

Archaeology Wales

St David's Lifeboat Station St David's, Pembrokeshire

Geophysical Survey



By

Chris E Smith BA (Hons) MA MIFA

Report No. 1143

Archaeology Wales

St David's Lifeboat Station St David's, Pembrokeshire

Geophysical Survey

Prepared For:

Royal Haskoning DHV

Edited by:

Signed:

Position:

Date:

Authorised by:

Signed:

Position:

Date:

By

Chris E Smith BA (Hons) MA MIFA

Report No: 1143

Date: **July 2013**

Contents

Non-technical summary	1
1 Introduction	1
1.1 Introduction and scope of work	1
1.2 Geology and topography	1
1.3 Archaeological and Historical Background	1
2 Aims and Objectives	2
2.1 Geophysical Survey	2
3 Methodology	2
3.1 Geophysical Survey	2
3.2 Data Processing and Presentation	3
4 Geophysical Survey Results	3
4.1 Soils and Ground Conditions	3
4.2 Grids	3
4.3 Survey results	3
4.4 Geophysical Survey Summary	3
5 Discussion and Interpretation	3
5.1 Overall interpretation & Archaeological Potential	3
5.2 Recommendations	4
6 Acknowledgements	4
7 Bibliography and references	4

Appendix 1 – Figures

Appendix 2 – Specification

Appendix 3 – Archive Cover Sheet

Figure 1	Location map
Figure 2	Site location plan
Figure 3	Geophysical survey results
Figure 4	Survey results overlaid on site plan

Copyright Notice:

Archaeology Wales Ltd. retain copyright of this report under the Copyright, Designs and Patents Act, 1988, and have granted a licence to Royal Haskoning DHV to use and reproduce the material contained within.

The Ordnance Survey has granted Archaeology Wales Ltd a Copyright Licence (No. AL 52163A0001) to reproduce map information; Copyright remains otherwise with the Ordnance Survey.

Non-Technical Summary

This report results from work undertaken by Archaeology Wales Ltd (AW) for Royal Haskoning DHV. It draws upon the results gained by a geophysical survey on land above the proposed St David's RNLi Lifeboat Station as part of the submission of a planning application (NP 13/007) for the construction of a new lifeboat station with associated access and infrastructure. The geophysical survey, carried out using a Bartington 601 magnetometer, revealed no features of archaeological significance within the survey areas.

1. Introduction

1.1 Location and scope of work

- 1.1.1 In June 2013 Archaeology Wales Ltd (AW) carried out a geophysical survey on land above the site of a proposed new lifeboat station at St David's, Pembrokeshire, at the request of their client, Royal Haskoning DHV. The site is located at NGR SM 7229 2513 (Figs 1&2).
- 1.1.2 The archaeological work was recommended by Dyfed Archaeological Trust – Heritage Management (DAT-HM) and a brief for the work was provided by Royal Haskoning DHV based on a brief provided by DAT-HM.
- 1.1.3 In response to this a Specification was produced on behalf of Royal Haskoning DHV by Chris E Smith of AW, detailing the methodology proposed for undertaking the work. Subsequently this was approved by DAT-HM. The planning application reference no. is NP 13/007.
- 1.1.4 Previous archaeological work undertaken in relation to the scheme includes a desk based assessment produced by Cambrian Archaeological Projects Ltd in 2003 ('St. Justinian's Lifeboat Station, St David's: Archaeological Impact Assessment', CAP Report No: 257).

1.2 Geology and topography

- 1.2.1 The underlying solid geology of the area is comprised of undifferentiated Lower Cambrian Rocks, including mudstone, siltstone and sandstone, of Early Cambrian age (Geological Survey Map, 2001).
- 1.2.2 The site is located on and immediately above the cliffs at St Justinian some 2.5km to the west of St David's at a height of between 29 and 31m above Ordnance Datum. The cliff top landscape surrounding the site is primarily composed of agricultural grazing land.

1.3 Archaeological and Historical Background

- 1.3.1 The site and its immediately surrounding area has been the subject of a desk based assessment by Cambrian Archaeological Projects Ltd (CAP Report No. 257) (Fig 2).

2. Aims and Objectives

2.1 Geophysical Survey

2.1.1 The geophysical survey was undertaken to:

- To assess the presence/absence of subterranean archaeological remains within the assessment area (Fig 2).
- To determine the extent and location of any archaeological remains present.
- To inform the approach to any possible trench locations, should an evaluation phase be deemed necessary.

3. Methodology

3.1 Geophysical Survey

3.1.1 A single Bartington 601 Magnetometer was used to undertake the survey. Previous research has shown that fired, or cut and backfilled, archaeological features such as kilns and hearths, ditches and pits often have an anomalously higher magnetic susceptibility than the surrounding subsoil due to burning and biological processes. Differences in magnetic susceptibility within the subsoil and archaeological features can be detected as changing magnetic flux by an instrument such as a magnetometer. Data from this may be mapped at closely spaced regular intervals, to produce an image that may be interpreted to locate buried archaeological features (Clarke 1990).

