Archaeology Wales

Julians Reen Outfall, West Nash Road, Nash, Newport

Archaeological Watching Brief



By Poppy Alexander BA and Dan Moore MA

Report No. 1755

Archaeology Wales

Julians Reen Outfall, West Nash Road, Nash, Newport

Archaeological Watching Brief

Prepared For: Natural Resources Wales

Edited by: Charley James-Martin

Signed:

Position: Project Manager

Date: 15/01/2019

Authorised by: Rowena Hart

Signed: RHAD

Position: Regional Director

Date: 15/01/2019

By
Poppy Alexander BA and Dan Moore MA

Report No. 1755

January 2019



Contents

1. Introduction	3
2. Methodology	4
3. Watching Brief Results	5
4. Conclusion	5
5. Bibliography	6

List of Figures

Figure 1	Site Location Plan
Figure 2	Existing Site Plan
Figure 3	Proposed Site Plan

List of Plates

Plate 1 North facing shot of initial clearance and removal of undergrowth in t area of excavation.	ne
Plate 2 North east facing shot of the initial exposure of concrete water outlet [003].	
Plate 3 North east facing shot of section prior to battering, showing (001), (00 and (004). 1m scale.)2)
Plate 4 East facing shot of excavation, showing (001) and (002).	
Plate 5 West facing section, prior to battering, showing (001) and (002). 2m s	cale.
Plate 6 East facing shot of excavation, post battering.	

Appendices

Appendix 1	Context Register
Appendix 2	Written Scheme of Investigation

Copyright Notice: Archaeology Wales Ltd. retain copyright of this report under the copyright, Designs and Patents Act, 1988, and have granted a licence to NRW, to use and reproduce the material contained within. The Ordnance Survey has granted Archaeology Wales Ltd a Copyright Licence (No. 100055111) 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) on behalf of Natural Resources Wales (NRW) at Julians Reen Outfall, West Nash Road, Nash, Newport ST 33452 84119. It details the results of an archaeological watching brief that took place to ensure the preservation by record of any archaeological remains encountered during ground works associated with the proposed development of re-grading and excavation of an existing grass bank to create and install a permanent hard-core access track link existing track to sea doors for future maintenance and repairs (Planning Application No. 18/0027).

The Glamorgan-Gwent Archaeological Trust Archaeological Planning Management GGAT-APM recommended that a written scheme of historic environment mitigation with scope for a watching brief was to be undertaken as the HER notes that the area belongs to an Archaeological Sensitive Area of the Levels. Archaeological remains of prehistoric and Roman date have been found in the immediate vicinity during previous development.

No archaeological features or finds were encountered during the excavations, with the trenches being dug through modern, made ground deposits.

All work was undertaken to the Standards and Guidance for an Archaeological Watching Brief as set by the Chartered Institute for Archaeologists (2014).

Crynodeb Annhechnolegol

Mae'r Adroddiad hwn yn deillio o waith a waned gan Archeoleg Cymru (AW) ar ran Cyfoeth Naturiol Cymru (NRW) yn Julians Renn Outfall, Heol West Nash, Nash, Casnewydd ST 33452 84119. Mae'n rhoi manylion am ganlyniadau brîff gwylio archeolegol a gynhaliwyd i sicrhau'r gadwraeth o unrhyw olion archeolegol a darganfuwyd yn ystod gwaith tir, a oedd yn gysylltiedig â'r datblygiad arfaethedig o ail-raddio a chloddio clawdd glaswellt, i greu a goso llwybr mynediad called chraidd parhaol sy'n cysylltu'r trac presennol â'r drysau môr, ar gyfer unrhyw waith cynnal a chadw ac atgyweirio yn y dyfodol (Cais Cynllunio Rhif 18/0027).

Argymhellodd Rheolaeth Cynllunio Archeolegol Ymddiriedolaeth Archeolegol Morgannwg-Gwent (GGAT-APM) fod cynllun ysgrifenedig o liniaru'r amgylched hanesyddol gyda sgôp ar gyfer brîff gwylio yn cael ei gynnal gan fod y Cofnod Amgylcheddol Hanesyddol yn nodi y byddai'r ardal yn perthyn i Ardal Gwastadeddau sy'n Sensitif i Archeoleg. Canfuwyd olion archeolegol o'r cyfnod cynhanesyddol a Rhufeinig yn y cyffiniau agos yn ystod datblygiad blaenorol.

Ni chafwyd unrhyw nodweddion na darganfyddiadau archeolegol yn ystod y gwaith cloddio, gyda'r ffosydd yn cael eu cloddio trwy ddyddodion tir modern.

Gwnaed yr holl waith i'r safonau a rhoddwyd yn Standards and Guidance for an Archaeological Watching Brief fel y pennwyd gan Sefydliad Siartredig yr Archeolegwyr (2014).

1. Introduction

Location and scope of work

In April 2018 Archaeology Wales Ltd (AW) was commissioned by NRW to carry out an archaeological watching brief at Julians Reen Outfall, West Nash Road, Nash, Newport. The site is centred on OS grid reference: ST 33452 84119 (Figure 1 and 2). This work relates to the re-grading and excavation of an existing grass bank to create and install a permanent hard-core access track link existing track to sea doors for future maintenance and repairs (Figure 3).

GGAT-APM recommended that a written scheme of historic environment mitigation with scope for a watching brief was to be undertaken as the HER notes that the area belongs to an Archaeological Sensitive Area of the Levels. Archaeological remains of prehistoric and Roman date have been found in the immediate vicinity during previous development.

