its verges, pavement and field boundaries, two green fields, a small area of scrub woodland, the gardens of the Kingdom Hall, and the area of demolished structures and waste ground to the north (proposed northern car park). A complete compliment of supporting photographs can be seen in Appendix 4.

2.5.1 NORTHERN CAR PARK

The existing car park is slightly terraced into the hillside, with a retaining wall of rough granite blocks capped with concrete; this wall represents the remains of a raised wharf/platform. The wall forms one of the most obvious remnants of the former wharfs in this area, and is in good

condition, and should be retained if possible. To the north is a wide tarmac road flanked to the north by the footprints of two post-1932 buildings currently visible (Figure 9). One of these is a concrete pad, with the long side set at c.45° to the wharfs and cut into the hillside to the north-west. There are also piles of rubble in this area, probably from the demolished buildings. There is a further c.5m long concrete pad near the entrance. The northern boundary of this area is an earthen hedge bank. Remnants of concrete blocks cut into this bank, in the vicinity of the building footprint. This boundary suggests that a fairly substantial terrace had been cut into the hillside to enable the construction of this area of railway sidings and wharfs.



FIGURE 9: THE FORMER WHARFS, THE PROPOSED NORTHERN CAR PARK; VIEWED FROM THE WEST.

To the north of the former wharf area is the remnant of a garden plot, with a 20th century wall and wooden gate, still accessing the A30. A hedge and post-and-wire fence divides this area from the extant private property to the east. By the gate are remnants of a former concrete path. The east boundary has been removed, with only the remnant of a concrete post-and-wire fence surviving to Station Approach. To the north is a stone based hedgebank, c.0.5m high on the outside, but 1m high inside the plot, which is suggestive of some slight terracing.

2.5.2 A30

The portion of the A30 to the west is bounded to the north by an earthen bank and a stone-faced hedgebank that separates the road from an adjacent field. The bank probably conceals service pipes, as there manhole covers to the west. Near to the manholes is a gap in the stone wall of the hedgebank, nicely faced in granite. It is no longer in use, but is possibly associated with the adjacent house (Penleigh), which was constructed in the 20th century.

The portion of the A30 to the east lacks features of note. There are 20th century bungalows to the north, and a garage, block of flats and further bungalows are located to the south. To the west, beyond the proposed improvement area, are the remnants of 19th century boundary walls, which now frame buildings and which project further out towards the A30. A single large stone,

probably eroded out of the nearby bank, is visible set into the grass by the road verge on the south (Figure 10); this may be the 'cup marked stone' noted on the HER, but no obvious marks were visible. This is set some distance from the road and would be unlikely to be impacted by the proposals.



FIGURE 10: POSSIBLE CUP-MARKED STONE ON GRASS VERGE TO THE SOUTH OF THE A30; VIEWED FROM THE SOUTH-WEST (2M SCALE).

2.5.3 STATION APPROACH

From an historic and archaeological perspective, there is very little of note in this area. The only feature of merit is a late 19th century railway bridge, which would benefit from some repair and maintenance work, as some of the black engineering bricks capping the sides have become loose, others are missing, and parts are obscured by hill wash. As part of the proposed development, the pavement will be moved to the other side and will cut into the earth bank to the north, but this has no archaeological implications.

2.5.4 SMALL AREA OF SCRUB OFF STATION APPROACH

There is a small area of scrub comprised of very young trees to the north of the platform, and flanked by Station Approach. The scrub is in bad condition with lots fallen trees, and rubbish piled against the stone wall of the platform. The platform wall, may have two phases of build, but undergrowth makes this unclear at present; certainly the wall to the west (nearer the station and footbridge) is of neatly coursed stone topped with black engineering bricks (suggestive of an 1890s construction date), whilst to the west the wall is less well coursed and constructed, and with no brick capping. The wall has been damaged in places by tree falls and is in need of some repairs. This area has not been sympathetically landscaped or maintained. This area is of some archaeological potential in that it does not appear to have been significantly terraced or subject to mining activity.

2.5.5 OVERFLOW CARPARK (WESTERN FIELD)

There is new grass seed in this area, and it has clearly been ploughed within the last two years. GSB have previously undertaken geophysical survey in this area. There is a widened modern gate, but the rough-hewn 1.7m high granite gatepost to the south is historic (although no longer used). Two phases of gate fitting remnants are evident on this post, which does not appear to have been re-set. To the south are the remains of a boundary, comprising a stone-faced bank, now at best 0.7m high, with track to the south. This boundary has been largely eroded away, and survives principally as a line of scrub. Remains of mining works and or quarries are present to the south of this, within the woodland. In addition, the remains of two shafts are visible as earthworks in the field, outside of the proposal area. The field is bounded to the north a barb wire-topped fence, which divides it from the railway line. Behind this is a c.0.5-1m high stone faced bank/wall. The eastern boundary is fenced to the north, with slight traces of an earth bank, 0.2m high at most and occasional quartz stones, perhaps suggestive of a 19th century date for this boundary. From around c.25m from the gate into the field this boundary becomes a c.1.7m high stone faced bank, and it appears that this part of the boundary is a later rebuild.

2.5.6 TRELOWETH LANE

Any proposed works along the road (Treloweth Lane and Station Approach) running north-east from the junction with the road accessing the recycling centre are unlikely to have any significant impact upon extant heritage assets; there is potential that the re-aligned road does however overlay the remains of a demolished house of unknown but presumed post-medieval origin.

The portion running south-east from here, in contrast follows a more ancient route, is generally narrower and flanked by hedgebanks/stone walls; which in places will need to be moved back to accommodate a pavement; while this is fine for most of the length, the character of the area, particularly in front of Treloweth farmhouse is a concern. It should be noted that most of the boundaries along the roadside do appear to be 19th century or 20th century in origin, or at least rebuilt/ re-faced in the 19th century.

For the length of road running through the woods and up to Treloweth, which already has a narrow pavement on its eastern side, it would appear that in general the eastern boundary is largely 19th century or 20th century in date, and that if any road widening is required it is these boundaries which should be moved back. The western boundary (in general) along this length is comprised of a more substantial stone faced hedgebank lined with trees (see Figure 11). There are some areas of recent repair, but in general this boundary appears to have not altered substantially since at least 1840. Also of note on the western side of the road are the granite gate posts to the framing the track by the pumphouse, these are quite fine, suggesting that they have probably been moved to this location from elsewhere, perhaps nearby Treloweth in the late 19th century.

There are clear earthworks in the woods to both the east and west; however these appear to be largely associated with removed boundaries and or drainage.



FIGURE 11: TRELOWETH LANE AS IT PASSES THROUGH TRELOWETH WOODS, NOTE THE LOWER EASTERN HEDGE BANK FLANKING THE PAVEMENT, VIEWED FROM THE NORTH-WEST (NO SCALE).

Treloweth Lane as it runs through the hamlet of Treloweth is currently quite narrow and flanked on either side by stone walls and or stone faced hedgebanks. The farmhouse, cartshed, stables and garden walls to Treloweth farmhouse are also Grade II Listed and need to be carefully considered within any proposed works. The Listed structures appear externally to be in relatively good condition, but the garden wall appears to be deteriorating in places, and has been subject to some unsympathetic cement repairs (see Figure 12). Any works in this area should consider the opportunity to improve the condition and appearance of these garden walls.



FIGURE 12: TRELOWETH FARMHOUSE (NO.10) AND PARTS OF ITS GRADE II LISTED GARDEN WALLS, NOTE THE CRACKS AND DAMAGE, VIEWED FROM THE SOUTH-WEST (NO SCALE).

Given the presence of these Grade II Listed garden walls any widening would have to occur largely therefore along the western side of the road. The western boundary immediately opposite No. 10 (Treloweth farmhouse) is of coursed blocky stone, with a late 19th century appearance (Figure 13). A narrow gateway (for a footpath) has been forced in the wall and includes a re-used granite post and a re-used granite window sill. It is recommended that any road widening along this stretch, would re-instate the wall in a similar build-style utilising the existing fabric, where possible.



FIGURE 13: WESTERN BOUNDARY OPPOSITE TRELOWETH FARMHOUSE (NO. 10), VIEWED FROM THE EAST (2M SCALE).