3.1.2 Detailed surveys were carried out in grids of 30m x 30m along parallel traverses spaced at 2m intervals, recording 8 data points per 1m covered, to a maximum instrument sensitivity of 0.1nT in accordance with English Heritage Guidelines (EH 2008). The grids were surveyed in the 'zigzag' style (traverses walked alternately south-north/north-south). At regular intervals the data was downloaded to a laptop computer for storage and assessment.

3.1.3 The location of the survey area was then surveyed using a Topcon GTS 725 total station.

3.2 Data Processing and Presentation

3.2.1 Following the completion of the detailed surveys, processing and analysis took place using Terrasurveyor software. The most typical method of visualising the data is as a greyscale image. In a greyscale, each data point is represented as a shade of grey, from black to white at either extremity of the data range. A number of standard operations were carried out to process the data. The magnetometer data was mathematically adjusted to account for instrument drift over time. The mean level of each traverse of data was reduced to zero and all grids matched so that there were no differences between background levels. The data was then analysed using a variety of parameters and styles and the most useful of these were saved as a *JPEG image and manipulated using

Adobe Illustrator software. The results of the survey were then overlaid onto a digital map of the study area. This was then used to produce the interpretation figures.

- 3.2.2 All works were undertaken in accordance with both the IfA's *Standards and Guidance: for a geophysical survey* and current Health and Safety legislation.
- 3.2.3 Site Supervisor Hywel Keen undertook the geophysical survey.

4. Geophysical Survey Results

4.1 Soils and Ground Conditions

- 4.1.1 The survey was undertaken after a period of mixed weather conditions. Thick undergrowth covering areas of the site had to be strimmed prior to the survey being undertaken.
- 4.1.2 A large area in the south east of the plot was un-surveyed due to the presence of orchids which meant the undergrowth here could not be cut back.
- 4.1.3 The field in the north west of the plot could not be fully surveyed because power cables were earthed in the northern area. Additionally, the area currently in use a car park had been stripped of topsoil and gravelled. Field boundaries, metallic gates and telegraph poles were all similarly avoided across the survey area.
- 4.1.3 A smaller area in the south west of the plot remained un-surveyed owing to the presence of a large boulder/stone (PRN48149) on the surface of the field.

4.2 Grids

- 4.2.1 The survey was composed of 15 full and partial grids each measuring 30 x 30m. These were laid out, and their locations recorded, using a total station and datalogger.

4.3 Survey results

- 4.3.1 The survey results (Figs 3-4) appear largely devoid of features readily identifiable as being of archaeological origin.
- 4.3.2 Apart from two small areas showing the results of apparent metal spikes (A&B Fig 3), the plot appears to show variations in the solid underlying geological formations only.

4.4 Geophysical Survey Summary

- 4.4.1 With the exception of two anomalous metallic readings, the geophysical survey undertaken at St David's lifeboat station shows only natural geological formations.

5. Discussion and Interpretation

5.1 Overall interpretation & Archaeological Potential

- 5.1.1 The overall interpretation gained from the work carried out is that the soil overlying the solid geology on top of the cliffs at the site is likely to be relatively thin (maximum of around 1m).
- 5.1.2 Within those areas subject to survey, no readily identifiable archaeological features were located by the geophysical survey.
- 5.1.3 However, as certain archaeological features can be very ephemeral in nature and, in certain circumstances strong readings from natural geology can serve to mask archaeological features, there remains the potential for archaeology to be located within the area.

5.2 Recommendations

- 5.2.1 Despite the apparent lack of definite and readily identifiable features located by the geophysical survey, there remains the potential for archaeology to exist within the plot. Therefore, intrusive investigation such as a field evaluation is recommended.

6. Acknowledgements

- 6.1.1 Thanks are due to; Hywel Keen for undertaking the survey on-site.

7. Bibliography and references

British Geological Survey, 2001, *Solid Geology Map, UK South Sheet*, 4th Edition

Clarke, 1990, *Seeing Beneath the Soil*, BT Batsford Ltd

English Heritage. 2008. Geophysical Survey in Archaeological Field Evaluation.
Institute for Archaeologists (IfA). 2011. Standard and Guidance for Archaeological Geophysical Survey

Jones, R S. 2003. St. Justinian's Lifeboat Station, St David's: Archaeological Impact Assessment. CAP Report No: 257

