

**WRITTEN SCHEME OF INVESTIGATION
FOR AN ARCHAEOLOGICAL
WATCHING BRIEF AT
Edwards Yard, Llandarcy, Neath Port Talbot**

**Prepared for:
G D Harries and Sons Ltd**

Project No: 3075

Planning No: P2021/1019

March 2023



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1. Introduction and Planning Background

- 1.1.1. This Written Scheme of Investigation (WSI) details a program of archaeological mitigation to be undertaken by Archaeology Wales Ltd (henceforth – AW) at the request of G D Harries and Sons Ltd (henceforth – ‘the client’).
- 1.1.2. The proposed work consists of the Construction of a proposed Asphalt Plant together with aggregates storage area, weighbridge, offices, and ancillary infrastructure works (planning application P2021/1019). Glamorgan-Gwent Archaeological Trust-Archaeological Planning Management (GGAT-APM) has recommended, in its capacity as archaeological advisor, that a watching brief be carried out during the groundworks required for the development. The proposed works will be at Edwards Yard, Llandarcy, Neath Port Talbot, SA10 6JY (NGR SS 72594 94993).
- 1.1.3. The Local Planning Authority (Neath Port Talbot County Borough Council) have placed the following Condition (9) on the application (P2021/1019) which stated:
- “No development shall take place until the applicant, or their agents or successors in title, has secured agreement for a written scheme of historic environment mitigation which has been submitted by the developer/ applicant and approved in writing by the Local Planning Authority. Thereafter, the programme of work must be fully carried out in accordance with the requirements and standards of the written scheme.*
- Reason:*
- To identify and record any features of archaeological interest discovered during the works, in order to mitigate the impact of the works on the archaeological resource as required by Planning Policy Wales and Policy SP21 of the Neath Port Talbot Local Development Plan.”*
- 1.1.4. The purpose of the archaeological mitigation is to provide GGAT-APM with sufficient information regarding the nature of archaeological remains on the site of the development. The work is to ensure that all archaeological and historical components of the site are fully investigated and recorded if they are to be revealed as a result of activities associated with the development. This Specification has been prepared by Menna Griffiths (Assistant Supervisor, AW).
- 1.1.5. All work will be undertaken to the standards and guidance set by the Chartered Institute for Archaeologists; *Standard and guidance for an archaeological watching brief* (2020 update). AW is a Registered Organisation with the CIfA.

2. Site Description

- 2.1.1. The site is located in the less than 1km south of Llandarcy and less than 100m west of the M4 motorway. The site is bounded on all sides by an industrial estate. The underlying geology of the site is Brithdir Member. This is a Sedimentary Sandstone Bedrock that formed approximately 309.5 and 308 million years ago during the Carboniferous Period. The superficial deposits in this area are Tidal Flat Deposits, Devensian – clay, silt and sand formed between 11.8 thousand years ago and the present during the Quarternary period (BGS 2023).

3. Historical and Archaeological Background

- 3.1.1. According to the local Historic Environment Record (HER) the site is located on the site of two copper work sites. The Briton Ferry Works is noted on the First Edition Ordnance Survey map of 1884 with the Red Jacket copper works just to the south. Briton Ferry Works is noted on the HER as being built in 1853 and closed in 1926.
- 3.1.2. By the Second Edition OS map of 1900 the industrial complex has expanded to the north occupying the entire south western half of the current industrial estate. It is noted as now being the Briton Ferry Chemical Works and Cape Copper Works, and the Red Jacket Copper Works is now disused.
- 3.1.3. Two listed buildings relating to the Red Jacket copper works lay south of the development site, these being the Weir on the east side of the Tennant Canal at Red Jacket Pill (LB23077) and the River lock and attached bridges at Red Jacket Pill (LB23074).
- 3.1.4. The development is located less than 1km east of scheduled two ancient monuments Llandarcy Round Cairn (GM291) and Gelli Bwch Round Cairn (GM290). To the east of the development site lies the site of the Neolithic Cambered Tomb Giants Grave (prn 00639w) which was likely destroyed during the construction of a canal.

4. Objectives

- 4.1.1. This WSI sets out a program of works to ensure that the watching brief will meet the standard required by The Chartered Institute for Archaeologists' *Standard and guidance for archaeological watching briefs* (update 2020).
- 4.1.2. The objective of the watching brief will be:
- to allow the investigation and recording of any archaeological features that are uncovered during the proposed groundworks within the application area.
 - to provide the 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 are not sufficient to support the treatment to a satisfactory or proper standard.

