MAIDENWELLS RELIEF ROAD, PEMBROKESHIRESHIRE

ARCHAEOLOGICAL WATCHING BRIEF

(NGR SR 196920 199730)

DAT Archaeological Services

Prepared by DAT Archaeological Services
For: Pembrokeshire County Council

REGISTERED ORGANISATION CIfA

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ARCHAEOLOGICAL WATCHING BRIEF

SUMMARY

In May 2016 AB Heritage undertook a geophysical survey along the proposed road line of the Maidenwells relief road. The survey identified a number of linear and curvilinear features of possible archaeological origin. The majority of the remaining anomalies appeared to represent former field boundaries or other land divisions of post-medieval or later date.

The archaeological advisor to the planning authority (Dyfed Archaeological Trust – Development Management) indicated that the results were of insufficient archaeological potential to warrant further evaluative stages of work and proposed an archaeological watching brief be undertaken during the topsoil stripping phase of the development.

DAT Archaeological Services were commissioned to undertake the required archaeological watching brief by Pembrokeshire County Council. The watching brief was undertaken over eight days, over the period 19th December 2016 to 6th January 2017; often in extremely wet weather conditions.

Due to the weather conditions and the likelihood that the established methods associated with large scale earth removal would obscure or destroy potential archaeological remains, it was agreed with the site contractors GD Harris that initially a 360° excavator with a flat-bladed bucket would cut a trench across each feature deemed to have archaeological potential before topsoil stripping began; enabling features to be characterised with greater confidence. This did not eliminate the need to monitor the topsoil strip and an archaeologist was present when the subsequent topsoil-strip entered the vicinity of potential archaeological features. The locations of the trenches were offset from hedge banks and fences using measurements obtained from the geophysical survey supplied by AB Heritage. Eight trenches were excavated in total; each trench was 2.2m wide and ranged from 6m to 22.5m in length.

The natural geology was exposed within each trench making it possible to determine the presence or absence of archaeological remains. Sections through identified features were either excavated by hand or by machine to establish their depth and characterise them.

Each feature deemed by the geophysical survey to have archaeological potential was identified in its particular trench. Apart from the linear feature exposed in Trenches 7 and 8 all the features were found to be relatively shallow. Disappointingly the potential features appeared to either be a result of modern disturbance or natural processes, and included wheel ruts from modern construction vehicles, a modern cut for a ditch or services, as well as geological undulations in the natural ground surface and animal or root action.

The monitoring of the topsoil strip revealed no further evidence that significant archaeological remains had survived within the development area.

Although no significant archaeological remains were revealed within the development area, there is still a potential that significant archaeological deposits could be present within its vicinity.

1. INTRODUCTION

Project Proposals and Commission

1.1.1 DAT Archaeological Services were commissioned by Atkins Limited to provide an archaeological watching brief during the topsoil stripping phase of the construction of the Maidenwells relief road (centred on NGR SR 196920 199730).

1.1.2 The requirement for the watching brief was placed on the development as a condition on planning permission following advice from the archaeological advisor to the planning authority (Planning Services of the Dyfed Archaeological Trust). The condition states: *"The developer shall ensure that a professionally qualified archaeologist is present during the undertaking of any ground works, so that an archaeological watching brief can be carried out. The archaeological watching brief will be undertaken to the standards laid down by the (Chartered) Institute for Archaeologists. The Planning Authority will be informed, in writing at least two weeks prior to the commencement of the development, of the name of the said archaeologist".*

1.1.3 The archaeological condition was placed upon the development as a means of assessing and characterizing the anomalies identified by the geophysical survey considered to have archaeological potential.

1.2 Scope of the Project

1.2.1 A written scheme of investigation (WSI) for a watching brief was prepared by DAT Archaeological Services prior to the commencement of the works, which was approved by the archaeological advisor to the planning authority prior to the commencement of the works. The project objectives were:

- Provision of a written scheme of investigation to outline the methodology by which DAT Archaeological Services will undertake the watching brief.
- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed groundworks.
- To appropriately investigate and record any archaeological deposits to be affected by the groundworks.
- To produce an archive and report of any results.

1.2.2 The overall work was summarised as: *"Archaeological attendance during topsoil stripping associated with the construction of a new relief road at Maidenwells, Pembrokeshire, which is likely to expose, damage or destroy archaeological remains. Appropriate investigation and recording of any such remains will be undertaken if revealed. A report and archive of the results of the works will be prepared.*

1.3 Report Outline

1.3.1 This report describes the location of the development works along with its archaeological background, and provides a summary and discussion of the archaeological watching brief and its results.

1.4 Abbreviations

1.4.1 Sites recorded on the regional Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Sites recorded on the National Monument Record (NMR) held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) are identified by their National Primary Record Number (NPRN). Scheduled Ancient Monument (SAM). Altitude is expressed to Ordnance Datum (OD). References to cartographic and documentary evidence and published sources will be given in brackets throughout the text, with full details listed in the sources section at the rear of the report.

1.5 Illustrations

1.5.1 Photographic images are to be found within the report. Printed map extracts are not necessarily reproduced to their original scale.

1.6 Timeline

1.6.1 The following timeline is used within this report to give date ranges for the various archaeological periods that may be mentioned within the text.

Period	**Approximate date**	
Palaeolithic –	*c.*450,000 – 10,000 BC	**Prehistoric**
Mesolithic –	*c.* 10,000 – 4400 BC	
Neolithic –	*c.*4400 – 2300 BC	
Bronze Age –	*c.*2300 – 700 BC	
Iron Age –	*c.*700 BC – AD 43	
Roman (Romano-British) Period –	AD 43 – *c.* AD 410	**Historic**
Post-Roman / Early Medieval Period –	*c.* AD 410 – AD 1086	
Medieval Period –	1086 – 1536	
Post-medieval Period[1] –	1536 – 1750	
Industrial Period –	1750 – 1899	
Modern –	20th century onwards	

Table 1: Archaeological and historical timeline for Wales

[1] *The post-medieval and industrial periods are combined as the post-medieval period on the Regional Historic Environment Record as held by Dyfed Archaeological Trust*