Archaeology Wales

APPENDIX I: Figures

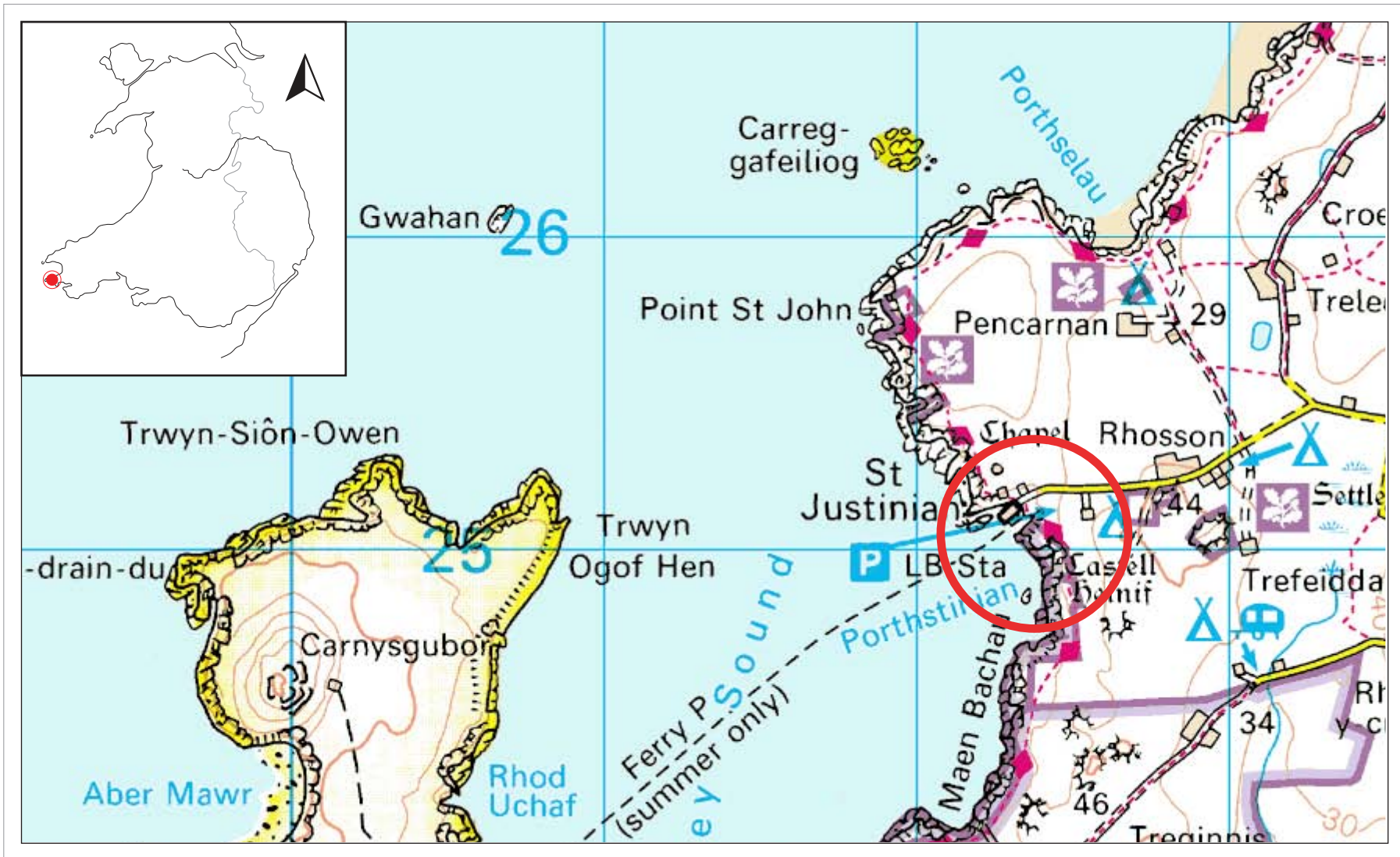


Fig 1: Map showing location of assessment area

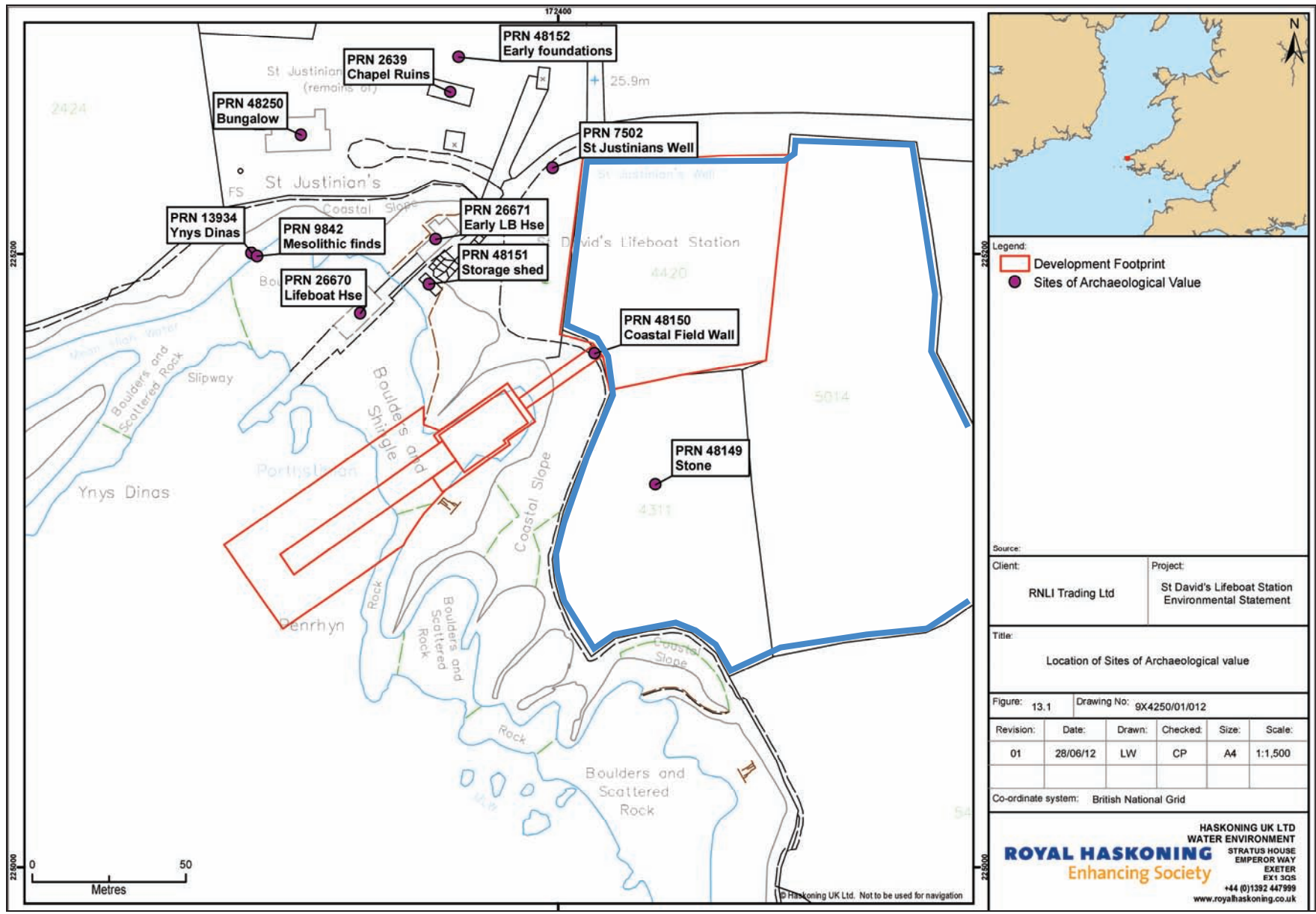
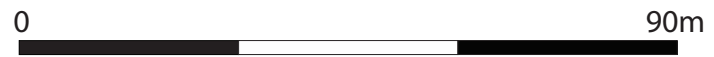
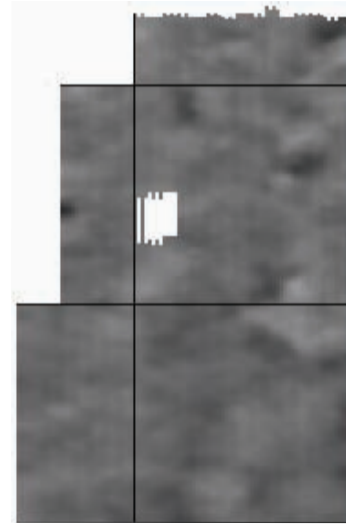