- 4.1.3. A written report will be compiled following the fieldwork. Sufficient desk-top research will be undertaken to ensure that the results of this work are properly understood, interpreted, and reported.
- 4.1.4. The report will include a comprehensive assessment of the historic context within which the archaeological evidence rests and will aim to highlight any relevant research issues within regional, national and, if relevant, international research frameworks.

5. Timetable of works

5.1. Fieldwork

- 5.1.1. The watching brief will be undertaken during ground works associated with the proposed development. AW will update GGAT-APM with the exact date.

5.2. Report delivery

- 5.2.1. The report will be submitted to the client and to GGAT-APM within three months of the completion of the fieldwork. A copy of the report will also be sent to the regional HER.

6. Fieldwork

6.1. Detail

- 6.1.1. The work will be undertaken to meet the standard required by The Chartered Institute for Archaeologist's *Standard and guidance for watching briefs* (update 2020).
- 6.1.2. The watching brief should be undertaken using a tracked 360 degree excavated equipped with a flat-bladed bucket and will be monitored by a suitably qualified archaeologist.
- 6.1.3. The site archaeologist undertaking the watching brief will be afforded the required access by the main contractor in order to observe and where necessary to record any archaeological remains revealed. Groundwork will not be undertaken without the presence of the site archaeologist. The site archaeologist will record finds and less significant archaeological deposits and features without significant delay to the work program.
- 6.1.4. Where significant or complex archaeological deposits or features are encountered there will be a requirement for those areas to be fenced off and highlighted to all contractors employed on the site. Machines or contractors shall not enter this area until archaeological recording has been completed. If significant archaeological features are

revealed during the work a meeting between the client, GGAT-APM and AW will be called at the earliest convenience.

- 6.1.5. If significant archaeological features are encountered contingency arrangements will be made. Contingency costs will be agreed in advance before any extension to the program commences and will follow a site meeting between Archaeology Wales, the client (or their representatives) and GGAT-APM.

6.2. Recording

- 6.2.1. Recording will be carried out using AW recording systems (pro-forma context sheets, etc.) using a continuous number sequence for all contexts.
- 6.2.2. Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.
- 6.2.3. All features identified will be tied into the OS survey grid and fixed to local topographical boundaries.
- 6.2.4. Photographs will be taken in digital format with an appropriate scale, using a 12MP camera with photographs stored in Tiff format.

6.3. Finds

- 6.3.1. The professional standards set in the Chartered Institute for Archaeologists' standards and guidance for the collection, documentation, conservation, and research of archaeological (2020) will form the basis of finds collection, processing, and recording.
- 6.3.2. Finds will be carefully excavated by hand. The excavation of fragile or particularly significant finds will be undertaken in consultation with an appropriate archaeological conservator. Finds will be bagged by archaeological context, the location of special finds and flint working deposits will be recorded three dimensionally.
- 6.3.3. In most cases all finds will be recovered from site, quantified and assessed by specialist. Finds retention and discard policies will be drawn up in conjunction with specialist advice and the requirements of the receiving archive or regional/national guidelines (NPAAW 2019) in conjunction with the ClfA Selection Strategy Tool Kit (ClfA 2019). If large quantities of material are identified, an onsite discard policy may be implemented under the guidance of relevant finds specialists and the local authority archaeologists.
- 6.3.4. Retained finds will be suitably bagged, boxed and marked. Following cataloguing and initial analysis finds of low archaeological significance may be discarded.
- 6.3.5. Finds recovered that are regarded as Treasure under The Treasure Act 1996 will be reported to HM Coroner for the local area.

- 6.3.6. Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (normally Phil Parkes at Cardiff University).

6.4. Environmental Sampling Strategy

- 6.4.1. In areas that have previously been disturbed, environmental sampling is unlikely to be required, unless excavations go beyond the disturbed layers and archaeology is encountered below that level.
- 6.4.2. Features or archaeological deposits that are encountered will be sampled by means of the most appropriate method (bulk, column, etc.) up to 40 litres in size.
- 6.4.3. Where sampling will provide a significant contribution to the understanding of the site AW will draw up a site-specific sampling strategy alongside a specialist environmental archaeologist. All environmental sampling and recording will follow English Heritage's *Guidelines for Environmental Archaeology* (2002).