AW produced a Specification (AW 2018, Appendix 2) in accordance with the Standard and Guidance for Archaeological Watching Briefs (CIfA 2014) to provide an approved methodology of archaeological work to be implemented during the construction works, which was subsequently approved by GGAT-APM.

The watching brief took place on 31^{st} October $2018 - 1^{st}$ November 2018, and again on 13^{th} November 2018 under the supervision of Dan Moore.

Topography and Geology

The development is located on an existing grass bank at Julian's Reen. The site is bounded to the south east by a gravel track, and the bank slopes steeply from this road level to the sea doors to the west of the site. The site is located north of West Nash Road, and adjacent to an industrial complex (Figure 1).

The underlying geology belongs to the Mercia Mudstone Groups formed during the Triassic Period. The superficial soils are characterised by Tidal Flat deposits of clay and silt formed during the Quaternary period (BGS 2018).

Archaeological and Historical Background

In a letter sent to the applicant GGAT-APM notes that the application area falls within the alluvial plain of the River Usk and belongs to Newport's Archaeologically Sensitive Area of the Levels. No sites are recorded in the exact location of the development, however

archaeological remains of prehistoric and Roman date have been found on the immediate vicinities.

Between 1997 and 1998, GGAT Projects (Yates 1997) and Pre-Consult Archaeology found significant deposits of Roman date adjacent to the location of the proposed development. It was concluded that the area contains a sealed deposit of Roman date at about 0.8m to 1m below the ground level. Furthermore, Pre-consult Archaeology revealed during an evaluation the remains of two inhumations and three cattle burials within the Roman drainage ditches.

2. Methodology

A watching brief complying with the Chartered Institute for Archaeologists (CIfA) *Standard* and *Guidance for Archaeological Watching Briefs* (2014) was undertaken during all intrusive ground work on the site.

The watching brief was undertaken to allow the preservation by record of any archaeological deposits, the presence and nature of which could not be determined in advance of works. The watching brief also provides an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard (CIfA, 2014).

The excavation was carried out using a 360° tracked excavator equipped with a 1.4m wide toothed ditching bucket. The entire process was monitored by a suitably trained archaeologist. A trench was excavated NE-SW, to fully expose the standing concrete structure, and partially cut into an existing bank at the trench's northeast end. The trench was 29m long by 5m wide. A further trench was excavated NW-SE, in preparation for the proposed hardcore road; 21m by 5m wide. Finally, the remaining bank was battered and landscaped.

Sections and plans of the excavation were photographed using a 12MP digital camera. All the deposits encountered were recorded by means of a continuous context numbering system and recorded on pro-forma context sheets. All features and deposits are described in accordance with CIfA conventions. A register of all contexts and photographs was also made.

3. Watching Brief Results

The groundwork consisted of two trenches that were excavated adjacent to and abutting a standing concrete structure, cutting into an existing bank. The remaining bank was then battered and landscaped. The first trench, running NE-SW was 29m long by 5m wide. The second trench ran NW-SE and was 21m long by 5m wide.

The lowest deposit reached by the excavation (006), was a reddish-brown gravel, with frequent large stones and modern inclusions. This deposit measured a minimum of 0.55m and was not bottomed. Deposit (006) was encountered at 1.6m below ground level and was overlain by (002) which was a mid-greyish brown silty clay (002) that contained frequent subangular stones, it had a minimum depth of 0.4m.

At the north east limit of the site, (004) was encountered at the base of the excavation, and consisted of a firm mid reddish-brown silty clay with frequent sub-angular stones measuring up to 0.1m in size. It was encountered 0.8m from the current ground surface in the east part of the trench and measured a minimum of 0.7m in depth.

Deposit (004) was cut by a construction cut [005] for a 20th century concrete water outlet (003). It was rectangular in plan and measured 7m in length and 1m in width. As it was not excavated its depth was not clear.

Structure (003) was a modern concrete water outlet which was identified and not excavated further. It measured 7m in length and 1m in width.

Structure (003) was overlain by deposit (002). It had a minimum thickness of 0.04m and was encountered about 0.4m below the current ground surface.

The site was overlain by a topsoil (001), a mid-brownish grey silty loam with frequent small subangular stones and an average thickness of 0.4m.

4. Conclusion

No archaeological features or deposits were encountered during the groundworks. The trenches were mainly cut through made ground deposits, possibly relating to the construction of the sea doors and landscaping of the bank.

5. Bibliography

Archaeology Wales, 2018. Written Scheme of Investigation for an Archaeological Watching Brief at Julians Outfall, West Nash Road, Nash, Newport.

CIfA, 2014. Standard and Guidance for Archaeological Watching Briefs (Unpublished Guidance accessible at www.archaeologists.net).

NERC, (2016) British Geological Survey Maps (accessed at www.bgs.ac.uk).

