



Appendix 3.7

Archaeological Desk-Based Assessment (April, 2022)

ARCHAEOLOGICAL DESK BASED ASSESSMENT

Barry Biomass Facility, Woodham Road, Barry, Wales, CF63 4JE

JAC27960

Barry Biomass Facility,
Woodham Road, Barry,
Wales, CF63 4JE
March 2022

ARCHAEOLOGICAL DESK BASED ASSESSMENT

Quality Management

Version	Status	Authored by	Reviewed by	Approved by	Review date
1	DRAFT	Edward Hawkins	Mick Rawlings	Mick Rawlings	08-03-22
2	Revised draft	Edward Hawkins	Mick Rawlings	Mick Rawlings	4-4-22
3	FINAL	Edward Hawkins	Mick Rawlings	Mick Rawlings	7-04-22

Approval for issue

Mick Rawlings 07-04-22

File/Model Location

Document location: JAC27960

Model / Appendices location: JAC27960

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EXECUTIVE SUMMARY

The subject of this assessment comprises a plot of land north of Dock No.2 occupied by a modern Biomass Facility, comprising a wood fired renewable energy plant, on Woodham Road, Barry, Wales, CF63 4JE - referred to in this report as the Study Site. The Study Site is approximately centred at NGR ST 12595 67700 (Fig.1). The Study Site has been assessed for its Archaeological potential.

The purpose of this assessment is to assess the archaeological potential of the Study Site and to retrospectively assess the impact of the construction and future de-commissioning of the existing Biomass Facility on the Study Site, which is subject to a forthcoming Enforcement Appeal. Archaeological matters are not mentioned in the relevant Enforcement Notice issued by the Vale of Glamorgan.

In accordance with relevant government and local planning policy and guidance, a desk-based assessment has been undertaken to clarify the archaeological potential of the Site.

In terms of relevant designated archaeological heritage assets, no World Heritage Sites, Registered Historic Battlefields, Registered Parks and Gardens or Historic Wreck sites lie within the immediate vicinity of the Site. A Scheduled Ancient Monument, Round Barrow 612m North of Bendrick Rock (ref.3295), lies c.500m to the southeast of the Study Site.

This report does not assess Built Heritage matters. This report assesses the below ground archaeological potential of the Site only. Please refer to the Built Heritage Statement as provided as an Appendix of the ES.

Past archaeological investigation within a 1km radius of the Site have produced limited results. Many archaeological investigations locally have recorded no finds or features or only evidence of post-Medieval development dating primarily from the 19th Century onwards. Several instances of archaeological evidence having been found locally since the 19th Century are recorded on the regional Historic Environment Record by word of mouth or other sources of uncertain provenience.

Based on the available information, the Site is considered to have a low archaeological potential to contain artefactual or settlement evidence relating to any pre-modern period of human activity. The Site is considered to have a high potential to contain made ground and debris relating to the rail lines that occupied the Site between c.1890 and c.1980. Any evidence of rail sidings within the Site would be of limited local significance only.

Based on the extent of material deposition and below ground impacts inherent in the development of Barry Docks it is considered highly unlikely that any archaeological evidence pre-dating the docks has survived within the Study Site following its construction.

In conclusion, it is considered highly unlikely that the development of the Biomass Facility following construction from 2016 has had any impact on archaeological remains. No archaeological impacts are identified as arising from the operation of the Biomass Facility. The decommissioning of the Biomass Facility at an undetermined future date is also considered highly unlikely to have any archaeological impact.

This Archaeological Desk Based Assessment is sufficient in respect of relevant legislation and national and local planning policy and guidance to inform a decision on the scoping out of Archaeological matters from the forthcoming Enforcement Appeal and accompanying Environmental Impact Assessment.

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1 INTRODUCTION AND SCOPE OF STUDY

- 1.1 This archaeological desk-based assessment has been prepared by RPS Consulting Services UK Ltd on behalf of Biomass UK No. 2 Ltd.
- 1.2 The subject of this assessment comprises a plot of land north of Dock No.2 occupied by a modern Biomass Facility, comprising a wood fired renewable energy plant, on Woodham Road, Barry, Wales, CF63 4JE - referred to in this report as the *Study Site*. The Study Site is approximately centred at NGR ST 12595 67700 (Fig.1).
- 1.3 Biomass UK No. 2 Ltd have commissioned RPS Consulting Services Ltd to establish the archaeological potential of the Study Site and assess the potential construction and operational impacts of the existing Biomass Facility following its construction between February 2016 and Q1 2018.
- 1.4 In accordance with the relevant government and local policy and guidance on archaeology and planning, and in accordance with the 'Standard and Guidance for Historic Environment Desk-Based Assessments' (Chartered Institute for Archaeologists, 2021) this assessment draws together the available archaeological, topographic and land-use information in order to clarify the archaeological potential of the Study Site.
- 1.5 This desk-based assessment comprises an examination of evidence held on the regional Historic Environment Record (HER) within a 750m radius of the Study Site, shown on Figure 2, maintained by the Glamorgan Gwent Archaeological Trust (GGAT) and other sources, including the results of a comprehensive map regression exercise. The 750m radius shown on Figure 2, referred to as the Study Area, is proportionate to Study Site and sufficient to understand the archaeological context of the are in accordance with relevant guidance and professional judgement.
- 1.6 This document clarifies the archaeological potential of the Study Site, consider the retrospective impacts which would have arisen from the construction of the existing Biomass Facility and reviews the need for design, civil engineering, and archaeological solutions.

2 PLANNING BACKGROUND AND DEVELOPMENT PLAN FRAMEWORK

Legislation

- 2.1 National legislation regarding archaeology, including scheduled monuments, is contained in the Ancient Monuments and Archaeological Areas Act 1979, amended by the National Heritage Act 1983 and 2002, and updated in April 2014.
- 2.2 The Well-being of Future Generation (Wales) Act 2015 places duties on public bodies requiring them to act in accordance with the 'sustainable development principle'. The Act also establishes well-being goals which include achieving 'a Wales of vibrant culture and Welsh language', described as 'a society that promotes and protects culture, heritage and the Welsh language'. The Act lays down the principle that a properly protected, conserved and enhanced historic environment can improve the quality of life and well-being for everyone.
- 2.3 The Historic Environment (Wales) Act 2016 was given Royal Assent in March 2016. This Act provides the legislative framework for managing the historic environment in Wales. Accompanying the Act is new policy and guidance in the form of a Technical Advice Note (TAN) specific to the Historic Environment (TAN24, see below), and changes to Planning Policy Wales (PPW). This legislation and guidance supersedes the previous Welsh Office Circulars which formed the basis of historic environment policy in Wales.
- 2.4 The Welsh Government has published Planning Policy Wales (PPW), currently updated to Version 11 from February 2021 (PPW11). This sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs). Procedural advice is given in circulars and policy clarification letters.
- 2.5 PPW is additionally supported by guidance published by Cadw. This includes Heritage Impact Assessment in Wales (2017), and Setting of Historic Assets in Wales (2017).

National Planning Policy

- 2.6 Chapter 6 of PPW11, entitled 'Distinctive and Natural Places', has a section entitled 'The Historic Environment' (section 6.1 - pp. 125-131) which provides policy for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 6.1 in relation to the historic environment can be summarised as seeking to:
- protect the Outstanding Universal Value of the World Heritage Sites;
 - conserve archaeological remains, both for their own sake and for their role in education, leisure and the economy;
 - safeguard the character of historic buildings and manage change so that their special architectural and historic interest is preserved;
 - preserve or enhance the character or appearance of conservation areas, whilst the same time helping them remain vibrant and prosperous;
 - preserve the special interest of sites on the register of historic parks and gardens; and
 - protect areas on the register of historic landscapes in Wales.
- 2.7 Section 6.1 of PPW11 describes the historic environment as comprising all the surviving physical elements of previous human activity and illustrates how past generations have shaped the world around us. The historic environment is made up of individual historic features, archaeological sites,

historic buildings and historic parks, gardens, townscapes and landscapes, collectively known as historic assets.

