

**ARCHAEOLOGICAL DESK-BASED ASSESSMENT
PROPOSED DEVELOPMENT AT
RIVERLAND, CARMARTHEN**

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SUMMARY

A proposal to develop an area of the south bank of the Afon Tywi opposite the town of Carmarthen requires an Environmental Assessment (EA) to support the planning application. Part of the EA was an archaeological desk-based assessment of the historical and archaeological potential of the site. The site includes an area of reclaimed river floodplain, the mainline railway station and adjoining Railtrack yard.

The assessment has shown that, prior to the construction of the railway line and station in the late 19th- and early 20th- century, the area south of the river was undeveloped pasture used for grazing, possibly since the medieval period. Embankment of the area appears to have taken place sometime during the later 18th- or the early 19th- century. The buried flood plain deposits present across the site may contain valuable palaeoenvironmental information on the development of the region and the impact that medieval Carmarthen town had on the landscape and environment.

1. INTRODUCTION

1.1 PROJECT PROPOSALS AND COMMISSION

A planning application is to be made for a mixed development on the south bank of the Afon Tywi, opposite the Quay, in Carmarthen. An environmental impact assessment (EA) is to be prepared in support of the application, and Chapman Warren commissioned Archaeoleg Cambria Archaeology Field Operations in June 2000 to compile an assessment on the archaeological and historical interests within the site and the potential impact of the proposed development on those interests.

1.2 SCOPE OF THE PROJECT

The project had three main objectives:

1. To identify the archaeological interests within the site.
2. To assess the potential impact of the proposed development on those interests.
3. To highlight those areas where further work is required and to outline *possible* mitigation measures.

These aims were achieved through a desk-based assessment of available primary cartographic and documentary sources as well as published material. A walk-over of the site was also carried out to identify any areas of archaeological interest or potential.

1.3 REPORT OUTLINE

This report describes the historical development of the study area (Section 2) before summarising the likely impact of the proposals on the archaeological resource (Section 3). Outline recommendations based on the results of Sections 2 and 3 are given in Section 4. Supporting data are presented in a series of appendices.

1.4 ABBREVIATIONS USED IN THIS REPORT

All sites recorded on the county Sites and Monuments Record will be identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Any new sites will be assigned a PRN and located by their NGR. References to primary cartographic and documentary evidence and published sources will be given in brackets, with full details given in the bibliography.

2. HISTORICAL DEVELOPMENT OF THE STUDY AREA

2.1 LOCATION (fig 1)

The proposed development site lies on the southern bank of the Afon Tywi on the southwestern edge of Carmarthen at NGR SN41001960. It covers an area of c.35 acres of reclaimed land at approximately 5m above Ordnance Datum (OD) and includes the existing mainline railway line and Carmarthen railway station. The site lies within the Tywi Valley registered Landscape of Outstanding Historic Interest (Cadw *et al* 1998, 25-29) and within a Special Conservation Area. It is bounded on the north by the Afon Tywi, on the south and east by the rear boundaries of a number of modern retail and industrial units, and on the west side by a river that crosses the site.

2.2 LANDSCAPE DEVELOPMENT

2.2.1 THE MODERN LANDSCAPE

The landscape of today is the result of a complex interaction between natural and human processes that have constantly influenced and re-shaped the environment over thousands of years. Those processes are particularly evident in tidal river environments, such as that in the assessment site, where the hydrological dynamics can rework the landscape on every tide and where efforts to use and control the river have resulted in the construction of quays and flood embankments. This on-going tension between natural processes and human actions results in riverine landscapes of immense importance and interest which have, as well as an intricate surface history, an important added dimension - the buried palaeoenvironmental record contained in the underlying alluvial and organic deposits.

The palaeoenvironmental record contains evidence of, *inter alia*, past vegetation, climate and sea level changes which can be used to reconstruct past environmental conditions and to identify factors which have influenced landscape development and change. Radiocarbon dating of the deposits can provide a chronological framework within which that development and change can be assessed.

2.2.2 THE HISTORIC LANDSCAPE

There is a variety of available evidence with which to assess the historic development of the landscape south of the Tywi. A programme of palaeoenvironmental sampling and analysis carried out in the Pensarn area, c.500m southeast of the assessment site, as part of the Carmarthen Eastern Bypass works, has produced a clear picture of landscape development during the medieval period. This along with documentary and published sources has been used for the following discussion.