To the south of this later 19th century wall is a gravelled trackway, which now provides access to No. 9. The track is flanked on its south side by a c.2m high stone faced hedgebank, which continues to the south in gradually decreasing height, curving around No's 5, 7 and 9 (Figure 14). At the point the wall flanks the track, it appears to include phases of re-build or re-facing as there are changes in the stonework, some of which are certainly 19th century in character. The ground behind (south of) this bank is visibly higher, which suggests that the road at this point has been terraced into the slope considerably (i.e. partly the route of an old hollow-way), or that it runs (in part) along the route of a former ditch.



FIGURE 14: HEDGE-BANK FLANKING ROAD IN FRONT OF GARDENS TO NO. 9 AND 5, VIEWED FROM THE NORTH (NO SCALE).

Opposite No.5 the boundary wall is a recently re-built stone faced bank and roadside kerb formed out of re-used rough-hewn granite fence-posts and lintels (see Figure 15). The steps of the footpath to no.5 also appear to be of re-used granite.



FIGURE 15: NEWLY BUILT HEDGEBANK TO TRELOWETH FARMYARD (OPPOSITE NO. 5), THE KERB IN FRONT INCLUDES NUMEROUS RE-USED GRANITE GATE POSTS AND LINTELS, FROM THE SOUTH (NO SCALE).

Southern car park (southern fields)

This field had been very recently cleared of scrub and bracken. In addition there is a pile of contaminated soil from c.5 years ago located towards the northeast boundary. The road to the south-west is clearly of recent date, and the material used for widening this road has been used to create a slight bank along this edge, although the southern corner is bordered by a stone wall, which is probably 19th or 20th century in date. Two mature trees located in the position of the former southern boundary are now contained within the field. Lots of stone was noted in the vicinity, presumably related to removed field-boundaries or buildings. There is a gateway in the southeast corner of the field, with the track leading to a large quarry and the modern recycling centre beyond. The north-western boundary is a c.1m high earth bank, badly eroded and topped with mature trees. This bank was formerly stone faced, and remnants of this are present in places. To the west is a c.3.5m deep extraction/quarry pit. The northern field boundary is mixed. To the western end, this boundary comprises a stone wall capped with bricks i.e. the back of railway platform; this wall becomes a stone-faced earth bank further to the east, but the boundary to the field is located gradually further to the south of the platform towards the east. Within this wider gap is effectively a wide earth bank into which brick and concrete block structures associated with the railway have been cut. The eastern boundary is a modern fence line which divides the field and adjacent Jehovah's Witness church. A slight earthwork was noted, suggesting a former eastern hedgebank or track had been removed. The boundary along the road is a stone wall, with a recent gap forced through. At least two sets of earthworks suggestive of mining shafts/quarrying in this area are present although they are partially obscured by scrub.

Kingdom Hall garden churchyard

The churchyard slopes gently from south-east to north-west, and comprises a neatly maintained lawn with a sprinkling of specimen trees. The east boundary is a modern fence and hedge line. The west boundary has recently been cut back, with a wooden post fenceline and fallen fence with some trees beyond, leaving a narrow path between the two fencelines. The north boundary comprises the retaining wall for the platform, which consists of large granite blocks and rubble stone capped with engineer bricks, and topped by a wrought iron fence. The condition of this wall, in particular the fence and brick capping, is deteriorating (see Figure 16). The western end of the wall has been repaired/covered in concrete.

There is a large water tank, presumably from the railway, set in the garden.



FIGURE 16: DAMAGED RAILING AND BRICK CAPPING TO THE PLATFORM, VIEWED FROM THE SOUTH IN THE KINGDOM HALL GARDEN (NO SCALE).

3.0 GRADIOMETER SURVEY

3.1 INTRODUCTION

The purpose of this survey was to identify and record magnetic anomalies within the proposed 'southern car park' field. While the anomalies may relate to archaeological deposits and structures, the dimensions of recorded anomalies may not directly correspond with any associated archaeological features. The following discussion attempts to clarify and characterise identified anomalies. The survey was undertaken on the 17th of March 2016 by J. Bampton in sunny conditions. The survey data was processed by J. Bampton. An area of approximately 1.22ha was surveyed.

The survey identified eleven groups of anomalies. The majority of these were linear anomalies that represent removed historic field boundaries and a number of undated sub-oval pit-like anomalies of a possible archaeological nature. Group 1 represents four historic field boundaries. Group 2 possibly represents a demolished farmhouse/mowhay. Group 3 represents a probable modern service pipe. Group 4 represents a possible ditch associated with removed historic field boundaries or modern ground disturbance. Group 5 represents possible pits or tree-throws. Group 6 represents extant hollows in the ground that may indicate modern ground disturbance or some unknown activity. Group 7 represents a possible boundary and both lined drains or ploughing associated with extant and historic field boundaries. Group 8 represents modern ground disturbance caused during recent clearance of the site, including a large bund of material at the north end of the site. Groups 9 and 10 represent metallic deposits, probably associated with services for adjacent 19th and 20th century structures or mining activity. Group 11 represents a spread of magnetic debris, including ferrous debris probably associated with the demolition of structures along the eastern edge of the site in the 20th century and subsequent 'grubbing up' of knot weed.

3.2 SITE INSPECTION

The site subject to geophysical survey was a field for the proposed southern car park. The site was bounded on its south-east side by a road and an embankment/verge; on its north-west side by a hedge line and quarry; on its north by the St. Erth train stations retaining wall, with iron railings; and on its west side by a scrubby mining area along to the south half and a modern wood and wire fence to the north. Entrances to the site were located in the eastern boundary and in the north-east corner of the site. The field had recently been cleared of scrub and small trees; the stubble and stumps of which remained to varying degrees. Small tree stumps were particularly frequent along the verge of the eastern boundary and occasional large trees had been left standing. Metal dip-wells were noted on the site. Visible earthworks included four or five sub-circular hollows, c.2.5m across and 0.5m deep and; a subtle ridge that ran from the north-east corner of the site to the middle of the southern boundary. A compliment of supporting photographs of the site can be seen in Appendix 4.

3.3 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 2014).

The survey was carried out using a twin-sensor fluxgate gradiometer (Bartington Grad601). These machines are sensitive to depths of up to 1.50m. The survey parameters were: sample intervals of 0.25m, traverse intervals of 1m, a zigzag traverse pattern, traverse orientation was circumstantial, grid squares of 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, offset in- and outbound by -2 intervals (all grids).

Details: 1.22ha surveyed; Max. 129.08nT, Min. -177.21nT; Standard Deviation 29.86nT, mean 2.15nT, median -0.02nT.

3.4 RESULTS

Figures 17 and 18 with the accompanying Table 2 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 3.

Anomaly group	Class and Certainty	Form	Archaeological Characterisation	Comments
1	Moderate negative with associated positive, probable	Linear	Historic Field Boundary	Present on the 1840 tithe map and extant on the 1908 Ordnance Survey (OS) map. Responses vary between +15nT and -10nT. The central and south-western examples are indicative of Cornish hedgebanks. Removed in the 20 th century.
2	Mixed, possible	Recti-linear	Possible corner of demolished building	A farm building associated with <i>Pedan Pons</i> present on the 1840 tithe map and extant but derelict on the 1908 OS map. Strength of responses obfuscated by magnetic disturbance/debris. Removed between 1908 and 1964. Disturbed by grubbing up of Knot Weed (Lawson-Jones 2009).
3	Strong positive with associated negative, probable	Linear	Modern service	A possible modern service such as metallic pipe. The strength of responses: +118nT with flanking c.-30nT may indicate a substantial depth to the service, as the strength of the negative response for a metallic service would usually be greater. It may follow the line of an earlier farm track or Holloway as a ridge was visible on the ground to the east of the line of the feature and ran between the corners of boundaries and gates. This anomaly may mask other potential anomalies along a 10-15m wide traverse of the site.
4	Positive, possible	Linear	Ditches	Ditches of various strength responses (often c.+23nT) but obscured by magnetic debris. Possibly associated with removed enclosures evident on the historic mapping or associated with more recent ground disturbance and clearance (Anomaly group 8).
5	Positive, possible	Sub-oval/ amorphous	Pits	At least eight discreet anomalies, c.<+25nT. Indicative of cut features such as pits or tree-throws. A large amount of trees and shrubs have been cleared from the site, and many of these may be modern.
6	Negative, possible	Sub-oval	Hollows/pits	Approximately five discreet anomalies, c.<-35nT. Extant hollows in the ground, c.2.5m across and 0.5m deep. The negative response may suggest a solid capping to a hole or probably in these cases a removal of topsoil to