- 2.8 Welsh planning legislation and policy guidance outlines that the conservation of archaeological remains and their settings is a material consideration in the determination of a planning application, whether those remains are scheduled or not (PPW11 Para. 6.1.23). In order to take account of archaeological considerations and deal with them from the beginning of the development control process, Local Planning Authorities in Wales need to be fully informed about the nature and importance of archaeological remains, and their setting, and the likely impact of any proposed development upon them.
- 2.9 Paragraph 6.1.26 of PPW11 states that where archaeological remains are known to exist or there is a potential for them to survive, an application should be accompanied by sufficient information, through desk-based assessment and/ or field evaluation, to allow a full understanding of the impact of the proposal on the significance of the remains. The needs of archaeology and development may be reconciled, and potential conflict very much reduced, through early discussion and assessment.
- 2.10 Paragraph 6.1.27 of PPW11 states that if the planning authority is minded to approve an application and where archaeological remains are affected by proposals that alter or destroy them, the planning authority must be satisfied that the developer has secured appropriate and satisfactory provision for their recording and investigation, followed by the analysis and publication of the results and the deposition of the resulting archive in an approved repository. On occasions, unforeseen archaeological remains may still be discovered during the course of a development. A Written Scheme of Investigation should consider how to react to such circumstances or it can be covered through an appropriate condition for a watching brief.
- 2.11 In considering any planning application for development, the planning authority will be mindful of the framework set by government policy, in this instance PPW (Edition 11), by current Development Plan Policy and by other material considerations.

Local Planning Policy

- 2.12 In considering any planning application for development, the planning authority will be mindful of the framework set by legislation, national policy and related guidance and by other material considerations.
- 2.13 In this instance Local Planning Policy is provided by the Vale of Glamorgan Local Development Plan 2011-2026, which was adopted in June 2017.
- 2.14 The Local Plan contains the following policies relevant to this assessment:

POLICY MD8 - HISTORIC ENVIRONMENT

Development proposals must protect the qualities of the built and historic environment of the Vale of Glamorgan, specifically:

Within conservation areas, development proposals must preserve or enhance the character or appearance of the area;

For listed and locally listed buildings, development proposals must preserve or enhance the building, its setting and any features of significance it possesses;

Within designated landscapes, historic parks and gardens, and battlefields, development proposals must respect the special historic character and quality of these areas, their settings or historic views or vistas;

For sites of archaeological interest, development proposals must preserve or enhance archaeological remains and where appropriate their settings.

- 2.15 In terms of relevant designated archaeological assets, no World Heritage Sites, Registered Historic Battlefields, Registered Parks and Gardens or Historic Wreck sites lie within the immediate vicinity of the Site. A Scheduled Ancient Monument, Round Barrow 612m North of Bendrick Rock (ref.3295), lies c.500m to the southeast of the Study Site.
- 2.16 In line with relevant planning policy and guidance, this desk-based assessment seeks to clarify the archaeological potential of the Study Site, the likely significance of that potential and the need or otherwise for additional mitigation measures.

Definitions and Guidance

- 2.17 The 'Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment in Wales' published by Cadw in March 2011 provides the basic principles under which all subsequent guidance has evolved. The six principles expressed are:
- Historic assets will be managed to sustain their values;
 - Understanding the significance of historic assets is vital;
 - The historic environment is a shared resource;
 - Everyone will be able to participate in sustaining the historic environment; Decisions about change must be reasonable, transparent and consistent; and
 - Documenting and learning from decisions is essential.

Definition of the Historic Environment

- 2.18 The historic environment is defined in TAN 24 (at para. 1.7) as:

"All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and deliberately planted or managed."

Definition of Historic Assets

- 2.19 Historic assets are defined by Cadw (March 2011) and TAN 24 (2017) as:

"An identifiable component of the historic environment. It may consist or be a combination of an archaeological site, an historic building or area, historic park and garden or a parcel of historic landscape. Nationally important historic assets will normally be designated."

- 2.20 A Designated Historic Asset is considered to be a: World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area. In Wales areas of landscape have been designated and included in the non-statutory Register of Landscapes of Historic Interest in Wales.

Significance

- 2.21 Significance in relation to heritage policy considerations is defined as: The sum of the cultural heritage values (Cadw 2011).

Setting

- 2.22 Guidance on the assessments of impact on the settings of heritage assets is provided by Cadw in 'Setting of Historic Assets in Wales' (May 2017). This provides a 4-stage process for determining if any impact on the settings of historic assets would arise from a proposed development, and how it could be mitigated if impacts are identified.

3 GEOLOGY AND TOPOGRAPHY

Geology

- 3.1 The British Geological Survey Online (BGS Online, 2022) records that the superficial geology of the Study Site comprises Tidal Flat Deposits - Clay, Silt and Sand.
- 3.2 The bedrock geology of the Study Site is shown by the British Geological Survey Online (BGS Online, 2022) as being comprised of Mercia Mudstone Group - Mudstone.
- 3.3 No Study Site specific geotechnical information is currently available.

Topography

- 3.4 The Study Site is essentially level at c.8-9m Above Ordnance Survey Datum (AOD).
- 3.5 The Study Site historically lay in the immediate vicinity of the Cadoxton river. In the late 19th Century, the Study Site and its vicinity was subject to the construction of the Barry Docks, including excavation of the docks, depositing of spoil over the former marshes of the area and the construction of rail and dockside infrastructure. The topography of the Study Site and vicinity is likely to differ significantly from natural, pre-19th century levels, with the former Cadoxton river and its floodplain lying beneath substantial depths of made ground.

4 ARCHAEOLOGICAL BACKGROUND WITH ASSESSMENT OF SIGNIFICANCE

Timescales used in this report

Prehistoric

Palaeolithic	900,000 -	12,000 BC
Mesolithic	12,000 -	4,000 BC
Neolithic	4,000 -	2,500 BC
Bronze Age	2,500 -	800 BC
Iron Age	800 -	AD 43

Historic

Roman	AD 43 -	410
Saxon/Early Medieval	AD 410 -	1066
Medieval	AD 1066 -	1485
Post Medieval	AD 1486 -	1799
Modern	AD 1800 -	Present

Introduction

- 4.1 This chapter reviews the archaeological background of the Study Site and the historical background of the general area, and, in accordance with the national and local planning policy, considers the archaeological potential of the Study Site. All figures are provided at the end of this report.
- 4.2 The following includes a review of past archaeological investigations and known archaeological finds and features within a 1km radius of the Study Site (Fig.2), referred to as the Study Area, held on the regional HER. A historic map regression exercise then charts the development of the Study Site from the early 19th Century onwards until the present day.
- 4.3 Chapter 5 subsequently considers the conditions of the Study Site and the likely impacts of the development of the Study Site since 2016 for an operational Biomass Facility.