Yates, A. 1997. Nash WWTW Field Evaluation, Nash, Monmouthshire. GGAT Report 97/070



Julians Outfall Improvements

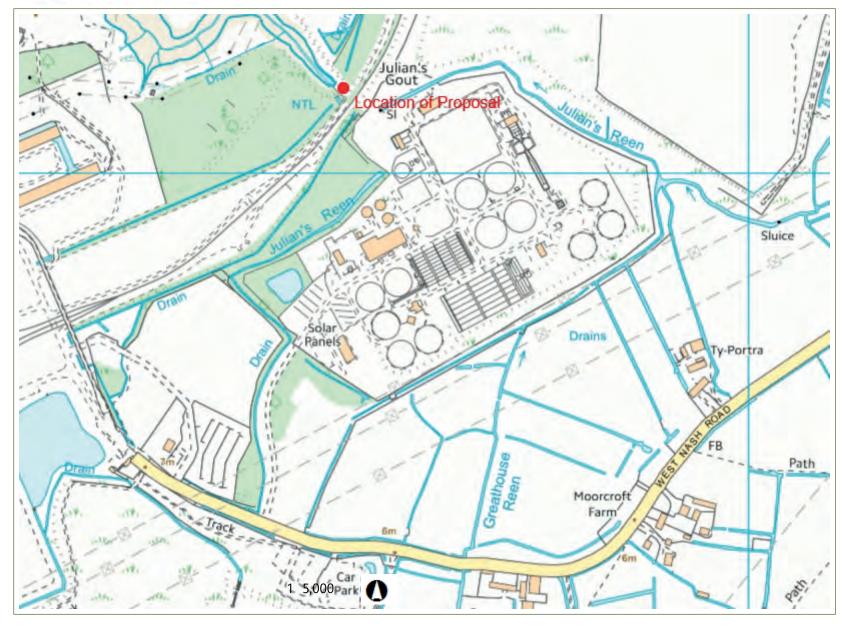


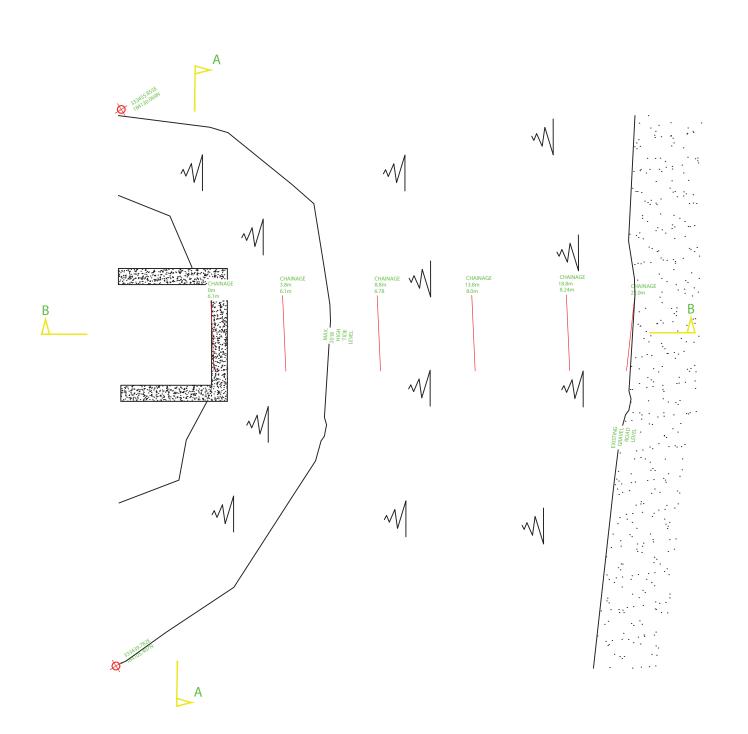
Figure 1 Site location plan

Scale 1:5,000 @ A4



0.3 0 0.13 0.3 Kilometers

© Crown Copyright and database rights Ordnance Survey. Natural Resources Wales, 100019741, 2015. © Hawlfraint y Goron a hawl cronfa ddata Arolwg Ordnans. Cyfoeth Naturiol Cymru, 100019741, 2015. This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.



KEY:



Existing Concrete Headwall (Outfall Structure)



Existing Hardcore Road

Reproduced from the OS Mapping with the permission of The Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. License No. 6D 031776

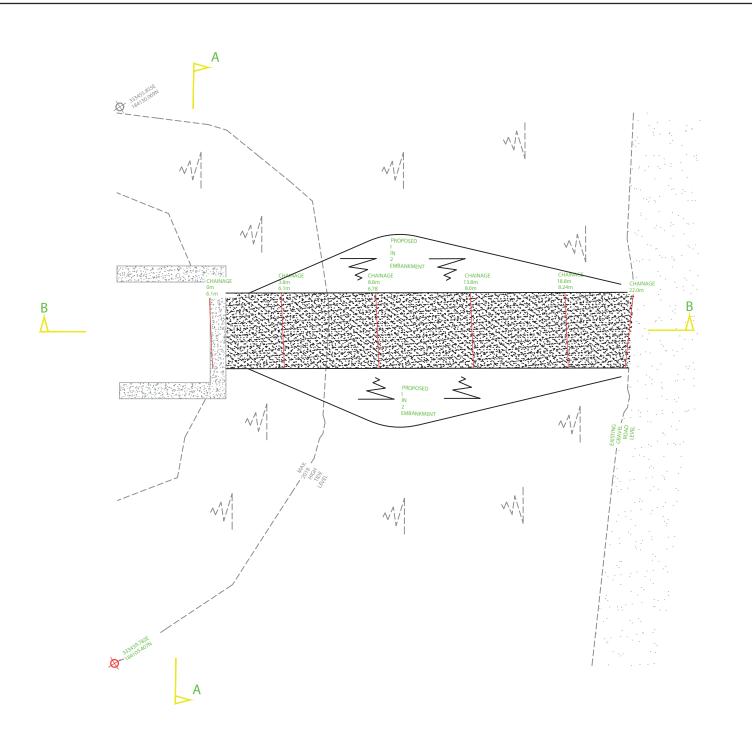
© Environment Agency Wales 2003



Figure 2 Existing site plan

Scale 1:200 @ A4





KEY:



Existing Concrete Headwall (Outfall Structure)



Existing Hardcore Road



Proposed Hardcore Road

Reproduced from the OS Mapping with the permission of The Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.

