Report No: 2013R060



# Land off Pollard's Close, Goonhavern, Cornwall

# Findings of a geophysical survey



**Historic Environment Projects** 

## Land off Pollard's Close, Goonhavern, Cornwall

Findings of a geophysical survey

Client	Kier Living	
Report Number	2013R060	
Date 12 September 2013		
Status	Final	
Report author	Adam Sharpe BA MIfA	
Checked by	Dr. Andy Jones	
Approved by	Andrew Young, Projects Team Leader	

Historic Environment Projects Environment Directorate, Cornwall Council Fal Building, County Hall, Treyew Road, Truro, Cornwall, TR1 3AY Tel: (01872) 323603 Email: hes@cornwall.gov.uk Web: www.cornwall.gov.uk

### Acknowledgements

This study was commissioned by Paul Wong of Kier Living and carried out by Historic Environment Projects, Cornwall Council.

The geophysical survey was undertaken by Archaeophysica Ltd.

The Project Manager was Dr. Andy Jones.

The views and recommendations expressed in this report are those of Historic Environment Projects and are presented in good faith on the basis of professional judgement and on information currently available.

#### **Freedom of Information Act**

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.



Historic Environment, Cornwall Council is a Registered Organisation with the Institute for Archaeologists

#### **Cover illustration**

Looking west across the proposed development site

#### © Cornwall Council 2013

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior permission of the publisher.

## Contents

1	Sun	Summary			
2	Intr	2			
	2.1	Project background	2		
	2.2	Aims	2		
	2.3. 2.3. 2.3. 2.3.	Methods 1 Desk-based assessment 2 Fieldwork: survey 3 Fieldwork: photographic recording 4 Fieldwork: geophysical survey 5 Creation of site archive 6 Archive report 7 Archive deposition	3 3 3 3 3 3 4 4		
3	Proj	Project extent			
4	Loca	Location and setting			
5	5 Designations				
	5.1	National	5		
	5.2	Regional/county/local	5		
	5.3	Access	5		
6	Site	Site history			
7	Walkover Survey results		6		
8	Geophysical Survey results		6		
9	9 Recommendations				
10 R		References	8		
	10.1	Primary sources	8		
10.2 Pub		Publications	8		
10.3 Websites		Websites	8		
	11 Project archive				
12	12 Written Scheme of Investigation				

## List of Figures

Fig 1. The location of Goonhavern.

Fig 2. The extent of the survey area at Goonhavern.

*Fig 3.* An extract from John Norden's late 17<sup>th</sup> century map of the hundred of Pyder, showing the location of Goonhavern (circled).

Fig 4. An extract from Joel Gascoyne's 1699 map of Cornwall, showing the location of Goonhavern (circled).

*Fig 5.* An extract from Martyn's mid 18<sup>th</sup> century map of Cornwall, showing the new hamlet of Goonhavern at the conjunction of a developing road network.

*Fig 6. An extract from the circa 1807 OS 1" mapping showing the site at Goonhavern located within an area of unenclosed downland traversed by roads.* 

*Fig 7. An extract from the circa 1840 Perranzabuloe Tithe Map, showing the proposed development site again lying within an area of unenclosed downland.* 

Fig 8. An extract from the 1877 first series OS 25" mapping, showing how the former downland had been parcelled up into fields by this date. Note the conifer depicted on the southern boundary of the proposed development plot.

*Fig 9. An extract from the circa 1907 2<sup>nd</sup> Edition of the OS 25" mapping, showing the recently-constructed railway cutting immediately to the north of the proposed development site.* 

*Fig 10. The proposed development site in 2000, showing how the cutting had been infilled and overbuilt since the closure of the branch line in 1963.* 

*Fig 11. A 2005 Cornwall County Council aerial photograph of the site at Goonhavern, showing it more or less as it appears today.* 

*Fig 12. Historic Landscape Character mapping for the site at Goonhavern, showing how this area is derived from land enclosed during the post-medieval period.* 

Fig 13. Cropmark archaeology recorded from aerial photographs by the National Mapping Programme reveals no features of note in the landscape around the site with the exception of the Scheduled bowl barrow to its south west.

*Fig 14. The site topography, as indicated by the Ordnance Survey 2m interval contour mapping.* 

Fig 15. Looking west across the development site at Goonhavern towards St. Agnes Beacon on the skyline. Note the conifer tree on the hedgeline, which may be that depicted on the OS 1877 25" mapping.

*Fig 16. Looking east along the southern boundary of the site at Goonhavern, showing a cross-section of the substantial earth banks which define its perimeter.* 

*Fig 17.* Looking east along the northern boundary of the site at Goonhavern, showing the blackthorn hedging topping the bank, as well as the backfilled trial trenching.

*Fig 18.* An extract from the plan showing the extent of the proposed Phase 1 development of the site (source StudioArc plan MARC\_023 SL03b).

Fig 19. The geophysics data plot for the Goonhavern site. Several linear features are evident in the data, as well as the notable cluster of dipolar responses at the eastern end of the site.

*Fig 20. The interpreted geophysical data for the site at Goonhavern.* 

## Abbreviations

- HER Cornwall and the Isles of Scilly Historic Environment Record
- HE Historic Environment, Cornwall Council
- OD Ordnance Datum height above mean sea level at Newlyn
- OS Ordnance Survey

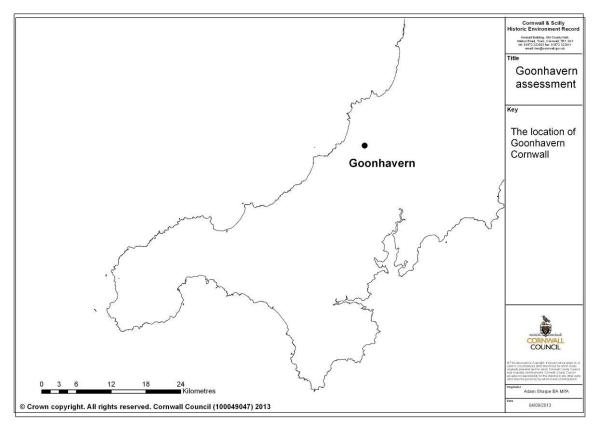


Fig 1. The location of Goonhavern, Cornwall.