Previous Archaeological Investigation

- 4.4 Past archaeological investigations within the Study Area have identified limited archaeological evidence of local significance only. Post-depositional impacts as a result of post-Medieval and modern development, primarily relating to the past and ongoing commercial-industrial development of the area have been generally severe.
- 4.5 An archaeological evaluation undertaken in 2006 by Glamorgan-Gwent Archaeological Trust, comprising excavation of six trenches within a proposed development area, c.800m to the northeast of the Study Site, did not identify any archaeological finds or features (GGATE003760, ST13436788).
- 4.6 The Waterfronts in Southeast Wales project undertaken by Glamorgan-Gwent Archaeological Trust from 2005 aimed to provide a deeper insight in the survival of archaeological remains in waterfront locations and enhancing understanding of the potential of maritime archaeological evidence to inform conservation decisions. Phase 1 of the project studied the historic ports of Chepstow, Newport, Cardiff and Swansea and Phase 2 considered all other small harbours and ports along the coastal fringe and estuaries, including Barry Docks. Site visits were undertaken to assess the condition of these features and potential for archaeological evidence (GGATE001305, ST1200067320). This project did not indicate that significant or extensive archaeological evidence would survive within areas subject to intensive late 19th and 20th Century development.
- 4.7 The Glamorgan-Gwent Archaeological Trust was commissioned in 2000 by Spartan Engineering/Connections Design to undertake an archaeological watching brief at Unit 16 Atlantic Trading Estate, c.700m to the southeast of the Study Site. No archaeological finds or features were recorded, though the wider local potential for an ancient soil profile was recognised (GGATE002485, ST1332567388).
- 4.8 The Vale of Glamorgan Council commissioned the Glamorgan-Gwent Archaeological Trust in 1999 to undertake an archaeological watching brief during the construction of foul and water sewers and the construction of a section of infrastructure highway c.800m to the southeast of the Study Site. The only archaeological feature to be discovered was a probable causeway (undated) (GGATE002444, ST134673).
- 4.9 The Event record GGATE001120, ST132676 GGAT relates to a series of desktop archaeological assessments carried out in 1996 and 1998 for an area centred c.550m to the east of the Study Site. These reports note that since the late 19th Century a number of finds have indicated Roman activity locally. These finds include a coin hoard, (PRN 2181s, not in Study Area), inhumations of decorated lead coffins and cremations, walls and brick columns, (possibly the remains of a hypocaust – a Roman heating system). Information on these finds has been derived primarily by word of mouth with little specific information on the location of the finds or detailed archaeological information.
- 4.10 The Glamorgan-Gwent Archaeological Trust was commissioned in 1996 by the Vale of Glamorgan Council to undertake an archaeological desk-based assessment as part of a programme of redevelopment of the Atlantic Trading Estate, c.800m to the southeast of the Study Site. It was recommended that a continuous archaeological presence is provided at all stages of the development (GGATE002671, ST134673).
- 4.11 An Archaeological Assessment undertaken for the Atlantic Trading Estate, c.575m to the southeast of the Study Site, is recorded by the HER without any further information being provided (GGATEE001113).
- 4.12 An archaeological excavation undertaken by the Glamorgan Gwent Archaeological Trust at the Atlantic Trading Estate, Barry, c.650m to the southeast of the Study Site, in 1987-90 revealed a possible Bronze Age settlement and early Christian cemetery, though the recorded features were difficult to define and date as a result of ground conditions (GGATE000875, ST13206725).

Undated Archaeological Evidence

- 4.13 Undated archaeological evidence recorded within the Study Area comprises a possible fish weir feature, located at Black Rocks just south of the eastern breakwater. The feature comprises a curved low masonry wall, that crosses the entrance to a natural pond, with a central opening, c.650m to the southeast of the Study Site (GGAT05620s, ST1307467143).
- 4.14 The undated archaeological feature evidence recorded within the Study Area is not considered to enhance the specific archaeological potential of the Study Site.

Palaeolithic

- 4.15 No evidence of Palaeolithic period activity has been recorded within the Study Area.
- 4.16 The archaeological potential of the Study Site for Palaeolithic evidence is considered to be low.

Mesolithic

- 4.17 Two Mesolithic bone needles containing counter-sunk perforations are recorded as having been found c.450m to the northeast of the Study Site (GGAT00548s, ST1368).
- 4.18 The archaeological potential of the Study Site for Mesolithic evidence is considered to be low.

Neolithic

- 4.19 No evidence of Neolithic period activity has been recorded within the Study Area.
- 4.20 The archaeological potential of the Study Site for Neolithic evidence is considered to be low.

Late Prehistoric: Bronze Age and Iron Age

- 4.21 Several inhumations were found within the Barry Round Barrow Scheduled Monument (00717s and 3295), c.500m to the southeast of the Study Site, in 1942 during the laying of a sewage/ drainage pipe. There was one main set of remains of a male with several additional remains of women and children inside alcoves (01458s, ST13206747).
- 4.22 A possible late Bronze Age or Iron Age occupation site has been recorded at the Atlantic Trading Estate, c.650m to the southeast of the Study Site. On the foreshore area of the site there was a round house (estimated at 11m in diameter) with four widely spaced posts for internal support and a possible rectangular-shaped arrangement of post holes, which could be a partition. A four posted building was also recorded at this site and is thought to possibly be of Iron Age date. There was also evidence of stake-built structures, a fence line and pit deposits of uncertain later Prehistoric date recorded (GGAT01997s, ST13206725).
- 4.23 While the marshlands bounding the Bristol Channel would have been subject to hunter gathering activity or other seasonal use throughout prehistory, prolonged settlement would likely have been relatively uncommon, with the preference for occupation Sites being the higher, dryer and more stable ground north of the channel's periphery.
- 4.24 The potential of the Study Site for archaeological evidence relating to the Bronze Age and Iron Age is considered to be low.

Roman

- 4.25 While conjectural evidence of Roman artefacts being found locally since the 19th Century has been recorded (GGATE001120, ST132676) and a possible occupation site with cemetery is recorded on the basis of these documented finds c.550m to the east of the Study Site (GGAT02921s ST132676), there is only a single instance of confirmed Roman archaeological evidence known within the Study Area. This comprises a dupondius (coin) of Trajan (AD 98-117) which was found between 1899 and 1901 during dock construction or maintenance, c.250m to the northeast of the Study Site (GGAT00550s, ST12906777).
- 4.26 Human remains were found in a lead-lined coffins during construction work in the 1940s at what is now the Atlantic Trading Estate, c.620m to the southeast of the Study Site, the remains were re-interred. Human remains were also found in the area during the digging of sand to be used in sandbags (GGAT00988s, ST13206734). These remains are thought to represent a late Roman, early Christian burial ground.
- 4.27 The Study Site is considered to have a low archaeological potential for evidence of Roman date.

Anglo-Saxon and Medieval

- 4.28 No archaeological evidence relating specifically to the Anglo-Saxon or Medieval period has been recorded within the Study Area.
- 4.29 The Study Site is likely to have formed part of the marshy floodplain of the River Cadoxton, close to the point where the river drained into the estuarial periphery of the Bristol Channel.
- 4.30 The Study Site is considered to have low potential for archaeological evidence relating to the Anglo-Saxon and Medieval periods.

Post Medieval and Modern (including map regression exercise)

- 4.31 The site of a post-Medieval brick works that is shown on Ordnance Survey map from 1878 and was later removed by the construction of Barry Docks is recorded c.450m to the northeast of the Study Site (GGAT05604s, ST1294568034).
- 4.32 A post-Medieval cottage, known as 'Mill Cottage', is depicted on early Ordnance Survey mapping, c.450m to the northeast of the Study Site. The cottage was demolished for development of the docks area (GGAT05603s, ST1200067320).
- 4.33 The Barry-Trehafod and Cadoxton to Treforest rail line was opened in 1889 and closed in 1962. Part of the line is recorded as having run c.150m to the northwest of the Study Site (GGAT02430.0s ST133690, ST044919).
- 4.34 The Site of a Graving Dock, to the northeast of Dock No.1 is recorded c.320m to the southwest of the Study Site. The dock is currently infilled and survives in a buried state (GGAT05635s, ST1229367558 and GGAT05636s ST1231067485).
- 4.35 An original jetty within Dock No.1 at the north side of the entrance to Dock No.2 is recorded c.375m to the southwest of the Study Site (GGAT05625s, ST1237667338).
- 4.36 A Jetty within Dock No.1, at the south side of the entrance to Dock No.2 and c.225m to the southwest of the Study Site, was visible on aerial photographs dating to 1945, but no longer appears on Aerial photographs from 2001 onwards. Whilst sub-surface features may still survive below water, the above water structure was clearly demolished before 2001 (GGAT05624s, ST1227667217).
- 4.37 A Grade II listed fire station, built in 1901 is recorded c.650m to the northwest of the Study Site (GGAT06118s, ST1223368334).