6.5. Human Remains

- 6.5.1. In the event that human remains are encountered, their nature and extent will be established, and the coroner informed. All human remains will be left in situ and protected during backfilling. Where preservation in situ is not possible the human remains will be fully recorded and removed under conditions that comply with all current legislation and include acquisition of licenses and provision for reburial following all analytical work. Human remains will be excavated in accordance with the Chartered Institute for Archaeologists' *Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains: Technical Paper Number 13* (1993), and the Chartered Institute for Archaeologists' *Updated Guidelines to the Standards for Recording Human Remains* (2017).
- 6.5.2. A meeting with the client, GGAT-APM and AW will be called if the human remains uncovered are of such complexity or significance that the contingency arrangement would not be of sufficient scope.

6.6. Specialist Advisers

- 6.6.1. In the event of certain finds, features or sites being discovered, AW will seek specialist opinion and advice. A list of specialists is given in the table below although this list is not exhaustive.

Artefact type	Specialist
Lithics	Dr Julie Birchenall (Freelance)
Animal bone	Andy Simms (Archaeology Wales) Dr Richard Madgwick (Cardiff University)
CBM, heat affected clay, Daub etc.	Dr Siân Thomas (Archaeology Wales) Dr Phil Mills (Freelance) Sandra Garside Neville (Freelance)
Clay pipe	Charley James Martin (Archaeology Wales)
Glass	Rowena Hart (Archaeology Wales)
Cremated and non-cremated human bone	Malin Holst (University of York) Dr Richard Madgwick (Cardiff University)
Metalwork	Dr Rhiannon Philp (Archaeology Wales) Dr Kevin Leahy (PAS/University of Leicester) Quita Mould (Freelance)
Metal work and metallurgical residues	Dr Tim Young (GeoArch)
Neo/BA pottery	Dr Alex Gibson (Bradford University) Dr David Mullin (Freelance)
IA/Roman pottery	Dr Jane Timby (Freelance)
Roman Pottery	Dr Siân Thomas (Archaeology Wales) Dr Peter Webster (Freelance)
Medieval and Post Medieval Pottery	Paul Blinkhorn (Freelance)
Charcoal (wood ID)	Dana Challinor (Freelance)
Waterlogged wood	Professor Nigel Nayling (University of England – Lampeter)
Pollen	Dr Rhiannon Philp (Archaeology Wales)
Charred and waterlogged plant remains	Wendy Carruthers (Freelance) Kath Hunter Dowse (Freelance)

6.7. Specialist Reports

- 6.7.1. Specialist finds and palaeoenvironmental reports will be written by AW specialists, or sub-contracted to external specialists when required.

7. Monitoring

- 7.1.1. GGAT-APM will be contacted approximately five days prior to the commencement of archaeological site works, and subsequently once the work is underway.
- 7.1.2. Any changes to the WSI that AW may wish to make after approval will be communicated to GGAT-APM for approval on behalf of Planning Authority.
- 7.1.3. Representatives of GGAT-APM will be given access to the site so that they may monitor the progress of the watching brief. GGAT-APM will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

8. Post-fieldwork programme

8.1. The Site Archive

- 8.1.1. An ordered and integrated site archive will be prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE)* (Historic England 2006) upon completion of the project.
- 8.1.2. The site archive (including artefacts and samples) will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with ClfA Guidelines (*Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*, 2020). It will also conform to the guidelines set out in *'The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2019'* (National Panel for Archaeological Archives in Wales 2019). The legal landowner's consent will be gained for deposition of finds. The project will adhere to the *Welsh Archaeological Trust's joint Guidance for the Submission of Data to the Welsh Historic Environment Records* (2022).

8.2. Analysis

- 8.2.1. Following a rapid review of the potential of the site archive, a programme of analysis and reporting will be undertaken. The report will adhere to the *Welsh Archaeological Trust's joint Guidance for the Submission of Data to the Welsh Historic Environment Records* (2022).
- 8.2.2. This will result in the following inclusions in the final report:
- Non-technical summary, in English and Welsh
 - Location plan showing the area/s covered by the groundworks, all artefacts, structures, and features found
 - Plan and section drawings (if features are encountered) with ground level, ordnance datum and vertical and horizontal scales.
 - Written description and interpretation of all deposits identified, including their character, function, potential dating, and relationship to adjacent features. Specialist descriptions and illustrations of all artefacts and soil samples will be included as appropriate.
 - An indication of the potential of archaeological deposits which have not been disturbed by the development
 - A discussion of the local, regional, and national context of the remains by means of

reviewing published reports, unpublished reports, historical maps, documents from local archives and the regional HER as appropriate.