The palaeoenvironmental work from Pensarn (Walker *et al* 2000) has shown that prior to the 9th century the area was estuarine in character with alder carr on the fringes. Woodland stands containing oak, hazel and ash were present

on the lower slopes of the valley and on the drier parts of the valley floor. Signs of woodland clearance and possible evidence of agriculture begin in the 12th century, possibly associated with the establishment of Carmarthen Castle and the town, and continue into the 15th century when the area was again inundated, this time by freshwater fluvial deposits.

There may be many processes which influenced the change from estuarine to freshwater alluvium, but a significant factor may have been the possible establishment of the road that ran on the line of Pensarn Road to the bridge. It is possible that the bridging point on the Tywi is unlikely to have altered since the Roman period, so the line of Pensarn Road may also be Roman (PRN 24465 - fig 1) and therefore an important and historic route south from Carmarthen. Because of the boggy nature of the area the road leading to the bridge must have been constructed on some kind of causeway, and it is likely that over time that causeway was rebuilt and raised. By the 15th century it may have been raised enough to have caused a dam effect forcing the freshwater from the river to pond behind the causeway during high tides.

The area south of the Tywi was known as Horsemoor in the 14th century (James 1980, 41), and a reference from October 1609 mentioned a parcel of marsh opposite Carmarthen called 'Guerne y Kesech or such like name' (Rees 1953, 247). It is clear that the chronicler was English and so did not understand the Welsh placename, but a reasonable translation of the name is Guerne = Gwern = alder carr + Kesech = Caseg = mare. Therefore, the translation would be *the mares alder carr* or *the alder carr of the mares*. The use of the Gwern (alder carr) placename element tends to support the environmental evidence. In the early- to mid-19th century the area, including the assessment site, was known as Horsemead. Not only is this a remarkable continuity of name, but it also indicates that the area south of the river was, prior to the 19th century, largely undeveloped.

John Speed's map of Carmarthen (1610), the earliest known map of the town, does not show any development on the southern river bank. Likewise, several 18th and 19th century prints of the southern aspect of Carmarthen, which show parts of the southern river bank, do not show any buildings or any form of development south of the river. One print by Samuel and Nathaniel Buck of Carmarthen Castle and town, 1740, shows a ship anchored, or beached close to the gently sloping southern bank, just downstream of Carmarthen Bridge (Lodwick and Lodwick 1972). There is no embankment shown on this print and it seems that this area was rough grazing which was prone to flooding until it was embanked in the late-18th or early-19th century.

2.3 THE SURFACE HISTORY

The surface history of the assessment site contains evidence for a period of embankment and enclosure of the riverside marsh and the construction of the railway line and the present mainline station during the late-19th and early-20th centuries. There is also evidence of small-scale industrial development in the east and northeast sections of the site.

2.3.1 EMBANKMENT AND RECLAMATION OF THE ASSESSMENT SITE

It is not known when the first river embankment was constructed along the south side of the Afon Tywi. The first map evidence of any form of embankment within the assessment site dates from 1852, when a bank is shown on its present line (map ref: CRO Museum Collection, Carm. Maps 4). No embankment was marked on the tithe map of 1841 (fig 2), but it may simply have been excluded from the map rather than being actually absent. The present embankment (PRN 30028 - fig 1) was originally part of a larger system of flood defences along the lower reaches of the Tywi.

The bank, which survives as a low, grass-covered spread bank - c.3m wide at the base x up to 1.5m high in places, carried a path around the curve of the river from the Bascule Bridge eastwards to the road leading from the present day Station Approach (Gale 1995 - description from SMR Site Record Form, 30028). The path along the embankment became a popular walk during the later 19th century and 20th century when the area was known as The Bulwark (Davies 1984, plates 7-8).

Drainage of the embanked area was achieved through a system of natural and artificial drains and included both soft and hard drainage, consisting of open drains and field ditches (soft drainage) and buried field drains (hard drainage). Aerial photographs of the area from the mid-1950s show that the hard drainage is largely confined to the area just northwest of the railway station which suggests that it may have been part of the stabilization works prior to the construction of the station.



Plate 1: View west along the present flood defence bank (PRN 30028). The sides of the bank show are highlighted by the yellow flowers.