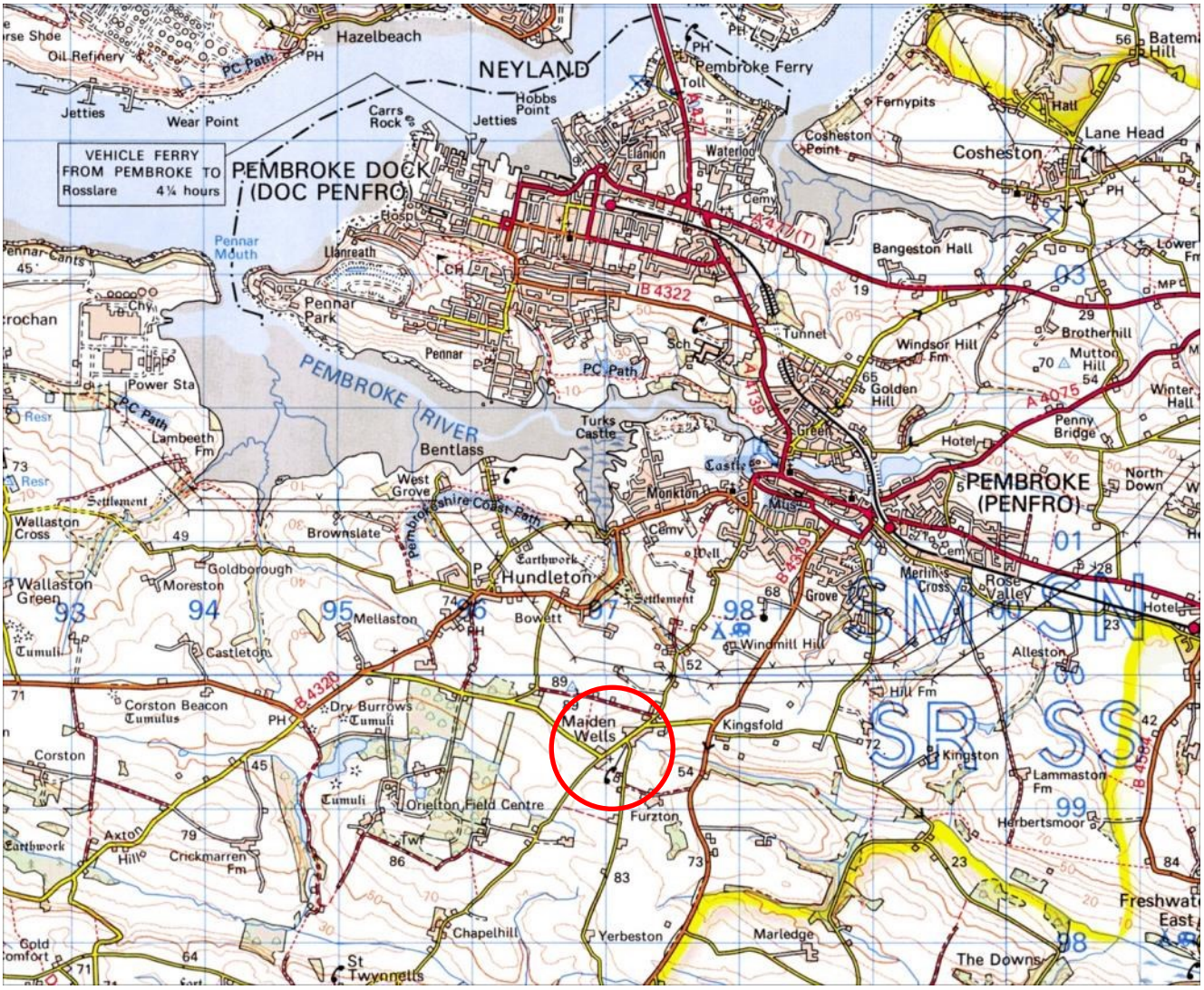

Figure 1: Location map showing Maidenwells within the red boundary

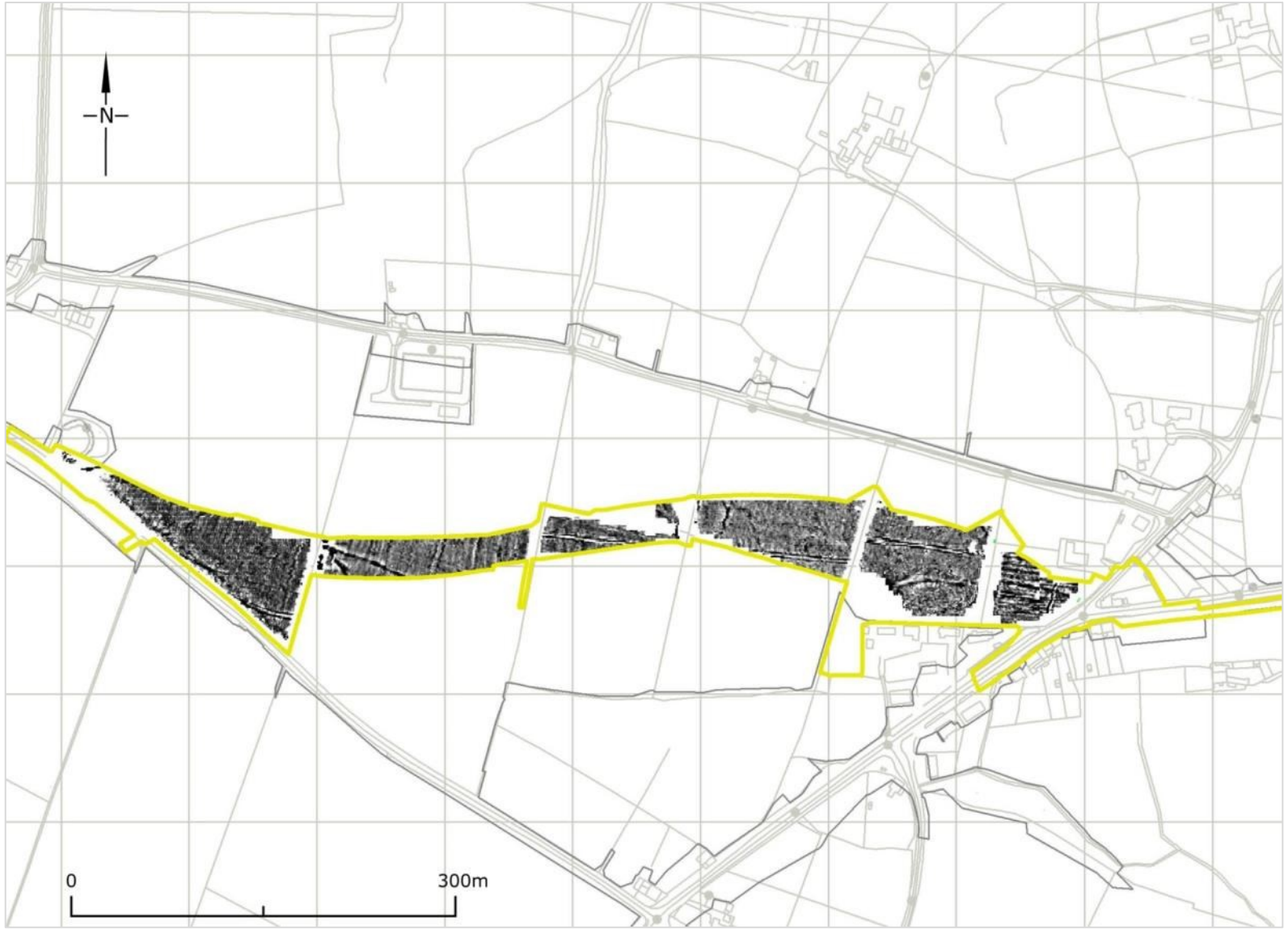

Figure 2: Extent of development area and geophysical survey (plan supplied by client).

Figure 3: Extract from 1839 Tithe Map of Monkton Parish. Fields affected by relief road outlined in red.

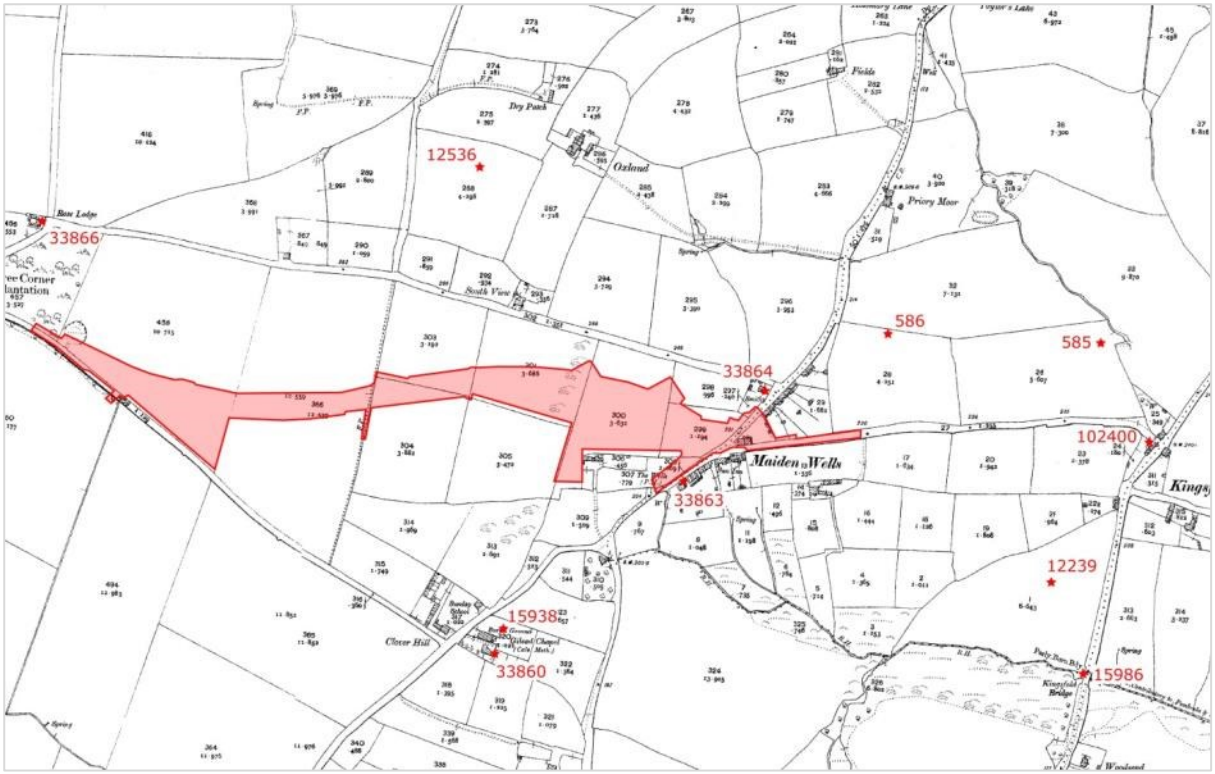

Figure 4: Extract of 2nd Edition OS map (1908) showing known sites on the Dyfed HER within 500m of the Maidenwells relief road corridor (shaded in red). The sites are listed in Table 3.

2. THE SITE

2.1 Location and Topography

2.1.1 Maidenwells is a small village surrounded by rolling fields and woodland. It is situated 1.5kms south of the historic town of Pembroke and lies on the C3138 road which leads to various refineries located on the Milford Haven waterway and the village of Angle on the Pembrokeshire peninsular, approximately 11kms to the west.

2.1.2 The development is approximately 850m long and traverses six fields. It runs in a westerly direction from Maidenwells to the Three Corners plantation where it joins the C3183 (Clay Lane). At Maidenwells the development lies on the 66m OD contour rising to 83m OD at the centre of the development before descending to 75m OD where it joins the C3138. The highest point in the area is Orielton Mountain situated 150m north of the development on the 90m contour. The general trend of the land slopes from north to south.

2.1.3 The bedrock is Ludlow Rocks (undifferentiated) – Sandstone (based on information from the British Geological Survey).

2.2 Archaeological and Historical Background

2.2.1 No archaeological sites are known to exist directly within the proposed development area; however a search of the Regional Historic Environment Record database revealed that a total of eleven sites of archaeological and historic interest are located within a *c.*500m radius centred on the development (Figure 4, Table 3).