- 4.38 A School built c.1890-2 and included on the Vale of Glamorgan List of County Treasures is recorded c.620m to the northwest of the Study Site (GGAT06218s, ST1229168313).
- 4.39 A garden associated with Cadoxton Court, which was constructed in its present form in 1873 on the Site of an earlier manor of probably Medieval origin, is recorded c.600m to the northwest of the Study Site (GGAT02327s, ST1268).
- 4.40 A general record relating to Barry's post-Medieval docks area has been given a grid reference position c.700m to the southwest of the Study Site (GGAT03986s ST1200067320).
- 4.41 A Grade II* listed sliding bridge, constructed of riveted metal plates, believed to be the only major example in Wales of a hydraulic powered sliding bridge still in working order, is recorded c.600m to the southwest of the Study Site (GGAT06124s, ST1224267138).
- 4.42 A Grade II listed Operator's hut, probably contemporary with this bridge, in the form of a standard pattern wooden Barry Railway signal box, believed to be the last such example, is recorded c.600m to the southwest of the Study Site (GGAT06125s, ST1226767147).
- 4.43 A group of six Grade II listed lampposts outside the Barry Dock Office (02152s) and thought to be contemporary with that building are located c.360m to the west of the Study Site (GGAT06114s, ST1220667639; GGAT06273s, ST1222967697; GGAT06274s, ST1225267660; GGAT06114s, ST1220667639; GGAT06273s, ST1222967697; GGAT06274s, ST1225267660).
- 4.44 The Former Docks Office, listed at Grade II*, was built in 1898 and is located c.360m to the west of the Study Site (GGAT02152s ST1221867669). A Grade II* listed late 19th Century statue of David Davies stands a short distance south of the Former Office Docks building (GGAT06115s, ST1221267615).
- 4.45 The Former Customs House and Mercantile Office (listed at Grade II) was constructed between 1901 and 1910 and lies c.275m to the northwest of the Study Site (GGAT02153s, ST1228067829).
- 4.46 The present Barry Docks Railway Station opened in 1998 and lies c.150m to the west of the Study Site (GGAT03014s, ST12396775).

Map Regression Exercise

- 4.47 In the post-Medieval period, cartographic sources are useful for understanding the historic land uses of the Study Site and the evolution of the area's present built and land use character. This section discusses the available mapping from the early 19th Century onwards.
- 4.48 The 1811 Ordnance Survey Drawing (Fig.3) shows that in the early 19th Century, the Study Site lay within unreclaimed marshland, forming part of the floodplain of the River Cadoxton. To the south of the Study Site is a wide area of marsh between the river and the Bristol Channel. The northeastern edge of Barry Island, some distance to the southwest of the Study Site is shown. To the north of the Study Site are irregular, enclosed agricultural fields. The wider landscape at this time was characterised primarily by scattered farmsteads and small villages. To the northeast of the Study Site, a Mill on the River Cadoxton is shown.
- 4.49 The 1840Cadoxton Parish Tithe Map (Fig.4) gives a snapshot of land ownership, occupancy and use in the mid-19th Century. At this time the Study Site lay partially within plot 349, owned by a Robert Jenner and occupied by a 'Thomas'. Plot 349 is named in the tithe apportionments as 'The Mie' and described as only 'mud'. In the vicinity, the area north of the Study Site is recorded as being in pasture use, while the land immediately east, west and south remains part of a floodplain with only limited seasonal pasture use in some places.
- 4.50 The 1879 Ordnance Survey (OS) map shows little change from the Tithe map, other than the removal of a number of field boundaries to the north of the Study Site (Fig.5). Further to the north east of the Study Site 'mooring posts' are shown, indicating that the Study Site and vicinity south of

the agricultural fields were subject to complete tidal submergence, effectively falling within the shoreline of the Bristol Channel and being unsuitable for any permanent structures. The OS map of 1880 (Fig.6) shows no notable change.

- 4.51 In 1883 a group of businessmen, headed by David Davies, chairman of the Ocean Collieries, sought permission to build a docks at Barry, serviced by a new railway. Though initially denied as a result of local and corporate opposition, parliamentary permission for the development of a docks at Barry was granted in 1884. Construction began in November 1884, along with new railway infrastructure. The docks and rail line were completed in 1889. The 1898 OS map (Fig.7) illustrates the Study Site as lying across two rail lines that supported dockside coal loading stations set at the north side of Dock No.2. This rail infrastructure was constructed on deposited soil excavated from the docks and imported foundation material, burying the natural marshland. The character of the Site and vicinity was fundamentally altered by the development of Barry Docks, which supported the expansion of the wider town to the north. The now Grade II* listed Dock Offices (1898) and Grade II* listed bronze statue of David Davies lie c.375m to the west of the Study Site (not shown). The Grade II listed Customs House and Mercantile Office dates to between 1901-1910 and lies on Dock View Road, north of the present Barry Docks Station. The OS maps of 1915 (Fig.8) and 1922 (Fig.9) show little change other than construction of various supporting docks buildings, including one within the Study Site.
- 4.52 The 1943 OS Map (Fig.10) shows that Barry Docks underwent a number of alterations and phases of expansion following its opening to support its role as a nationally important coal export terminal. The coal trade peaked in 1913, when over 11 million tonnes of coal and coke passed through the port. By 1943, the number of supporting ancillary and industrial buildings had proliferated between the rail lines running to dockside coal filling stations. At this time the Study Site remained occupied by dockside rail lines and two small buildings.
- 4.53 The aerial photograph of 1945 (Fig.11) illustrates the character of the Study Site and vicinity at this time. The Study Site lies deep within an intensively developed industrial docklands area. Barry Docks remained a major coal export port into the mid-late 20th Century. The ornate Docks Office, David Davies statue and the Customs House lie some distance from the Study Site and have been separated from it by extensive intervening development throughout the history of the docks. No notable change is apparent on the OS map of 1965 (Fig.12).
- 4.54 Though Barry Docks remained a major coal port into the later 20th Century, the 1971 OS map (Fig.13) indicates a diversification of industrial activity across the docks area. A variety of engineering works, timber works, and other commercial activity is shown on this map. The Study Site remains occupied by rail lines and supporting embankments, though there has been an expansion of buildings within its southern end, forming one of the dock's many 'engineering works'.
- 4.55 The 1982 OS (Fig.14) shows that in the later 20th Century, Barry, like many industrial areas in Britain underwent considerable change, reflecting wider economic trends and the decline of primary commodity and manufactured export trade. At Barry Docks, the 1980s saw the widespread dismantling and removal of the rail sidings and coal filling stations as the use of the dockside area took on a more vacant and general commercial character. The wider area underwent a significant decline of commercial activity. Within the Study Site, the rail sidings have been entirely removed, though commercial buildings remain present either side of it. At the dockside, elements of coal filling stations continue to project into Dock No.2.
- 4.56 The 1990 and 1991 OS maps (Figs 15 and 16, respectively) show that from the early 1990's Barry Docks continued to be subject to more diverse commercial activity, with a proliferation of new buildings and the laying out of Woodham Road and David Davies Road. The Study Site remained largely vacant at this time, with the earlier 'engineering works' having been largely demolished and a small building remaining at the southernmost end of the Study Site. The Study Site continues to lie deep within an intensely industrial-commercial character space, being separated from the wider

built area of Barry and the immediate vicinity of Barry Station and the Docks Office by intervening development and vacant land.

- 4.57 The aerial photograph of 2001 (Fig.17) shows the Study Site as being occupied by shipping containers and temporary/ancillary structures. The building that had been positioned immediately northeast of the Study Site has been demolished and the plot is now similarly in use as a storage area. To the immediate west of the Study Site are numerous commercial units occupied by a variety of businesses. To the southeast of the Study Site, the coal filling station platforms projecting into the dock and the dock wall itself survive into the 21st Century. While Barry Docks as a whole has undergone considerable change as a result of the decline and then cessation of coal exporting, the essential legibility of the original use of the dock remains.
- 4.58 The 2009 aerial photograph (Fig.18) shows the clearance of the Study Site and the area to the north, leaving it vacant. From 2016 the Study Site was redeveloped with the present Biomass Facility (Fig.19).
- 4.59 The 2021 aerial photograph (Fig.20) illustrates the diversification of use across the docks in the later 20th and early 21st Century reflects the changing economic base of the area. This photograph shows the completed Biomass Facility and associated hardstanding areas. The vicinity of the Study Site remains characterised by diverse commercial units. To the southwest, the remaining dock structures are largely unchanged since their decommissioning.
- 4.60 The Study Site is considered to have a high potential to contain evidence made ground and building debris dating from the late 19th Century onwards of limited local significance only.