2.3.2 CARMARTHEN STATION (PRN 20362) AND RAILWAY

The history of the railway at Carmarthen is complex. A total of eight separate rail companies operated services into Carmarthen at various times during the 19th century. Many of the companies were locally based, underfunded and, as a result, fairly short-lived. Most of them were ultimately taken over by the major rail companies. As with most venture enterprises during the mid-19th century there was a lot of financial speculation in the railways with new lines being sought and developed very quickly. Carmarthen, for example, had three stations in less than 50 years all built by different companies. The first station was constructed at Myrtle Hill, 2km southwest of the town, during the 1850s by the Carmarthen and Cardigan Railway Company (Page 1994, 6). The second was built on a site north of the Tywi, in Station Road, by the London and North Western Railway (L&NWR) in the early 1860s (Morgan 1984, 54). The present station was opened in 1902 by Great Western Railway (GWR), although the old station site, in Station Road, continued to operate as a goods depot (Page 1994, 7).



Plate 2: Carmarthen Station (PRN 20362), opened in 1902.

When Carmarthen Station opened in 1902 (figs 1 and 5) it consisted of a covered platform with waiting rooms on each line joined by a footbridge at the northeast end and a series of sidings with a turntable a short distance to the south. A second set of sidings with associated engine sheds and workshops had been added by the 1930s, some of which survive today in the southeast section of the site. The early sidings and the turntable have since been removed. Until recently the station dominated the area south of the river, and it was at one time a major employer in the town.

The present station consists of a single storey brick-built station building with a covered platform on the old eastbound line and an uncovered platform on what was the westbound line. There is a modern low, single storey red brick building at the southwest end of the station that is now used as a funeral parlour. The main fabric of the station dates from 1902, although it has been modernised and altered at its northeast end in more recent times. The eastbound platform was longer than the westbound platform.

2.3.3 INDUSTRIAL DEVELOPMENT

Small-scale industrial development occurred in the northeast section of the site at the same time as the railway was developing. The Bridge Wharf Saw Mill occupied the site from the late 19th century until the early to mid 20th century. More recently, a number of small industrial buildings have been constructed on the saw mill site, and development has also occurred along the line of the old Pensarn Road. The old line, which probably dates from the Roman period, survives in the lane leading north from the Tywi Ford roundabout along the front of the existing industrial units that flank the north end of the west side of Pensarn Road. The original road was significantly lower than the present road, which was raised when the present bridge was constructed during the 1930s.

2.4 THE POTENTIAL OF THE PALAEOENVIRONMENTAL RECORD

As noted above there are extensive peat deposits in Pensarn (Walker *et al* 2000), close to the southeast edge of the site. However, borehole and testpit data from the assessment site do not show any peat deposits on the site although they did show several organic clay deposits which may contain valuable palaeoenvironmental evidence.

3. IMPACT OF THE PROPOSED SCHEME ON THE ARCHAEOLOGICAL RESOURCE

3.1 THE SURFACE FEATURES

Most, if not all of the existing surface structures and features will be removed during the proposed redevelopment, although the open drains and watercourses may be retained in some form as part of the drainage matrix of the area.

3.1.1 CARMARTHEN RAILWAY STATION AND ITS ASSOCIATED STRUCTURES (PRN 20362)

The proposed development will require the demolition of the existing Carmarthen Station complex and its associated structures and the rerouting of the railway line.

3.1.2 THE FLOOD DEFENCE EMBANKMENT (PRN 30028)

The present flood defence bank will be removed during redevelopment of the site and a new one constructed further inland.

4. RECOMMENDATIONS

4.1 GENERAL OUTLINE OF RECOMMENDATIONS

The following recommendations are divided into two parts, both to be carried out during development works. The first part will record the surviving railway structures prior to and during demolition, and the second part will concentrate on the reclaimed land in the west half of the site. The timing of the proposed works will depend on the overall development timetable.

4.2 RECORDING CARMARTHEN STATION (PRN 20362)

4.2.1 OBJECTIVES

The main objective is to recover enough information to allow a record of the station complex's structural development, its social and architectural importance, its uses, and how the complex functioned.

4.2.2 METHODOLOGY

Recording the existing station buildings and their associated structures and features will include a descriptive summary, scale drawings and a photographic record.

The descriptive summary will outline the buildings' locations, their type, purpose, plan and structural development. It will also attempt to elucidate how the buildings functioned in terms of the range of operations that took place within them and how the movement of people through the buildings was controlled and directed.

The drawn record will provide measured plans of the buildings and elevations of architectural details where appropriate. They will define public and private spaces and include details that help to assess function and operation within the buildings. The drawings will be at an appropriate scale, usually 1:100 for plans and 1:50-1:20 for elevations.