Licease No. GD 03177G
© Environment Agency Wales 2003



Figure 3 Proposed site plan

Scale 1:200 @ A4







Plate 1: North facing shot of initial clearance and removal of undergrowth in the area of excavation

Plate 2: North east facing shot of the initial exposure of concrete water outlet [003]







Plate 3: North east facing shot of section prior to battering, showing (001), (002) and (004). 1m scale

Plate 4: East facing shot of excavation, showing (001) and (002)







Plate 5: West facing section, prior to battering, showing (001) and (002). 2m scale 0.5m divisions

Plate 6: East facing shot of excavation, post battering.



Appendix 1: Context Register

Trench 1

Context	Description		Relationship
001	Deposit	Topsoil - a mid-brownish grey silty loam with frequent small subangular stones. Average thickness of 0.4m.	Overlies (002)
002	Deposit	Mid greyish brown silty clay (002) that contained frequent subangular stones. Minimum thickness of 0.04m. Modern made ground.	Overlain by (001), overlies 003
003	Structure	Modern concrete water outlet which was identified and not excavated further. Measured 7m in length and 1m in width.	Overlain by (002), within [005].
004	Deposit	Firm mid reddish-brown silty clay with frequent sub- angular stones measuring up to 0.1m in size. Modern made ground.	Cut by [005]
005	Cut	Construction cut for Structure 003. It was rectangular in plan and measured 7m in length and 1m in width. As it was not excavated its depth was not clear.	Contains 003, cuts (004)
006	Deposit	Mid reddish yellowish-brown silty gravel (006) which contained large stones and modern inclusions. Lowest deposit encountered during the excavation. Modern made ground.	Overlain by (002).



Archaeology Wales Ltd

Rhos Helyg, Cwm Belan, Llanidloes, Powys SY18 6QF

T: 01686 440371

E: info@arch-wales.co.uk www.arch-wales.co.uk

WRITTEN SCHEME OF INVESTIGATION

FOR AN

ARCHAEOLOGICAL WATCHING BRIEF AT JULIANS OUTFALL, WEST NASH ROAD, NASH, NEWPORT Prepared for:

NRW

Planning Application Number: 18/0027

Project No: 2611

25.4.18



Archaeology Wales Limited The Reading Room, Town Hall, Great Oak Street Llanidloes, Powys SY18 6BN Tel: +44 (0) 1686 440371 Email: admin@arch-wales.co.uk

Co	ntents	Page
Sun	nmary	3
1.	Introduction and planning background	3
2.	Site Description	4
3.	Archaeological background	4
4.	Objectives	
5.	Timetable of works	5
5.1.	Fieldwork	5
5.2.	Report delivery	5
6.	Fieldwork	5
6.1.	Detail	_
6.2.	Recording	6
6.3.	Finds	
6.4.	Environmental sampling strategy	6
6.5.	Human remains	
6.6.	Specialist advisers	
7.	Monitoring	
8.	Post-fieldwork programme	
8.1.	Archive assessment	_
8.2.	Reports and archive deposition	
9.	Staff	
	itional Considerations	
10.	Health and Safety	
10.1		_
10.2		
11.	Community Engagement and Outreach	
12.	Insurance	
13.	Quality Control	
13.1	. Totocoloria da da do	
13.2		
14.	Arbitration	
15.	References	12

Figure 1. Site location

Figure 2. Existing site plan

Figure 3. Proposed site plan

Summary

This Written Scheme of Investigation (WSI) details a programme of archaeological mitigation to be undertaken by Archaeology Wales at the request of NRW.

The archaeological mitigation will consist of a watching brief to be undertaken during ground works associated with the proposed re-grading and excavation of an existing grass bank to create and install a permanent hard-core access track link existing track to sea doors for future maintenance and repairs Julians Outfall, West Nash Road, Nash, Newport ST 3453884354. The associated Planning Application No. Is 18/0027.

Glamorgan Gwent Archaeological Trust – Planning Division (GGAT-PD) has recommended that an archaeological watching brief is carried out during groundworks as the HER notes that the area belongs to an Archaeological Sensitive Area of the Levels. Archaeological remains of prehistoric and Roman date have been found in the immediate vicinity during previous development.

All work will be undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014).

1. Introduction and planning background

This WSI details the methodology for archaeological mitigation in the form of a watching brief to be undertaken in association with the proposed re-grading and excavation of an existing grass bank to create and install a permanent hard-core access track link existing track to sea doors for future maintenance and repairs Julians Outfall, West Nash Road, Nash, Newport ST 3453884354. The associated Planning Application No. Is 18/0027 (Figure 1).

GGAT has recommended that an archaeological watching brief is carried out during groundworks as the HER notes that the area belongs to an Archaeological Sensitive Area of the Levels. Archaeological remains of prehistoric and Roman date have been found in the immediate vicinity during previous development.

This WSI has been prepared by Irene Garcia Rovira, Project Manager, Archaeology Wales Ltd (henceforth - AW) at the request of NRW.