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				solid natural rock.
7	Negative with associated positive, possible	Linear	Agricultural activity or boundaries	Linear anomalies with response strengths between c.-30nT and +20nT. Possibly associated with extant and/or historic boundaries with additional agricultural activity such as ploughing or stone-lined/ceramic pipe drainage.
8	Mixed, possible	Linear and amorphous	Modern disturbance forming a bund, gully and backfilled pit	A large amount of ground clearance had taken place across the site and a bund placed along the northern end of the site. Other areas of disturbed ground including machined gullies and re-deposited soil in probable machine made pits were also visible on the ground as areas of recent disturbance.
9	Dipolar, possible	Sub-oval	Metallic deposit	A very large dipolar response (+/-125nT) indicative of a large metallic deposit. Possibly associated with services for the buildings to either side of the anomaly.
10	Dipolar, possible	Sub-rectangular	Metallic deposit	A large dipolar response (+110nT to -90nT) indicative of a metallic deposit. Possibly associated with services or a tank for a nearby demolished farm building.
11	Dipolar, possible	Spread	Magnetic debris	A spread of disturbed ground containing ferrous debris (c.+/-100nT) and possible thermoremnant debris. This includes a raised area in the field and the embankment along the eastern boundary/roadside.

TABLE 2: INTERPRETATION OF GRADIOMETER SURVEY DATA.



FIGURE 17: SHADE PLOT OF GRADIOMETER SURVEY DATA (MINIMAL PROCESSING).

St Erth Multi Modal Hub, St Erth, Cornwall

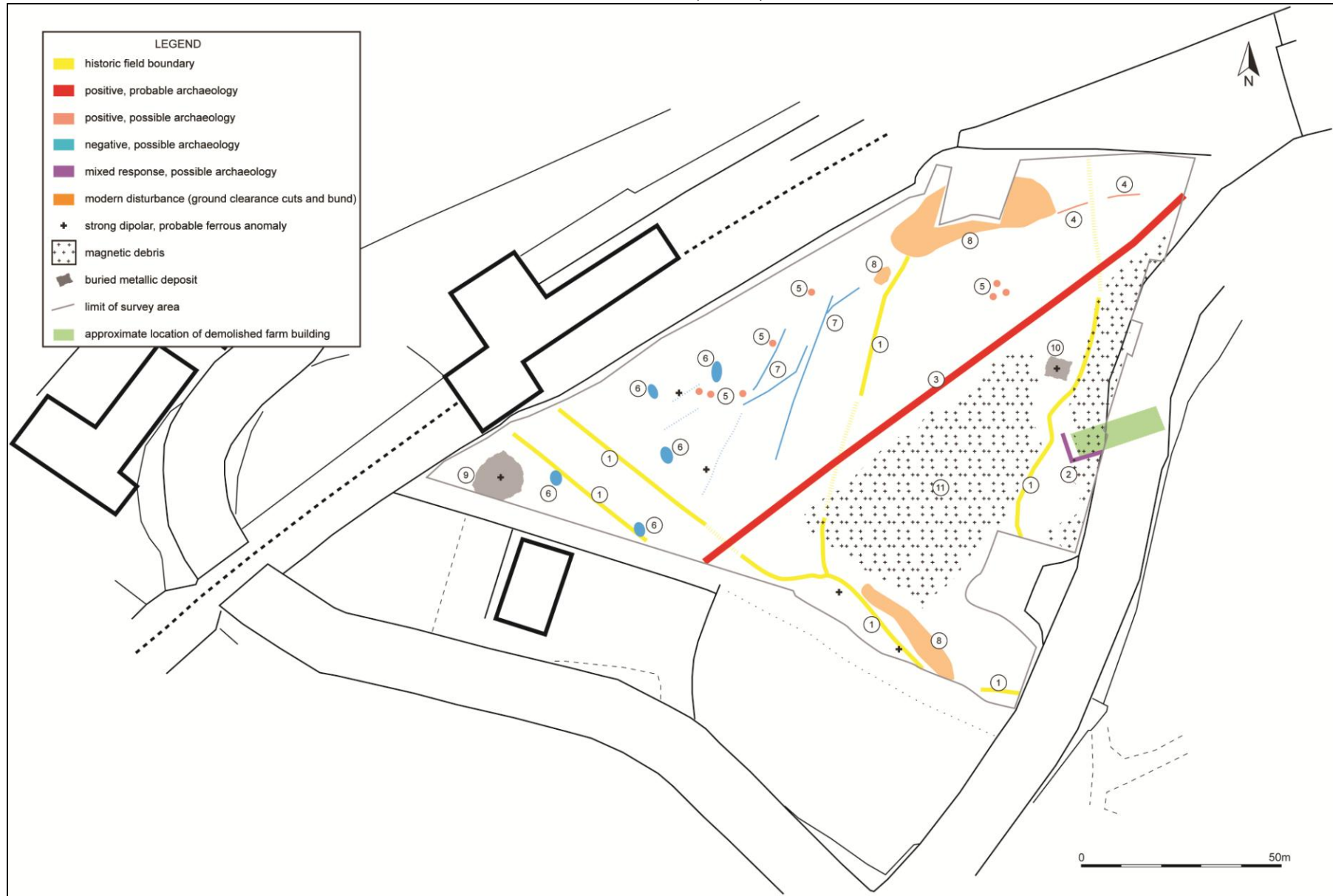


FIGURE 18: INTERPRETATION OF GRADIOMETER SURVEY DATA.

3.5 DISCUSSION

The survey identified eleven groups of anomalies: Group 1 was comprised of four historic field boundaries represented by Cornish hedgebanks and defining an earlier route of Treloweth Lane across the southern boundary of the site; Group 2 possibly represents the *Pedan Pons* farmhouse/mowhay that was demolished between 1908 and 1936; Group 3 represents a probable modern service pipe; Group 4 represents a possible ditch associated with removed historic field boundaries at the northern end of the enclosures once associated with *Pedan Pons* or modern ground disturbance associated with the recent ground clearance and bund to its west; Group 5 represents possible pits or tree-throws; Group 6 represents extant hollows in the ground that may indicate modern ground disturbance or some unknown activity; Group 7 represents a possible boundary that runs parallel with the central historic field boundary and can be extrapolated to meet the curved boundary that meets the middle of the southern boundary and, possible lined drains or ploughing associated with the boundaries; Group 8 represents modern ground disturbance caused during recent clearance of the site, including a large bund of material at the north end of the site, turned topsoil and a trench; Groups 9 and 10 represent metallic deposits, probably associated with services for adjacent structures; Group 11 represents a spread of magnetic debris, including ferrous debris probably associated with the demolition of structures along the eastern edge of the site in the 20th century.

Group 1 are negative with associated positive anomalies indicative of field boundaries, mostly indicative of Cornish hedgebanks. These anomalies equate to boundaries identified on the 1839 tithe map and 1908 2nd edition Ordnance Survey (OS) mapping. The south-western examples were removed by 1936 and had defined the former route of Treloweth Lane. The central boundary was removed in the last 25 years and the eastern boundary is defined by the bottom of the extant verge along the eastern boundary.

Group 2 is a strong mixed response with a possible right angled structure, although extremely obscured by magnetic debris. A farm building, house and mowhay (*Pedan Pons*), is depicted in this approximate location between 1839 and 1936. Based on the mapping it is likely to have existed before this and become derelict by 1908.

Group 3 was comprised of a strong positive response with associated negative response indicative of a modern pipe, although the negative response seems relatively weak, which may indicate a considerable depth to the feature, a ridge was visible on the ground to the east of the line of the feature and it ran between the corners of boundaries and gateways. This anomaly may mask other potential anomalies along a 10-15m wide traverse of the site.

Group 4 are two positive anomalies indicative of ditches that possibly represent the northern extent of enclosures that existed along the eastern boundary into the 20th century. It may be associated with the recent ground clearance as it aligns with disturbed ground associated with a bund in the north of the site.

Group 5 are at least eight discreet positive anomalies indicative of pits or tree-throws. A large number of shrubs were cleared from the site that could account for the presence of tree-throws, although these anomalies may be man-made, naturally occurring tree-throws or geological features.