The photographic record should be in 35mm format, colour slide and monochrome, and include the exteriors of the buildings, the interior of the main rooms and circulation points, details of architectural or decorative features and general location shots which place the buildings in their context.

4.3 THE EMBANKMENT (PRN 30028)

Recording the west half of the site should include recording the existing embankment during its removal to determine if there are any traces of earlier embankments. The record will consist of a brief written description, scale drawings of the profile of the bank and a photographic record.

4.4 GEOTECHNICAL TRIAL PITS AND BOREHOLES

Previous test pit and borehole data have shown that the area is made up of glacial gravels overlain by varying thicknesses of alluvium. None of the data revealed any evidence of the extensive peat deposits encountered at Pensarn, but it did show that some deposits contained organic material which may provide valuable palaeoenvironmental evidence. The nature and potential of these deposits should be assessed during any pre-application ground investigations on the site.

4.5 NEW INFRASTRUCTURE DEVELOPMENT

The construction of new roads and rail links to service the proposed development will require extensive ground disturbance and the works should be monitored by an archaeological watching brief.

APPENDIX ONE: PRIMARY SOURCES

CARTOGRAPHIC SOURCES

- 1841 - Llangunnor tithe map and apportionment.
- 1852 - Map of Horsemead in Llangunnor parish, surveyed by George Goode.
CRO ref: Museum Collection, Carm. Maps 4.
- 1857 Plan Showing the Line of Carmarthen and Cardigan Railway Through
Property Belonging to George Davies in the Parish of Llangunnor. NLW
ref: Map 7246.

- 1886- OS 1st ed, 1:2500 Carms Sheet XXXIX. 6

- 1906- OS 2nd ed, 1:2500 Carms Sheet XXXIX.7

- 1894- OS 1st ed, 1:10560 Carns Sheet XXXIX.NW
- 1894- OS 1st ed, 1:10560 Carns Sheet XXXIX.NE

- 1907- OS 2nd ed, 1:10560 Carns Sheet XXXIX.NW
- 1907- OS 2nd ed, 1:10560 Carns Sheet XXXIX.NW

AERIAL PHOTOGRAPHIC SOURCES

- 1946 RAF 106G-UK-1625 frames 6079-6081
- 1955 Meridian Airmaps frames 27090-27092