Fig 2. The extent of the project area at Goonhavern.

## 1 Summary

Historic Environment Projects were approached by Paul Wong of Kier Living with a request for an assessment of a site proposed for a small housing development on land off Pollard's Close, Goonhavern; the assessment was to consist of a desk based assessment, walkover survey and geophysical survey, and was commissioned on 22July 2013.

The desk based assessment showed that the survey area had been part of a large area of former downland in 1840, though this had been subdivided and improved to fields by 1880. The walkover survey revealed no features of archaeological interest. The magnetometer survey showed up a small range of features including what appears to be a pre-enclosure lane or track running across the site and a cluster of small dipolar features of uncertain origin. The site lies close to that of a cutting associated with a railway branch line constructed between 1903 and 1906, and it is possible that these features relate to activity associated with its excavation, or they may relate to previous undocumented land uses.

A report detailing the findings of the assessment was prepared for the Client.

## 2 Introduction

### 2.1 Project background

Historic Environment Projects were contacted in late July 2013 by Paul Wong of Kier living with a request for the costs of an assessment of the potential impacts of the construction of the first phase of an affordable housing scheme including 25 dwellings to be built in two phases at land off Pollard's Lane, Goonhavern, Perranzabuloe, the site being centred at SW 78654 53576 (Figs 1, 2 and 18).

Planning application number PA13/00217/preapp applies to the proposal, which is currently at pre-application stage.

A brief prepared by Mr. Phil Markham, Historic Environment Planning Advice Officer (West) dated 03/07/2013 sets out the requirements for the determination of the potential impacts of the proposal on the historic environment.

The brief states:

An assessment of the archaeological potential of the site and the potential impacts of the development on surrounding historic assets will be required to provide information in support of a planning application for the proposed development in accordance with the requirements of National Planning Policy Framework paragraph 128.

### 2.2 Aims

As set out in the brief, the desk based assessment and walkover survey aims are to:

- Draw together the historical and archaeological information about the site.
- Review and analyse historic map evidence for the site.
- Inform whether archaeological recording of any extant remains is required.
- Inform whether an archaeological evaluation or further archaeological recording of any potential buried remains is required.
- Inform whether palaeoenvironmental sampling would be required.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- Identify impacts of the current proposals on the 'national importance' of Scheduled Monuments, the 'Outstanding Universal Value of the World Heritage Site' and on undesignated historic assets as described in the NPPF where appropriate.

The archaeological geophysical survey aims are to:

- Undertake an appropriate geophysical survey.
- Produce a report containing the geophysical data and the data in interpreted form.
- Inform whether an archaeological evaluation or further archaeological recording of any potential buried remains is recommended.

The principal project objective is to produce an illustrated report setting out the range of potential impacts of the proposal, the relative significances of the potentially affected sites and suggestions for suitable mitigation measures.

A further objective is to produce an entry to the OASIS on-line index to archaeological projects.

### 2.3 Methods

All recording work will be undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording.* Staff will follow the IfA *Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology.* The Institute for Archaeologists is the professional body for archaeologists working in the UK.

### 2.3.1 Desk-based assessment

A desk-based assessment was carried out to inform the fieldwork stages. This comprised:

- Relevant published sources
- Historic maps, including:
  - John Norden's 17<sup>th</sup> century map of Cornwall
  - Joel Gascoyne's map of Cornwall (1699)
  - Thomas Martyn's map of Cornwall (1748),
  - OS 1 inch survey (c1810)
  - Perranzabuloe Tithe map (c1840),
  - 1<sup>st</sup> and 2<sup>nd</sup> Editions of the OS 25 inch maps (c1880 and c1907)
- Modern maps
- GIS layers curated by Cornwall Council and the Historic Environment, Cornwall Council

### 2.3.2 Fieldwork: survey

As directed by the brief, a walkover survey was undertaken within the environs of the site proposed for the housing development at Land off Pollard's Close, Goonhavern. Sites identified within the desk-based assessment were field checked and their condition noted.

### 2.3.3 Fieldwork: photographic recording

High resolution digital photographs were taken during the walkover survey.

This comprised general views of the site. No recording of individual features was required.

### 2.3.4 Fieldwork: geophysical survey

A specialist geophysical survey contractor was commissioned to undertake a magnetometer survey of the area to be included within Phases I and II of the development site. All survey work was undertaken to nationally recommended standards and was carried out by appropriately qualified field staff. The results of the geophysical survey were made available to Historic Environment Projects in the form of a suitably illustrated summary report, which includes a full description of the methodologies employed during the fieldwork and during any subsequent data processing.

### 2.3.5 Creation of site archive

This included:

- Digital colour photographs stored according to HER guidelines.
- Project materials stored according to HER guidelines.
- Completion of an English Heritage/ADS OASIS online archive entry.

### 2.3.6 Archive report

An archive report (this report) was prepared summarising the findings of the deskbased assessment and surveys, together with summary management recommendations, a summary of the archive contents, a copy of the approved WSI and supporting illustrations.

A paper copy and a digital (PDF) copy of the report, illustrations and any other files will be deposited with in the Cornwall HER. Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres. These will be held back from public access until the planning application for the proposed housing development has been submitted and the information contained within the report will therefore be deemed to be within the public domain.

### 2.3.7 Archive deposition

An index to the site archive was created and the archive contents prepared for long term storage, in accordance with HE standards.