2.2.2 Three of the sites listed are prehistoric in origin. These are PRN 585 a burnt mound some 250m to the northeast of the east end of the development; PRN 586 a Mesolithic 'flint chipping floor' located approximately 495m east of the east end of the development and PRN 12239 a flint flake collected on the 'surface of a possible long barrow' *c.*480m southeast of the east end of the development.

2.2.3 The sole medieval record within the *c.*500m radius centred on the development is PRN 12536 the site of a windmill noted on Rees' Map of South Wales and Borders c.250m north of the development.

2.2.4 Wikipedia states that the earliest reference to the village is 'Mayden Welle' in 1336, although the source for this information is not given. The 1st edition OS map (1874) depicts two wells on the south side of the road through the village; by the time the 2nd edition OS map (1908) is published only one is shown. This particular well survives to this day and is shown on digital mapping. It is located on the property known as Green Meadows. The condition of the well is not known. It is possible that the wells were in use during the medieval period and might possibly have had a curative or religious association considering the name of the settlement.

2.2.5 The remaining sites recorded on the HER are all post-medieval and relate to the development of the settlement and surrounding area during the 19th century.

2.2.6 Dyfed Archaeological Trust 'Historic Landscape Characterisation' of Hundleton and Maidenwells describes the historic background to the area thus:

A character area on the south side of the Pembroke River. It lies within the parishes of Hundleton and Monkton. Hundleton parish was created in the 19th century, from part of the parish of Pembroke St Michael, and lies within the liberty of the medieval borough of Pembroke. The area

comprised demesne associated with Pembroke Castle and manor, to which the vills of Maidenwells, recorded in 1336, and Hundleton, recorded in 1475, were appurtenant. This part of the area became part of the Bush estate in the post-medieval period. Monkton parish represents the core ecclesiastical holding of the Benedictine priory of Monkton, Pembroke that was dissolved in 1535. The name 'Priory Moor' preserves the ownership and land-use elements of a block of land at the highest point in the area, north of which is Windmill Hill which may represent the site of one of the priory mills. The Devereux Earls of Essex acquired the Monkton estate later in the 16th century. It is clear from 18th century and early 19th century maps that the present day field system of small, regular fields has evolved, at least in part, from an open field system. A few enclosed strips were recorded close to Hundleton in 1737 and 1807 – the last remnants of the village's open fields. By the tithe survey of 1841 these no longer existed. Elsewhere the pattern of small fields was firmly established by the late 18th century. The area had been always primarily agricultural, but the Pembroke River shoreline has been used as an informal shipping place. During the 18th century it became an important landing place used for the export of limestone from quarries at West Grove.

2.2.7 The Dyfed Archaeological Trust 'Historic Landscape Characterisation' - description and essential historic landscape components of Hundleton and Maidenwells is described thus:

This historic landscape character area lies on the southern bank of the Pembroke River on undulating land that rises steadily from the shore southwards to over 80m above sea level. It is essentially an agricultural area but includes the two villages of Hundleton and Maidenwells. Fields are regular and small for southern Pembrokeshire, and are bounded by banks topped with hedges. Hedges vary in character, with some very overgrown and supporting small trees, whilst others are well maintained. Sunken lands flanked by high hedges are characteristic of the area. Overgrown hedges together with woodland on the steep valley sides of the upper Quoits Water Pill lend a wooded aspect to sections of the landscape. Agricultural land-use is almost entirely improved pasture with a little arable. The historic core of Hundleton village consists of a group of 19th century stone built, cement rendered, and slate-roofed two storey vernacular houses and single storey cottages. The parish church was established to serve this community in the 1840s. However, mid- and late-20th century housing development, a school and other buildings have considerably expanded the village, and it now has a much more linear quality stretching along the B 4320 and minor roads. Maidenwells is a 19th century linear village. It contains both detached and terraced 19th century single storey cottages, interspersed with which is 20th century housing. The Grade II listed Gilead chapel was constructed in the 19th century to serve this community. The only other significant grouping of houses is at the old ferry point of Bentlass. Here there is a 19th century stone-built, Grade II listed warehouse and several 19th century and 20th century houses. Dispersed farms complete the settlement pattern. Farms are smaller than average for southern Pembrokeshire. Farmhouses are generally in the Georgian vernacular tradition, stone-built with slate roofs. Most farms have one or two ranges of 19th century outbuildings associated with them, plus collections of modern steel, concrete and asbestos agricultural structures. Archaeological sites are rich and varied and include a substantial dam and millpond, two iron age forts, prehistoric flintworking sites, the site of a holy well, a windmill site and two limekilns situated close to the foreshore.

2.2.8 In the 1839 Tithe Map of Monkton Parish (Figure 3) the fields affected by the development are numbered 701, 702, 705 and 706. Table 2 below lists the information on each field collated from the apportionment that accompanies the tithe map.

Landowner	Occupiers	Numbers referring to plans	Name and description of land and premises	State of cultivation
Sir John Owen	William James	701	Mountain	Arable
Sir John Owen	William James	702	Mountain	Arable
Sir John Owen	James Davies	705	Field	Arable
Sir John Owen	James Jones	706	Cottage and field	Pasture

Table 2: Details of the fields affected by the development as listed in the apportionment that accompanies the 1839 Tithe Map of Monkton Parish.

PRN	Site name	Summary	Period	NGR
585	Kingsfold	Burnt mound	Prehistoric	SR97769979
586	Priory Moor	A flint scatter, recorded as 'flint chipping floor' was marked in this area on a distribution map (Wainwrihght 1963, 104) based on the records of A L Leach. There are on details of the material recovered from this site. NAP 2004.	Prehistoric	SR975998
12239	Kingsfold	A flint flake collected by A L Leach somewhere between St Petrox and Pembroke on the 'surface of a possible long barrow' (information from CBA Mesolithic Artefact card- in SMR). Nap 2004	Prehistoric	977995
12536	Windmill	Site of windmill noted on Rees' map of 'South Wales and Border in 14th century'.	Medieval	SM9700
15938	Gilead Old Calvanistic Methodist Chapel	Site description Gilead Methodist Chapel was built in 1845 and converted into a schoolroom in 1876 with a new chapel built on site opposite (PRN 33860). The 1845 chapel was built in the Simple Round-headed style of the long-wall entry type. By 1993 the building had been converted for use as a vestry. This building is now a Grade II Listed as a good example of an early nineteenth century small rural chapel. **Grade II Listed Building Ref: 6572**	Post-Medieval	SR97039944
15965	Kingsfold Bridge	Bridge	Post-Medieval	SR97749939
33860	Gilead Methodist Chapel	Gilead Methodist Chapel was built in 1876 by architect Kedgwin William Ladd of Pembroke Dock in the Simple Round-Headed style with a gable entry plan. In 2000 it was still in use as a chapel.	Post-Medieval	SR97029941
33863	The Wells	Public House	Post-Medieval	SR97259962
33864	Maidenwells	Blacksmith's workshop	Post-Medieval	SR97359973
33866	Rose Lodge	Earlier C19 lodge to Orielton Estate, near identical to Images Lodge. Roughcast with hipped slate roof and centre squared stone stack. Single storey, double fronted with painted stone hood moulds over paned 8-pane windows each side and C20 centre door. **Grade II Listed Building Ref: 6585**	Post-Medieval	SR96459993
102400	Kingsfold	A roadside cottage and enclosure identified on the Ordnance Survey 1st edition mapping (1874). Recorded as having been demolished with no in situ structural remains during DAT watching brief in 2011 (WWS January 2012).	Post-Medieval	SR97829967

Table 3: Archaeological and Historical Sites recorded on the Regional Historic Environment Record within 500m of the centre of the proposed development; shown in Figure 4.