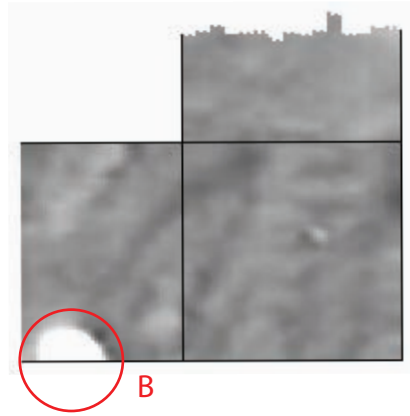
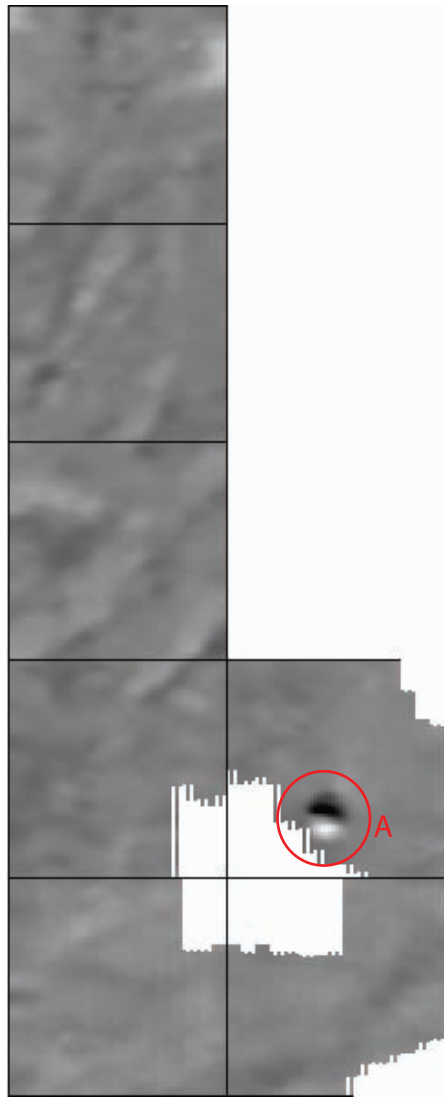


Fig 2: Area bound in blue represents area to be surveyed



Job Title: St David's Lifeboat

Drawing Title: Geophys Results

Date: 4th July 2013

Drawn By: CES

Scale: See Bar

Figure 3:





Fig 4: Geophysical survey results overlaid on site plan

Archaeology Wales

APPENDIX II: Specification

ARCHAEOLOGY WALES LIMITED:

**Written Scheme of Investigations
for Geophysical Survey and Field Evaluation**

at

St David's RNLI Lifeboat Station

**Prepared for:
Royal Haskoning DHV**

May 2013

Archaeology Wales Limited
Rhos Helyg, CwmBelan, Llanidloes, Powys, SY18 6QF
Tel: +44 (0) 1686 440371
Email: admin@arch-wales.co.uk

NON TECHNICAL SUMMARY

This Written Scheme of Investigations details a proposal for a documentary search, a geophysical survey and a field evaluation on land above the proposed St David's RNLi Lifeboat Station, St Justinian's, Pembrokeshire. It has been prepared by Archaeology Wales Ltd for Royal Haskoning DHV who are acting on behalf of the RNLi.

1. Introduction

The proposed development is at St Justinian's, Pembrokeshire (Henceforth – the site). The development proposal has been submitted by Royal Haskoning DHV who are acting on behalf of the RNLi. The local planning authority is Pembrokeshire Coast National Park Authority (PCNPA) and the planning application number is NP 13/0017.

This Written Scheme of Investigations (Specification) has been prepared by Chris E Smith (MIFA), Project Manager, Archaeology Wales Ltd (Henceforth - AW) at the request of Royal Haskoning. It provides information on the methodology which will be employed by AW during the geophysical survey and the field evaluation at the site. Chris will manage all aspects of the proposed work. A copy of his CV is included in Appendix 1.

The archaeological work has been recommended by Dyfed Archaeological Trust – Historic Management (DAT-HM) in its capacity as archaeological adviser to the planning authority. Details of the requirements of this work are set out in a Brief produced by Royal HaskoningDHV ('Brief for an archaeological field evaluation for: St David's RNLi Lifeboat Station'), which is itself based on the Brief produced by DAT-HM on behalf of PCNPA ('Brief for an Archaeological Field Evaluation at St. David's Lifeboat Station, St. Justinian's', April 2013).

Previous archaeological work undertaken in relation to the scheme includes a DBA produced by Cambrian Archaeological Projects Ltd in 2003 ('St. Justinian's Lifeboat Station, St David's: Archaeological Impact Assessment', CAP Report No: 257).

AW is a Registered Organisation with the Institute for Archaeologists (IfA). All work will be undertaken by suitably qualified staff and in accordance with the standards and guidelines of the IfA.

2 Site specific objectives

The proposed archaeological work will elucidate the presence or absence of archaeological material that might be affected by the scheme, in particular its character, distribution, extent, condition, date and relative significance.

A report will be produced that will provide information which is sufficiently detailed to allow informed planning decisions to be made that can safeguard the archaeological resource. This will include:

- i) A predictive model of surviving archaeological deposits detailing zones of relative importance against known development proposals;

ii) An impact assessment;

iii) A comprehensive assessment of regional context within which the archaeological evidence rests and will aim to highlight any relevant research issues within a national and regional research framework.

As a result the following will be formulated:

a) A strategy to mitigate the potential impacts on the historic environment resource as a result of the construction and operation of the proposed lifeboat station;

b) The formulation a strategy to ensure the preservation through recording of the historic environment resource for the construction and operation of the proposed lifeboat station;

c) The formulation of a programme of further archaeological investigation (if required) to fulfil the above.

3 Scope of the work

The archaeological field evaluation will be for the whole of the application area. The work will include the following key elements, which will be carried out sequentially:

Stage 1 - Documentary Search (See Section 4.1 below)

Stage 2 - Geophysical Survey (See Section 4.2 below)

Stage 3 - Intrusive Field Evaluation (See Section 4.3 below)

Stage 4 - Archiving and Reporting (See Section 6 below)

A desk based assessment for the site and the surrounding area was completed in 2003. Stage 1 of the work at St David's RNLI Station will consist of updating the information in this report.

The second stage of work will be undertaken on site. It will consist of a geophysical survey of the assessment area and the fields located immediately to the south and east. It is envisaged that the geophysical survey method will be magnetometry. However, the option of using resistivity will be investigated if magnetometry gives poor results.

The third phase of works will consist of the excavation of field evaluation trenches. The amount and location of trenches will be informed by the results of the geophysical survey work.

An archaeological presence may be required during any construction work though this will depend largely on the results of stages 2 and 3.

4 Methodology

4.1 Stage 1 - Documentary Search

Stage 1 will consist primarily of updating the information contained in the desk based assessment undertaken in 2003. This will comprise searches of the following:

1. the regional HER (Llandeilo)

2. the Portable Antiquities Scheme online database for finds from the surrounding area
3. information held by Cadw and the RCAHMW (Aberystwyth) for potential new Sites and Monuments, listed buildings etc

The updated information will be included within the final report (Stage 4).

4.2 Stage 2 - Geophysical Survey

The area to be surveyed will include the fields located immediately to the south and east of the assessment area.