An ordered and integrated site archive was prepared in accordance with Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006 upon completion of the project. As the project produced solely a documentary archive this will be deposited with the Cornwall Record Office as well as the Courtenay Library of the Royal Institution of Cornwall.

A summary of the contents of the archive shall be supplied to the HEPAO.

The archiving comprised the following:

- 1. All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box.
- 2. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.

## **3 Project extent**

The assessment considered any surviving heritage assets (whether above or below ground) within the area proposed for the housing development.

The proposed archaeological assessment was focussed on those heritage assets (whether designated or not) which might be physically impacted upon by activities associated with the construction of the housing development (both phases), including the installation of services and foundations, together with ground reduction activities, including those associated with the creation of roadways, and any other infrastructure. A record of field boundary types was also undertaken.

## 4 Location and setting

The site is situated immediately to the south of the hamlet of Goonhavern and takes the form of a pentagonal agricultural enclosure extending to 10,843 square metres (1.08Ha) centred at SW 78654 53576. The Historic Landscape Character of the land proposed for development is Recently Enclosed Land (Farmland post-Medieval). The site slopes gently from east to west from 70m to 64m OD (Figs 2 and 10-14).

Land off Pollard's Close, Goonhavern: report on findings of geophysical survey

## **5** Designations

### 5.1 National

No national designations apply to the development site.

### 5.2 Regional/county/local

No county, regional or local designations apply to the site.

### 5.3 Access

Footpath 315/85/1 (Gold) traverses the extreme western edge of the site.

## 6 Site history

The site is located on the southern fringes of the settlement of Goonhavern just to the south of Perranwell Road, and consists of a polygonal enclosure adjoining open agricultural land to the south and west and modern housing developments to the north and east.

The area making up the development area is recorded as Recently Enclosed Land (farmland post-medieval), an area of the local landscape which would have been unenclosed downland within prehistory and during the medieval period (Fig 12). A rather ploughed down Scheduled bowl barrow (National Monument No 1016164) is sited in a field 217m to the south west of the proposed development site.

Land characterised as REL (farmland post-medieval) can have significant potential for the preservation of upstanding or sub-surface archaeology relating to prehistoric ceremonial. funereal, agricultural or domestic sites, surviving examples being the 20m diameter barrow in the nearby field 217m to the south west, this being Scheduled Monument No 1016164, and a further three barrows 500m to the north of the proposed development site. It is likely that, during prehistory, this area comprised an area of open downland, siting funerary and ceremonial monuments, as well as providing a valuable resource of open grazing and fuel gathering grounds.

The area remained open downland during the Medieval and succeeding post-medieval periods, again providing important unenclosed rough grazing land for the farmers whose settlements fringed this area.

The earliest mapping of the area (Norden and Gascoyne during the late 17<sup>th</sup> century and Martyn during the early mid 18<sup>th</sup> century, Figs 3 to 5) all show the proposed development area as part of a block of unenclosed downland, as does the 1<sup>st</sup> Edition of the Ordnance Survey 1" to a mile mapping dating to the first decade of the 19<sup>th</sup> century (Fig 6) and the Perranzabuloe Tithe Mapping of *circa* 1840 (Fig 7), when the block of land of which this was a part was described as part of Carnkiefs, owned by John Thomas Henry Peters and tenanted by Edmund Reynolds, the plot, described as Croft (rough, unimproved grassland) extending to 94 acres, 3 poles and 19 perches.

By 1877, however, the 1<sup>st</sup> Edition of the Ordnance Survey 25" to a mile County Series mapping (Fig 8), reveals that this downland had been enclosed and was being taken into cultivation, although some areas (for instance the plot immediately to the south of the area proposed for development) were still shown as rough grassland. A single conifer shown on the southern boundary of the plot is in approximately the same position as a mature specimen surviving to this day and may well be the same tree.

By 1907 (Fig 9), the 1<sup>st</sup> Revision of the OS 25" mapping showed that the St. Agnes, Perranporth and Newquay railway branch line had been constructed through the area which was to become Goonhavern, the section immediately to the north of the

development area being in a substantial cutting. The branch line railway was originally opened from Newquay to East Wheal Rose, via Treamble and then Gravel Hill, principally to serve mining traffic. It was subsequently extended and incorporated into the Newquay to Perranporth branch line, the Chasewater to Perranporth section being constructed between 1903 and 1905. Most of the branch was closed in 1917, and though reopened in 1926, quickly fell into disuse, and although never officially closed, was taken up to some degree after World War 2, being finally formally abandoned during the Beeching cuts in February 1963. As can be seen from the Cornwall County Council aerial photographs dating to *circa* 2000 and 2005 (Figs 10 and 11), this cutting has been completely infilled and its site is now occupied by a modern housing development. It is possible that some of the features showing on the geophysical survey (see below) relate to railway construction activities between 1903 and 1905.

## 7 Walkover Survey results

The walkover survey was undertaken on 03 September 2013, the weather being clear and cloudless. The site was accessed through a small hedge breach at the western end of Pollard's Close. The site was in relatively short grass at the time of survey, with some sparse reed clumps indicating damper areas of the field. There was a slight break of slope about half way along the field, where the ground dropped towards the north western corner. This appeared to be a topographical feature. No archaeological earthworks were observed. The field had been trial trenched around most of its periphery (Fig 17); although these trenches had been backfilled, the fill material had not been adequately consolidated, and some subsidence of the fills had occurred. The remnant upcast material was notably stony, the majority of this material being small pieces of quartz in a pale brown matrix. No artefacts were identified within the exposed fill material.

The boundaries of the plot were mainly un-faced earth banks 1.1m high and 1.5m wide (Fig 16), though the western boundary consisted of a 1.1m high and 1.5m wide stone faced earth wall (Cornish Hedge). This was generally topped with blackthorn to 3.0m high, though the southern hedge also supported a mature oak tree and a mature conifer (Fig 15). Parts of the original northern hedgeline had been removed and now consist of overgrown garden fences adjacent to the existing housing beyond this boundary. A power line crosses the field from north to south at around its mid point. Views out of the site were largely closed in by the hedges and the adjacent houses to the north and east, though glimpses of St. Agnes Beacon were available out towards the west (Fig 15).

