DWR CYMRU CSO REPLACEMENT SCHEME, NARBERTH BRIDGE, PEMBROKESHIRE

ARCHAEOLOGICAL WATCHING BRIEF

January 2010

Prepared by Dyfed Archaeological Trust
For: Morrison Construction

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RHIF YR ADRODDIAD / REPORT NO. 2010/17
RHIF Y PROSIECT / PROJECT RECORD NO. 98692

Chwefror 2010
February 2010

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WELSH WATER ASSET IMPROVEMENT SCHEMES, NARBERTH, PEMBROKESHIRE: ARCHAEOLOGICAL WATCHING BRIEF

SUMMARY

This report has been produced by Dyfed Archaeological Trust Field Services in response to a request from Morrison Construction, acting as agents for Dwr Cymru, to undertake an archaeological watching brief during groundworks associated with the construction of sewerage improvements at Narberth Bridge, Pembrokeshire (NGR SN 1075 1411).

Observations during the excavation of the working area for the proposed Combined Sewage Outfall (CSO) chamber revealed a depth of waterlogged topsoil overlying between 0.5m – 0.75m of a disturbed subsoil, containing modern detritus (ceramic material, metal etc). The existing sewer pipe crossed through the CSO area. Numerous other modern services ran along the road edge on the western side of the CSO area. It is considered that the area of the proposed CSO had been significantly disturbed during installation of the sewer and services, and may also have had material dumped on the land during the construction of the existing road and subsequent improvements. No significant archaeological deposits were revealed during the watching brief. A single sherd of potentially 17th century pottery was recovered from the working area for the CSO, the remainder of finds being modern.

No observation was undertaken of the replacement of the sewer pipe running to the CSO from the west, as the majority of the existing sewer was visible at ground level, and the new sewer was to be laid on top of the existing. The area adjacent to the existing sewer was very waterlogged and rutted by machine tracks. The new sewer outfall leading to Narberth Brook to the south was also not observed, as the pipe was to be inserted at a shallow depth and would not go below the depth of made ground as recorded in the area of the CSO.

Although the ground works associated with the sewer improvement works are considered to have had a minimal affect on the buried archaeological resource, this does not preclude the possibility of significant archaeological remains surviving in adjacent areas.

INTRODUCTION

Project Commission

Dyfed Archaeological Trust Field Services were commissioned by Morrison Construction, acting as agents for Dwr Cymru, to undertake an archaeological watching brief during groundworks ahead of sewerage improvements at Narberth Bridge, Pembrokeshire (SN 1075 1411). The archaeological works were carried out between 22nd and 27th January 2010.

Scope of the Project

The project was designed to record any archaeological features or deposits that might be exposed, damaged or destroyed during earth moving or ground breaking associated with the sewerage improvement scheme.

Report Outline

This report describes the location of the site along with its archaeological background before summarising the watching brief results and the conclusions based on those results.

Abbreviations

Sites recorded on the Regional Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). The HER information comes from the Dyfed Archaeological Trust (DAT) HER. Scheduled Ancient Monuments - SAM.

Illustrations

Record photographs are included at back of the report. Printed map extracts are not necessarily reproduced to their original scale and are illustrative only.

THE SITE

Location and Topography

The development is located at NGR SN 1075 1411 at Narberth Bridge, to the south of Narberth, Pembrokeshire (SN 1075 1411). The site lies at a height of *c*.37m above ordnance datum.

The proposed works include the replacement of an existing sewer which runs westwards, to the south of Bridge Hill; the installation of a new CSO (Combined Sewer Outfall) directly north of the bridge; replacement of lay-by area adjacent to the A478 in area of CSO; and new sewerage outfall adjacent to the bridge into the Narberth Brook.