Group 6 are approximately five discreet negative anomalies that would normally indicate mound material. However, they are extant hollows in the ground, c.2.5m across and 0.5m deep. The negative response may suggest a solid capping to a hole or probably in these cases a removal of topsoil to solid natural rock.

Group 7 are negative linear anomalies. Two of these run parallel to the central historic field boundary, one of which aligns with the curving boundary that meets the southern boundary of the site. The other examples of this group are subtle and include positive flanks and may indicate ploughing activity or land drains associated with these field systems.

Group 8 are anomalies associated with the recent ground clearance of the site including; a bund along the northern end of the site; a trench in the south-east of the site near to the historic field boundary; and patches of turned-over earth and machine cuts.

Group 9 is a dipolar anomaly in the south-west corner of the site indicative of a large metallic deposit possibly associated with services to the Kingdom Hall or train station on either side of it.

Group 10 is a dipolar anomaly to the east of the site indicative of a large metallic deposit possibly associated with services to the structure (*Pedan Ponds*) demolished in the 20th century, or of some kind of mining activity.

Group 11 is a spread of disturbed ground containing ferrous debris and possible thermoremnant debris. This includes a raised area in the field and the embankment along the eastern boundary/roadside. It may represent material from the demolished structures associated with *Pedan Ponds* and it may obscure discrete features beneath the material.

4.0 RECOMMENDATIONS

In light of the results of this desk-based assessment, walkover survey and gradiometer survey and following on from the works undertaken on the site by GSB (2009) and CAU (Cole 2006 and Lawson-Jones 2009) SWARCH would recommend the following mitigation works where possible and subject to the final proposals and other concerns.

It is clear from the walkover surveys, geophysical surveys and previous archaeological investigations on the site that the two green field sites to the south have seen any archaeological deposits severely denuded and to some extent destroyed. The same may also be true for the area of the demolished Four Winds property to the north of the site, the small scrub woodland and gardens to the Kingdom Hall. As such it would seem sensible that, subject to the finalised proposals and knotweed contamination, that a programme of evaluative trenching be undertaken in order to characterise and assess the significance and level of preservation of archaeological deposits and features. Depending upon the results of evaluative trenching in these five areas, a targeted programme of archaeological monitoring and recording may be required during works, although based on the existing assessments and information this appears unlikely.

The proposed development should be seen as an opportunity to stabilise and improve the condition of some of the designated and un-designated assets which are within the proposal area. The majority of these would focus upon the Grade II Listed and other railway structures, as there are various issues which need addressing, such as loss of brick coping to the bridge and platforms, deterioration of the metal railings, etc.

The proposed construction of a pavement within the hamlet of Treloweth and any associated road widening needs to be carefully considered to minimise the impact on the setting and character of the Grade II Listed structures. The garden wall to No. 10 (Treloweth Farmhouse) could be stabilised and repaired where necessary, as it has some slight damage, and has been subject to some un-sympathetic repairs in the past. If the stone wall opposite No. 10 needs to be re-moved it should be re-built in a similar style, using the same materials where possible.

A programme of archaeological monitoring should be undertaken during the removal of any boundaries along Treloweth Lane, of particular interest would be the curving boundary around No's 5-9, which may have formed part of a 'round' enclosure around the former medieval manor and chapel site of Treloweth, and be of late prehistoric/romano-british origin. Groundworks in the area of Treloweth therefore have potential of encountering evidence of medieval buildings and deposits, and potentially earlier remains. Depending on the final proposals archaeological monitoring may also be required along much of Treloweth Lane, for example by the existing gateway into the western field (overflow car park) the road/verges overlies the location of two cottages indicated on the tithe map.

Beyond the remit of mitigation for this work there is also clearly merit from a research perspective of investigating the various architectural fragments surviving in and around the hamlet at Treloweth. There is likely to be further architectural fragments (including some of medieval origin) incorporated within the buildings and boundaries around the settlement. As an additional comment it is also apparent that there are a number of earthworks within Treloweth Woods, which are in some case accounted for on the historic mapping, but are worthy of further study, e.g. detailed walkover with photographic and possible topographic survey. Few of the earthworks in the woods appear noted on the HER at present.

5.0 CONCLUSION

South West Archaeology Ltd. was commissioned by Robert Trembath of Ward Williams Associates (the Agent) to undertake a desk-based assessment, walkover survey and geophysical survey on the area associated with the proposed St Erth Multi Modal Hub at St. Erth, Cornwall. The work was carried out as part of the re-application for the development and associated infrastructure, and builds upon assessments carried out by the Cornwall Archaeological Unit in 2006 and 2009, and a geophysical survey undertaken over part of the site by GSB Prospection in 2009.

The site is focused on St. Erth railway station, which is located c.1km to the north-west of the centre of the village of St. Erth, just south of the A30, and the parish boundary with Lelant. The desk-based assessment, walkover survey and geophysical survey identified that any proposed development in this area is likely to disturb buried archaeological deposits or remains of varying levels of significance.

There is certainly strong evidence for the remains of post-medieval mining activity and medieval to post-medieval agricultural activity including field boundaries. There are also the remains of demolished historic buildings of a farm which may be encountered in the proposed South Car Park. There are also tentative hints of other un-dated activity (mostly pits) visible on the geophysics. Modern ploughing activity, grubbing up of knot weed, and the construction of the railway line are likely to have severely truncated the buried archaeological resource particularly in the proposed southern car park and areas to the north of the station.

For the southern car park, overflow carpark, the scrub woodland, garden of the demolished Four Winds and Kingdon Hall gardens it is recommended that a programme of archaeological evaluation trenching would establish the preservation and significance of the identified archaeological features; followed if necessary by a targeted program of archaeological monitoring. The remaining area of the northern car park appears to be of very low archaeological potential, and no further mitigation appears necessary in this area. Along Treloweth Lane, particularly around the hamlet of Treloweth, there is high potential for medieval (and potentially prehistoric and romano-british) features, structures and remains being encountered within any works and a programme of archaeological monitoring should be undertaken in this area. The proposed works should also take the opportunity to improve the conditions of some of the historic structures which fall within the proposal area, in particular the station platforms, railway bridge and garden walls at Treloweth.

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St Erth Tithe Map 1840

St Erth Tithe Apportionment 1840

Lelant Tithe Map 1839

Lelant Tithe Apportionment 1839

Ordnance Survey 1st edition map of 1888

Ordnance Survey 2nd edition map of 1908

APPENDIX 1: DESCRIPTIONS OF NEARBY HERITAGE ASSETS

Listed Buildings

Name: St Erth post-medieval railway station

PRN: 172607

Grade: II (1143618)

Description: Railway station including all its buildings and footbridge. Circa 1852 and later C19 built for the West Cornwall Railway. Rock-faced granite brought to course with granite dressings. Dry Delabole slate roofs ; hipped with wide eaves to main building ; gable ends to guards hut and felted wooden roofs to shelters. Rock-faced granite axial chimneys. Plan: Complete station complex serving branch line to St Ives. There are 3 platforms with double railway tracks between the platforms. The branch line (north) is a terminus with the main L-shaped building at the end and returning onto the north platform. This building contains the offices, luggage and waiting rooms. There is a canopy over the entrances (west front) and at rear for the full width. This rear canopy is linked to a double-sided canopy which serves the main central platform. This platform is linked to the west-branch (south) platform by an open-sided but roofed footbridge (U-shaped on plan). On the south platform is a small shelter/waiting room and a small stone guards hut with masonry at the chimney end keyed for extension (presumably never built). Exterior: Single storey. The station is virtually complete and unaltered since built. Main building has plinth, round-arched window and doorway openings original ledged and braced doors with 3-pane fanlights and original 6-pane horned sashes. Canopies are carried on pierced iron brackets and have fascias of vertical boards with splat ball pendants (at the front) and moulded cornices. 4 window west entrance front has pair of central windows flanked by 2 doorways all protected by a canopy and windows left and right. Similar details at rear (exit front). Platform canopies are carried on a double colonnade of chamfered wood posts and the mono-pitch roof is cantilevered out on iron brackets. The fascias are pierced and cusped to the lower edge. Footbridge is an iron structure with double-pitched roof carried on stanchions and with an eaves fascia similar to the canopies. Canopy on the south platform is smaller and one sided but otherwise similarly detailed to the main shelter. The guards hut is probably the oldest building at the station and has 3- light mullioned window and doorway to the front. Interior: Where inspected is largely unaltered and retains most of the original carpentry and joinery details. There is a K6 telephone box towards the left of the west entrance front.