There are three existing entrances into the field, these being sited in the western end of the southern boundary, the southern end of the western boundary and the western end of the northern boundary. All have relatively recently been opened up to between 3.5m and 4.5m in width to allow vehicular access and any original gateposts have been removed. That in the north western corner of the plot gave onto a public footpath leading out towards the adjacent main road.

## 8 Geophysical Survey results

See Figure 20 and associated table.

The geophysical survey was undertaken on 09 August 2013 and the report containing the processed results were received by HE Projects on 04 September 2013.

The report concluded that the survey revealed a number of features of possible archaeological interest. These included probable parallel ditch fills [2] and [3], spaced approximately 6.0m apart. These, together with a band of anomalously magnetic ground [1] of the same width to their west were interpreted as possibly having defined a lane or track crossing the site from west to east. A 4.0 to 5.0m wide band of elevated

magnetic gradient to the north of these features and approximately parallel to them may be a related feature and possibly represent a former land division, or may have a natural origin. It may be cut by a reduced gradient linear feature [6] at its eastern end.

Two further short possible ditch fills at the eastern end of the site [7] and [8] may also hint at former enclosure boundaries, but both are narrow and do not appear t be directly related to one another.

Feature [4] consists of an area of possible disturbed ground, or a spread of moderately magnetic debris of unknown origin, whilst a spread of strongly dipolar anomalies at the eastern end of the site [9] was interpreted as being most likely related to debris associated with activities associate with the western buildings within the nearby Pollard's Close.

None of these features were considered likely to be of particular archaeological significance.

## 9 Recommendations

Neither the walkover survey nor the geophysical survey revealed any archaeological features which would require site re-design to mitigate potential impacts on them.

However, it is possible that small archaeological features, such as pits and postholes might not have been detected and the HEPAO retains the option to require further determination of the features revealed by the geophysical survey. This might be achieved ether through evaluative trenching in advance of development, or through an archaeological watching brief during associated groundworks.

## **10** References

### **10.1 Primary sources**

John Norden's late 17th century map of Cornwall

Joel Gascoyne's 1699 map of Cornwall

Martyn's mid 18<sup>th</sup> century map of Cornwall

Ordnance Survey, c1880. 25 Inch Map First Edition (licensed digital copy at HE)

Ordnance Survey, c1907. 25 Inch Map Second Edition (licensed digital copy at HE)

Ordnance Survey, 2007. Mastermap Digital Mapping

Tithe Map and Apportionment, c1840. Parish of Perranzabuloe (digital copy available to HE Projects)

### **10.2** Publications

St. John Thomas, D. 1960, A regional history of the railways of Great Britain, Vol. 1: The West Country, Newton Abbot

### 10.3 Websites

http://www.heritagegateway.org.uk/gateway/ English Heritage's online database of Sites and Monuments Records, and Listed Buildings

## **11 Project archive**

The HE project number is 146300

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY. The contents of this archive are as listed below:

- 1. A project file containing site records and notes, project correspondence and administration.
- 2. Digital photographs stored in the directory ...\Images\Sites\Sites E\_H\Goonhavern geophysical survey
- 3. English Heritage/ADS OASIS online reference: cornwall2-159006

This report text is held in digital form as: ..\HE Projects\Sites\Sites G\Goonhavern geophysical survey\Land off Pollards Close Goonhavern.doc

## **12 Written Scheme of Investigation**

# Historic Environment Projects, Cornwall Council



## Land off Pollard's Close, Goonhavern, Perranzabuloe, proposed affordable housing scheme: Written Scheme of Investigation for archaeological assessment and geophysical survey

Client:	Kier Living
Client contact:	Paul Wong
Client tel:	+44 (0)1392 261770
Client email:	Paul.Wong@kier.co.uk

## Project background

Historic Environment Projects were contacted in late July 2013 by Paul Wong of Kier living with a request for the costs of an assessment of the potential impacts of the construction of the first phase of an affordable housing scheme at land off Pollard's Lane, Goonhavern, Perranzabuloe, the site being centred at SW 78654 53576.

Planning application number PA13/00217/preapp applies to the proposal, which is currently at pre-application stage.

A brief prepared by Mr. Phil Markham, Historic Environment Planning Advice Officer (West) dated 03/07/2013 sets out the requirements for the determination of the potential impacts of the proposal on the historic environment.

The brief states:

An assessment of the archaeological potential of the site and the potential impacts of the development on surrounding historic assets will be required to provide information in support of a planning application for the proposed development in accordance with the requirements of National Planning Policy Framework paragraph 128.

## Site history

The site is located on the southern fringes of the settlement of Goonhavern just to the south of Perranwell Road, and consists of a polygonal enclosure adjoining open agricultural land to the south and west and modern housing developments to the north and east.

The area making up the development area is recorded as Recently Enclosed Land (farmland post-medieval), an area of the local landscape which would have been unenclosed downland within prehistory and during the medieval period. A rather ploughed down Scheduled bowl barrow (National Monument No 1016164) is sited in a field 217m to the south west of the proposed development site.

Land characterised as REL (farmland post-medieval) can have significant potential for the preservation of upstanding or sub-surface archaeology relating to prehistoric ceremonial. funereal, agricultural or domestic sites, surviving examples being the barrow in the nearby field and a further three barrows 500m to the north of the proposed development site.

## **Project extent**

The assessment will consider any surviving heritage assets (whether above or below ground) within the area proposed for the housing development.