Archaeological Background

The regional HER, as held by Dyfed Archaeological Trust, has records of nine known sites of archaeological or historical interest within a 300m radius, centred on the area of the proposed CSO. These range in date from the Neolithic/Bronze Age periods through to the post-medieval period. None of the known sites would be directly affected by the new stretch of pipe, excluding Narberth Bridge Common, an area of former common land. The following provides a summary description of the known sites within 300m of the site, and they area also shown in table 1 below, with grid references.

The HER records include finds recovered from the general area, although not accurately located, including a Neolithic or Bronze Age stone axe hammer (PRN 12182) and Roman finds (PRN 3746). The SAM of the medieval Narberth Castle lies around 280m to the northeast of the site area (SAM 040; PRN 3748). There is documentary evidence for an early medieval castle or palace also in this area, although the exact location is not known (PRN 11823). The area of the Narberth Bridge Common Land may have first been designated as such in the medieval period (PRN 13320), which is located directly to the west of the CSO area, and the renewed sewer pipeline may cross through it. Post-medieval records include the site of a former corn mill and mill pond (PRNs 19258 and 12589; located around 150m to the east), and the bridge itself at Narberth Bridge (PRN 19255). An earthwork of unknown date and significance is recorded 300m to the north (PRN 13320).

HER PRN	Site Name and description	NGR	Period
3746	Fairy Bank, Roman findspot	SN 11 14	Roman
3748	Narberth Castle: built in the 13th century. Scheduled Ancient Monument: SAM PE040	SN 1098 1440	Medieval
11823	Pwyll Pendevig; Narberth Castle	SN 11 14	Early Medieval
12182	Narberth, Stone axe hammer, findspot	SN 11 14	Neolithic, Bronze Age
12589	Mill Pond, associated with a corn mill	SN 109 141	Medieval
13320	Earthwork of unknown significance	SN 107 144	Unknown
13898	Narberth Bridge Common; Common land	SN 108 141	Post-Medieval, Medieval
19255	Narberth Bridge, existing structure	SN 1074 1408	Post-Medieval
19258	Mill Lane; Mill Pond Road; former mill	SN 109 141	Post-Medieval

Table 1: Known HER sites within a 300m radius of the new CSO location

The 1880s first edition and 1906 Ordnance Survey Maps indicate that the area of the proposed replacement CSO, associated sewer pipe and outfall were located on undeveloped land to the east of the bridge, presumably the area recorded as Narberth Bridge Common on the HER. The mill and mill pond recorded on the HER are also shown on this map lying beyond the eastern end of the replacement sewer pipe. A field boundary was formerly present crossing the eastern part of the pipeline.

ARCHAEOLOGICAL WATCHING BRIEF

Methodology

The archaeological watching brief methodology consisted of three site visits being made to the site to observe groundworks associated with the installation of the CSO and sewer pipeline. The watching brief visits were undertaken on the 22nd, 26th and 27th January.

Results

Prior to the commencement of the watching brief some initial groundworks had taken place associated with the establishment of the contractor's compound and trackway from the compound to the CSO location to the west, as well as initial excavation over the top of the existing sewer pipe at its western end where it was partly buried (**Photos 1 & 2**). Part of the main CSO area had been stripped of turf and overburden onto the underlying subsoil (**Photo 4**). The existing sewer pipeline was visible as a raised concrete shielded pipe to the east and buried to the west (**Photos 1, 2, 5 & 6**). The ground was particularly boggy in the area adjacent to the pipe, and the movement of machines had caused significant rutting of the ground surface (**Photos 1, 2 & 4**). As the majority of the new sewer was to be placed on top of the existing sewer pipe, only already disturbed ground was to be removed. For this reason and due to the boggy nature of the adjacent ground, no further archaeological observation was considered necessary in this area.