The methodology set out in this WSI has been agreed with GGAT in its capacity as archaeological advisors to Newport City Council. GGAT has recommended that a watching brief of the development area is undertaken during groundworks to mitigate the impact of the proposed development on the archaeological resource.

The recommendations made by GGAT are set out in a letter to the applicant dated to the 30th of January 2018.

The purpose of the watching brief is to provide the local planning authority with sufficient information regarding the nature of archaeological remains on the site of

the development, the requirements for which are set out in Planning Policy (revised edition 9, 2016), Section 6.5 and Technical Advice Note (TAN) 24: The Historic Environment (2017). The work is to ensure that all buried artefacts and deposits are fully investigated and recorded if they are disturbed or revealed as a result of activities associated with the development.

All work will be undertaken to the standards and guidance set by the Chartered Institute for Archaeologists (2014). AW is a Registered Organisation with the CIfA.

2. Site Description

The development is located on an existing grass bank at Julian's Reen. The site is located north of West Nash Road, and adjacent to an industrial complex.

The underlying geology belongs to the Mercia Mudstone Groups formed during the Triassic Period. The superficial soils are characterised by Tidal Flat deposits of clay and silt formed during the Quaternary period (BGS 2018).

3. Archaeological background

In a letter sent to the applicant GGAT notes that the application area falls within the alluvial plain of the River Usk and belongs to Newport's Archaeologically Sensitive Area of the Levels. No sites are recorded in the exact location of the development, however archaeological remains of prehistoric and Roman date have been found on the immediate vicinities.

Between 1997 and 1998, GGAT and Pre-Consult Archaeology found significant deposits of Roman date adjacent to the location of the proposed development. It was concluded that the area contains a sealed deposit of Roman date at about 0.8m to 1m below the ground level. Furthermore, Pre-consult Archaeology revealed during an evaluation the remains of two inhumations and three cattle burials within the Roman drainage ditches.

4. Objectives

This WSI sets out a program of works to ensure that the watching brief will meet the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Watching Briefs (2014).

The objective of the watching brief will be:

- to allow a rapid 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.

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.

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

The programme of mitigation will be undertaken during ground works associated with the proposed development. The work is proposed to start on the 9th May 2018. Archaeology Wales will update GGAT with the exact date.

5.2. Report delivery

The report will be submitted to NRW and to GGAT 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

The work will be undertaken to meet the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Watching Briefs (2014).

A Watching Brief Archaeologist will monitor the re-grading and excavation of an existing grass bank. A tracked 360 degree excavator equipped with a grading bucket will be used to complete the work.

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.

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 NRW, GGAT and AW will be called at the earliest convenience.

To comply with professional guidelines, a contingency for additional days of access to each such area and for a team of additional archaeologists to be employed should be provided. Contingency costs will be agreed in advance before any extension to the programme commences and will follow a site meeting between Archaeology Wales, NRW and GGAT.

6.2. Recording

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

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.

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries.

Photographs will be taken in digital format with an appropriate scale, using a 12MP camera with photographs stored in Tiff format.

The archaeologist undertaking the watching brief will have access to the AW metal detector and be trained in its use.

6.3. Finds

The professional standards set in the Chartered Institute for Archaeologists' Standard and guidance for the collection, documentation, conservation and research of archaeological (2014) will form the basis of finds collection, processing and recording.

All manner of finds regardless of category and date will be retained.

Finds recovered that are regarded as Treasure under *The Treasure Act 1996* will be reported to HM Coroner for the local area.

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

Deposits with a significant potential for the preservation of palaeoenvironmental material will be sampled, by means of the most appropriate method (bulk, column etc). 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 and will follow English Heritage's *Guidelines for Environmental Archaeology* (2nd Edition 2011).

6.4.1 Site Specific

The site has been highlighted as having a high potential for Roman and earlier Prehistoric archaeology. Furthermore it is suggested that within confines of the area of works, there is high potential for waterlogged conditions. This provides excellent preservation for organic remains.

If an organic deposit, such as a peat layer is encountered during works, a bulk sample should be taken in order to assess the presence of plant remains, which can inform on the environment at the time of formation and in some cases indicate human interaction with the environment – if deposits are deemed waterlogged, they will be labelled as such to inform on processing procedures in post excavation.

If discreet features are present, which is possible given the high abundance of Roman activity in the area, then bulk samples should be taken from the fills of each feature encountered.

If multiple organic layers are cut through and a section accessible, monolith samples should be taken through all layers exposed for further investigation of the environmental sequence.

6.5. Human remains

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 Archaeologist's *Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains: Technical Paper Number 13* (1993).

A meeting with GGAT, NRW and AW will be called if the human remains uncovered are of such complexity or significance that the contingency arrangement (6.1 above) would not be of sufficient scope.

6.6. Specialist advisers

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
Flint	Kate Pitt (Archaeology Wales)
Animal bone	Richard Madgwick (Cardiff University)
CBM, heat affected clay, Daub etc.	Rachael Hall (APS)
Clay pipe	Hilary Major (Freelance)
Glass	Rowena Hart (Archaeology Wales)
Cremated and non-	Malin Holst (University of York)/Richard

cremated human bone	Madgwick (Cardiff University)
Metalwork	Kevin Leahy (University of Leicester)/ Quita Mold (Freelance)
Metal work and metallurgical residues	Dr Tim Young (GeoArch)
Neo/BA pottery	Dr Alex Gibson (Bradford University)
IA/Roman pottery	Jane Timby (Freelance)
Roman Pottery	Rowena Hart (Archaeology Wales)/ Peter Webster (Freelance)
Post Roman pottery	Stephen Clarke (Monmouthshire Archaeology)
Charcoal (wood ID)	John Carrot (Freelance)
Waterlogged wood	Nigel Nayling (University of Wales – Lampeter)
Molluscs and pollen	Rhiannon Philp (Araecheology Wales) / Dr James Rackham
Charred and waterlogged plant remains	Wendy Carruthers (Freelance)

6.6.1. Specialist reports

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

7. Monitoring

GGAT will be contacted approximately five days prior to the commencement of archaeological site works, and subsequently once the work is underway.