The proposed archaeological assessment will be focussed on those heritage assets (whether designated or not) which might be physically impacted upon by activities associated with the construction of the housing development (both phases), including the installation of services and foundations, together with ground reduction activities, including those associated with the creation of roadways, and any other infrastructure.

### Aims and objectives

As set out in the brief, the desk based assessment and walkover survey aims are to:

- Draw together the historical and archaeological information about the site.
- Review and analyse historic map evidence for the site.
- Inform whether archaeological recording of any extant remains is required.
- Inform whether an archaeological evaluation or further archaeological recording of any potential buried remains is required.
- Inform whether palaeoenvironmental sampling would be required.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- Identify impacts of the current proposals on the 'national importance' of Scheduled Monuments, the 'Outstanding Universal Value of the World Heritage Site' and on undesignated historic assets as described in the NPPF where appropriate.

The archaeological geophysical survey aims are to:

- Undertake an appropriate geophysical survey
- Produce a report containing the geophysical data and the data in interpreted form
- Inform whether an archaeological evaluation or further archaeological recording of any potential buried remains is recommended.

The principal project objective is to produce an illustrated report setting out the range of potential impacts of the proposal, the relative significances of the potentially affected sites and suggestions for suitable mitigation measures.

A further objective is to produce an entry to the OASIS on-line index to archaeological projects.

## Working methods

All recording work will be undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording.* Staff will follow the IfA *Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology.* The Institute for Archaeologists is the professional body for archaeologists working in the UK.

### Desk-based assessment

A desk-based assessment will be carried out to inform the fieldwork stages. This will comprise:

- Relevant published sources
- Historic maps, including:
  - Joel Gascoyne's map of Cornwall (1699)
  - Thomas Martyn's map of Cornwall (1748),
  - OS 1 inch survey (c1810)
  - Perranzabuloe Tithe map (c1840),
  - 1<sup>st</sup> and 2<sup>nd</sup> Editions of the OS 25 inch maps (c1880 and c1907)
- Modern maps
- GIS layers curated by Cornwall Council and the Historic Environment, Cornwall Council

#### Fieldwork: survey

As directed by the brief, a walkover survey will be undertaken within the environs of the site proposed for the housing development at Land off Pollard's Close, Goonhavern. Sites identified within the desk-based assessment will be field checked and their condition noted. Unrecorded sites identified during the walkover survey will be located using a hand-held GPS unit and will be added to a base map generated during the desk based assessment. Areas of archaeological sensitivity will be identified during the walk over survey.

### Fieldwork: photographic recording

High resolution digital photographs will be taken during the walkover survey.

The photo record will comprise:

- general views
- examples of archaeological detail

The methodology for the photography is set out as follows:

- Photographs of details will be taken with lenses of appropriate focal length
- A tripod will be used to take advantage of natural light and slower exposures
- Difficulties of back-lighting will be dealt with where necessary by balancing the lighting by the use of flash

#### Fieldwork: geophysical survey

A specialist geophysical survey contractor will be commissioned to undertake a magnetometer survey of the area to be included within Phases I and II of the development site. All survey work will be undertaken to nationally recommended standards and will be carried out by appropriately qualified field staff. The results of the geophysical survey will be made available to Historic Environment Projects in the form of a suitably illustrated summary report, which will include a full description of the methodologies employed during the fieldwork and during any subsequent data processing.

### Creation of site archive

This will include:

- Digital colour photographs stored according to HER guidelines
- Project materials stored according to HER guidelines

• Completion of an English Heritage/ADS OASIS online archive entry.

### Archive report

The written report will include:

- A concise non-technical summary of the project results;
- Relevant background information relating to the site;
- The aims and methods adopted in the course of the investigation;
- A discussion of the archaeological findings setting out a brief background history to the project area, together with a summary of the findings of the geophysical and walkover surveys.
- Summary management recommendations based on the findings of the various survey components to inform whether any archaeological evaluation of potential buried remains is recommended, whether some degree of site redesign might be required to avoid damage to significant sub-surface archaeology, whether an archaeological watching brief during construction would be suitable, or whether more detailed archaeological excavation might be required in advance of development.;
- A location map and a plan showing those areas examined as part of the archaeological recording. All plans shall be tied to the national grid;
- A summary of the archive contents;
- References;
- A copy of the approved WSI will be included as an appendix;
- Supporting illustrations: location map, historic maps, viewshed mapping, photographs.

A paper copy and a digital (PDF) copy of the report, illustrations and any other files will be deposited with in the Cornwall HER. Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres. These will be held back from public access until the planning application for the proposed housing development has been submitted and the information contained within the report will therefore be deemed to be within the public domain.

### Archive deposition

An index to the site archive will be created and the archive contents prepared for long term storage, in accordance with HE standards.

An ordered and integrated site archive will be prepared in accordance with Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006 upon completion of the project. As the project is likely to produce solely a documentary archive this will be deposited with the Cornwall Record Office as well as the Courtenay Library of the Royal Institution of Cornwall.

A summary of the contents of the archive shall be supplied to the HEPAO.

The archiving will comprise the following:

- 3. All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box.
- 4. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.

## Timetable

The study is anticipated to be commenced during summer 2013. HE Projects will require at least two weeks notice before commencement of work, in order to arrange field staff time and arrange other logistics.

The archive report will be completed within 3 months of the end of the fieldwork. The deposition of the archive will be completed within 3 months of the completion of the archive report.

## **Monitoring and Signing Off Condition**

Monitoring of the project will be carried out by Phil Markham, Historic Environment Planning Advice Officer. Where the Historic Environment Planning Advice Officer is satisfied with the archive report and the deposition of the archive written discharge of the planning condition will be expected from the local planning authority (LPA).

Monitoring points during the study will include:

- Approval of the WSI
- Notification of commencement of fieldwork
- Completion of archive report
- Deposition of the archive

## **Historic Environment Projects**

Historic Environment Projects is the contracting arm of Historic Environment, Cornwall Council (HE). HE employs some 20 project staff with a broad range of expertise, undertaking around 100 projects each year.