The site of the proposed CSO lay directly to the east of the A478 and north of the bridge. Although the chamber for the new CSO was only to measure 2.5m x 5m, it was necessary for the contractors to open an area of around 5m x 8m to allow for a working area and possible coffer damn (that in the end was not necessary). The area was stripped using a mechanical excavator with a toothed bucket. The existing sewer crossed through the centre of the area, and numerous other service trenches were present along the road side, with smaller electric cables crossing in a number of directions (**Photo 3**). The western edge of the CSO working area was excavated to a greater depth to uncover the depth of the existing sewer pipe, where the sewer diversion would be attached (**Photo 3**).

Following diversion of all live services (including the sewer) the area of the proposed CSO was stripped below the topsoil into the underlying subsoil to the top of the original sewer pipe (**Photos 5 & 6**). The topsoil measured approximately 0.45m in depth across the working area, with between 0.5m and 0.75m depth of subsoil beneath, comprising a dark brown to reddish brown silt clay sand, with common fragments of modern brick, ceramics and other detritus. This subsoil appeared to be made ground.

The majority of the stripped area was observed for archaeological features, excluding an area adjacent to the existing road line which had filled with water and sewage, and the northern side of the area where the new sewage pipe divert had been constructed (**Photo 5**). The edges of the area were not neatly machined, but it was fairly even across the central part, allowing an assessment of the presence or absence of archaeological features to be made. No significant archaeological features were observed in the area, and no archaeological finds were recovered. A single linear feature was observed on the eastern side of the area close to and parallel with the road line. Following a brief investigation the feature was considered to be another service trench, which was confirmed following the use of a Cable Avoidance Tool. A single piece of North Devon Gravel Tempered Ware pottery was recovered from the top of the service trench (dating from the 17th to 20th century).

A final visit was made to the site once the ground level had been reduced further to the bottom of the original sewer pipe (around 1.2m from road level) and the edges of the working area had been stripped, to confirm that no archaeological features were present around the edges (**Photos 7 & 8**). The site area had partially filled with water at the time of this visit, although it was possible to see the stony, red-brown clayey rab beneath. No features or finds of archaeological significance were revealed. As the area was now cut into the previously undisturbed natural ground, no further archaeological observation was necessary.

The excavation of the narrow sewer outfall, leading to the Narberth Brook to the south, was not archaeologically monitored, as it was to be excavated at a relatively shallow depth through alluvial deposits on the bank and unlikely to disturb any significant archaeological deposits.

CONCLUSIONS

An archaeological watching brief was undertaken during groundworks associated with sewerage improvements at Narberth Bridge, Pembrokeshire. The sewerage improvements included the construction of the CSO chamber, sewer pipeline renewal and sewer outfall.

The sewer pipeline replacement was not observed as the proposed works included the construction of a new pipeline above the existing. It was considered most unlikely that any archaeological remains would be impacted upon by these works.

The construction of the sewer outfall, from the CSO chamber to the Narberth Brook, was also considered unnecessary to observe, as the depth of the proposed pipeline would not go beneath the topsoil and subsoil (made ground containing modern detritus) as seen in the main area of the CSO.

The working area for the CSO was stripped by machine in three stages, the first removing topsoil, the second to the top of the existing sewer pipe, and the third strip down to c.1.2m below road level (and base of the existing sewer pipe). No archaeological features or significant finds were made during the works, excluding the recovery of a single sherd of North Devon Gravel Tempered Ware, which could conceivably date to the 17th century (although this type of pottery continued to be made into the 20th century).

Natural ground was reached at a depth of *c.*1.2m below road level, comprising a reddish-brown clayey rab. The base of the trench contained no visible evidnce of archaeological features or finds.

Although no archaeological features or finds were observed at the site, the archaeological potential of the surrounding area is not considered to be diminished. The working area of the CSO revealed an area of made ground of modern date to the north of the bridge and east of the road, which may be derived from activities associated with the road construction and later improvements, as well as installation of the existing sewer pipe. Numerous other services were present along the road frontage, which will have again disturbed or removed any archaeological deposits that may have been present in this area (including any earlier road surfaces).