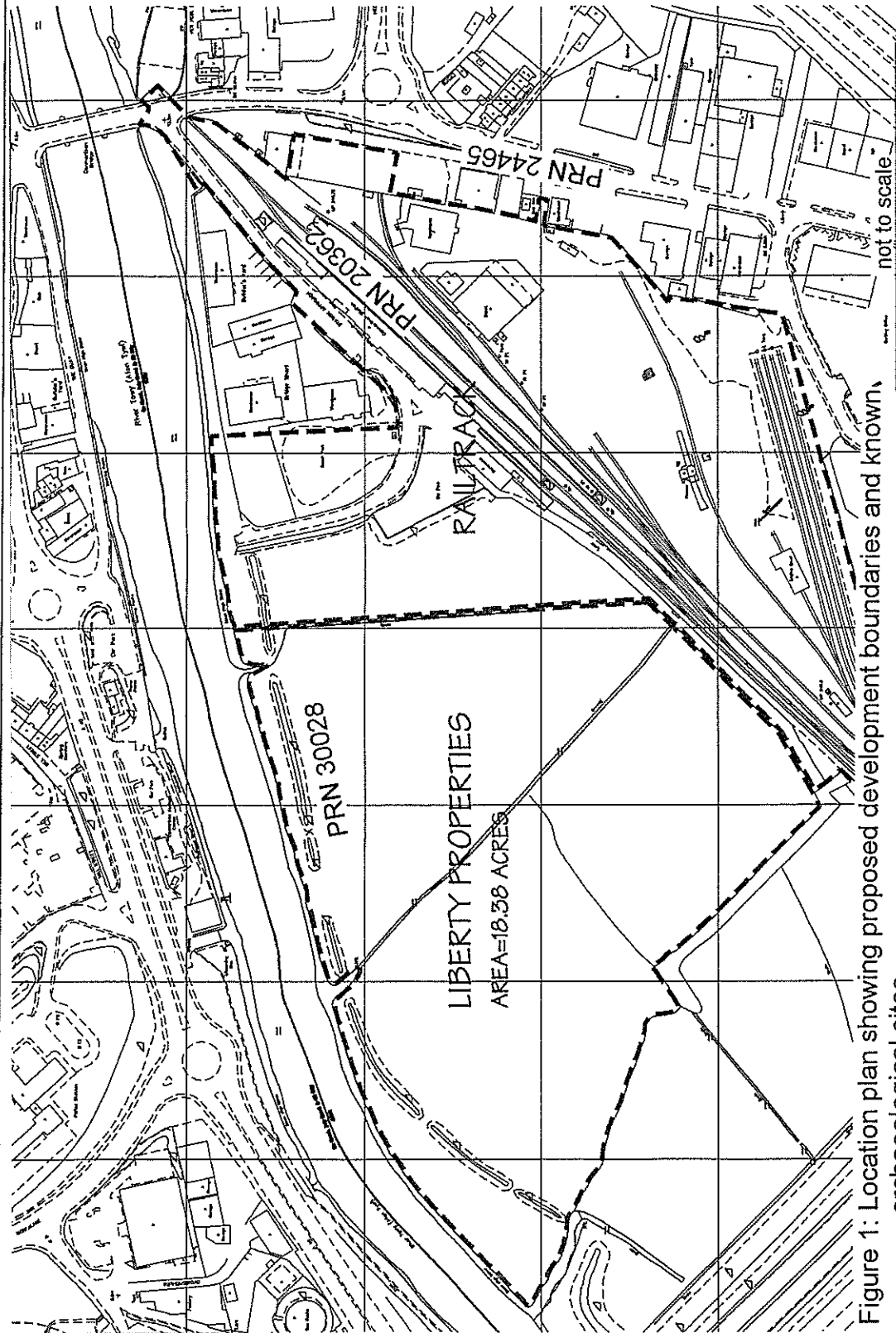
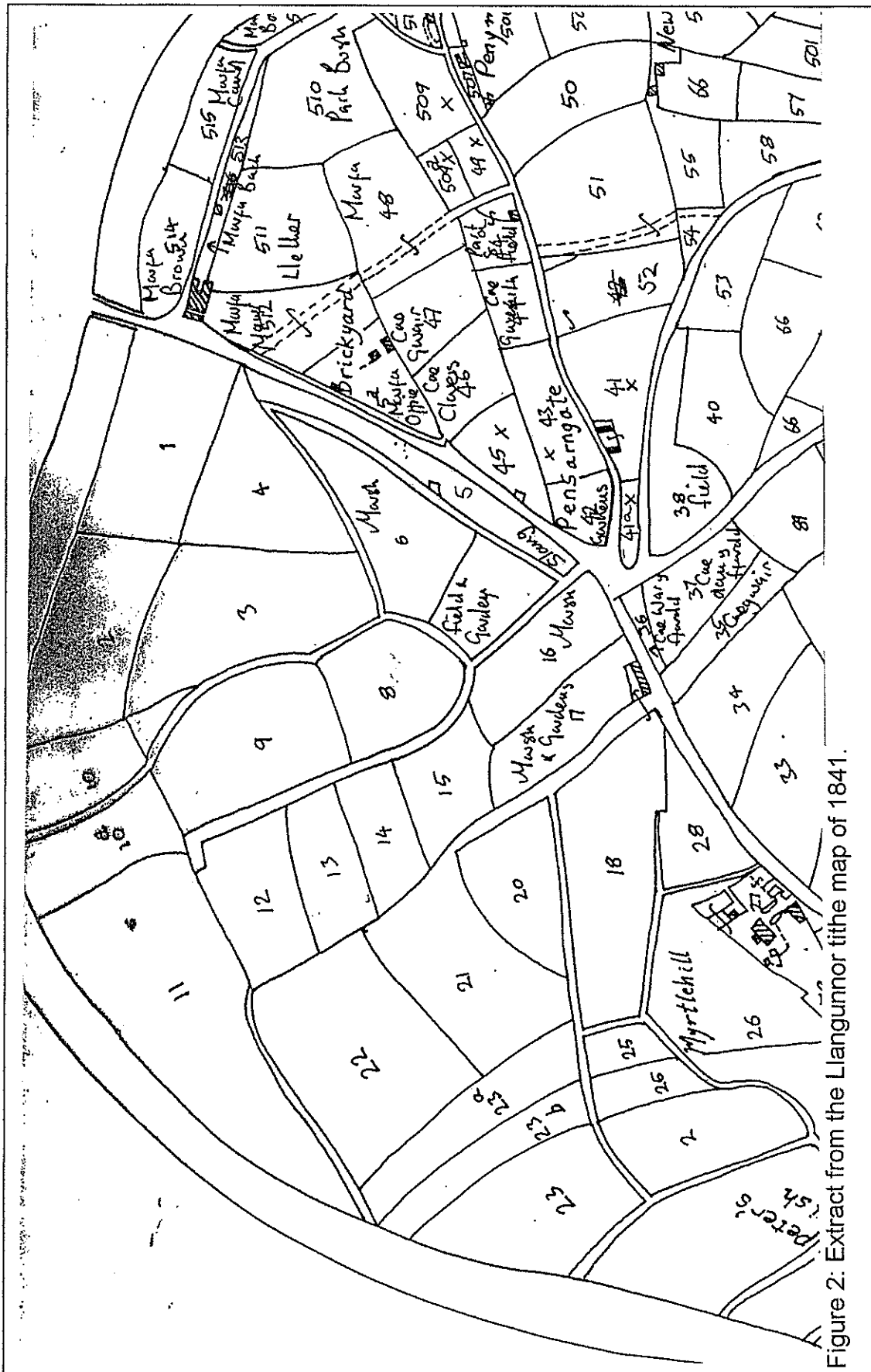