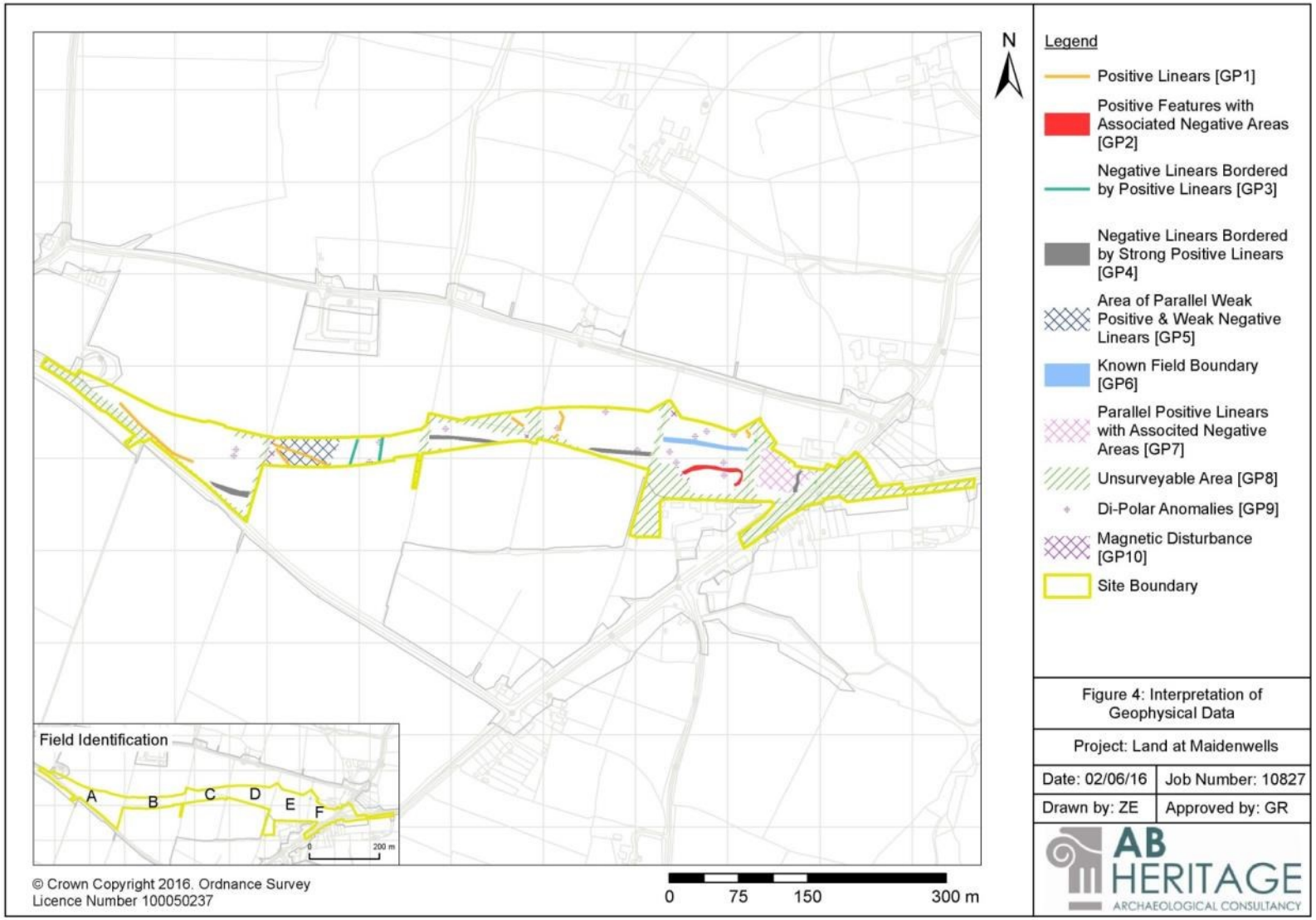

Figure 5: Interpretation of geophysical survey (supplied by client).

3. WATCHING BRIEF METHODOLOGY

3.1 Fieldwork

3.1.1 A watching brief was undertaken during initial groundworks at the site which had the potential to expose, damage or destroy underlying archaeological remains.

3.1.2 Due to the potentially destructive nature of large scale earth removal, it was agreed with the contractors that a 360° excavator with a flat-bladed bucket would cut a trench across each feature deemed to have archaeological potential, as identified from the geophysical survey, before topsoil stripping began, enabling features to be characterized with more certainty.

3.1.3 Eight trenches were excavated in total (Figure 6). Each was 2.2m wide and ranged in length from 6m to 22.5m. The trenches targeted six linear and curvilinear features that the geophysical survey had identified as having potential to be of archaeological origin. Each trench was placed at a right angle across the feature. The trenches were excavated to remove all non-archaeologically significant overburden down to either archaeological levels or the underlying natural undisturbed surface.

3.1.3 The trenches were positioned by offsetting from hedge-banks and fences using measurements obtained from the geophysical survey supplied by AB Heritage.

3.1.4 The machine trenching did not eliminate the need to monitor the subsequent topsoil-strip and an archaeologist was present when the topsoil-strip entered the vicinity of all the potential archaeological features (Photos 1 & 2).

3.1.5 All archaeological deposits revealed during the groundworks were examined and recorded to an appropriate level.

3.1.6 Recording of all archaeological features or deposits conformed to best current professional practice and was carried out in accordance with the Recording Manual used by DAT Archaeological Services. The work followed the Standard and Guidance for an Archaeological Watching Brief as laid down by the Chartered Institute for Archaeologists (CIfA 2014) and adhered to their code of conduct (CIfA 2014).

3.2 Timetabling of Fieldwork

3.2.1 The watching brief associated with the excavation of Trenches 1 to 6 was carried out between 19th and 21st of December 2016. The weather conditions ranged from dry to very wet.

3.2.2 The watching brief associated with the excavation of trenches 7 and 8 was undertaken on the 3rd and 6th of January 2017 in very wet weather.

3.3 Post-Fieldwork Reporting and Archiving

3.3.1 All data recovered during the fieldwork will be collated into a site archive structured in accordance with specifications in *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2011), and the procedures recommended by the National Monuments Record, Aberystwyth.

3.3.2 The results of the fieldwork have been assessed in local, regional and wider contexts. The report includes a desk-based research element to ensure that the site is placed within its wider archaeological context.

3.3.3 A report fully representative of the results of the fieldwork has been prepared.

Photo 1: View of area surrounding Trench 3 during topsoil strip.

Photo 2: View of area surrounding Trenches 4 & 5 during topsoil strip.

4. RESULTS AND DISCUSSION

4.1 Trench 1

4.1.1 Trench 1 (Photo 3) was located at the eastern end of an approximately 80m long by 3m wide curvilinear feature (Figure 6). It is described by AB Heritage; in the legend accompanying their geophysical survey, as 'positive features with associated negative areas' - possible bank and ditch (Figure 5).

4.1.2 The trench measured 12m in length and was 2.2m wide with an average depth of 0.3m. It was aligned in an east-west direction and was excavated to the underlying natural undisturbed ground surface.

4.1.3 The medium brown loamy topsoil was of a consistent depth along the whole length of the trench and stood directly on top of the orangey-brown, silty-clay natural. At the east end of the trench the natural became yellower and stonier.

Photo 3: View west along Trench 1 showing root disturbance in the natural ground. 1m and 0.5m scales.

4.1.4 Within Trench 1 at the western end, there was evidence of root action penetrating the upper surface of the natural subsoil. No archaeological evidence for a bank or ditch was identified.

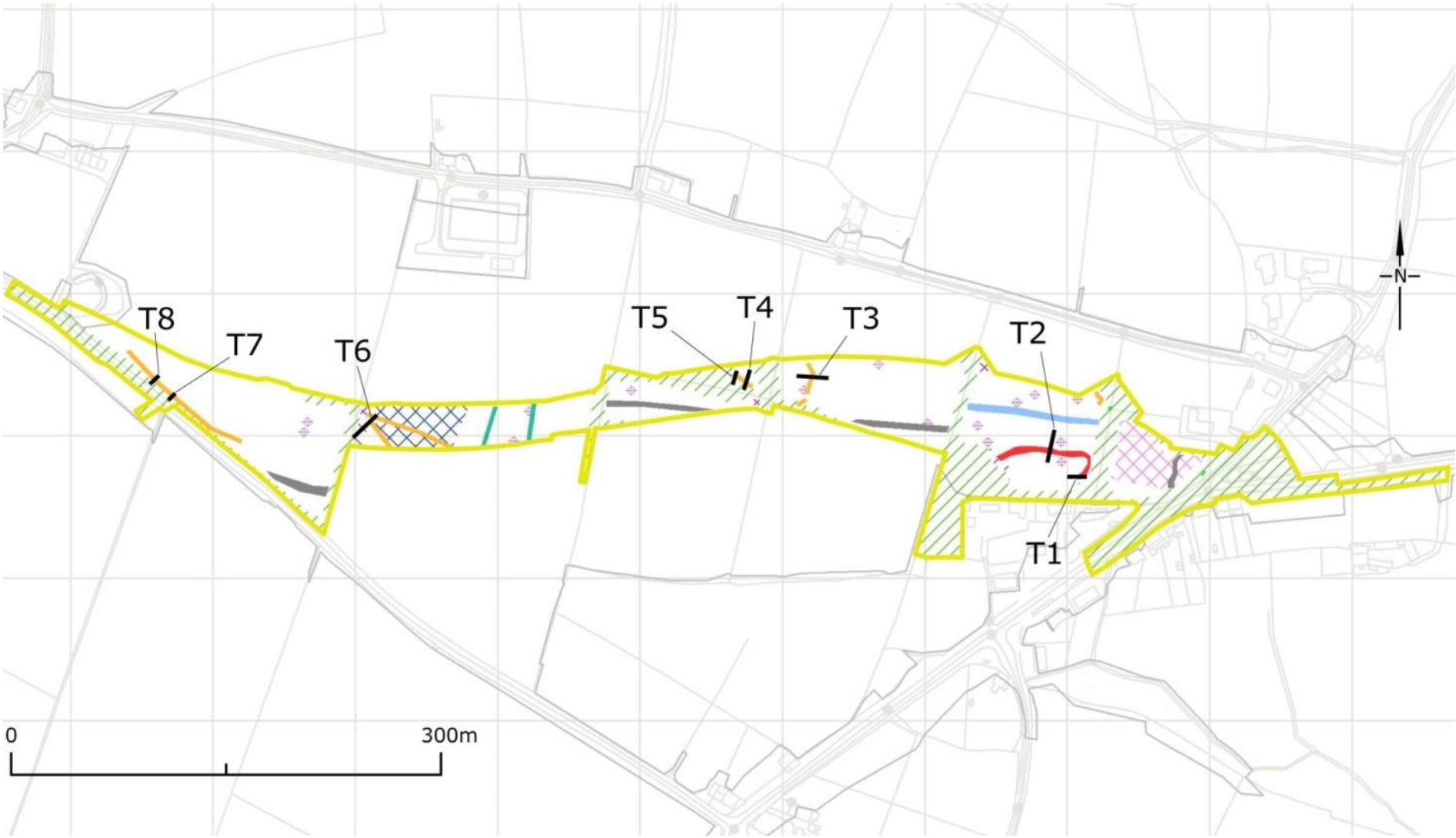

Figure 6: Location of trenches (in black) overlying features identified in geophysical survey

4.2 Trench 2

4.2.1 Trench 2 (Figure 6; Photo 4) was positioned halfway along the same curvilinear feature targeted by Trench 1. It is described by AB Heritage in the legend accompanying their geophysical survey as 'positive features with associated negative areas' - a possible bank and ditch.