Listing NGR: SW 54148 35739

Name: Treloweth Farmhouse front garden walls and gate piers

PRN: 29973

Grade: II (1143644)

Description: 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 NGR: SW 54367 35427

Name: Cartshed and stables adjoining - south east of Treloweth Farmhouse

PRN: 29973

Grade: II (1160734)

Description: 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.

Listing NGR: SW 54375 35417

Name: Lamb and Flag post-medieval smelting house

PRN: 31064

Grade: II (70286)

Description: Barton says that a smelting house at Treloweth was the first to use reverberatory furnaces. It was advertised for sale in 1782 and again in 1791, at which date (or shortly thereafter) it was acquired by LC Daubuz, who was already engaged in smelting at Carvedras, Truro. It was one of the most important smelting centres until 1840, but was closed in 1883 (it is recorded as active by

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the OS in circa 1877, b5). After 1888 it was used as a creamery until the latter moved to St Erth station (b8). "Former tin-smelting works including entrance gate piers, flanking walls and gate. Established 1715. Rebuilt 1825, extended soon after. Granite and killas rubble with granite dressings. Mostly grouted scantle slate roofs: three-quarter-hipped over original building, gable ends to part of later additions. Plan: 2 almost adjoining buildings at right angles to one another. Main building is on left, other building projecting forward on right. Main building includes original rectangular foundry, left, with outshut in front of left-hand side and left; wing at right angles to rear left on lower ground, and extension on right-hand side. The other building at the front right is rectangular and built in 3 stages. Exterior: Simple exterior: wide doorways at the main front (middle and right). Gable over right-hand doorway. The other building has front facing left and has 2 narrow doorways (midway and towards right). Old panelled doors. Left-hand doorway has old overlight with glazing bars and left of the doorway is an original 12-pane 2 light casement window. There is an arched window opening in the left-hand wall of the rear wing. At rear and at right-hand side of the rear wing are large doorways opening onto a loading platform. Interior: Is simple but largely unaltered since the C19. There are large round-arched openings at front and rear of the original room and the original king post- roof is heavily smoke blackened. Machinery removed. Originally known as Treloth. Bought and worked by Doubus from 1825 until 1883." (EH Listing Description).
Listing NGR: SW 5372 3538

Undesignated

Name: Prehistoric cup-marked stone

PRN: 31082

Description: A cup marked stone was found in the garden of 'Brightside', Rose-an-Grouse and is noted by Russell.
NGR: SW 5403 3569

Name: St Erth – post-medieval toll house

PRN: 176892

Description: A toll house is recorded at this location, north of St Erth railway station on the A30, on the 1st Edition 1:2500 OS map c1880 annotated "T.P.". The building is recorded on the 2nd Edition 1:2500 OS map c1907, but not annotated. It is not recorded on the modern Mastermap 2007 and was probably demolished in the C20 to accommodate road improvements.
NGR: SW 5419 3590

Name: St Erth – 19th century railway bridge

PRN: MCO55341

Description: A bridge carrying the GWR main line over the public road (not inspected). This replaced a level crossing at the west end of St Erth station between 1880 and 1907.
NGR: SW 5408 3567

Name: Rose-an-Grouse medieval settlement

PRN: 29971

Description: The settlement of Rose-an-Grouse is first recorded as "Resincrous" in 1376. The name is Cornish and either contains the element rid 'ford' or ros 'promontory, hill-spur, moor', with an 'the' and crous 'cross'. Rose-an-crous, now "Grouse", is the name of a hamlet and farm in Lelant parish (b3). However, Symons says that the original Rose-an-Grouse Farm was re-named Treloweth
NGR: SW 5383 3596

Name: St Erth Bronze Age barrow

PRN: 31123

Description: The Tithe Award for St Erth records the field-name 'Park-an-Chamber' at St Erth, suggesting a possible barrow site. There are no extant remains.
NGR: SW 5428 3570

Name: Treloweth medieval chapel & house

PRN: 29973.10

Description: Henderson recorded a house and associated chapel at Treloweth. These were destroyed and replaced by the present farmhouse, which is of C18 date.
NGR: SW 5438 3542

Name: Treloweth early medieval settlement

PRN: 29973

Description: The settlement of Treloweth is first recorded as 'Trelwyth' in 1301 (b2). 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.
NGR: SW 5443 3540

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Name: Treloweth post-medieval mine

PRN: 31081

Description: Hamilton Jenkin says that the early workings of Treloweth mine date between 1812 and 1820. Collins recorded that the mine was 154 fathoms below adit in 1864 and at that time had 60-inch pumping and 16-inch winding engines. Between 1854-66 it sold 6490 tons of copper ore. The location given by Appleby (sw 5411 3544) appears to be incorrect as cuttings and dumps are shown at sw 544 357.

NGR: SW 544 357

Name: Rose-an-Grouse 19th century mine shaft

PRN: 52759

Description: A shaft is recorded as 'Old' on OS 1st Edition 1:2500 mapping. The remains are visible as a round earth mound approx 12m in diameter on aerial photographs and was plotted as part of the NMP.

NGR: SW 5404 3550

Name: Rose-an-Grouse 19th century mine shaft

PRN: 52758

Description: An oblong shaped low earth mound measuring 20m by 12m is visible on aerial photographs and was plotted as part of the NMP. There are the remains of a series of shafts located 250m to the southeast and this feature could be an associated post-medieval shaft.

NGR: SW 5382 3563

APPENDIX 2: EXTRACTS FROM THE 1842 ST ERTH & 1838 LELANT TITHE APPORTIONMENTS.

Field No.	Owner	Tenant	Field Name	Field Use
1852 St Erth Tithe Apportionment				
Treloweth				
1717	Sir John St Aubyn, lessee John Berryman	John Berryman	Butchers Field	
1718			Calves Meadow	
1727			Middle Field	
1728			Mowhay Field	
1730			Orchard	
1731			Mowhay	
1732			Cottage, Outhouse and Garden	
1733			Poultry Yard and Outhouses	
1734			Farm House, Flower Garden and Yard	
1735			Townplane from N. to O.	
1737			Orchard	
1738			Orchard	
1379			Orchard	
1740			Garden	
1741			Mill Meadow	
1816			Trevaskers Field	
1820			Inner Croft	
1821	Outer Croft			
1822	Waste in Wheat Field			
1815	Sir John St Aubyn, lessee Henry Trevaskus	Henry Trevaskus	Dwelling House and Garden	
1817	Sir John St Aubyn, lessee James Harris	Samuel Blight & Thomas Trezize	House and Garden	
1818			Waste in Garden	
1828	Sir John St Aubyn, lessee R ev. William Curgenwen	George Blight	Court House, and Plot	
1829			Mowhay	
1830			Farm house, Courtlage and Outhouses	
1831			Town Place	
1832			Farm Yard	
1833			Orchard	
Pedan Ponds				
1789	Sir John St Aubyn, lessee Alice Ellis	William Bodinner	Road Field	
1790			Higher Startfield	
1791			Waste in Lower Startfield	
1794			Lower Killiers	
1795				
1796			Little Orchard	
1797			Great Orchard	
1798			Burrows in Well Close	
1799			Outhouse and town-place	
1800			Garden	
1801			Farm House and Mowhay	
1802			Garden	
1803			Garden	
1804			Garden	

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1805			Garden	
1806			Clover Field	
1807			Oak Meadow	
1808			Dry Field	
1809			Park-an-Chamber	
1810			Way Kelliers	
1813	Sir John St Aubyn, lessee Charles Oatey	Charles Oatey	Meadow	
1814			Three Cottages and Garden Plot	
Roads, Wastes, etc				
1719	-	-	Road from E. to N.	
1736	-	-	Road in Treloweth	
1811	-	-	Land from P. to R. Penaponds	
1812	-	-	Land from P. to R. Treloweth	
1819	-	-	Road from P. to Q. Treloweth	
1838 Lelant Tithe Apportionment				
Rose an Grouse				
1624	Mrs Sophia, mother and guardian of William Backwell, lessee Henry Hosking	George Blight	Four Acres	Arable
1625			Durlah Three Aces	
1627		The Durlah	Croft	
1631		Henry Hosking		Lower Croft
Splatten Ridden				
1632	Mrs Sophia, mother and guardian of William Backwell	William Tyringham	Net Lane Plantation	Plantation
Nut Lane Fields				
1650	Mrs Sophia, mother and guardian of William Backwell, lessee Edward Dunstan	Edward Dunstan	Three Corners	Arable
1651			Lower Plantation Field	
Roads and Wastes				
2090	-	-	Turnpike Road	Road

* FIELDS RELATING TO THE GEOPHYSICAL SURVEY AREA HAVE BEEN HIGHLIGHTED IN PINK.