Assessment of Significance

- 4.61 Existing national policy and guidance for archaeology (as referenced in Section 2) enshrines the concept of the 'significance' of historic assets. Significance, as defined in Section 2, centres on the value of an archaeological or historic asset for its 'heritage values'.
- 4.62 In terms of relevant designated archaeological historic assets, no World Heritage Sites, Registered Historic Battlefields, Registered Parks and Gardens or Historic Wreck sites lie within the immediate vicinity of the Site. A Scheduled Ancient Monument, Round Barrow 612m North of Bendrick Rock (ref.3295), lies c.500m to the southeast of the Study Site.
- 4.63 Based on the available information it is considered that the Study Site has an overall low archaeological potential for artefactual or settlement evidence relating to any pre-19th Century period of human activity.
- 4.64 The Study Site is likely to contain evidence, in the form of debris and made ground relating to the construction of Barry Docks and the occupation of the Study Site from c.1898 to c.1980 with railway sidings.
- 4.65 On the basis of the above, any archaeological evidence within the Study Site would most likely be of local significance.
- 4.66 As identified by desk-based work the archaeological potential by period and the likely significance of any archaeological remains which may be present within the Study Site is summarised in table form below:

ARCHAEOLOGICAL DESK-BASED ASSESSMENT

Period:	Identified Archaeological Potential	Identified Archaeological Significance
Palaeolithic	Low	Low/Local
Mesolithic	Low	Low/Local
Neolithic	Low	Low/Local
Bronze Age	Low	Low/Local
Iron Age	Low	Low/Local
Roman	Low	Low/Local
Anglo-Saxon	Low	Low/Local
Medieval	Low	Low/Local
Post Medieval	High	Low/Local

5 SITE CONDITIONS, THE PROPOSED DEVELOPMENT & REVIEW OF POTENTIAL DEVELOPMENT IMPACTS ON ARCHAEOLOGICAL ASSETS

Site Conditions

- 5.1 The Study Site comprises a small part of the industrial-commercial area lying north of Dock No.2, Woodham Road, Barry, CF63 4JE. The Study Site is occupied by a Biomass Facility constructed between February 2016 and Q1 2018.
- 5.2 Prior to the late 19th Century, the Study Site formed part of an area of marshland either side of the River Cadoxton where it filters to the Bristol Channel. It is highly unlikely that the Study Site would have been suitable for settlement in any past period of human history before the development of Barry Docks.
- 5.3 The construction of the Barry Dockside area resulted in the deposition of vast quantities of material excavated from the docks and imported to the docks site to create a stable construction platform. The construction and later demolition and clearance of built structures within the Study Site between c.1898 and c.1980 will have had a significant further impact, though this is likely to have been concentrated within layers of deposited made ground covering the underlying natural geology.
- 5.4 Based on the extent of material deposition and below ground impacts inherent in the development of Barry Docks it is considered highly unlikely that any archaeological evidence has survived within the Study Site following its construction.

Development

- 5.5 The Site is the subject of an Enforcement Notice, issued by the Vale of Glamorgan Council (ref. ENF/2020/0230/M (A)). The Enforcement Notice makes no reference to archaeological matters.
- 5.6 The Decision Notice for outline planning consent for a Biomass Facility at the Study Site that was granted in 2015 (ref.2015/00031/OUT) makes no reference to archaeological matters. The application for outline planning permission was not supported by an assessment of the Study Site's archaeological potential.
- 5.7 The 2015 outline permission was screened for EIA by Vale of Glamorgan Council in June 2015 who concluded EIA was not required.
- 5.8 Reserved matters pursuant to the 2015 Permission were approved in April 2016 for landscaping (Ref No: 2016/00187/RES) and various planning conditions were discharged (Ref No: 2015/00031/5/CD). The RMA permitted pursuant to the 2015 outline permission was screened for EIA by Vale of Glamorgan Council in April 2016 who concluded EIA was not required.'
- 5.9 Construction on the Site began in 2016 and an Environmental Permit for the Facility was granted in February 2018 and was subject to a variation application in 2019.
- 5.10 The Biomass Facility at the Study Site is fully constructed but not currently operational. No below ground impacts relevant to archaeological matters are identified as likely to arise from the future operation of the Biomass Facility.
- 5.11 Throughout the planning process, archaeological impacts do not appear to have been identified as relevant to the proposals or decision making process.

- 5.12 Following the receipt of the Enforcement Notice, RPS Consulting Services Ltd has been asked to undertake a standalone assessment to assess the archaeological impact of the construction and operational Biomass Facility 'as constructed' to inform the need for archaeological matters to form part of the Appeal and EIA process.

Review of Potential Development Impacts on Cultural Heritage Assets

Archaeology

- 5.13 The development has not impacted the significance of any designated archaeological assets. The Study Site is separated from the Scheduled Ancient Monument, Round Barrow 612m North of Bendrick Rock (ref.3295), by c.500m of intervening distance and built development.
- 5.14 Based on the available information, the Study Site is considered to have a low archaeological potential to contain artefactual or settlement evidence relating to any pre-modern periods of human activity. The Study Site is considered to have a high potential to contain evidence made ground and building debris dating from the late 19th Century onwards of limited local significance only.
- 5.15 The development is considered highly unlikely to have had any archaeological impact. The operation of the Biomass Facility is considered to not cause any archaeological impact. The future de-commissioning of the Biomass Facility is highly unlikely to result in any archaeological impact.

6 SUMMARY AND CONCLUSIONS

- 6.1 The Study Site of Barry Biomass Facility, Woodham Road, Barry, Wales, CF63 4JE has been assessed for its Archaeological potential in accordance with relevant national and local planning policy and guidance.
- 6.2 Biomass UK No. 2 Ltd have commissioned RPS Consulting Services Ltd to establish the archaeological potential of the Study Site and assess the potential impacts of the Biomass Facility following its construction in 2016-2018.
- 6.3 In terms of relevant designated archaeological historic assets, no World Heritage Sites, Registered Historic Battlefields, Registered Parks and Gardens or Historic Wreck sites lie within the immediate vicinity of the Study Site. A Scheduled Ancient Monument, Round Barrow 612m North of Bendrick Rock (ref.3295), lies c.500m to the southeast of the Study Site.
- 6.4 Based on the extent of material deposition and below ground impacts inherent in the development of Barry Docks it is considered highly unlikely that any archaeological evidence has survived within the Study Site following its construction.
- 6.5 The Study Site is considered to have a low potential for all forms of archaeological evidence pre-dating the late 19th Century. The Study Site is considered to have a high potential to contain evidence made ground and building debris dating from the late 19th Century onwards of limited local significance only.
- 6.6 It is considered highly unlikely that the development or operation of the Biomass Facility from 2016 has had any archaeological impact and archaeological matters could reasonably be scoped out of the forthcoming Appeal and Environmental impact assessment. The future de-commissioning of the Biomass Facility is considered highly unlikely to result in any archaeological impact.
- 6.7 This Archaeological Desk Based Assessment is sufficient in respect of relevant legislation and national and local planning policy and guidance to inform a decision on the scoping out of Archaeological matters from the forthcoming Enforcement Appeal and accompanying Environmental Impact Assessment.