Any changes to the WSI that AW may wish to make after approval will be communicated to GGAT for approval on behalf of Planning Authority.

Representatives of GGAT will be given access to the site so that they may monitor the progress of the field evaluation. No area will be back-filled, until GGAT has had the opportunity to inspect it, unless permission has been given in advance. GGAT will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

8. Post-fieldwork programme

8.1. Archive assessment

8.1.1. Site archive

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.

The site archive (including artefacts and samples) will be will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with CIfA Guidelines (Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives', 2014). The legal landowners consent will be gained for deposition of finds.

8.1.2. Analysis

Following a rapid review of the potential of the site archive, a programme of analysis and reporting will be undertaken. This will result in the following inclusions in the final report:

- Non-technical summary
- Location plan showing the area/s covered by the watching brief, 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.

8.2. Reports and archive deposition

8.2.1. Report to client

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 NRW and GGAT upon completion.

8.2.2. Additional reports

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, if appropriate, Cadw.

8.2.3. Summary reports for publication

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.

8.2.4. Notification of important remains

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.

8.2.5. Archive deposition

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.

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.

Copies of all reports, the digital archive and an archive index will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth.

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.

8.2.6. Finds deposition

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 land owners.

9. Staff

The project will be managed by Rowena Hart (AW Regional Director) and the fieldwork undertaken by Susan Stratton (Archaeology Wales). Any alteration to staffing before or during the work will be brought to the attention of GGAT and NRW.

Additional Considerations

10. Health and Safety

10.1. Risk assessment

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* 1992. 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.

10.2. Other guidelines

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)*.

11. Community Engagement and Outreach

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.

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.

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.

12. Insurance

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.

13. Quality Control

13.1. Professional standards

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 watching briefs 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.

13.2. Project tracking

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

14. Arbitration

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.