SOURCES

Map

Ordnance Survey 1880s 1:2500 - Carmarthenshire

Ordnance Survey 1906 1:12500 - Carmarthenshire

Ordnance Survey 1:50,000 Land Ranger

Information from Morrison Construction

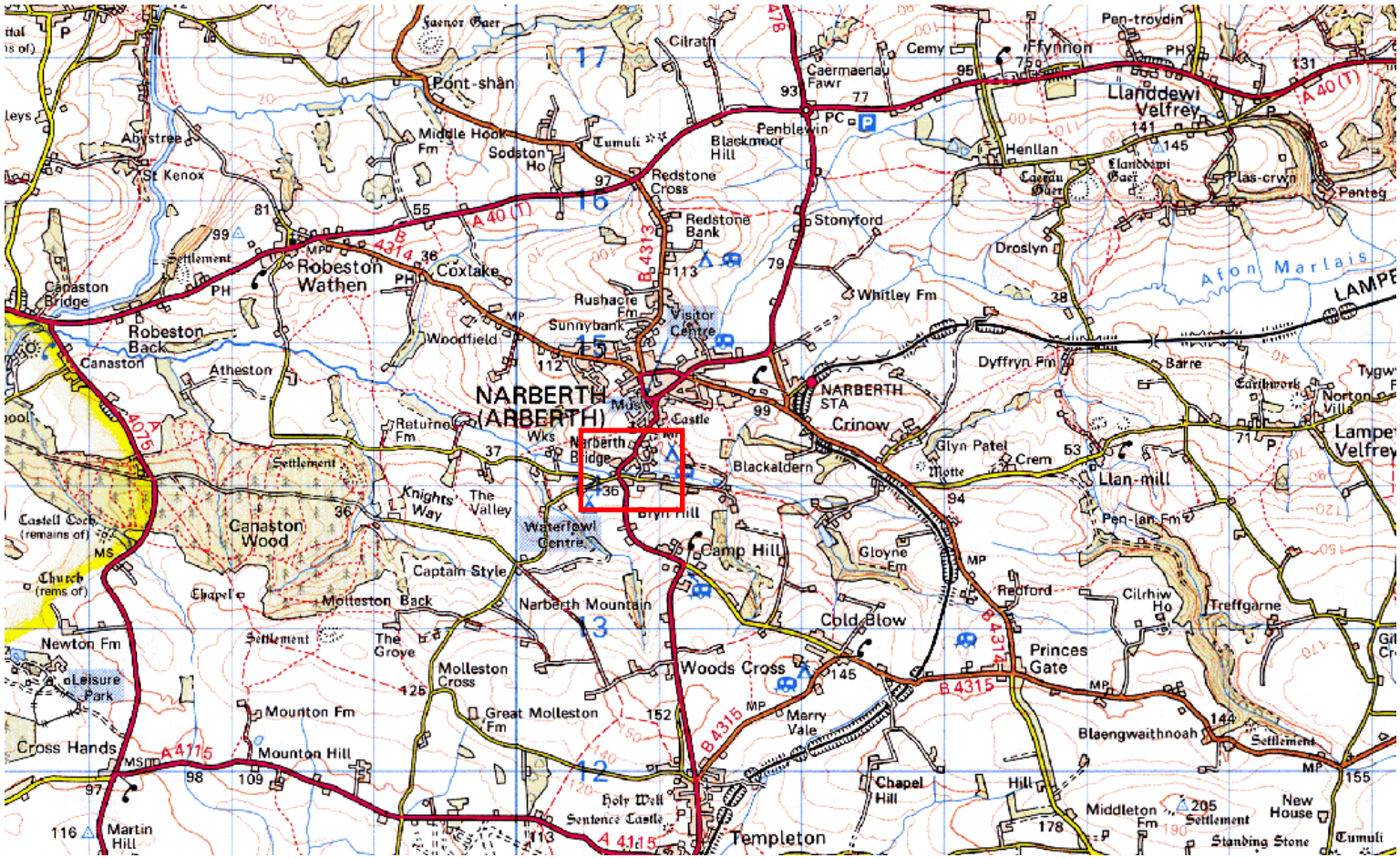

Figure 1: Location map of watching brief site based on Ordnance Survey.