HE is committed to conserving and enhancing the distinctiveness of the historic environment and heritage of Cornwall and the Isles of Scilly by providing clients with a number of services including:

- Conservation works to sites and monuments
- Conservation surveys and management plans
- Historic landscape characterisation
- Town surveys for conservation and regeneration
- Historic building surveys and analysis
- Maritime and coastal zone assessments
- Air photo mapping
- Excavations and watching briefs
- Assessments and evaluations
- Post-excavation analysis and publication
- Outreach: exhibitions, publication, presentations

### Standards



HE is a Registered Organisation with the Institute for Archaeologists and follows their Standards and Code of Conduct.

As part of Cornwall Council, the HES has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

### Terms and conditions

### Contract

HE Projects is part of Historic Environment, Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

The views and recommendations expressed will be those of the HE projects team and will be presented in good faith on the basis of professional judgement and on information currently available.

#### **Project staff**

The project will be managed by a nominated Senior Archaeologist (Adam Sharpe BA MIfA) who will:

- Discuss and agree the detailed objectives and programme of each stage of the project with the client and the field officer, including arrangements for health and safety.
- Monitor progress and results for each stage.
- Edit the project report.
- Liaise with the client regarding the budget and related issues.
- Provide background information to the geophysical survey contractor.

Work will be carried out by suitably qualified and experienced HE Projects staff.

#### **Report distribution**

Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

A digital copy of the report, illustrations and any other files will be held in the Cornwall HER and also supplied to the client on CD or other suitable media.

#### Copyright

Copyright of all material gathered as a result of the project will be reserved to the Historic Environment, Cornwall Council. Existing copyrights of external sources will be acknowledged where required.

Use of the material will be granted to the client.

#### **Freedom of Information Act**

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

HE will ensure that all information arising from the project shall be held in strict confidence to the extent permitted under the Act. However, the Act permits information to be released under a public right of access (a "Request"). If such a Request is received HE may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

#### Health and safety statement

HE follows the Council's *Statement of Safety Policy*. For more specific policy and guidelines HE uses the manual *Health and Safety in Field Archaeology* (2002) endorsed by the Standing Conference of Archaeological Unit Managers and also the Council for

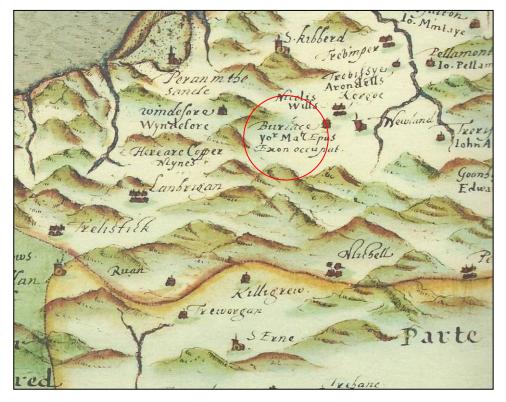
British Archaeology's Handbook No. 6 Safety in Archaeological Field Work (1989).

Prior to carrying out on-site work HE will carry out a Risk Assessment.

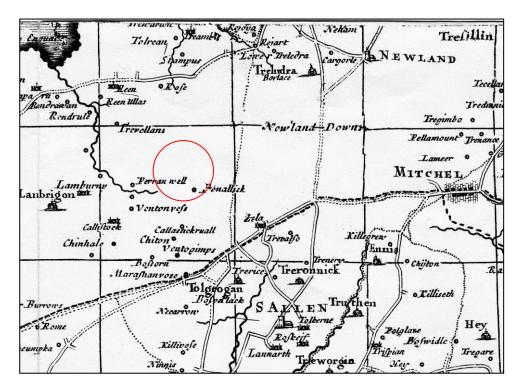
### Insurance

As part of Cornwall Council, HE is covered by Public and Employers Liability Insurance.

Adam Sharpe BA MIFA Senior Archaeologist 22 July 2013 Historic Environment Projects, Kennall Building, Old County Hall, Station Road, Truro, Cornwall. TR1 3AY Tel: 01872 323603, Mob: 07968 892146; Fax: 01872 323811 Email: asharpe@cornwall.gov.uk



*Fig 3.* An extract from John Norden's late 17<sup>th</sup> century map of the hundred of Pyder, showing the location of Goonhavern (circled).



*Fig 4. An extract from Joel Gascoyne's 1699 map of Cornwall, showing the location of Goonhavern (circled).* 

Land off Pollard's Close, Goonhavern: report on findings of geophysical survey

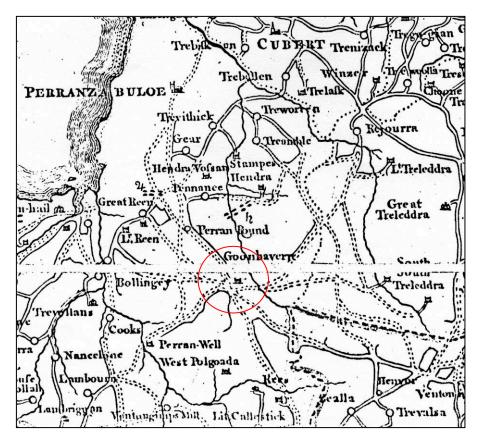


Fig 5. An extract from Martyn's mid 18<sup>th</sup> century map of Cornwall, showing the new hamlet of Goonhavern at the conjunction of a developing road network.