4.2.2 The trench measured 22.3m in length and was 2.2m wide. It was aligned roughly north – south and cut across the feature to enable any deposits to be seen in section.

4.2.3 The medium brown loamy topsoil was of a consistent depth of c. 0.28m throughout the whole trench. This stood mainly above an orange-brown, silty-clay natural subsoil; apart from the final 3m at the south end of the trench when the natural changed to a stonier surface with yellow silts.

Photo 4: View north along Trench 2 - band of silting visible above 2m scale.

4.2.4 A band of medium brown, silty clay c. 2m wide traversed the trench in approximately the position identified by the geophysical survey (Photo 2). When this was further investigated by trowelling it was discovered to be only c. 0.05m thick and resolved itself into thin amorphous patches on the surface of the natural (Photo 5).

Photo 5: View south along Trench 2 after cleaning. 1m scale.

4.3 Trench 3

4.3.1 Trench 3 was positioned across a 22m long, curvilinear feature aligned in a roughly N-S direction. It is described by AB Heritage in the legend accompanying their geophysical survey as a 'positive linear' (possible ditch).

4.3.2 The trench measured 21.8m long and 2.2m wide. It was aligned in an east – west direction and positioned at right angles across the feature to enable a section to be observed.

4.3.3 The medium brown loamy topsoil was of a consistent depth of c. 0.26m throughout the whole trench and stood directly above the natural subsoil which comprised bands of orange-brown, silty-clay containing varying amounts of fractured stone.

4.3.4 A band of dark brown, silty clay c. 2.5m wide traversed the trench in a similar position identified by the geophysical survey (Photo 6). Upon further investigation the deposit was revealed to occupy a gentle undulation in the bedrock and was approximately 0.1m thick at its deepest (Photo 7). No further archaeological features were revealed during the excavation of this trench.

Photo 6: View east along Trench 3; band of darker material can be seen traversing trench in front of 1m scale.

Photo 7: South facing section through band of dark material in Trench 3. 1m and 0.5m scales.

4.4 Trenches 4 and 5

Photo 8: View southwest along Trench 4. 1m scale.

Photo 9: View southwest along Trench 5 showing darker band of material crossing trench above the 1m scale

4.4.1 Trench 4 was positioned across a small linear feature measuring c. 15m in length and approximately 2m wide. It is described by AB Heritage in the legend accompanying their geophysical survey as a 'positive linear' – a possible ditch (Figures 6; Photo 8).

4.4.2 The trench measured 13m long and was 2.2m wide with an average depth of 0.26m and was aligned in a roughly north – south direction. It was excavated down to the underlying natural undisturbed ground surface.

4.4.3 The medium brown, loamy topsoil was of a consistent depth of 0.26m throughout the trench. This stood directly above the orange-brown, silty-clay, stony natural. A vague band of darker material was observed crossing the trench which, when cleaned, was seen to be a thin layer of medium brown, silty clay 0.02m thick. It was decided to cut another trench (Trench 5) to further investigate the feature (Photo 9).

4.4.4 Trench 5 was located 6.5m east of Trench 4. It measured 8m long and was 2.2m wide with an average depth of 0.26m. It was aligned in a roughly north – south direction and was excavated down to the underlying natural undisturbed ground surface.

4.4.5 The medium brown, loamy topsoil was of a consistent depth of 0.26m throughout the trench. This stood directly above the orange-brown, silty-clay, stony natural. A band of dark material, 2.3m wide, crossed the trench in a similar position as identified by the geophysical survey. When investigated, this dark brown, silty-clay deposit was a mere 0.04m thick. No cut was discerned at the edges of this feature. It was either filling a gentle undulation in the natural or was pressed into it. No other archaeological features were observed within this trench.

4.5 Trench 6

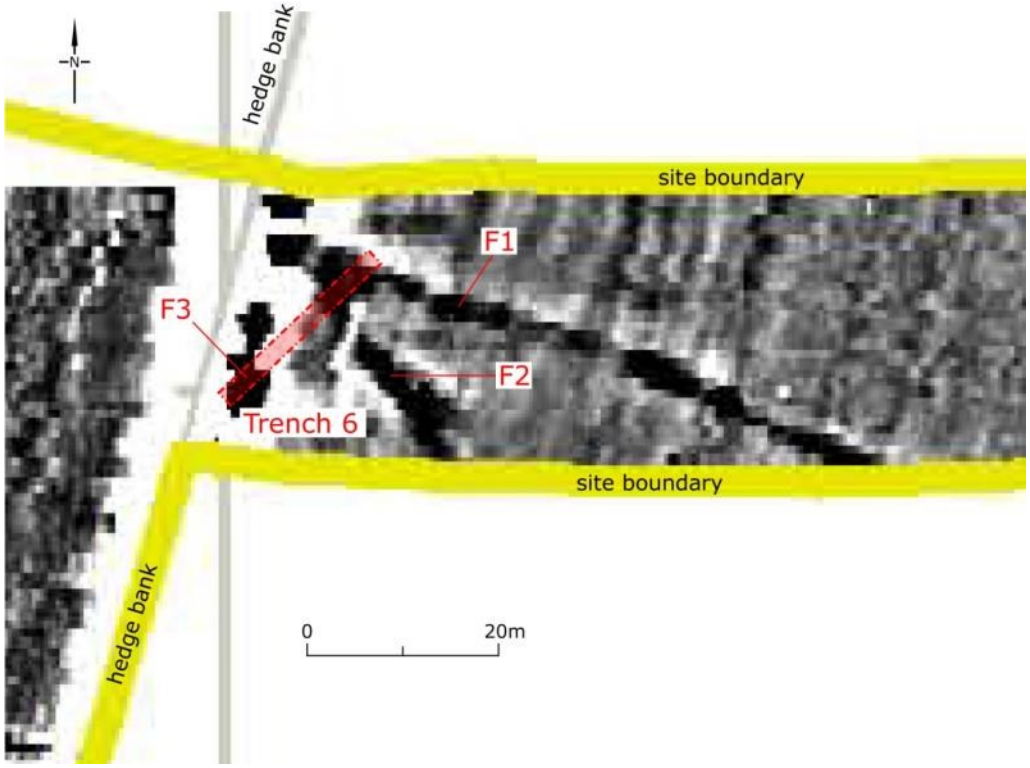

Figure 7: Detail of features identified in Field B during geophysical survey.

4.5.1 Trench 6 (Figures 6 and 7) was positioned to overlie a number of features identified from geophysical survey; including two linear features converging near the hedge bank (F1 and F2) and a third feature (F3) running parallel with the hedge bank. Features (F1) and (F2) are described as 'positive linears' in the legend accompanying the geophysical survey, whilst (F3) is described as 'magnetic disturbance'.

Photo 10: View SW along Trench 6 showing features (F1) and (F2) converging in foreground and feature (F3) in the background. 1m scale.

4.5.2 Trench 6 measured 22.3m in length and was 2.2m wide and aligned in a SW–NE direction. It was excavated to the underlying natural undisturbed ground surface.

4.5.3 The topsoil was a medium brown loam ranging in depth from 0.25m at the southern end of the trench to 0.30m at the northern end. It lay directly above the orange-brown, silty-clay natural subsoil.

4.5.4 At the northern end of Trench 6 a wide area of dark compacted silt was revealed (Photo 10). It appears this is where features (F1) and (F2) converge. Subsequent machining and trowelling delineated the merged features of (F1) and (F2) into their constituent parts (Photo 11). (F1) resolved into two linear bands (? vehicle tracks) approximately 2.5m wide, whilst (F2) became a single linear – it was probably a pair of linears also but was over-dug by the machine.

4.5.5 Both features had identical deposits; a stone-free, dark brown, clay-silt which occupied a 7.6m wide flat-bottomed hollow with gently sloping sides. In section the deposit was up to 0.2m thick and lay directly below the topsoil (Photo 12). There was no indication in section of the deposit being within a cut feature.