APPENDIX 3: ADDITIONAL GRAPHICAL IMAGES OF THE GRADIOMETER SURVEY



FIGURE 19: GEOPHYSICAL SURVEY GRID LOCATION, LAYOUT AND NUMBERING.

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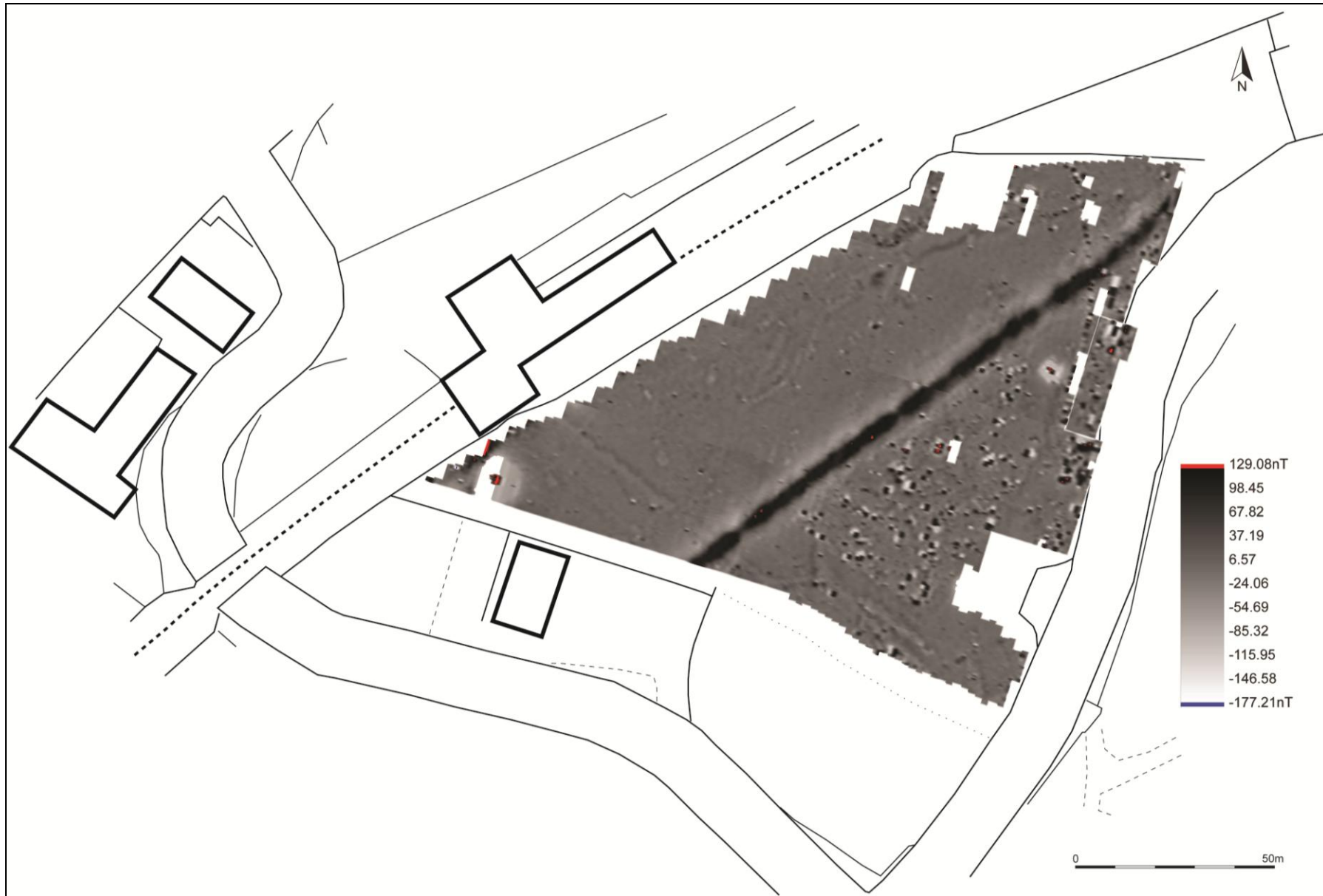


FIGURE 20: GREYSCALE SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING.

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FIGURE 21: RED-BLUE-GREY(2) SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING.

St Erth Multi Modal Hub, St Erth, Cornwall

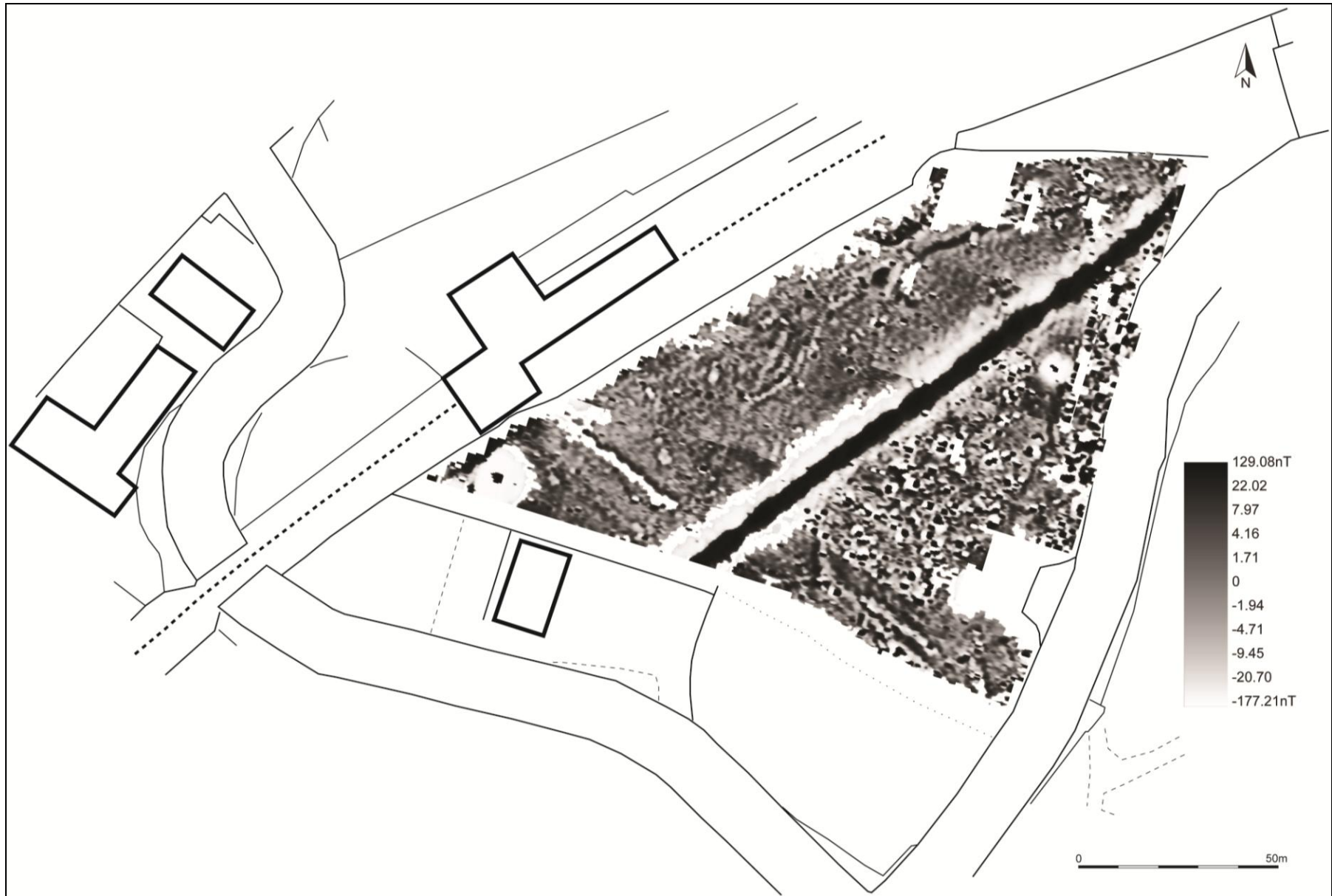


FIGURE 22: GREYSCALE SHADE PLOT OF GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALISED, GRADIATED SHADING.