- A detailed archive list at the rear listing all contexts recorded, all samples finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

8.3. Report to client

- 8.3.1. Copies of all reports associated with the watching brief, together with inclusion of supporting evidence in appendices as appropriate, including photographs and illustrations, will be submitted to the client and GGAT-APM upon completion.

8.4. Additional reports

- 8.4.1. After an appropriate period has elapsed, copies of all reports will be deposited with the relevant county Historical Environment Record, the National Monuments Record and GGAT-APM.

8.5. Summary reports for publication

- 8.5.1. Short archaeological reports will be submitted for publication in relevant journals; as a minimum, a report will be submitted to the annual publication of the regional CBA group or equivalent journal.

8.6. Notification of important remains

- 8.6.1. Where it is considered that remains have been revealed that may satisfy the criteria for statutory protection, AW will submit preliminary notification of the remains to Cadw.

8.7. Archive deposition

- 8.7.1. The final archive (site and research) will, whenever appropriate, be deposited with a suitable receiving institution, usually the relevant Local Authority museums service. Arrangements will be made with the receiving institution before work starts.
- 8.7.2. Although there may be a period during which client confidentiality will need to be maintained, copies of all reports and the final archive will be deposited no later than six months after completion of the work.
- 8.7.3. Copies of all reports, the digital archive and an archive index will be deposited with the National Monuments Record, RCAHMW, Aberystwyth.
- 8.7.4. Wherever the archive is deposited, this information will be relayed to the HER. A summary of the contents of the archive will be supplied to GGAT.

8.8. Finds deposition

- 8.8.1. The finds, including artefacts and ecofacts, excepting those which may be subject to the Treasure Act, will be deposited with the same institution, subject to the agreement of the legal landowners.

8.9. Staff

- 8.9.1. The project will be managed by Charley James-Martin (AW Project Manager) and the fieldwork undertaken by AW Staff. Any alteration to staffing before or during the work will be brought to the attention of GGAT-APM and the client.

9. Health and Safety

9.1. Risk Assessment

- 9.1.1. Prior to the commencement of work AW will carry out and produce a formal Health and Safety Risk Assessment in accordance with The Management of Health and Safety Regulations 1999. A copy of the risk assessment will be kept on site and be available for inspection on request. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

9.2. Other Guidelines

- 9.2.1. AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual Health and Safety in Field Archaeology (2002).

10. Community Engagement and Outreach

- 10.1.1. Wherever possible, AW will ensure suitable measures are in place to inform the local community and any interested parties of the results of the site investigation work. This may occur during the site investigation work or following completion of the work. The form of any potential outreach activities may include lectures and talks to local groups, interested parties and persons, information boards, flyers and other forms of communication (social media and websites), and press releases to local and national media.
- 10.1.2. The form of any outreach will respect client confidentiality or contractual agreements. As a rule, outreach will be proportional to the size of the project.
- 10.1.3. Where outreach activities have a cost implication these will need to be negotiated in advance and in accordance with the nature of the desired response and learning outcomes.

11. Insurance

- 11.1.1. AW is fully insured for this type of work and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

12. Quality Control

12.1. Professional standards

- 12.1.1. AW works to the standards and guidance provided by the Chartered Institute for Archaeologists. AW fully recognise and endorse the Chartered Institute for Archaeologists' Code of Conduct, Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology and the Standard and Guidance for archaeological field evaluation (CIfA 2020) currently in force. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

12.2. Project tracking

- 12.2.1. The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

13. Arbitration

- 13.1.1. Disputes or differences arising in relation to this work shall be referred for a decision in accordance with the Rules of the Chartered Institute of Arbitrators' Arbitration Scheme for the Institute for Archaeologists applying at the date of the agreement.

14. References

British Geological Survey: Geology of Britain viewer:
www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html (accessed 10/06/22).