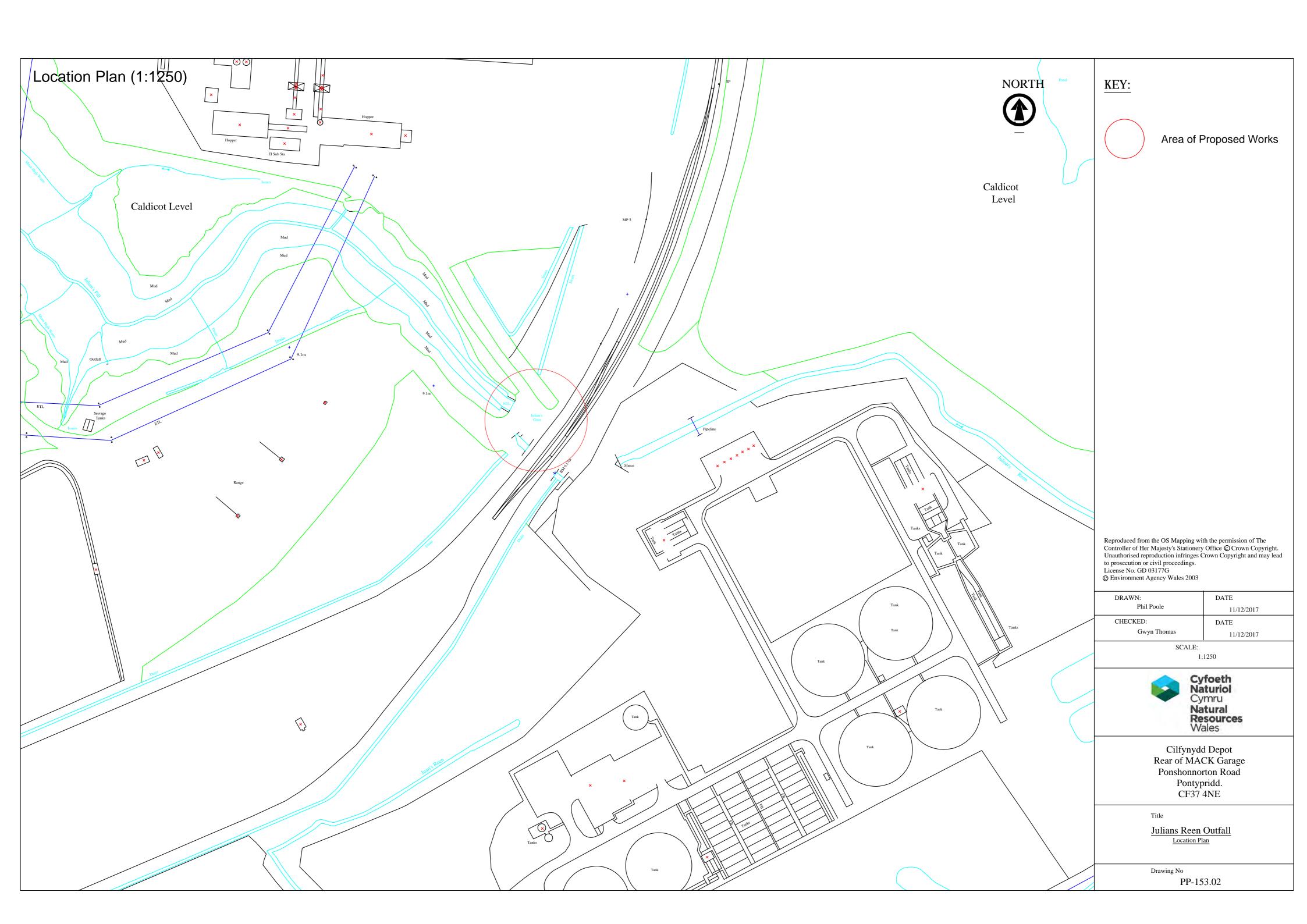
15. References

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, compilation, transfer and deposition of archaeological archives.

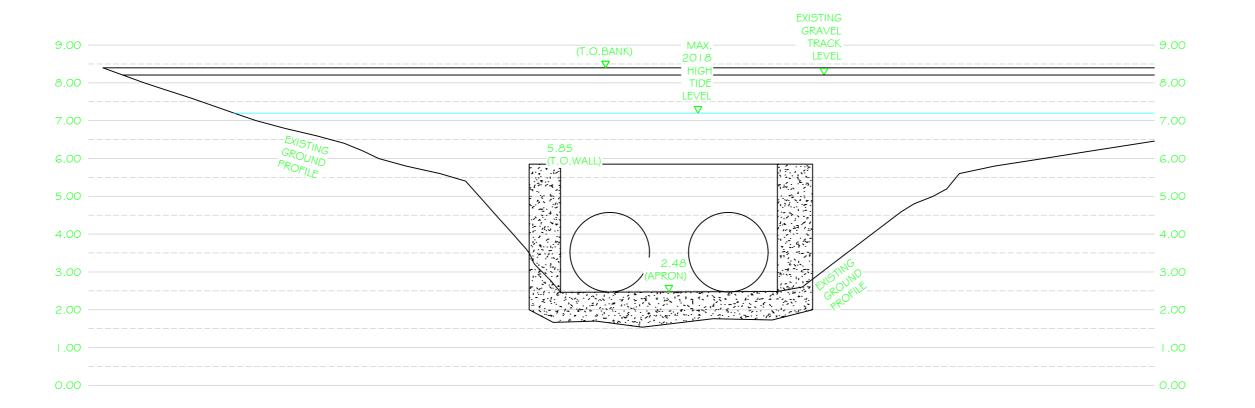
Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, documentation, conservation and research of archaeological materials.

Chartered Institute for Archaeologists, 2014. Standards and guidance for excavation.

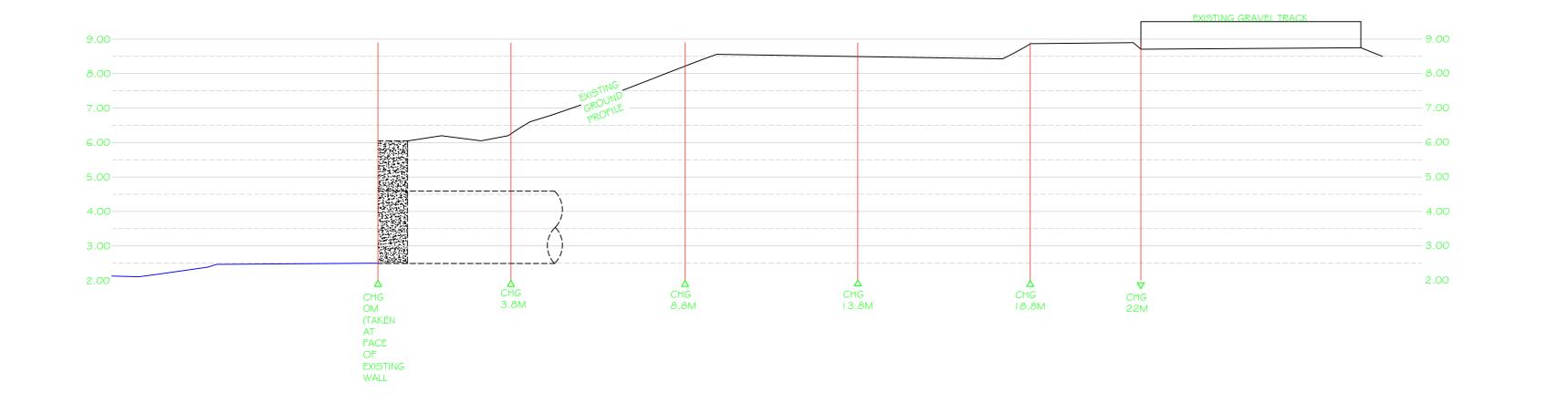
Chartered Institute for Archaeologists, 2014. Standards and guidance for an archaeological watching brief.



Existing Cross Section A - A (1:100)



Existing Cross Section B - B (1:100)



KEY:



Existing Concrete Headwall (Outfall Structure)

Reproduced from the OS Mapping with the permission of The Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.