Sources Consulted

General

British Library
Glamorgan-Gwent Archaeological Trust Historic Environment Record
The National Archive

Internet

British Geological Survey – <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>
British History Online – <http://www.british-history.ac.uk/>
BBC News - <https://www.bbc.co.uk/blogs/wales/entries/e2ab2169-5cbd-3fae-a049-d7bd37ba501a>
Coflein—<https://coflein.gov.uk/>
CADW—<https://cadw.gov.wales/>

Bibliographic

Chartered Institute for Archaeologists Standard & Guidance for historic environment desk-based assessment 2014, revised 2020, 2021
ClfA Code of Conduct: *Professional Ethics in Archaeology* Published December 2014 (Revised October 2019, October 2020, October 2021)
IEMA, IHBC, and ClfA, *Principles of Cultural Heritage Assessment in the UK*, July 2021

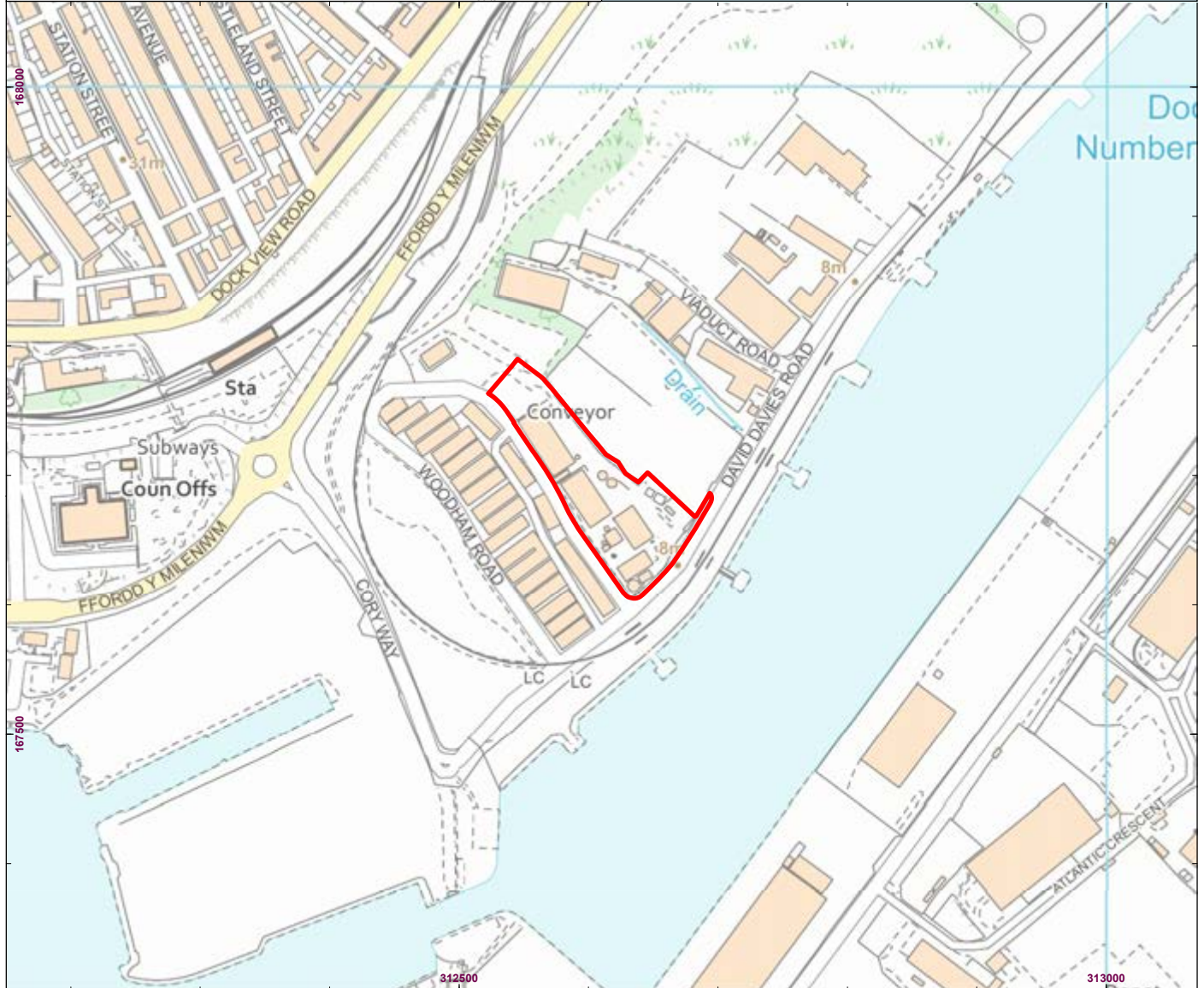
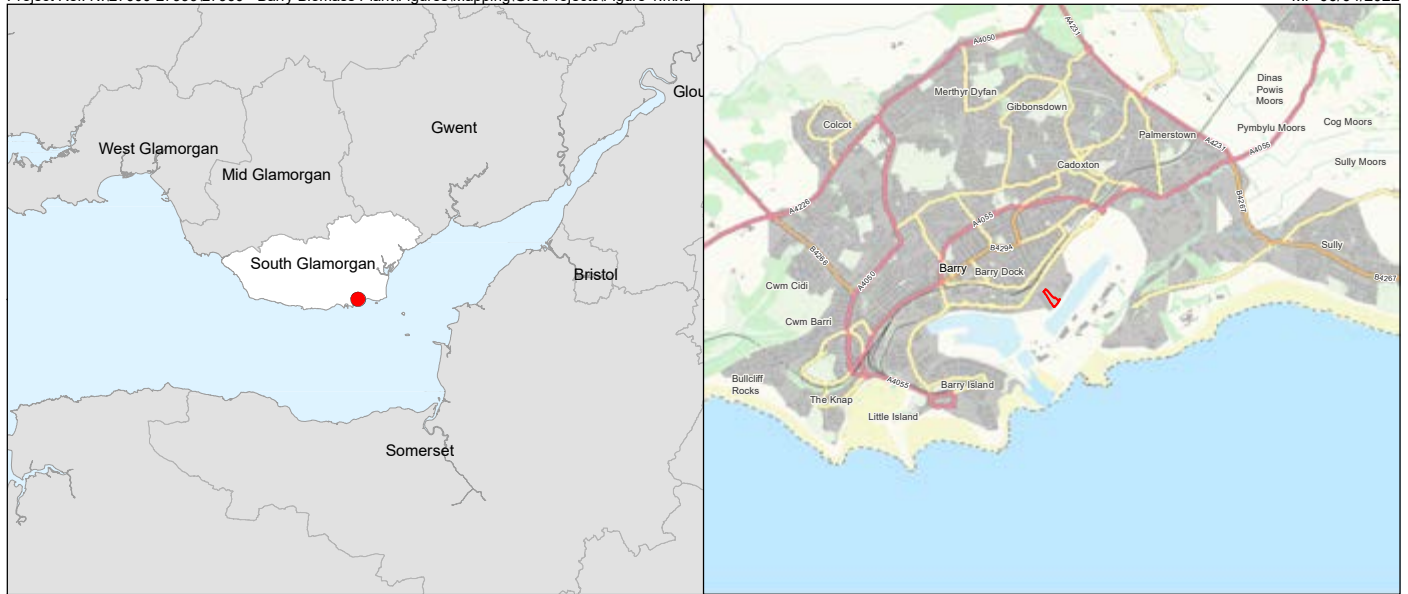
Cartographic

1811 Ordnance Survey Drawing
1840 Cadoxton Parish Tithe Map
1879 Ordnance Survey 1:10560
1880 Ordnance Survey 1:2500
1898 Ordnance Survey 1:10560
1915 Ordnance Survey 1:10560
1922 Ordnance Survey 1:10560
1943 Ordnance Survey 1:2500
1945 Aerial Photograph (Google Earth Image)
1965 Ordnance Survey 1:10560
1971 Ordnance Survey 1:1250
1982 Ordnance survey 1:10000
1990 Ordnance Survey 1:1250
1991 Ordnance Survey 1 :10000
2001 Aerial Photograph (Google Earth Image)
2009 Aerial Photograph (Google Earth Image)
2018 Aerial Photograph (Google Earth Image)