Figure 1: Location plan showing proposed development boundaries and known archaeological sites.

based on map supplied by Wigley Fox Partnership plc.



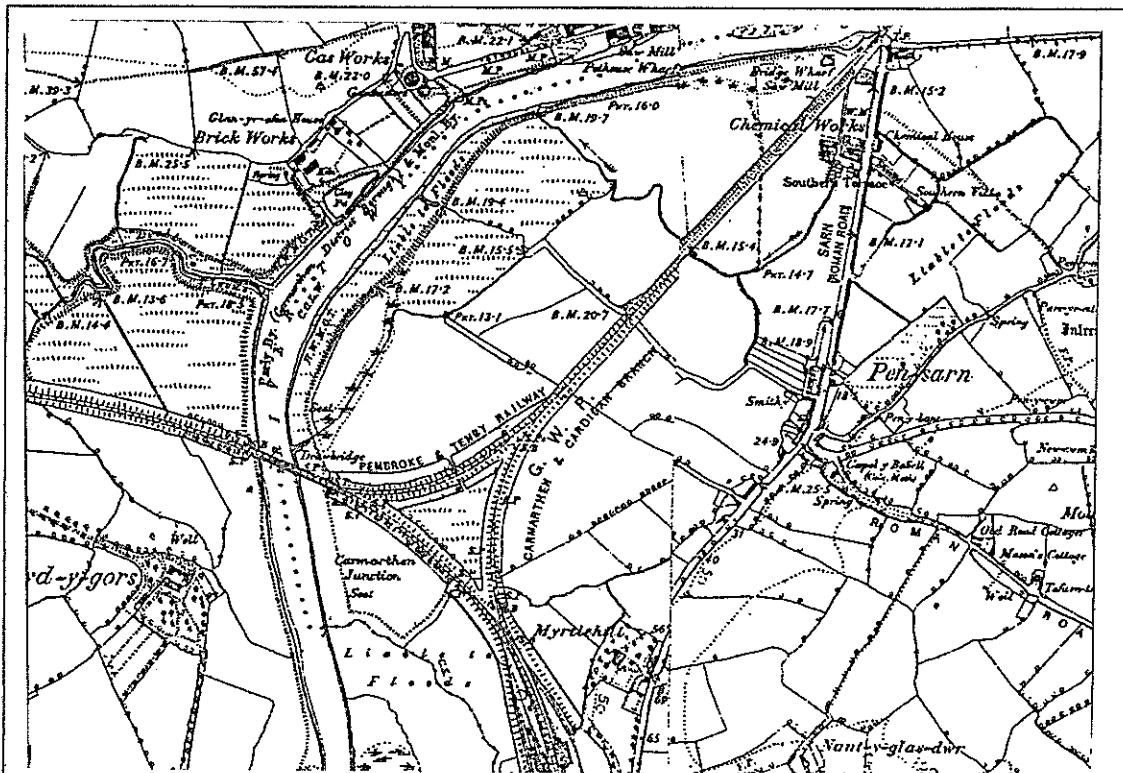


Figure 3: OS 1st edition 1:10560 map sheets Carms.XXXIX.NW + NE (1894)