Photo 11: View SW along Trench 6 showing features (F1) in the foreground – now shown to be a pair of parallel linears - and linear (F2) in background above 1m scale.

Photo 12: View west at SE facing section of (F1) and (F2) in Trench 6. Fill is visible as darker deposit below topsoil. 1m and 0.5m scale.

4.5.6 (F3) was a 2m wide, linear deposit lying on top of the natural. It crossed the lower half of Trench 6 at an angle and ran alongside the grubbed-out hedge bank situated a few metres to the west of the trench (Photo 13).

4.5.7 The deposit was a medium brown, silty-clay (similar to the topsoil). When cleaned with a trowel the deposit resolved itself into a pair of caterpillar track marks and proved to be only 0.03m thick (Photo 14 and 15).

Photo 13: View NE along Trench 6 showing (F3) in foreground. 1m scale.

Photo 14: View NE along Trench 6 showing (F3) after cleaning. 1m scale.

Photo 15: Detail of caterpillar track marks impressed into the natural in Trench 6. 0.5m scale.

4.6 Trenches 7 and 8

4.6.1 Trenches 7 and 8 were excavated across a 108m curvilinear feature that ran adjacent to a hedge bank at the bottom of a moderate slope. The feature is described by AB Heritage in the legend accompanying their geophysical survey as a 'positive linear'. Both trenches cut across the feature at right angles.

4.6.2 In both trenches the exposed natural subsoil surface was observed sloping downwards from north to south towards the C3138 road which was situated c. 2.5m away from the end of the trenches; separated by a hedge without any evidence for a bank. Only one deposit of dark brown silty-clay topsoil was recorded in section lying above the natural orange-brown, silty-clay subsoil. This topsoil increased in depth towards the southern ends of the trenches. Due to the build-up of colluvium, this was relatively deep compared to the topsoil depths observed in earlier trenches and averaged 0.5m thick increasing to 0.9m at the bottom of the break of slope towards the southwest end of the trenches.

4.6.3 In Trench 7 the topsoil was fully excavated and at the southern end of the trench a narrow 0.25m wide linear cut running parallel with the hedge, cutting into the natural subsoil, was revealed (Photo 16). In section it was apparent that it was cut from the present ground surface and probably indicates it is a modern cut perhaps for drainage. The fill of the cut was a mottled mixture of topsoil and orange silty-clay.

Photo 16: NW facing section at southern end of Trench 7 showing break of slope in the natural subsoil and modern machine cut - seen as a linear in surface of natural ground and as mottled fill in section. 1m scale.

5. CONCLUSIONS

5.1 A watching brief was carried out during topsoil stripping associated with the construction of the Maidenwells relief road undertaken by Atkins Limited on behalf of their client Pembrokeshire County Council. The decision to impose a watching brief on the development was based on the results of a geophysical survey by AB Heritage which identified a number of features that had archaeological potential.

5.2 The archaeological works comprised excavating 8 trenches of varying lengths across seven features considered to have archaeological potential that had been identified by geophysical survey The ground level was reduced using a 360° tracked excavator fitted with a flat bladed bucket. Subsequent topsoil-stripping in the vicinity of all the potential archaeological features was then subject to an archaeological watching brief.

5.3 The depth of material removed from each trench was enough to determine the presence or absence of archaeological remains.

5.4 In general the targeted features were not found to be archaeologically significant but a result of modern disturbance or natural processes. This was disappointing considering AB Heritage had given a low to medium confidence rating on the interpretations of the results of the survey based on the form of the features and the range of the readings collected.

5.5 Trench 1 which targeted the end of the long curvilinear feature in Field E revealed root or possibly animal disturbance. Trench 2, targeting the centre of the same curvilinear feature, revealed a thin deposit of silts and a change in the make-up of the natural ground surface. Either could possibly account for the presence of the feature recorded by the geophysical survey.

5.6 Trench 3 revealed a band of dark brown, silty-clay crossing the trench which seemed to correspond with the targeted feature. On investigation it was discovered to be the result of natural silting of a gentle undulation in the natural ground surface.

5.7 Trench 4 revealed a band of dark brown, silty-clay with a percentage of small stone in an alignment similar to the targeted feature. It was 2.3m wide and 0.04m deep. This deposit was either the silting of a shallow hollow in the natural ground surface or possibly the deliberate infilling of a hollow - the linear seems to be aligned to a field entrance some 14m away.

5.8 Trench 6 revealed modern vehicular tracks, one of which was a caterpillar track possibly from a bulldozer. These are quite possibly a result of the heavy machinery used in the relatively recent construction of the Orielton Mountain reservoir situated in the same field 107m to the north. There is a gateway at the SE corner of the field which opens onto the main road, it is probable that construction vehicles utilized this entranceway and converged at the location of Trench 6.

5.9 It is unclear whether in Trenches 7 and 8 the linear identified by the geophysical survey and revealed in the trenches, is the result of the break of slope in the natural ground surface or a modern drainage cut.

5.10 No artifacts were recovered from any of the investigated features.

5.11 Although no significant archaeological remains or deposits were recorded within the trenches, the potential for the survival of archaeological deposits elsewhere in the vicinity of the development still remains.

6. SOURCES

Database:

Dyfed Archaeological Trust Historic Environment Record, housed with Dyfed Archaeological Trust in The Shire Hall, Llandeilo, Carmarthenshire, SA19 6AF

RCAHMW Coflein Database http://www.coflein.gov.uk/

Cof Cymru - National Historic Assets of Wales
http://cadw.gov.wales/historicenvironment/recordsv1/cof-cymru/?lang=en

Bibliography

Brown, D, 2011, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum

CIfA 2014, *Standard and Guidance for an Archaeological Watching Brief,* Chartered Institute for Archaeologists, December 2014

Meek, J, 2012, *Land Adjacent to Cross Inn Villa, Cross Inn, Carmarthenshire: Archaeological Watching Brief*, ERN 102870, Unpublished DAT Report No 2012/33

Websites

Welsh Tithe maps: http://cynefin.archiveswales.org.uk/en/ - accessed 28/01/2016

British Geological Survey: http://mapapps.bgs.ac.uk/geologyofbritain/home.html - accessed 27/01/2016

APPENDIX I

PROJECT ARCHIVE

Project Number: FS16_025

ERN: 110317

96 Digital photographs; Film Number 110317

1x Photo catalogue

Survey data: Plans x 1 DXF and 1 GS5 file

APPENDIX II

MAIDENWELLS RELIEF ROAD, PEMBROKESHIRE
ARCHAEOLOGICAL WATCHING BRIEF
WRITTEN SCHEME OF INVESTIGATION

INTRODUCTION

This written scheme of investigation (WSI) has been prepared by DAT Archaeological Services in response to a request from Atkins to provide an archaeological scheme of works for a watching brief to be undertaken during groundworks associated with the construction of the Maidenwells relief road, Pembrokeshire. The road scheme will run from a point at the eastern end of the village, SR 97290 99650, and run for 2km to the west through field to the northwest of the village and reconnect with the existing road at SR 96460 99790 (Figure 1).

The Dyfed Historic Environment Record (HER) was searched for known archaeological sites within a buffer zone of 500m from the proposed development area (Table 1, sites recorded by their Primary Record Number (PRN); Figure 2).

No recorded archaeological or historical sites are recorded within the proposed development area of the new relief road. Within 500m of the area the recorded sites include finds of prehistoric date (PRNs 586 & 12239) as well as a possible site of a prehistoric burnt mound (PRN 585). The remaining sites are of post-medieval date and reflect the development of Maidenwells settlement at this time. The new relief road will cross agricultural land that has probably been used as such since the medieval period. The field boundaries are of post-medieval date.

A geophysical survey of the proposed road line was undertaken by AB Heritage in May 2016 and the report (June 2016) was issued to DAT Archaeological Services to assist with the preparation of this fee proposal. The survey identified a number of features (GP 1 & 2) of possible archaeological origin (Figure 3):

These features are represented by linear and curvilinear features. Positive features [GP 1] may represent possible ditches, while positive features with associated negative areas [GP 2] may represent previously raised earthworks. There is a low to medium confidence rating in these interpretations, based on their form and the range of the readings.

The majority of the remaining features appear to represent former field boundaries or other land divisions of medieval or later date.

The archaeological advisor to the planning authority (Dyfed Archaeological Trust – Development Management) has indicated that the results were of insufficient archaeological potential to warrant further evaluative stages of work, but an archaeological watching brief during topsoil stripping at the site was proposed.

This written scheme of investigation outlines the methodology through which DAT Archaeological Services would undertake an archaeological watching brief during ground works at the site, which have the potential to expose, damage or destroy archaeological remains. This document has been prepared for the client and is specifically prepared for DAT Archaeological Services to undertake the required archaeological works. The WSI cannot be used by any third party.

The written scheme of investigation is in accordance with the *Standard and Guidance for Archaeological Watching Briefs* (Chartered Institute for Archaeologists (CIfA), 2014).

DAT Archaeological Services has considerable experience of this type of project and always operates to best professional practice. DAT Archaeological Services is the contractual arm of Dyfed Archaeological Trust that has its own Health and Safety Policy, and all works are covered by appropriate Employer's Liability and Public Liability Insurances. Copies of all are available on request.