2021 Aerial Photograph (Google Earth Image)



FIGURES



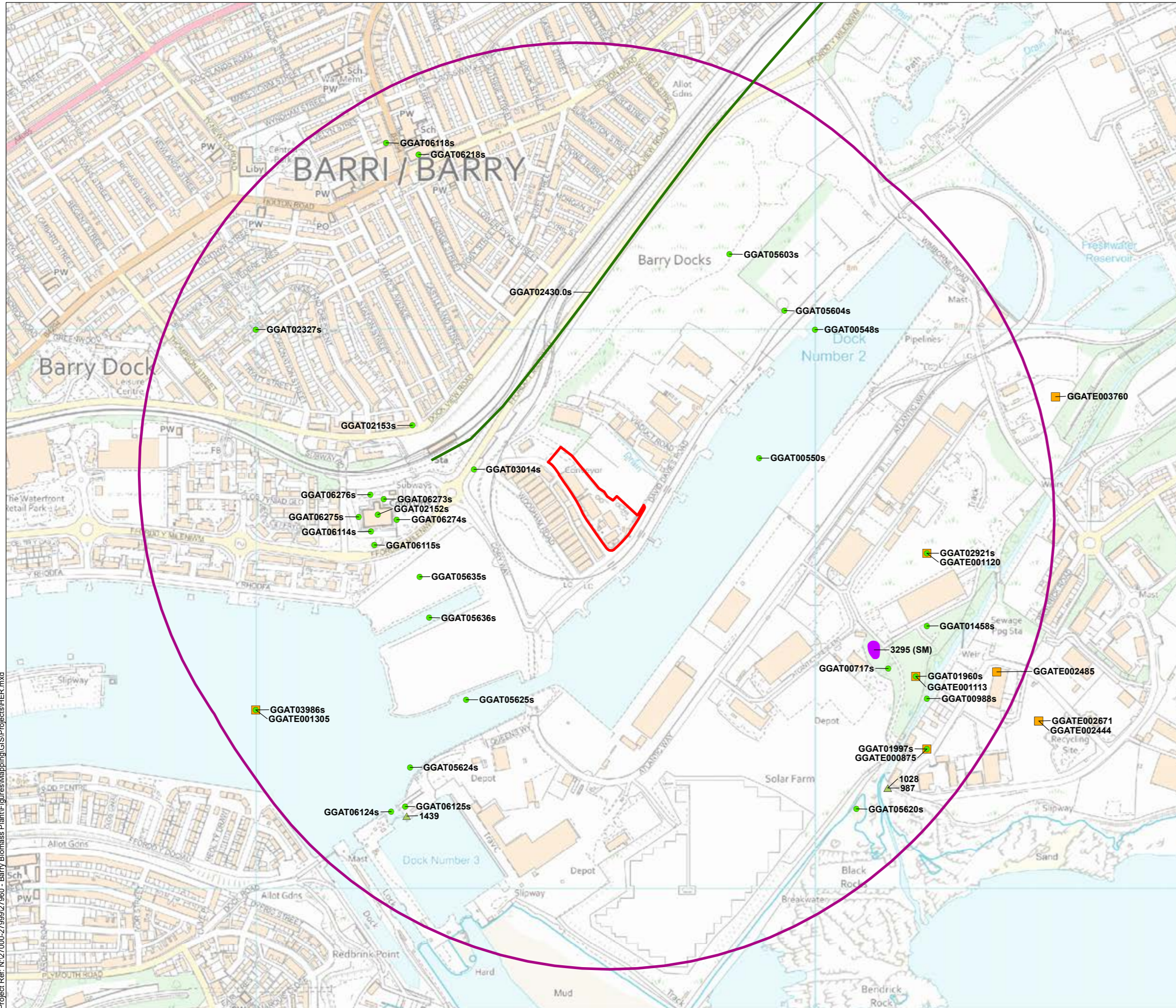
 Site Boundary



0 50 100m
Scale at A4: 1:5,000



Figure 1
Site Location



Legend

- Site Boundary
- Search Radius 750m
- Designated Heritage Assets:**
- Scheduled Monument
- Non-designated Heritage Assets:**
- HER Core Feature (Point)
- HER Record (Line)
- Previous Archaeological Work:**
- HER Event (Point)
- ▲ Report Record

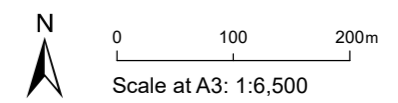
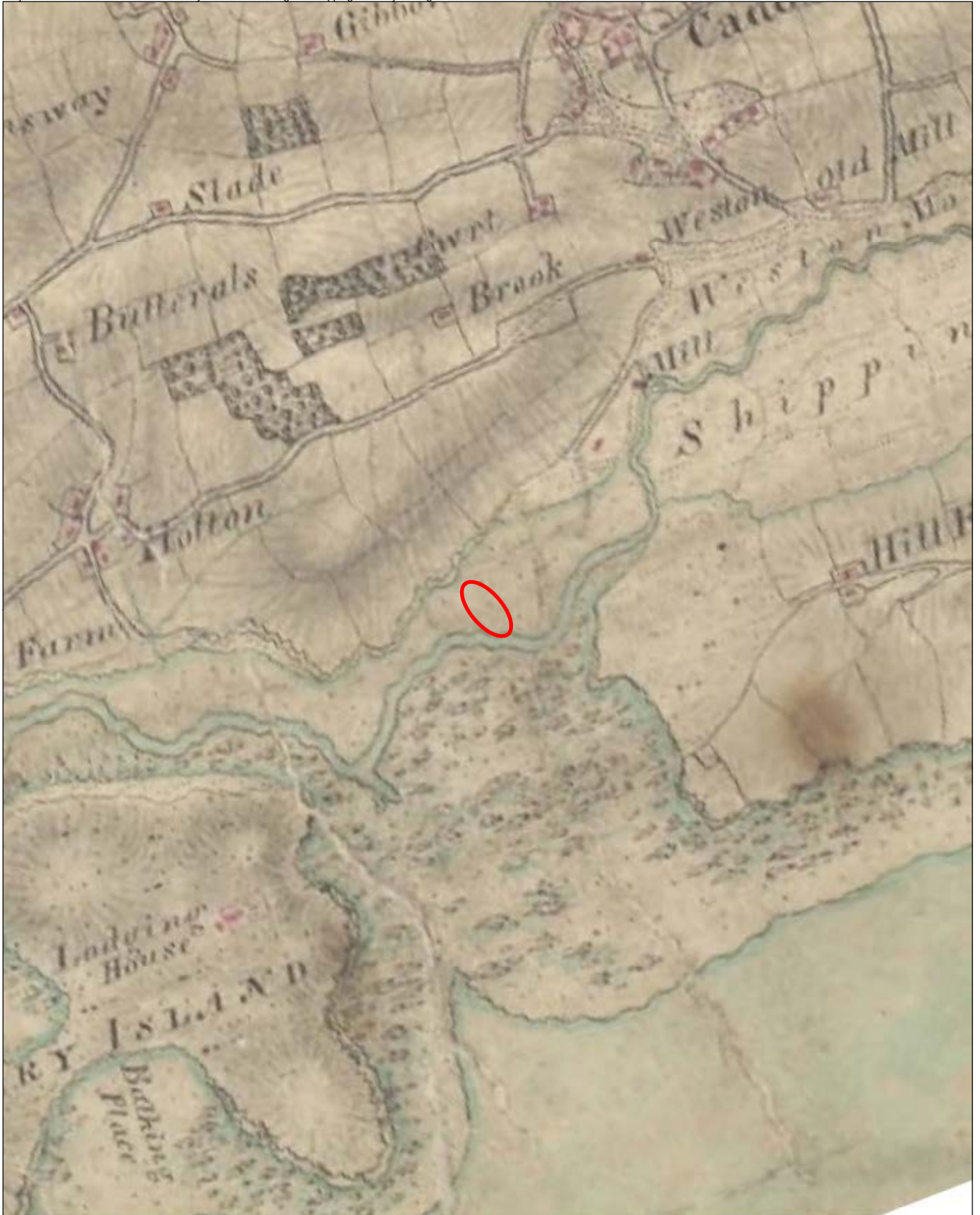