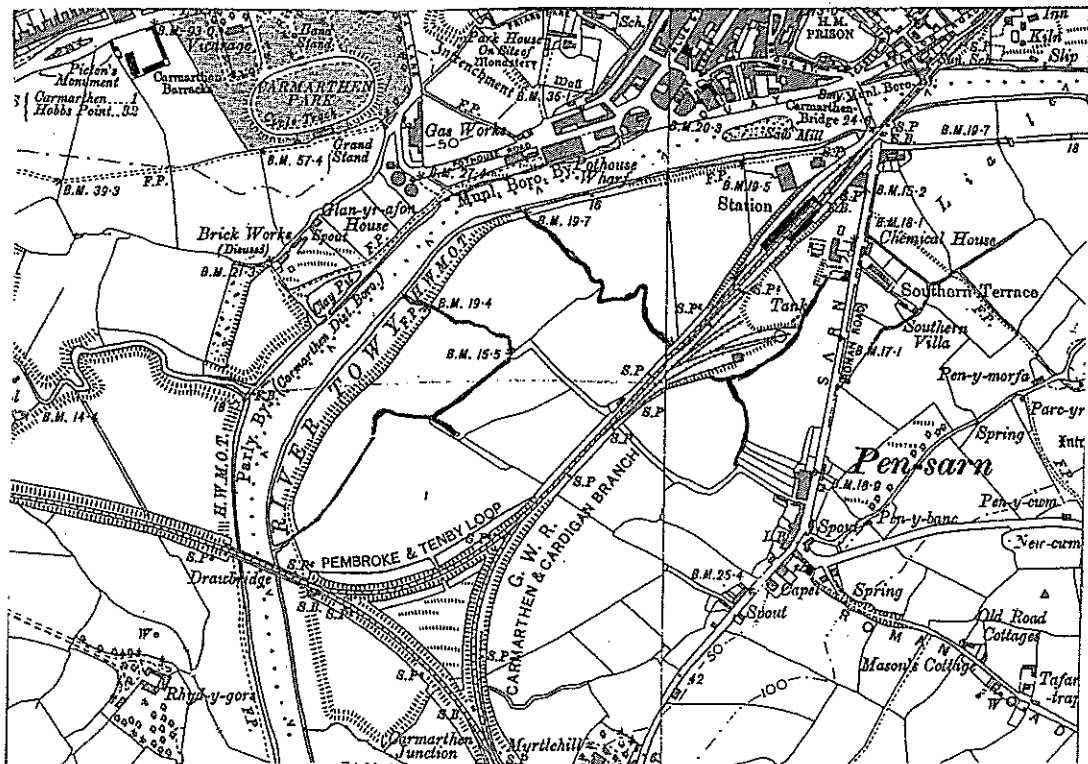


Figure 4: OS 2nd edition 1:10560 map sheets Carms.XXXIX.NW + NE (1907)