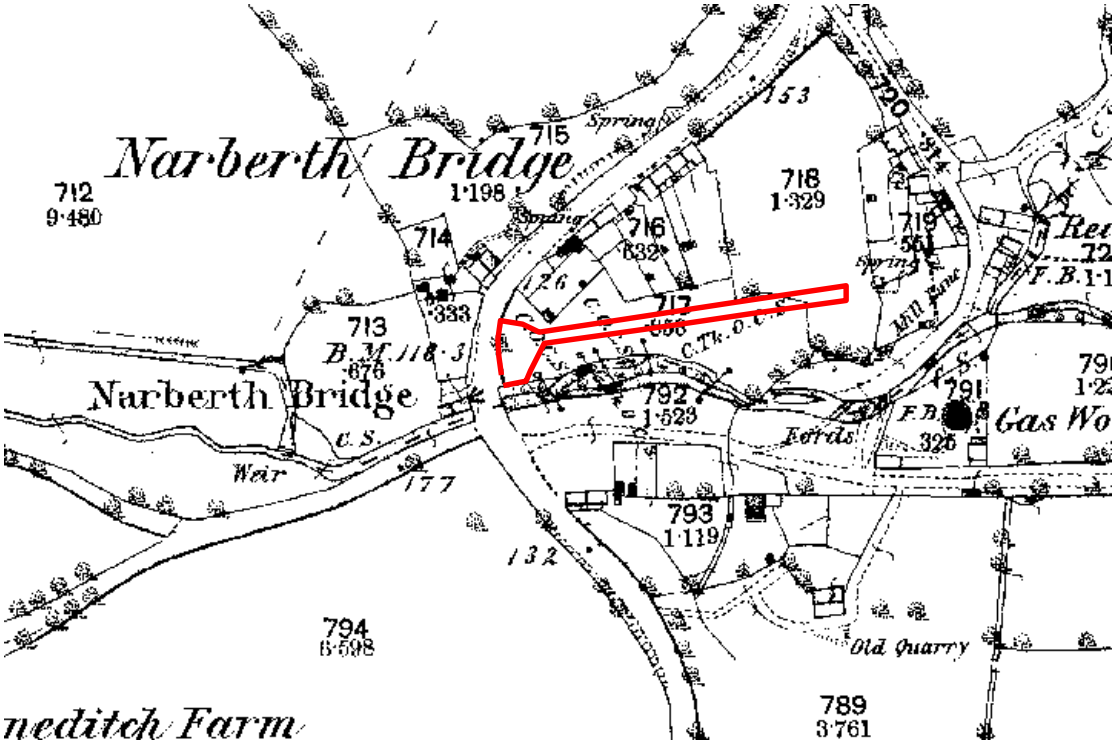

Figure 2: Extract of First Edition Ordnance Survey Map (1880s) showing area of main CSO replacement works.