Chartered Institute for Archaeologists, 2020. *Standards and guidance for the collection, compilation, transfer and deposition of archaeological archives.*

Chartered Institute for Archaeologists, 2020. *Standards and guidance for the collection, documentation, conservation and research of archaeological materials.*

Chartered Institute for Archaeologists, 2020. *Standards and guidance for an archaeological watching brief*

Chartered Institute for Archaeologist, 2017. *Updated Guidelines to the Standards for Recording Human Remains*

English Heritage, 2002. *Guidelines for Environmental Archaeology.*

English Heritage, 2006. *Management of Research Projects in the Historic Environment (MORPHE).*

National Panel for Archaeological Archives in Wales, 2019. *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales.*

Welsh Archaeological Trusts, 2022. *Guidance for the Submission of Data to the Welsh Historic Environment Records (HER)*

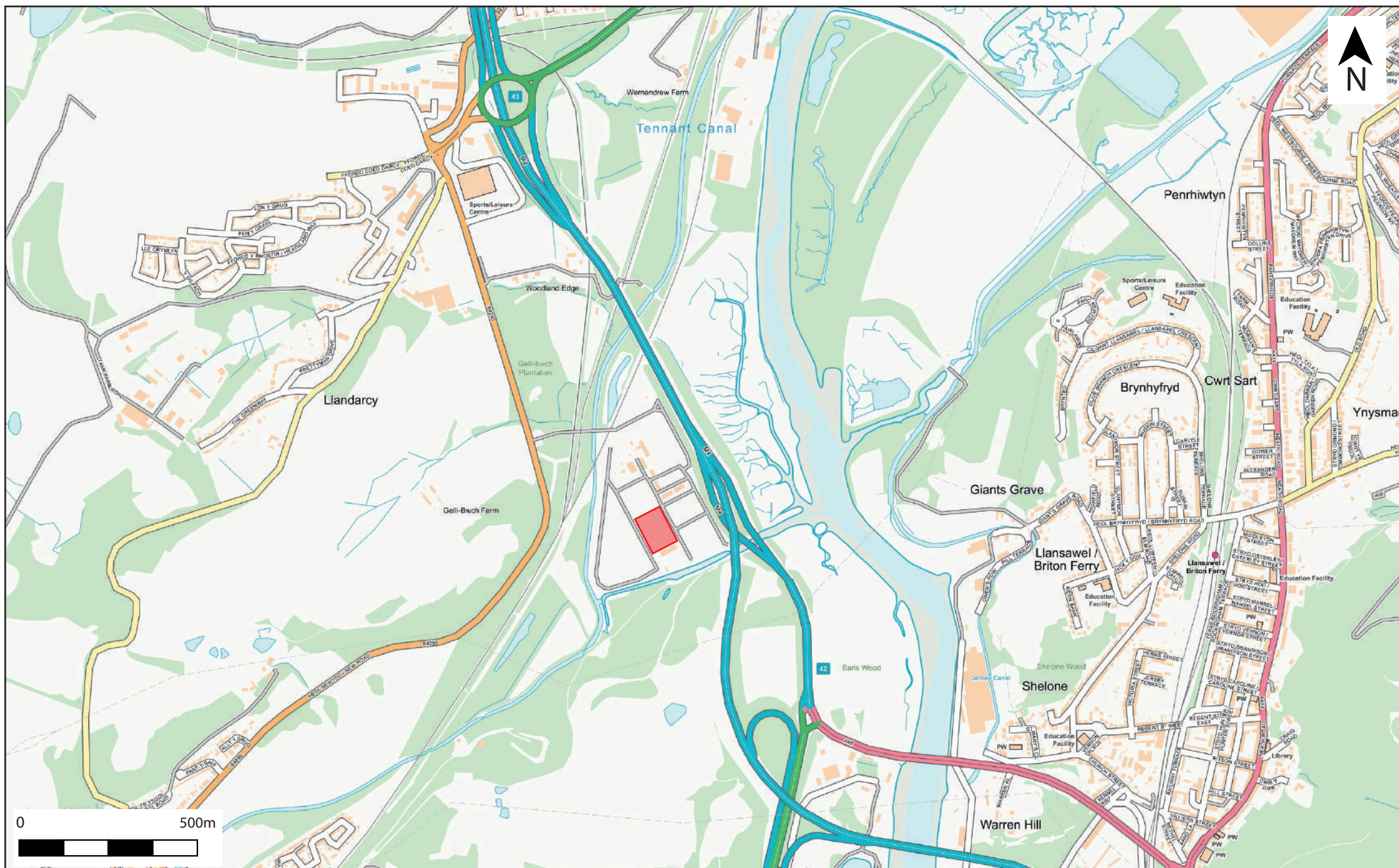


Figure 1. Location of site (red)