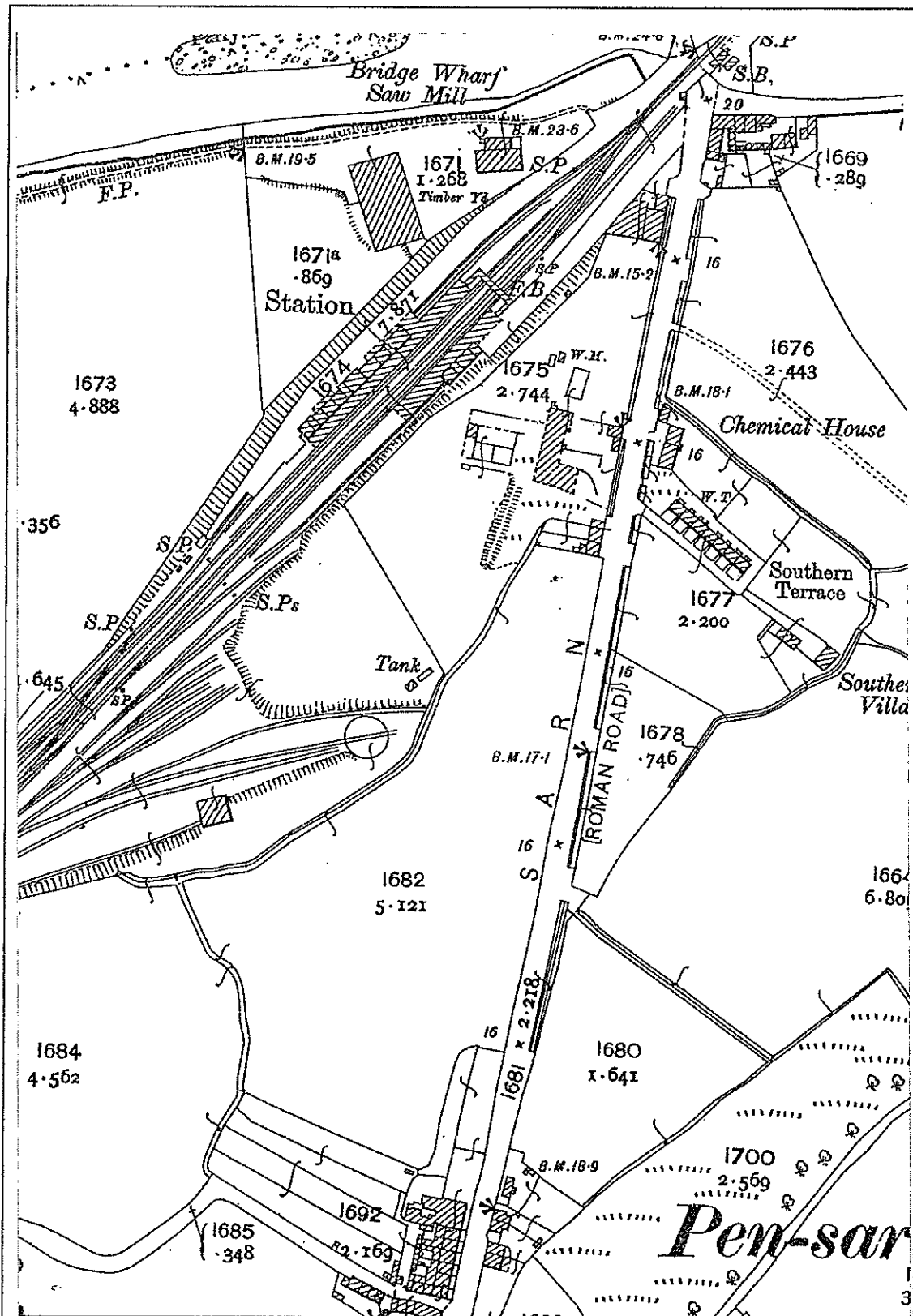


Figure 5: Detail of Carmarthen Station four years after its opening.
OS 2nd edition 1:2500 map sheet Carms.XXXIX.7 (1906)

APPENDIX TWO: CATALOGUE OF RESEARCH ARCHIVE

The project archive has been indexed and catalogued according to National Monument Record (NMR) categories and contains the following:

- A.** Copy of the report.
- B.** Notes from site visits.
- D.** Site photographs - catalogue, colour slides
- G.** Documentary data, including primary and published sources.
- I.** Draft copies of report.
- J.** Publication drawings.
- M.** Miscellaneous correspondence

There is no material for classes **C, E, F, H, K, L** and **N**.

The project archive is currently held by Archaeoleg Cambria Archaeology Field Operations, Llandeilo, Carmarthenshire as project number 41035.

BIBLIOGRAPHY

- Cadw, CCW & ICOMOS 1998 *Register of Landscapes of Outstanding Historic Interest in Wales*. Cadw: Welsh Historic Monuments. Cardiff.
- Davies A 1984 *Old Carmarthen/Yr Hen Gaerfyrddyn*. Gomer. Llandysul.
- Gale A 1995 *Between Tides, A Coastal Survey of Carmarthen Bay: A Pilot Project*. DAT report, Llandeilo
- James T 1980 *Carmarthen: an Archaeological and Topographical Survey*. Carmarthenshire Antiquarian Society Monograph Series No 2. Carmarthen.
- Lodwick J & Lodwick V 1972 *Story of Carmarthen*. St. Peter's Press. Carmarthen.
- Morgan H 1984 *South Wales Branch Lines*. Ian Allen. London.
- Page N 1994 *Proposed Carmarthen Eastern Bypass: archaeological stage 2 desk-top assessment and field search*. Unpublished DAT report. Llandeilo.
- Rees W 1953 *A Survey of the Duchy of Lancaster Lordships in Wales 1609-1613*. University of Wales Press. Cardiff.
- Walker M, Caseldine A, Cameron N, Dobinson S, James H & Johnson S 2000 *Further palaeoecological investigations of buried peats along the route of the Carmarthen Eastern Bypass*. Palaeoenvironmental Research Centre, University of Wales, Lampeter.