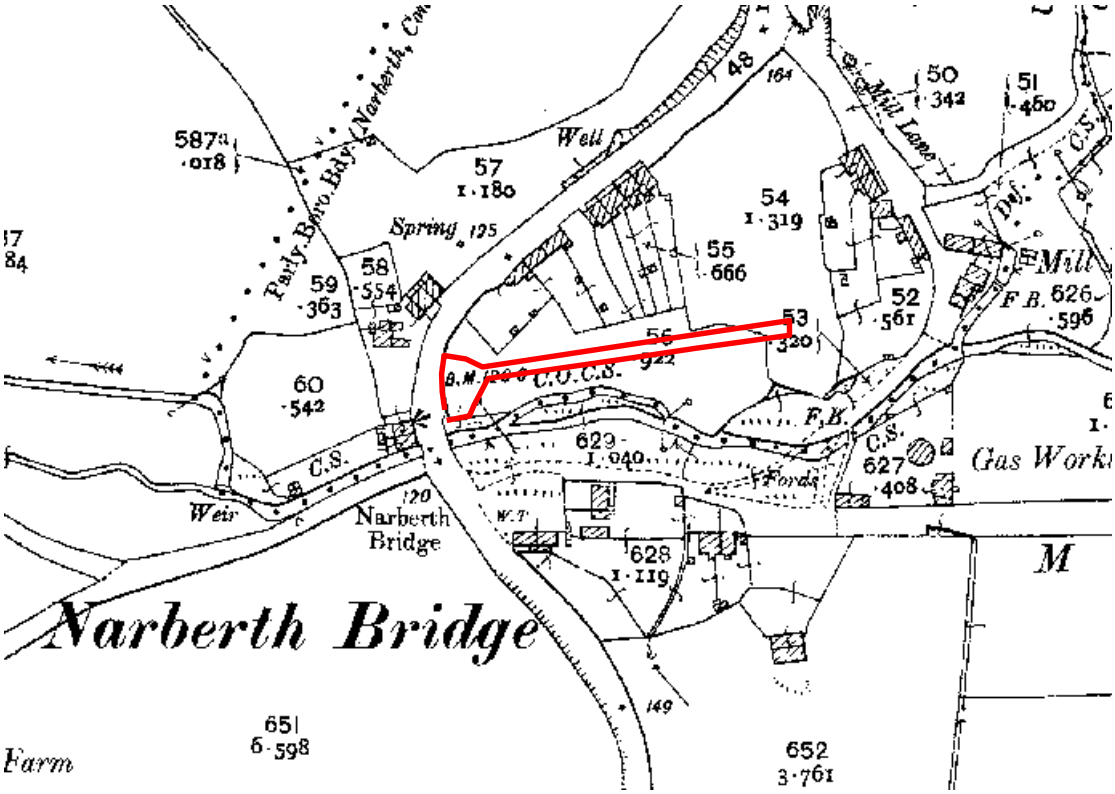

Figure 3: Extract of Ordnance Survey Map of 1906 showing area of main CSO replacement works.