License No. GD 03177G
© Environment Agency Wales 2003

Gwyn Thomas	11/12/2017
CHECKED:	DATE
Phil Poole	11/12/2017
DRAWN:	DATE

SCALE:



Cyfoeth Naturiol Cymru Natural Resources Wales

Cilfynydd Depot Rear of MACK Garage Ponshonnorton Road Pontypridd. CF37 4NE

Title

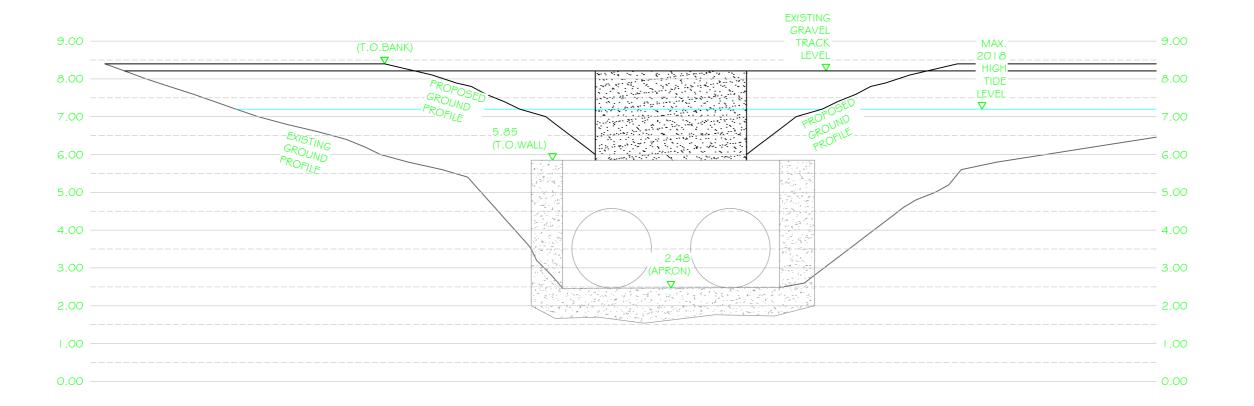
Julians Reen Outfall

Existing Cross Sections

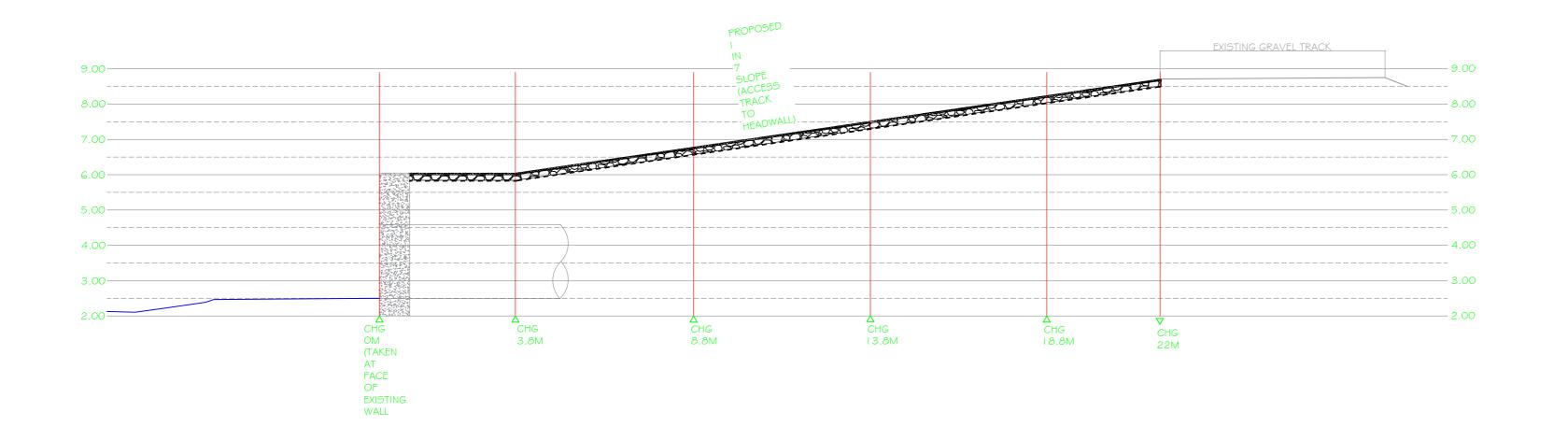
Drawing No

PP-153.04

Proposed Cross Section A - A (1:100)



Proposed Cross Section B - B (1:100)



KEY:



Existing Concrete Headwall (Outfall Structure)



50MM Finer Material Compacted (18mm to Dust)



150mm Compacted Stone/Hardcore

= = = = Geotextile Membrane

NOTES:

- Proposed Track Approx. 22M length, 4 wide, 200mm deep trench.
- Edge of the proposed track to profiled with the excavated soil.
- Geotextile membrane to be laid over the area proposed.
- Trench to be backfilled with stone or hard-core to a depth of at least 150mm and compacted.
- Trench backfill to be finished with a finer material (of 18mm to dust) to a depth of 25 to 50mm, and compacted.

Reproduced from the OS Mapping with the permission of The Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. License No. GD 03177G

© Environment Agency Wales 2003

DRAWN:	DATE
Phil Poole	11/12/2017
CHECKED:	DATE
Gwyn Thomas	11/12/2017

SCALE: 1:100



Cyfoeth Naturiol Cymru Natural Resources Wales

Cilfynydd Depot Rear of MACK Garage Ponshonnorton Road Pontypridd. CF37 4NE

Title

Julians Reen Outfall
Proposed Cross Sections

Drawing No PP-153.06

Archaeology Wales