It is envisaged that the geophysical survey method will be magnetometry. However, initially, a sample area will be surveyed to test the suitability of this method. If magnetometry is felt to be unsuitable, then the same area will be tested using resistivity. The Project Manager, Chris Smith, is an experienced geophysicist, however, specialist advice will be sought from APAC limited (<http://www.apac.ltd.uk/>) if required.

The site will be located by GPS. All survey points will be located with a total station and plotted onto an O.S. base map.

The on-site survey will be undertaken in a single phase lasting approximately 2 days. This will be followed by report production.

The survey will be carried out using a Bartington Grad601 Magnetometer. Each survey area will be divided into 20m square grids along a common alignment.

Within each grid, parallel traverses 1m apart will be walked at rapid pace along the same orientation. Instrument readings will be logged at 0.25m intervals, with an average cycle of 4 using an ST1 internal sample trigger. Incomplete survey lines resulting from irregular area boundaries or obstacles will be completed using the "dummy log" key.

Further survey information will be completed on the relevant pro-forma sheet. All data will be downloaded in the field into a laptop computer. The location of the grid corners will be recorded using a total station so that results can be accurately placed onto an OS map.

A composite of each detailed survey area will be created and processed using the software package *Geoplot V.3*. A variety of processing tools will be used to enhance any potential archaeology. The final results will be presented at an appropriate scale tied to the Ordnance Survey National Grid.

4.3 Stage 3 - Intrusive Field Evaluation

The results of the geophysical survey will determine, after discussion with Royal Haskoning and DAT-HM, both the locations and the amount of evaluation trenches to be excavated. If required, a revised specification for the field evaluation will be drawn up prior to the commencement of trenching. Once the number of trenches required is established, a timetable for the works, including an expected duration, will be drawn up and submitted to both Royal Haskoning and DAT-HM.

Preliminary work

The archaeological project manager in charge of the work will satisfy him/herself that all constraints to ground works have been identified, including the siting of live services, Tree Preservation Orders and public footpaths.

Evaluation

The precise locations and dimensions of the trenches will be agreed with the developer and the curator prior to the commencement of on-site work. The trenches will be excavated initially using a machine fitted with a wide toothless ditching blade. Thereafter all identified archaeological contexts will be excavated manually unless otherwise agreed with the curator in advance. All modern overburden and non-archaeological subsoils will be removed down to the level of the first recognisable archaeological horizon. All archaeological contexts subsequently located must be adequately sampled in order to define their function, date, and relationship to adjacent features.

All trench sides and bases must be cleaned manually by trowelling to reveal contexts in plan and profile. This must be completed even if the trench apparently reveals only natural deposits. Spade or shovel cleaning only of trench bases and sides will not be acceptable. The level of natural soils below the archaeology should be tested for in at least one trench section location in each trench by means of machine/manual excavation or auguring.

Human remains will be left *in situ*, covered and protected when discovered. No further investigation will normally be permitted and DAT-HM and the local Coroner must be informed immediately. After discussion, it may be appropriate to take bone samples for C14 dating. If removal is essential it will take place under the appropriate Ministry of Justice and Environmental Health regulations.

Recording will be carried out using AW recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts.

Written, drawn and photographic records of an appropriate level of detail will be maintained throughout the course of the project. Digital photographs will be taken using cameras with resolutions of 14 mega pixels or above.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required, and these will be related to Ordnance Survey datum and published boundaries where appropriate.

5 Monitoring

DAT-HM will be contacted at least one week prior to the commencement of site works, and subsequently once the work is underway.

Any changes to this Written Scheme of Investigations that AW may wish to make after approval will be communicated to DAT-HM for approval on behalf of Planning Authority.

Representatives of DAT-HM will be given access to the site so that they may monitor the progress of the work. DAT-HM will be kept regularly informed about developments, both during the site works and subsequently during the post-fieldwork programme.

If significant detail is discovered, all works will cease and a meeting will be convened with the client and DAT-HM to discuss the most appropriate way forward.

6 Stage 4 - Archiving and Reporting

Site archive

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 work on site. It will include:

- All site records (fully cross-checked and catalogued)
- Digitised copies of all site plans
- All artefacts (cleaned, marked and catalogued as appropriate)
- All ecofacts (sample processed and catalogued as appropriate)
- An interim or summary report on the above.

A copy of the site archive will be supplied to Royal Haskoning and DAT-HM. The requirements for archive storage will be agreed with the appropriate organisation.

Final reporting

A draft report will be submitted to Royal Haskoning and to DAT-HM for comments within 4 weeks of stages 1-3 being completed.

A full client report of the results of the archaeological work will be prepared within 6 months of the end of the project. Copies of the report will be sent to Royal Haskoning, DAT-HM and for inclusion in the Pembrokeshire Historic Environment Record. Digital copies will also be provided in pdf format.

Terminology will be consistent with the English Heritage Thesaurus.