Dyfed Archaeological Trust is a CIfA Registered Organisation.

All staff are CSCS registered.

PRN	Site Name	Period	Description	NGR
585	KINGSFOLD	Prehistoric	Burnt mound	SR97769979
586	PRIORY MOOR	Prehistoric	A flint scatter, recorded as a 'flint chipping floor' was marked in this area on a distribution map (Wainwright 1963, 104) based on the records of A L Leach. There are no details of the material recovered from this site. NAP 2004	SR975998
12239	KINGSFOLD	Prehistoric	A flint flake collected by A L Leach somewhere between St. Petrox and Pembroke on the 'surface of a possible long barrow' (information from CBA Mesolithic Artefact Card - in SMR). NAP 2004.	SR977995
12536	WINDMILL	Medieval	Site of windmill noted on Rees' map of 'South Wales & Border in 14th C'.	SM9700
15938	GILEAD OLD CALVINISTIC METHODIST CHAPEL	Post-medieval	Site Description Gilead Methodist Chapel was built in 1845 and converted into a schoolroom in 1876, with a new chapel built on a site opposite (PRN 33860). The 1845 chapel was built in the Simple Round-Headed style of the long-wall entry type. By 1993 the building had been converted for use as a vestry. This building is now Grade 2 Listed as a good example of an early nineteenth century small rural chapel. **Grade II Listed Building Ref: 6572**	SR97039944
15965	KINGSFOLD BRIDGE	Post-medieval	Bridge	SR97749939
33860	GILEAD METHODIST CHAPEL	Post-medieval	Gilead Methodist Chapel was built in 1876, by architect Kedgwin William Ladd of Pembroke Dock, in the Simple Round-Headed style with a gable entry plan. In 2000 it was still in use as a chapel.	SR97029941
33863	THE WELLS	Post-medieval	Public house	SR97259962
33864	MAIDEN WELLS	Post-medieval	Blacksmith's workshop	SR97359973
33866	ROSE LODGE	Post-medieval	Earlier C19 lodge to Orielton estate, near identical to Images Lodge. Roughcast with hipped slate roof and centre squared stone stack. Single storey, double fronted with painted stone hoodmoulds over paired 8-pane windows each side and C20 centre door. **Grade II Listed Building Ref: 6585**	SR96459993
102400	KINGSFOLD	Post-medieval	A roadside cottage and enclosure identified on the Ordnance Survey 1st edition mapping (1874). Recorded as having been demolished with no in situ structural remains during a DAT watching brief in 2011 (WWS January 2012).	SR97829967

Table 1: Known archaeological and historic sites recorded within 500m of the site area recorded on the Dyfed Historic Environment Record (Figure 2)

Figure 1: Site location plan showing the location of Maidenwells.

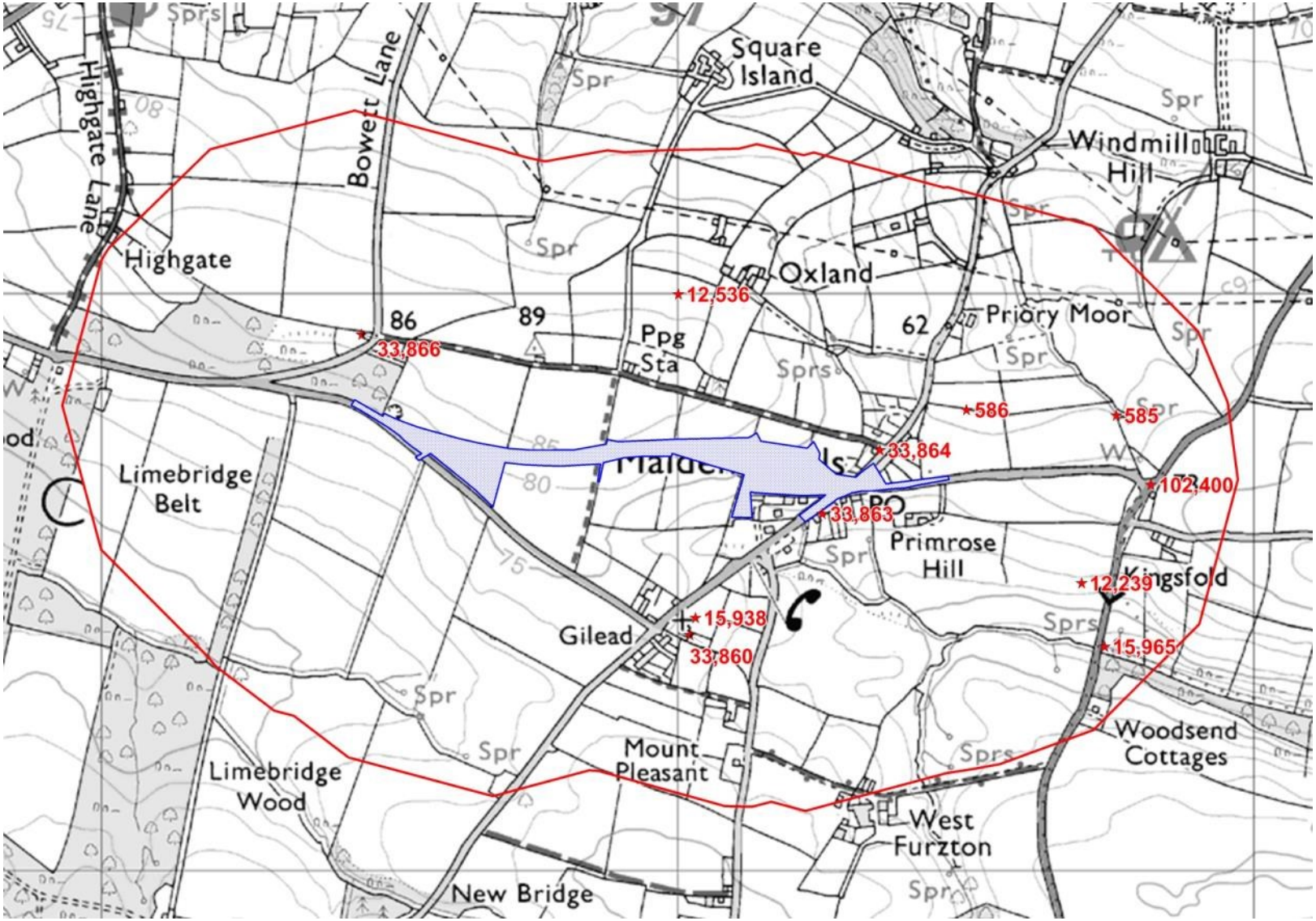

Figure 2: Known sites recorded on the Dyfed HER within 500m of the Maidenwells relief road development area (shaded blue). The sites are listed in Table 1.