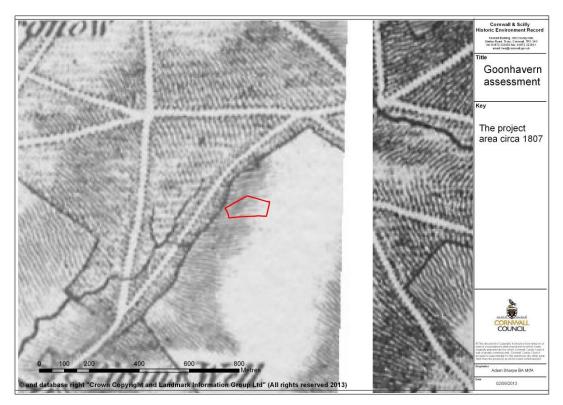
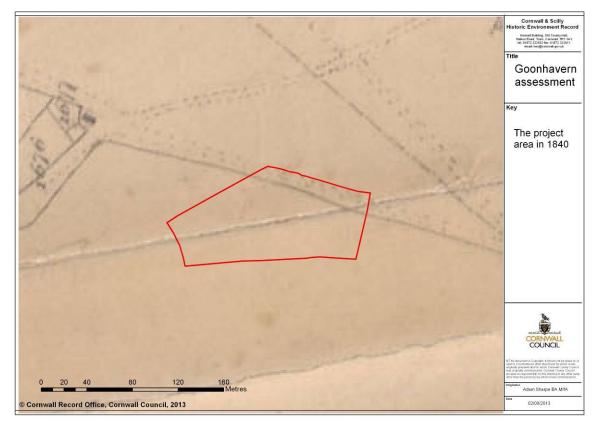


Fig 6. An extract from the circa 1807 OS 1" mapping showing the site at Goonhavern located within an area of unenclosed downland traversed by roads.



*Fig 7. An extract from the circa 1840 Perranzabuloe Tithe Map, showing the proposed development site again lying within an area of unenclosed downland.* 

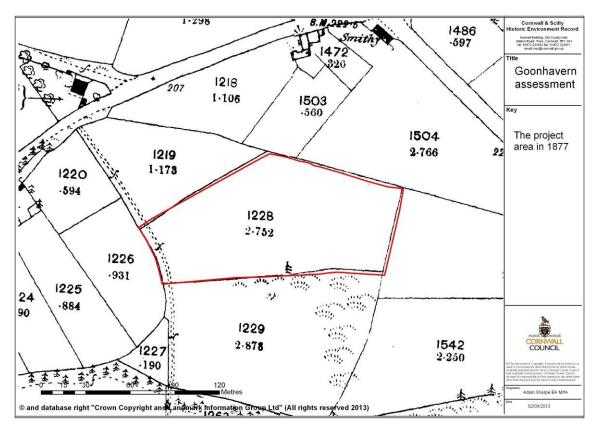


Fig 8. An extract from the 1877 first series OS 25" mapping, showing how the former downland had been parcelled up into fields by this date. Note the conifer depicted on the southern boundary of the proposed development plot.

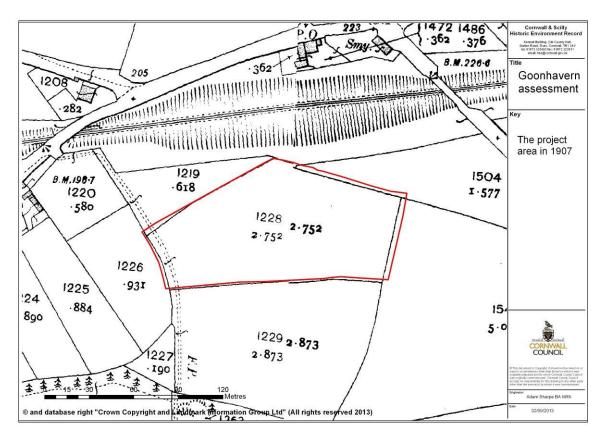


Fig 9. An extract from the circa 1907 2<sup>nd</sup> Edition of the OS 25" mapping, showing the recently-constructed railway cutting immediately to the north of the proposed development site.



*Fig 10. The proposed development site in 2000, showing how the cutting had been infilled and overbuilt since the closure of the branch line in 1963.* 



*Fig 11. A 2005 Cornwall County Council aerial photograph of the site at Goonhavern, showing it more or less as it appears today.* 



Fig 12. Historic Landscape Character mapping for the site at Goonhavern, showing how this area is derived from land enclosed during the post-medieval period.

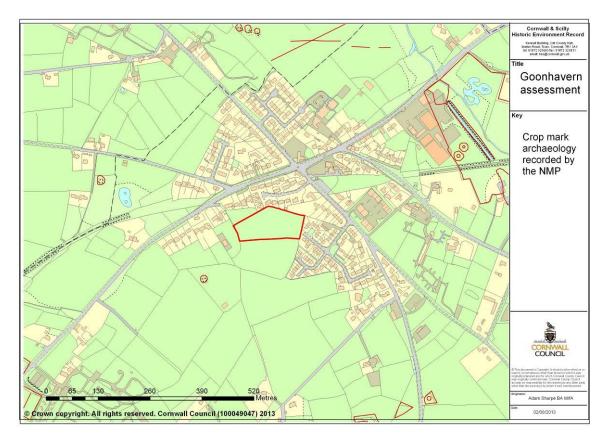


Fig 13. Cropmark archaeology recorded from aerial photographs by the National Mapping Programme reveals no features of note in the landscape around the site with the exception of the Scheduled bowl barrow to its south west.



*Fig 14. The site topography, as indicated by the Ordnance Survey 2m interval contour mapping.* 



*Fig 15. Looking west across the development site at Goonhavern towards St. Agnes Beacon on the skyline. Note the conifer tree on the hedgeline, which may be that depicted on the OS 1877 25" mapping.* 



*Fig 16. Looking east along the southern boundary of the site at Goonhavern, showing a cross-section of the substantial earth banks which define its perimeter.* 

Land off Pollard's Close, Goonhavern: report on findings of geophysical survey



*Fig 17. Looking east along the northern boundary of the site at Goonhavern, showing the blackthorn hedging topping the bank, as well as the backfilled trial trenching.* 



*Fig 18.* An extract from the plan showing the extent of the proposed Phase 1 development of the site (source StudioArc plan MARC\_023 SL03b).