The client report will contain, as a minimum, the following elements:

- Concise English and Welsh non-technical summary of the results
- Detailed plans of the site
- Site illustrations, related to Ordnance Datum
- Written description
- Artefactual and Ecofactual summaries
- Statement of local and regional context
- Impact assessment with mitigation proposals
- Conclusions as appropriate
- Bibliography
- A copy of the AW Written Scheme of Investigations

A summary of the work will be published in a national journal (i.e. *Archaeology In Wales*) no later than a year after its completion.

Final archive

Although there may be a period during which client confidentiality will be maintained, the report and the final (project) archive will be deposited in the appropriate repository not later than six months after completion of the work. The contents and location of the archive will be agreed with DAT-HM beforehand.

7 Resources and timetable

Standards

The fieldwork will be undertaken by AW staff using current best practice.

Staff

The project will be undertaken by suitably qualified AW staff. Overall management of will be undertaken by Chris E Smith MIFA (see Appendix 1 for a copy of Chris' CV). All staff will have CSCS cards.

Equipment

The project will use existing AW equipment.

Timetable of archaeological works

The work will be undertaken at the convenience of the client. No start date has yet been agreed, however, AW will be able to start at short notice if required.

Suggested timetable:

Stage 1 - Documentary Search

Work will start within 2 days of the award of the contract and be completed within 1 week.

Stage 2 - Geophysical Survey

Work will start 1 week after the award of the contract and be completed by the end of the second week. After this, the results will be submitted to the client and DAT-HM, and a decision reached on the number and location of trenches.

Stage 3 - Intrusive Field Evaluation

Work will start within 2-3 weeks of the award of the contract, depending on the speed of discussions with DAT-HM. Given the size of the area, we would envisage completing all trenching within 4 weeks of the award of the contract.

Stage 4 - Archiving and Reporting

We estimate that an interim report will be submitted to DAT-HM within 5-6 weeks of the award of the contract. Completion of the final report will depend on the amount and degree of any further, specialist, work that DAT-HM may ask for.

Insurance

Archaeology Wales Limited (AW) is an affiliated member of the CBA, and holds Insurance through the CBA insurance service.

Health and safety

All members of staff will adhere to the requirements of the *Health & Safety at Work Act, 1974*, and the AW Health and Safety Policy.

If AW has sole possession of the site, then AW will produce a detailed Risk Assessment for approval by the client before any work is undertaken. If another organisation has responsibility for site safety, then AW employees will be briefed on the contents of all existing Risk Assessments, and all other health and safety requirements that may be in place.

Appendix 1: Christopher Edward Smith, BA (Hons) MA MifA, Curriculum Vitae

Email: chris@arch-wales.co.uk
 Office: 01686 440371
 Home Office: 01547 528047
 Mobile: 07988 815861

EDUCATION

2003 BA (Hons) Archaeology & Prehistory, University of Wales
 2007 MA in Historic Landscape Studies, University of Wales

MEMBERSHIP OF PROFESSIONAL ORGANISATIONS:

Member of the Institute for Archaeologists (MifA)
 Council for British Archaeology (Wales)
 Society for Post Medieval Archaeology
 Society for Landscape Studies
 Society for Clay Pipe Research

EMPLOYMENT HISTORY

Archaeology Wales

Current position: Project Manager
 Date joined company: November 2010

Fieldwork projects include:

- Newport, Pembrokeshire: Archaeological DBA, geophysical survey & trial trenching in advance of a housing development (client: Bentick developments)
- Swansea Castle Courtyard: Archaeological evaluation & excavation undertaken in advance of the construction of a new visitor centre (client: Swansea Council)
- Lon Llanbeblig, Caernarfon, Geophysical survey & evaluation prior to housing development (client: Watkin Jones Homes)
- Lion Street, Brecon: Evaluation and watching brief in advance of a housing development (client: The Heritage Network Ltd.)
- Denbigh Castle, Denbigh: Evaluation, excavation and watching brief work (client: Cadw)
- Prestatyn retail park: Evaluation and watching brief (client: Marshall Construction - West Yorkshire Ltd)

Desk-base studies include:

- Beguildy, Knighton, Powys: Desk-based assessment and evaluation in advance of redevelopment (client: Geraint John Planning Ltd)
- Penarth Weir Newtown: Historical research, DBA and survey prior to proposed changes to the fabric of a scheduled site (client: Robert Owen Renewables Ltd)
- Tyllwyd Farm, Cwmystwyth: DBA, survey and WB in advance of the construction of a scheme for generating hydroelectric power (client: Mr J. Raw)

Surveys include:

- Welsh battlefields survey: Geophysical, topographical, Lidar and metal detector surveys undertaken on 5 potential battlefield sites (client: RCAHMW)
- Battlefield Enterprise Park, Shrewsbury: A metal detector survey and watching brief (client: URS)
- Old School, Garn Road, Blaenavon: Building recording and photographic

survey (client: Mr J. Hardwick)

- Hebron Chapel, Clydach: Building recording prior to conversion of the property (client: Mr D. Owen)

Previous employment

Company: Cambrian Archaeological Projects

Employment period: 2003 to 2010

Major projects include:

- Carno Road, Caersws, Shropshire: evaluation & excavation of a 30m length of Roman road and associated features
- Forden, Montgomeryshire: Geophysical survey & excavation undertaken as part of a community excavation
- Felindre to Tirley Natural Gas Pipeline: pre-development watching briefs, excavations and post-excavation assessment.
- Milford Haven to Aberdulais Natural Gas Pipeline: pre-development excavations and post-excavation assessment
- New Moat, Pembrokeshire: DBA, survey and evaluation undertaken prior to redevelopment
- Highfields Windfarm, Cambridgeshire: evaluation, excavation and post-excavation analysis

CPD AND OTHER RELEVANT QUALIFICATIONS:

- Personal Development Plan and CPD log (maintained as part of IfA scheme of mandatory professional development) details at least 50 hours of CPD for every two year period
- CIEH qualified Risk Assessor
- British Red Cross First Aid qualified
- CSCS qualified site operative
- Lantra Awards 4x4 driving qualified

KEY SKILLS

- Management of fieldwork projects – Extensive experience of managing and directing large-scale projects, including: watching briefs, evaluations, excavations, field surveys and monument condition surveys
- Geophysical and topographical surveys - Proven experience in resistivity, gradiometry, and topographic surveys, plus associated computer data processing
- Health & Safety – preparation of risk assessments and liaising with the AW health & safety officer
- Desk-based studies - Desk-based archaeological studies undertaken include: DBAs, archaeology chapters for EIAs, LVIAs, ASIDOHLs and historic research
- Building recording – Strong track record in undertaking level 2 & level 3 EH surveys, and photographic surveys
- Outreach work – including walkover and metal-detector surveys in conjunction with local societies
- Proven publication record

MAJOR PUBLICATIONS

Smith, C E 2012, *Nant Hall Road Prestatyn: Archaeological Evaluation*, Archaeology Wales Report 1067

Smith, C E 2012, *Moat Lane, Caersws, Powys: Archaeological Watching Brief*, Archaeology Wales Report 1060

Smith, C E 2012, *Land at Beguildy, Knighton, Powys: Archaeological Desk Based Assessment and Site Visit*, Archaeology Wales Report 1044

Smith, C E 2011, *Lion Street, Brecon, Powys: Excavation and Watching Brief*, Archaeology Wales Report 1034

Smith, C E 2011, *Pepper Street, Whitchurch, Shropshire: Desk Based Assessment and Field Evaluation*, Archaeology Wales Report 1013

Smith, C E 2011, *Swansea Castle Courtyard, Swansea: Archaeological Excavation - Interim Report*, Archaeology Wales Report 1011

Smith, C E 2011, *Hebron Chapel, Clydach, Swansea: Building Recording*, Archaeology Wales Report 1008

Smith, C E 2010, *New Moat, Pembrokeshire*, Cambrian Archaeological Projects Report Number 632

Smith, C E 2010, *Llanmerewig Church Burial Ground Extension*, Powys, Cambrian Archaeological Projects Report Number 613

Smith, C E 2010, *Bute Park, North Lodge, Cardiff*, Cambrian Archaeological Projects Report Number 655

Smith, C E 2010, *Highfields Wind Farm, Royston, Cambridgeshire*, Cambrian Archaeological Projects Report Number 617

Smith, C E 2010, *Denbigh Flood Risk Management Scheme*, Cambrian Archaeological Projects Report Number 597

Smith, C E 2010, *Denbigh Castle, Denbigh*, Cambrian Archaeological Projects Report Number 618

Smith, C E 2009, 'Caerphilly Castle', *Archaeology in Wales*. 47, 149

Smith, C E 2009, 'Llanbister Church Stile', *Archaeology in Wales*. 47, 164

Smith, C E 2009, 'Llantwit Major Old Builders Yard', *Archaeology in Wales*. 47, 166

Smith, C E 2009, 'Loughor Cycle Track', *Archaeology in Wales*. 47, 166

Smith C E, 2009, *St. Johns Close, Tretower. An Archaeological Evaluation*, Cambrian Archaeological Projects Report Number No. 555

Smith C E, 2008, *Esgair Cwmowen Wind Farm Project, Desk Based Study, Site Walkover, ASIDOHL2 Assessment and HLVA Study*.

Cambrian Archaeological Projects Report Number No. 549

Archaeology Wales

APPENDIX III: Archive Cover Sheet

ARCHIVE COVER SHEET

St David's Lifeboat Station

Site Name:	St David's Lifeboat
Site Code:	SDL/13/EVA
PRN:	-
NPRN:	-
SAM:	-
Other Ref No:	-
NGR:	NGR SM 17229 22513
Site Type:	Green Field
Project Type:	Geophysical Survey
Project Manager:	Chris E Smith
Project Dates:	July 2013
Categories Present:	None
Location of Original Archive:	AW
Location of duplicate Archives:	-
Number of Finds Boxes:	-
Location of Finds:	-
Museum Reference:	-
Copyright:	AW
Restrictions to access:	None

Archaeology Wales

Archaeology Wales Limited,
Rhos Helyg, Cwm Belan,
Llanidloes, Powys, SY18 6QF
Tel: +44 (0) 1686 440371
Email: admin@arch-wales.co.uk