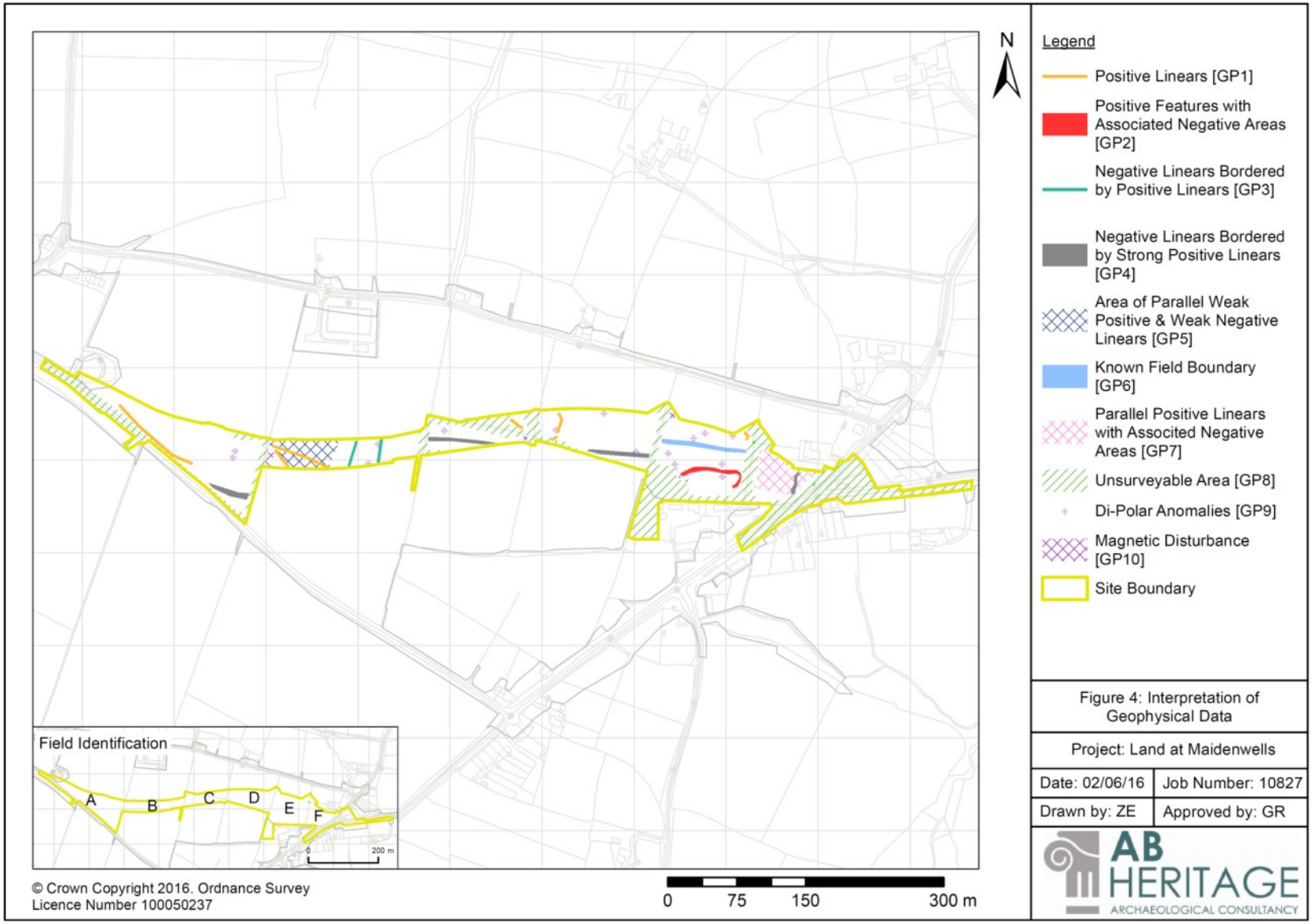

Figure 3: Interpretation of Geophysical Data (supplied by client).

1. WATCHING BRIEF

1.1 The definition of archaeological watching brief, taken from the Chartered Institute for Archaeologists Standards and Guidance: for Archaeological Watching Briefs (CIfA S&G: AWB 2014) is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

1.2 The purpose of a watching brief, as laid down in the CIfA S&G AWB is:

> *to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works;*
>
> *to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment.*

1.3 This document provides a scheme of works for:

Archaeological attendance during topsoil stripping associated with the construction of a new relief road at Maidenwells, Pembrokeshire, which is likely to expose, damage or destroy archaeological remains. Appropriate investigation and recording of any such remains will be undertaken if revealed. A report and archive of the results of the works will be prepared.

2. PROJECT OBJECTIVES

2.1 Provision of a written scheme of investigation to outline the methodology by which DAT Archaeological Services will undertake the archaeological watching brief.

2.2 To monitor ground works in order to identify the presence/absence of any archaeological deposits.

2.3 To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.

2.4 To appropriately investigate and record any archaeological deposits to be affected by the ground works.

2.5 To produce an archive and report of any results.

3. FIELDWORK

3.1 The watching brief would entail an archaeologist being present during the topsoil stripping of the new road corridor where there is a potential for archaeological remains to be exposed, damaged or destroyed.

3.2 It is essential that the topsoil stripping should be undertaken using a flat bladed bucket and preferably in a single direction to enable archaeological remains to be recorded prior to disturbance from being driven over. If archaeological remains are encountered, machine excavation will cease to allow the remains to be investigated further.

3.3 It is vital that coordination between the site contractor's and archaeologist is established at the outset to avoid any potential disturbance to archaeology without an archaeologist being present, or unnecessary visits to the site when works are being carried out that do not require the presence of an archaeologist.

3.4 Adequate time must be made available to the visiting archaeologist to ensure that appropriate recording can be undertaken of any archaeological features or deposits exposed during ground works.

3.5 Recording of all archaeological features or deposits will conform to best current professional practice and be carried out in accordance with the Recording Manual[2] used by DAT Archaeological Services. Significant archaeological features or deposits will be drawn at a suitable scale (no less than 1:20) and photographed in an appropriate format.

3.6 All archaeologically significant finds will be retained and, where possible, related to the contexts from which they derived. Finds will be temporarily stored by DAT Archaeological Services in stable conditions. All finds, except those deemed to be Treasure, will remain the property of the landowner.

3.7 Under the 1996 Treasure Act, "treasure" can be summarised as:

- Any object other than a coin containing at least 10% gold or silver and at least 300 years old;
- Any prehistoric assemblage of base metal;
- Coins found together which contain 10% gold or silver (but no single coins) and groups of at least 10 coins of other metals, provided they are at least 300 years old;
- Any object found associated with treasure except unworked natural objects; and
- Any object which would have been Treasure Trove before the 1996 Act but not covered above.

3.8 In the event that unforeseen archaeological discoveries are made during the development, or that archaeological remains of high significance are exposed, DAT Archaeological Services shall have the power to halt any ground works and shall inform the site agent/project manager and the curatorial officer, and prepare a written statement with plan detailing the archaeological evidence. Following assessment of the archaeological remains by the curatorial officer, DAT Archaeological Services shall, if required, implement on behalf of the Client a contingency scheme for salvage excavation of affected archaeological features. In these instances it would be necessary to employ extra resources to record such features to an appropriate standard. Again this scenario is possible within the area of the former aircraft hangar.

3.9 In the very unlikely event that human remains are encountered, the District Coroner's Office and the Police will be notified immediately. All human remains will, where possible, be left *in situ*. If preservation *in situ* is not possible all statutory permissions will be obtained in writing before removal begins.

[2] ***DAT Archaeological Services have adopted the Recording Manual developed by English Heritage Centre for Archaeology. A copy will be available on-site for inspection if required.***

4. POST-FIELDWORK REPORTING AND ARCHIVING

4.1 All data recovered during the fieldwork will be collated into a site archive structured in accordance with the specifications in *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2011), and the procedures recommended by the National Monuments Record, Aberystwyth.

4.2 The results of the fieldwork will be assessed in local, regional and wider contexts. The report will include a desk-based research element to ensure that the site is placed within its wider archaeological context. A report that is fully representative of the results of the fieldwork will be prepared and digital and hard copies will be sent to the client for dissemination to all relevant parties.

4.3 A summary of the project results, excluding any confidential information, may be prepared for wider dissemination (e.g. Archaeology in Wales and special interest and period-specific journals).

4.4 The project archive, including all artefacts and ecofacts (excepting those which may be deemed to be Treasure) will be deposited with an appropriate body following agreement with the landowner.

4.5 A copy of the final report will be deposited with the regional HER within six months of the completion of the project.

5. STAFF

5.1 This project will be managed by Fran Murphy, Project Manager DAT Archaeological Services.

5.2 Archaeological attendance during the watching brief will be undertaken by staff drawn from the team of archaeologists employed by DAT Archaeological Services.

6. QUALITY ASSURANCE

6.1 DAT Archaeological Services has considerable experience of undertaking all categories of archaeological fieldwork and always operates to best professional practice; adhering to CIfA guidelines where appropriate. The Trust is a Registered Organisation with CIfA and all staff abide by their code of conduct and adhere to their relevant standards and guidance.

6.2 DAT Archaeological Services operate robust internal monitoring procedures that ensure that the standard of each project is maintained from commencement to completion.

7. MONITORING

7.1 The fieldwork may need to be monitored by the archaeological advisors to the local planning authority and the Head of DAT Archaeological Services, who should be provided access to the site at any time during the watching brief works.

8. HEALTH AND SAFETY

8.1 All DAT Archaeological Services staff are CSCS[3] registered.

8.2 DAT Archaeological Services will carry out a health and safety risk assessment to ensure that all potential risks are minimised.

8.3 All relevant health and safety regulations must be followed.

8.4 All site inductions, H&S procedures and site rules of the site contractor will be made known to DAT Archaeological Services staff prior to them commencing work on-site.

8.5 Safety helmets, safety boots and high visibility vests are to be used by all site personnel as necessary. The site contractors will make all archaeological staff aware of any other PPE[4] that may be required and provide them. Archaeological staff must not enter any area where there is a considered to be a health and safety risk that has not or is not being appropriately mitigated against.

8.6 DAT Archaeological Services staff must ensure that their presence on site is communicated to all relevant site staff, especially machine operators.

[3] *Construction Skills Certification Scheme (Health and Safety Tested)*

[4] *Personal Protection Equipment*

MAIDENWELLS RELIEF ROAD, PEMBROKESHIRE

ARCHAEOLOGICAL WATCHING BRIEF

DYFED ARCHAEOLOGICAL TRUST

RHIF YR ADRODDIAD / REPORT NO. 2017/01
RHIF Y DIGWYLLIAD / EVENT RECORD NO. 110317

Ionawr 2017
January 2017

Paratowyd yr adroddiad hwn gan / This report has been prepared by:

Hubert Wilson

Swydd / Position: **Archaeologist**

Llofnod / Signature ..... Date: 12/01/2017

Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith
This report has been checked and approved by

Fran Murphy

ar ran Ymddiriedolaeth Archaeolegol Dyfed Cyf.
on behalf of Dyfed Archaeological Trust Ltd.

Swydd / Position: **Project Manager DAT Archaeological Services**

Llofnod / Signature Date:31/01/2017

Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau sydd gennych ar gynnwys neu strwythur yr adroddiad hwn

As part of our desire to provide a quality service we would welcome any comments you may have on the content or presentation of this report

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