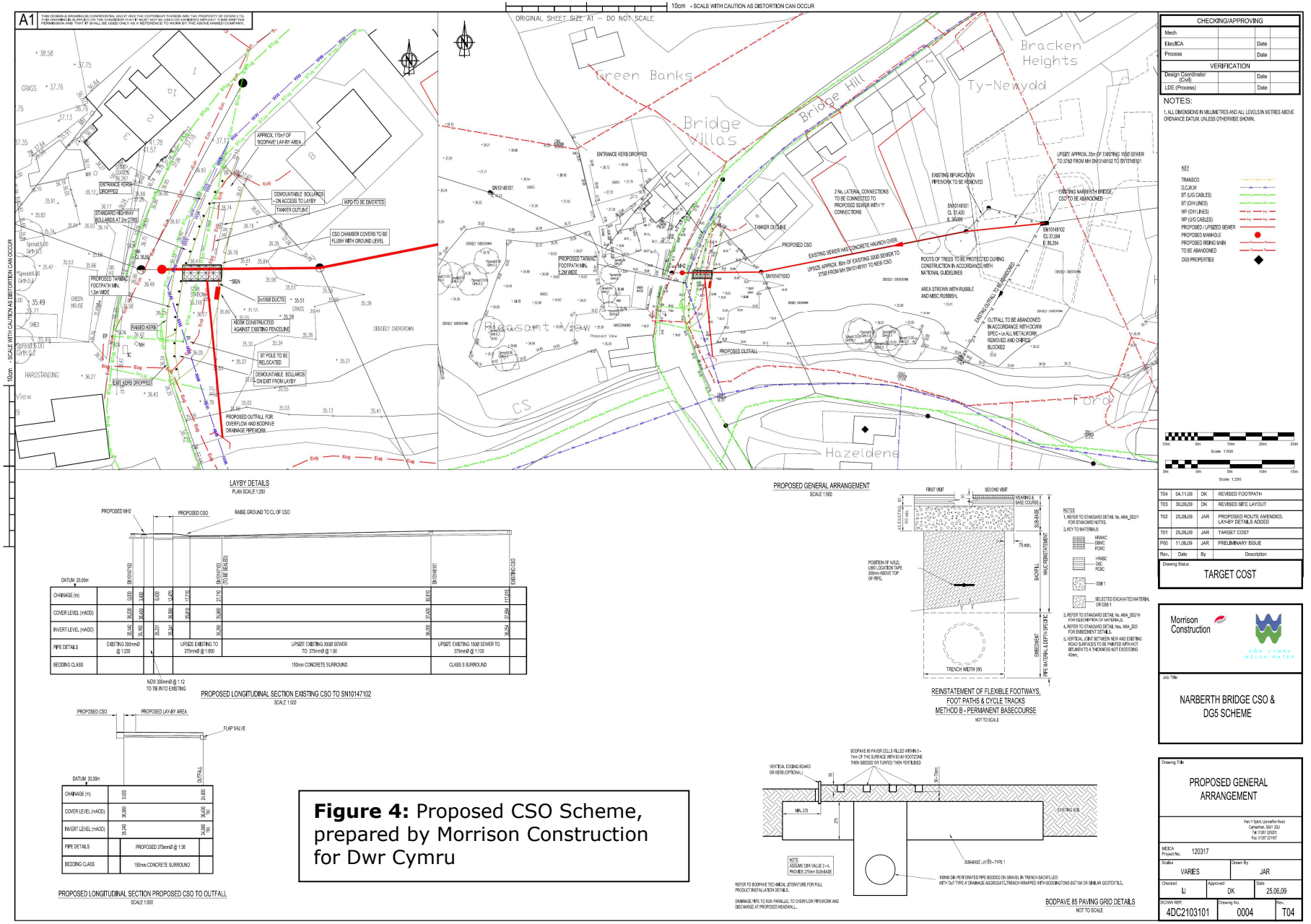

Figure 4: Proposed CSO Scheme, prepared by Morrison Construction for Dwr Cymru

PERIOD	**APPROXIMATE DATE**
Palaeolithic	*c.*225,000 BC – 10,000 BC
Mesolithic	*c.*10,000 BC – *c.*3500 BC
Neolithic	*c.*3500 BC – *c.*2000 BC
Bronze Age	*c.*2000 BC – *c.*600 BC
Iron Age	*c.*600 BC – 43 AD
Roman	43 AD – 410 AD
Early Medieval	410 AD - 1066
Medieval	1066 - 1485
Post Medieval	1485 – *c.*1900
Modern	*c.*1900 onwards

Table 1: Archaeological and Historical Timeline for Wales.

Photo 1: View east along line of existing sewer, showing waterlogged ground conditions

Photo 2: View west along existing sewer pipe area from contractor's compound towards CSO

Photo 3: Services and existing sewer adjacent to road line, view west

Photo 4: General view of initial topsoil stripped working area of CSO, view north

Photo 5: Working area of CSO following soil strip to top of existing sewer and showing replacement sewer pipe connection, view north

Photo 6: CSO working area showing top of existing sewer pipe (view northeast)

Photo 7: CSO working area stripped into natural substratum, view west

Photo 8: CSO working area stripped into natural substratum, view east

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James Meek

Swydd / Position: Head of Field Services

Llofnod / Signature ..... Date

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

Richard Ramsey

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

Swydd / Position: Project Manager

Llofnod / Signature ..... Date

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

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