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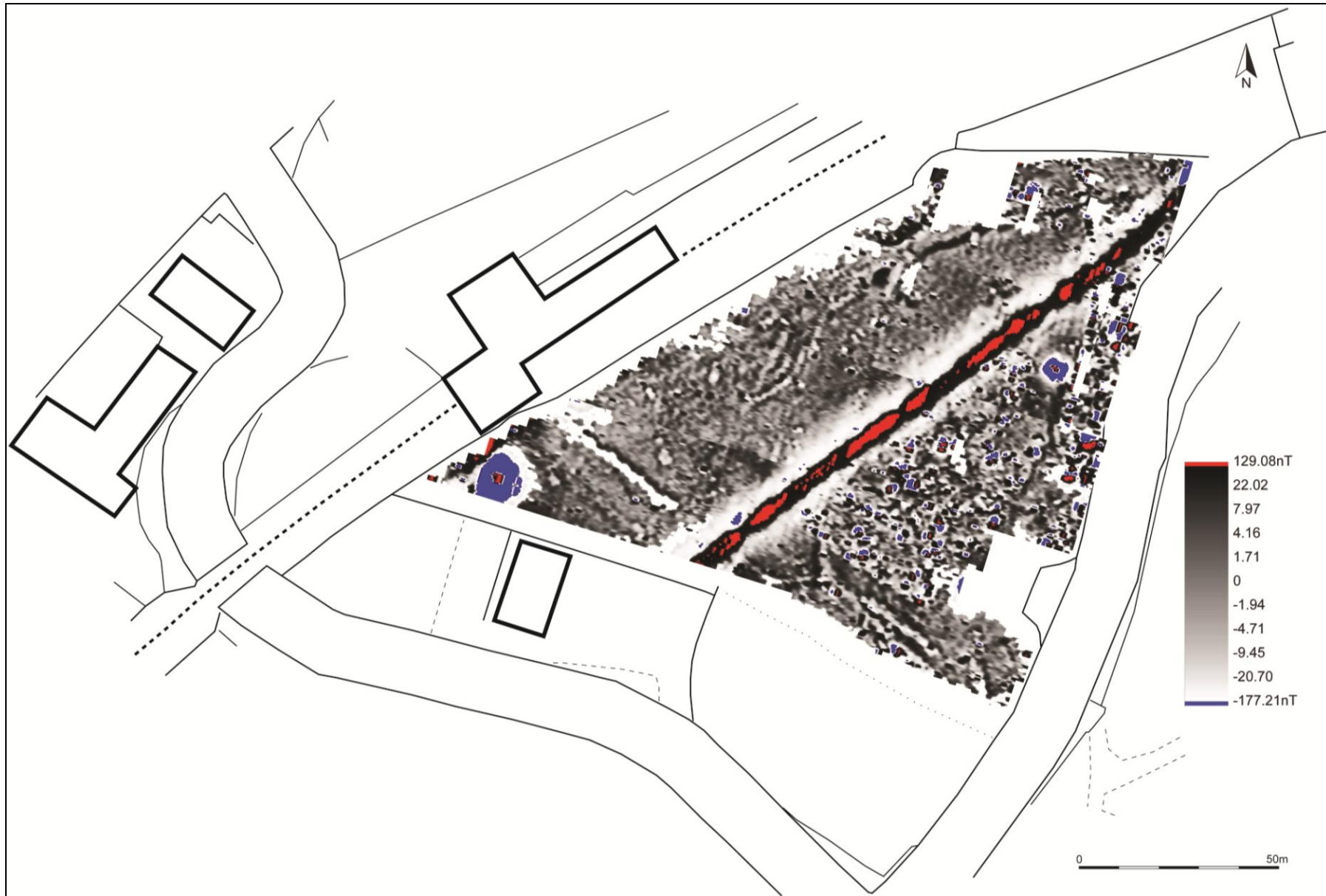


FIGURE 23: RED-GREY-BLUE SHADE PLOT OF GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALISED, GRADIATED SHADING.

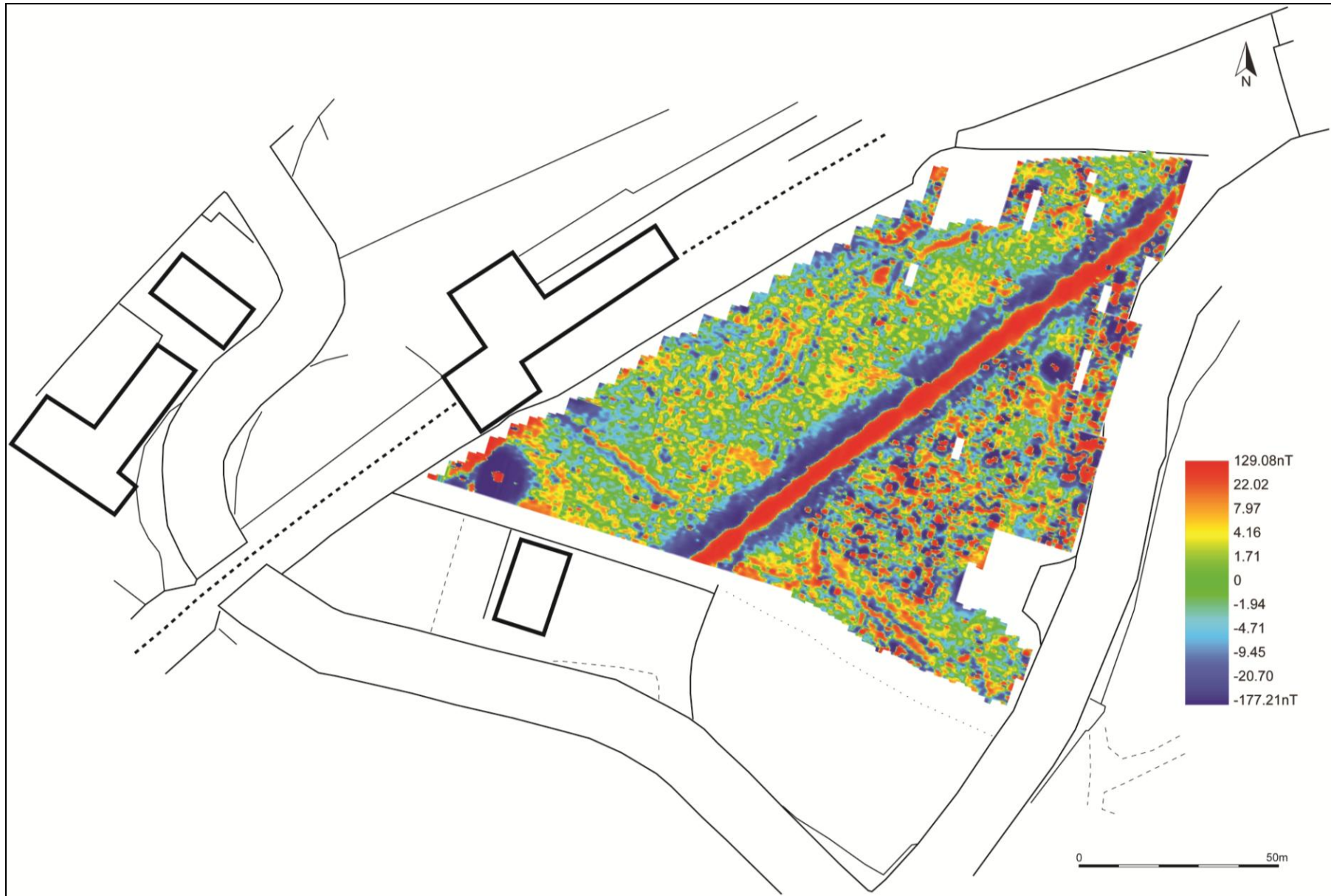
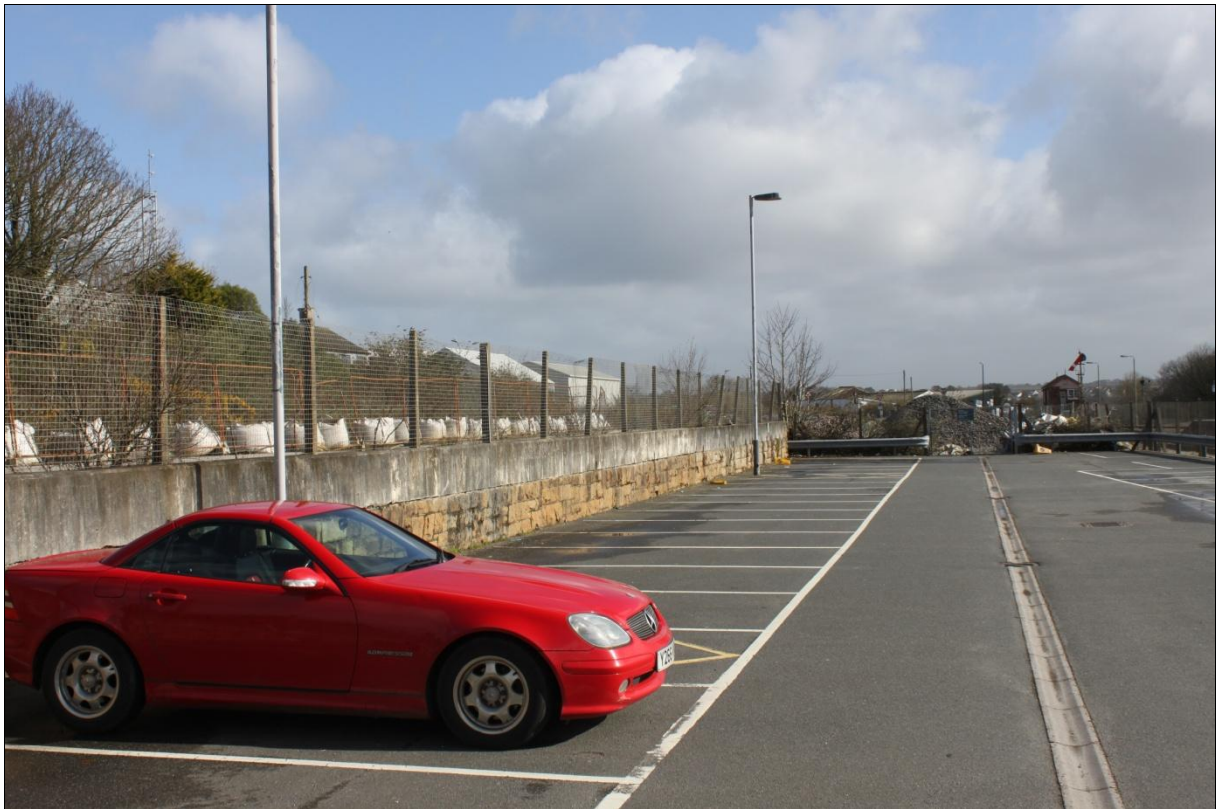