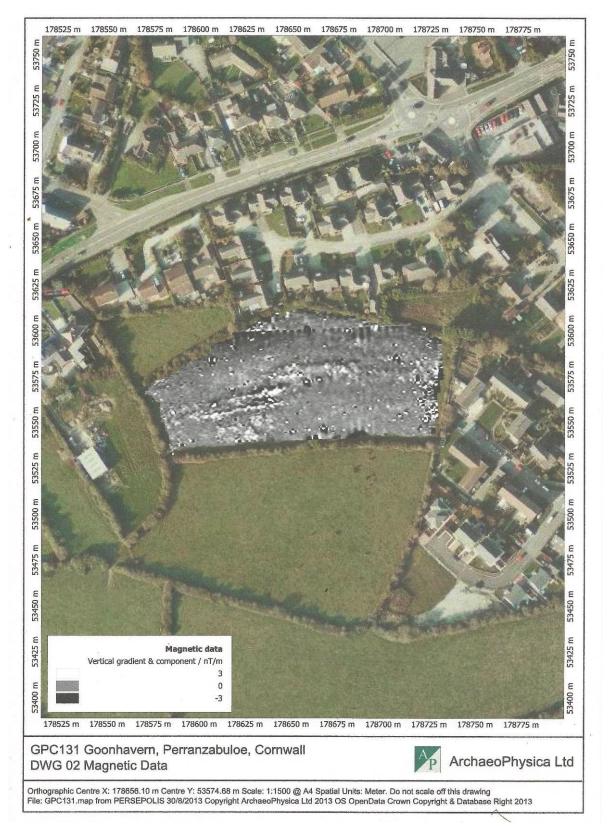
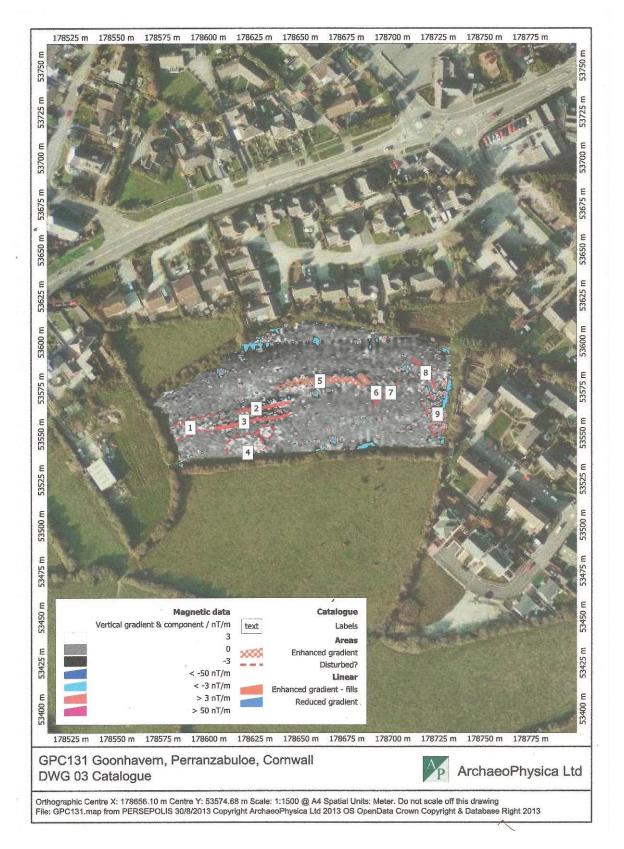


Fig 19. The geophysics data plot for the Goonhavern site. Several linear features are evident in the data, as well as the notable cluster of dipolar responses at the eastern end of the site.



*Fig 20. The interpreted geophysical data for the site at Goonhavern. See the associated table (below) for details of the numbered features.* 

GPC131 Goonhavern, Perranzabuloe, Cornwall AP GPC131 Report Text.odt © ArchaeoPhysica Ltd 2013 Page 4

Ap

### 4 Catalogue

Label	Anomaly Type	Feature Type	Description	Easting	Northing
1	Variable dipolar gradient	Disturbed ground?	Uncertain origin but in association with [2] and [3] it continues a strong east - west trend westwards and might hint at a former continuation of the two possible ditch fills	178589.9	53553.1
2	Linear enhanced dipolar	Fill - Ditch?	A possible debris-filled ditch up to 1.5m wide, one of a pair with [3] about 6m away and perhaps originally flanking a track although not visible part of the extant or any earlier field system	178625.9	53563.5
3	Linear enhanced dipolar	Fill - Ditch?	See [2]; this example appears to be less magnetic but otherwise identical	178619.1	53556.4
4	Variable dipolar gradient	Disturbed ground? / Natural?	The discrete nature of this area of differently magnetic ground might hint at something having been here in the past that has either disturbed the ground or left a spread of moderately magnetic debris although what this might have been is not evident	178621.1	53539.7
5	Area enhanced gradient	Fill - Natural?	Possible former field boundary, alternatively a band of deeper soil that might have a natural or an artificial origin	178660.4	53578.6
6	Linear reduced gradient	Fill / natural?	Path, drain? Uncertain	178691.0	53572.2
7	Linear enhanced dipolar	Fill - Ditch? / natural?	Possible narrow (< 1m) wide gully fill, uncertain interpretation although the anomaly is clear	178698.9	53572.2
8	Linear enhanced dipolar	Fill - Ditch?	See [7]	178718.0	53583.0
9	Strongly variable dipolar gradient	Debris	A spread of debris apparently associated with buildings along the east edge of the site	178724.3	53560.3

*Geophysical survey feature catalogue, to be read in conjunction with Figure 20.*