Appendix I Data Management Plan

Project Name and ID
3075 – Edwards Works, Llandarcy EDW/23/WB
Project description
The proposed work consists of the Construction of a proposed Asphalt Plant together with aggregates storage area, weighbridge, offices, and ancillary infrastructure works (planning application P2021/1019). GGAT-APM has recommended that a watching brief be carried out during the groundworks required for the development. The proposed works will be at Edwards Yard, Llandarcy, Neath Port Talbot, SA10 6JY (NGR SS 72594 94993).
Funder of client
G D Harries and Sons Ltd
Project Manager
Charley James-Martin – AW project manager
Principal investigator and contact
Same as above
Date DPM created and subsequent amendments
Created on 06/03/23
Related Data Management policies
Project Brief, ClfA Standards and guidance, trusted digital repository guidelines (ADS and RCAHMW) or other best practice guidance (see brief for details)

Data type
.pdf: final report, WSI, all the paper archive generated onsite. .jpeg: Digital photographs .xlsx: spreadsheets including registers, context inventory, finds quantification, environmental sample quantification. All site drawings that are selected during the DMP will be stored as AI and PDF files The survey data will be stored both as raw data (text file/csv) and as shapefiles (shp). This will include a polygon showing the limits of the development area. The database generated with GIS will be stored so it is accessible by future users
How will data be generated?
Project Brief will determine the nature of data collection. The project brief has been produced taking into consideration guidance offered by ClfA, and by relevant repositories. While the data selection strategy may change during the course of the watching brief attending to the demands of the findings, an initial methodology is outlined in the brief which includes advice offered by specialists (e.g environmental specialist). A list of specialists that can be contacted to seek for advice is included in the brief. Data generated during the site work will be regularly updated to the server and stored within well-defined folder. The folder hierarchy and organisation devised will be understood by all members of staff involved in the project. The data stored will be checked by the project manager regularly as a means of quality assurance. The survey data will also be plotted regularly to assure that it is correct and that the instruments on site are working properly.

Further documentation accompanying the resulting archive
Data collected will include standard formats which maximise opportunities for use and reuse in the future.

The archive will be associated to metadata summary which outlines details of all data types, quantities and all archive components Data documentation will meet the requirement of the Project Brief, Museum Deposition Guidelines, Digital Repository Guidelines and the methodology described in the Project Design methodology. These details are checked and taken into consideration prior the start of the project.
Data protection
We have a GDPR compliant Privacy Policy. Sensitive data is never retained in the project folder. Copyright permission is sought from all specialists and other providers outside the organisation. Data sharing is also subjected to license agreements.
Storage
The project manager is responsible to the regular inspection of the data produced and stored in the server The data produced is uploaded regularly as a way of backing up the information. Time and resources are given to the site staff to be able to back up the data. Alternatively, laptops are issued to use during the time onsite.
Data retention
The DMP will be updated in light with the findings. This process will also inform any possible future project designs and further work associated with the project. The data selection plan will take into consideration the research agenda for Wales and any other local frameworks. At the deposition stage, the DMP will be finalised in agreement with all project stakeholders. The project results will be included in the Historic Environment Record.
Long term preservation plan
The digital archive will be deposited with the Archaeology Data Service, which is a certified repository with Core Trust Seal.
Data repository and costs
The digital archive will be deposited with the National Monuments Record, RCAHMW, Aberystwyth. Estimated cost for deposition with ADS have also been included in the project budget.
Data sharing and accessibility
A summary of the project will be provided for the museum and digital archive repositories once the work begins. Regular updates will be carried out to fit the emerging needs of the project. The documents expected for this project include a WSI and WB Report, although this is dependent on the results of the fieldwork, which may warrant a Post Excavation Assessment, Updated Project Design and possibly Final Report. The final report is expected to be completed within 3 months of the completion of fieldwork. Should the work reveal significant archaeology and therefore, specialists are required during the post-ex process, then the report might take up to twelve months to be submitted A final version of the project report will be supplied to the Historic Environment Record along with any further data they request.
DMP responsibility
The Project Manager will be responsible for implementing the DMP Data capture, metadata production and data quality are the responsibility of the Project Team, assured by the Project Manager. Storage and backup of data in the field is the responsibility of the field team. Once data is incorporated into the organisations project server, storage and backup is managed by the project manager Data archiving is undertaken by the Archives Officer, who is responsible for the transfer of the Archaeological Project Archive to the agreed repository.