FIGURE 24: RED-BLUE-GREY(2) SHADE PLOT OF GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALISED, GRADIATED SHADING.

APPENDIX 4: SUPPORTING PHOTOGRAPHS: WALKOVER SURVEY



Northern car park and retaining wall; viewed from the south-west.



St Erth Station; viewed from the north-east.

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St Erth Station platform; viewed from the north.



St Erth Station; viewed from the east.



Building remains; viewed from the north-east (2m scale).



As above, viewed from the south-east (2m scale).



Western boundary to garden plot, viewed from the east.



Location of gateway and paving into garden plot; viewed from the south.



Detail of garden wall by gate; viewed from the south-west.



Northern boundary to northern car park; viewed from the south.



Retaining wall/remnant of building; viewed from the south-east (2m scale).



Footing for another structure to the west; viewed from the west (2m scale).



The A30; viewed from the north-east.



Hedgebank (and pipelines) against field to the north; viewed from the south-west (2m scale).



Gateway in field to the north of the A30; viewed from the south-east (2m scale).



Boundary wall to Penleigh; viewed from the west.

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A30 showing junction; viewed from the south-west.



As above, in context; viewed from the north-west (2m scale).

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St Erth Station; viewed from the north-west.



Station Road and junction with A30; viewed from the south.



Retaining wall for modern flats (Gateway Court); viewed from the south-east.



As above.



Retaining wall to platform in scrub area, eastern end; viewed from the north (2m scale).



As above, western end; viewed from the north (2m scale).



Railway bridge; viewed from the north-west.



As above; viewed from the south-west.



As above; viewed from the south.



Approach to railway bridge; viewed from the east.

St Erth Multi Modal Hub, St Erth, Cornwall



Kingdom Hall and boundary; viewed from the south.



Gateway to overflow car park; viewed from the north-east.



Gatepost to overflow car park; viewed from the west (2m scale).



Overflow car park; viewed from the east.



Mine workings in woodland to the south; viewed from the north-west.



Mine workings outside of the proposal area; viewed from the north-east.



As above; viewed from the east.



Northern boundary to overflow car park; viewed from the south-east.



Stone wall/facing along road of woodland (detail); viewed from the north-east (2m scale).



Stone wall/facing along road of woodland (general); viewed from the east (2m scale).



Shot of Treloweth Lane; viewed from the south-east.



As above; viewed from the north-west.



Pumphouse in woods; viewed from the north.



Left: Detail of gatepost; viewed from the north.



Right: As above; viewed from the east



Recent drain/repair in southern/western boundary to road; viewed from the north.



River/drain to the west; viewed from the north-east.



Wall and river/drain; viewed from the north-east.



As above (2m scale).



Treloweth Farmhouse and its Grade II Listed boundary wall; viewed from the north-west.



Gateway into field, note abuts wall to the south; viewed from the south (2m scale).



As above; viewed from the north-east (2m scale).



Gateway (possibly forced) in wall opposite Treloweth Farmhouse; viewed from the north-east (2m scale).



Grade II Listed boundary walls to Treloweth Farmhouse; viewed from the south.



As above; viewed from the south-west.



As above.



Detail of southern wall visible on track opposite Treloweth; viewed from the north.



New boundary south of Treloweth; viewed from the south.



Reused granite steps to Treloweth Cottages; viewed from the north-east.



Gateway into field south of Treloweth Cottages; viewed from the north.



As above.



Rebuilt gateway into Treloweth farmyard; viewed from the south-west.



Boundary wall opposite Treloweth Farmhouse; viewed from the south-east.



Boundary wall to Treloweth Cottages; viewed from the north-west.



Spoil heap from recent clearance in southern car park; viewed from the west (2m scale).



South corner of southern car park; viewed from the north (2m scale).



Southern car park; viewed from the south-west.



As above; viewed from the south.



As above; viewed from the south-east.



As above.



Projecting stones along possible former boundary; viewed from the north-east (2m scale).



Modern southern boundary; viewed from the north-east.



Remains of possible gateway into field; viewed from the north-east.



Mining remains to the north-east of southern car park; viewed from the south-east.



Remains of track/level area east of the southern field; viewed from the south-west.



Concrete structure cut into north boundary; viewed from the south-east.



Earthen bund (containing contaminated soil) to east of field; viewed from the north-west.



Southern car park, with mature trees; viewed from the north.



Northern boundary, stone wall; viewed from the south-east.



St Erth Station; viewed from the south-east.



Western end of platform retaining wall, with sign (detail); viewed from the south-east.



As above, general shot.



As above.

St Erth Multi Modal Hub, St Erth, Cornwall



As above (2m scale).



Southern car park; viewed from the west.



North-west corner of southern field; viewed from the south-east.



Southern car park, middle of field; viewed from the south.



Mining remains in the south-west corner; viewed from the north-west.



South-west corner of boundary; viewed from the north.



Mining remains and forced gap in west boundary; viewed from the south-east.



Boundary to Kingdom Hall, with mining lumps and bumps; viewed from the south.



Forced gate in west boundary; viewed from the south-west.



Kingdom Hall garden; viewed from the south.



Platform retaining wall in Kingdom Hall plot; viewed from the south.



Housing in garden; viewed from the north.



Repairs at western end in Kingdom Hall plot; viewed from the south.



Shot showing western boundary to Kingdom Hall plot; viewed from the north-west.



The Old Dairy
Hacche Lane Business Park
Pathfields Business Park
South Molton
Devon
EX36 3LH

Tel: 01769 573555
Email: mail@swarch.net