Figure 2
HER Data

Project Ref: N:\27000-27999\27960 - Barry Biomass Plant\Figures\Mapping\GIS\Projects\HER.mxd



 Approximate Site Location

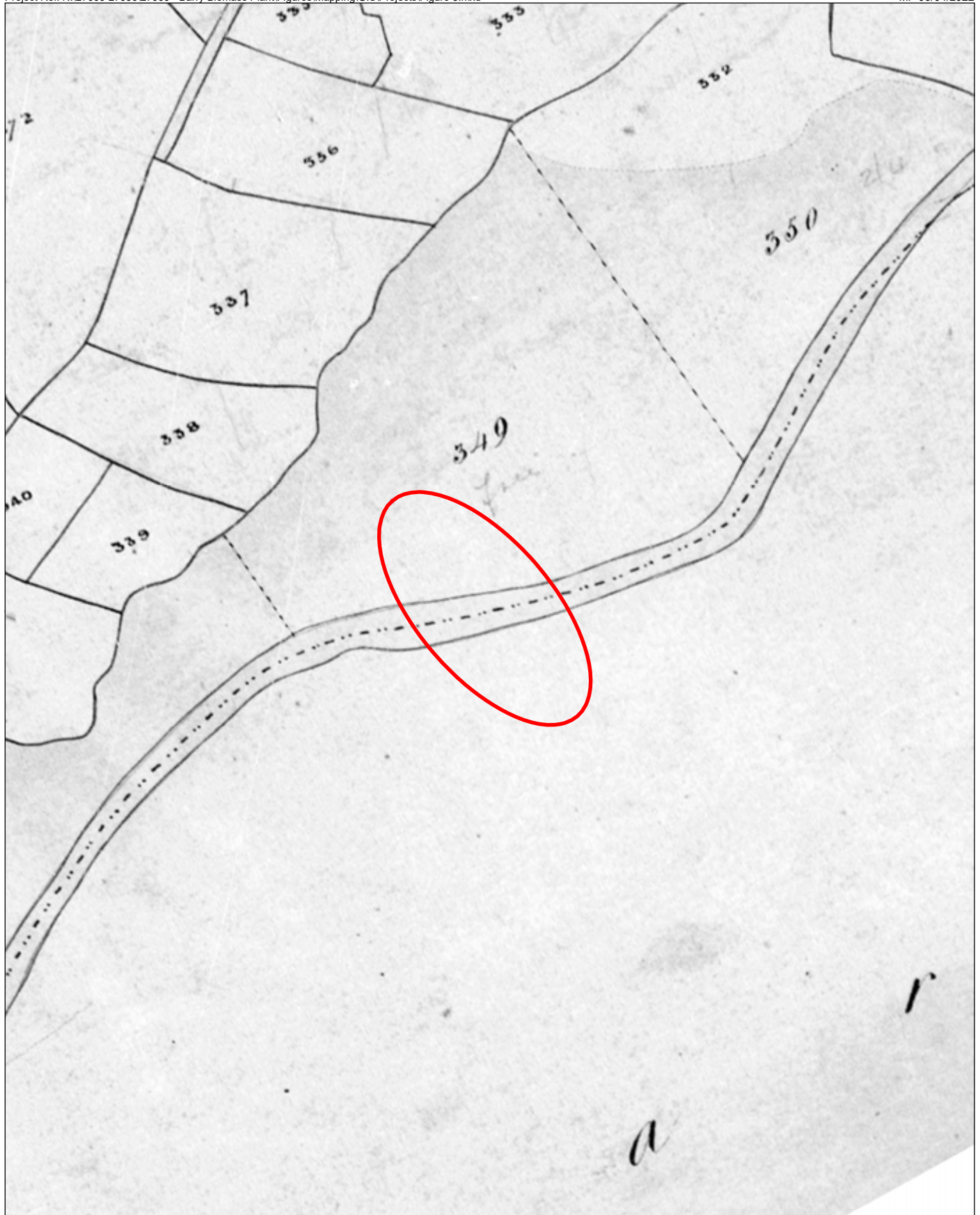


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Figure 3

1811 OSD



 Approximate Site Location

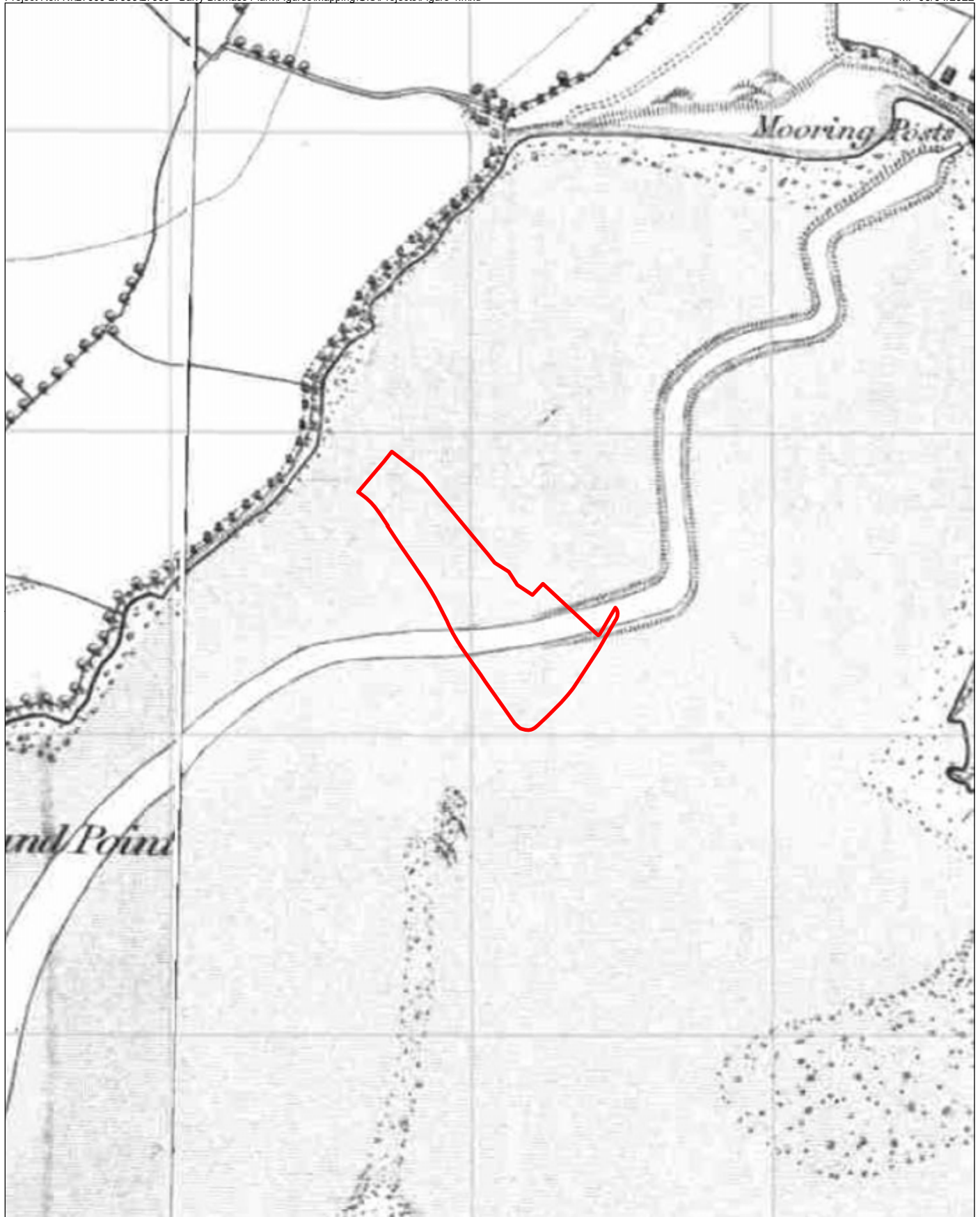


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Scale at A4: 1:3,500 approx.



Figure 4

1840 Cadoxton Parish Tithe Map



 Site Boundary

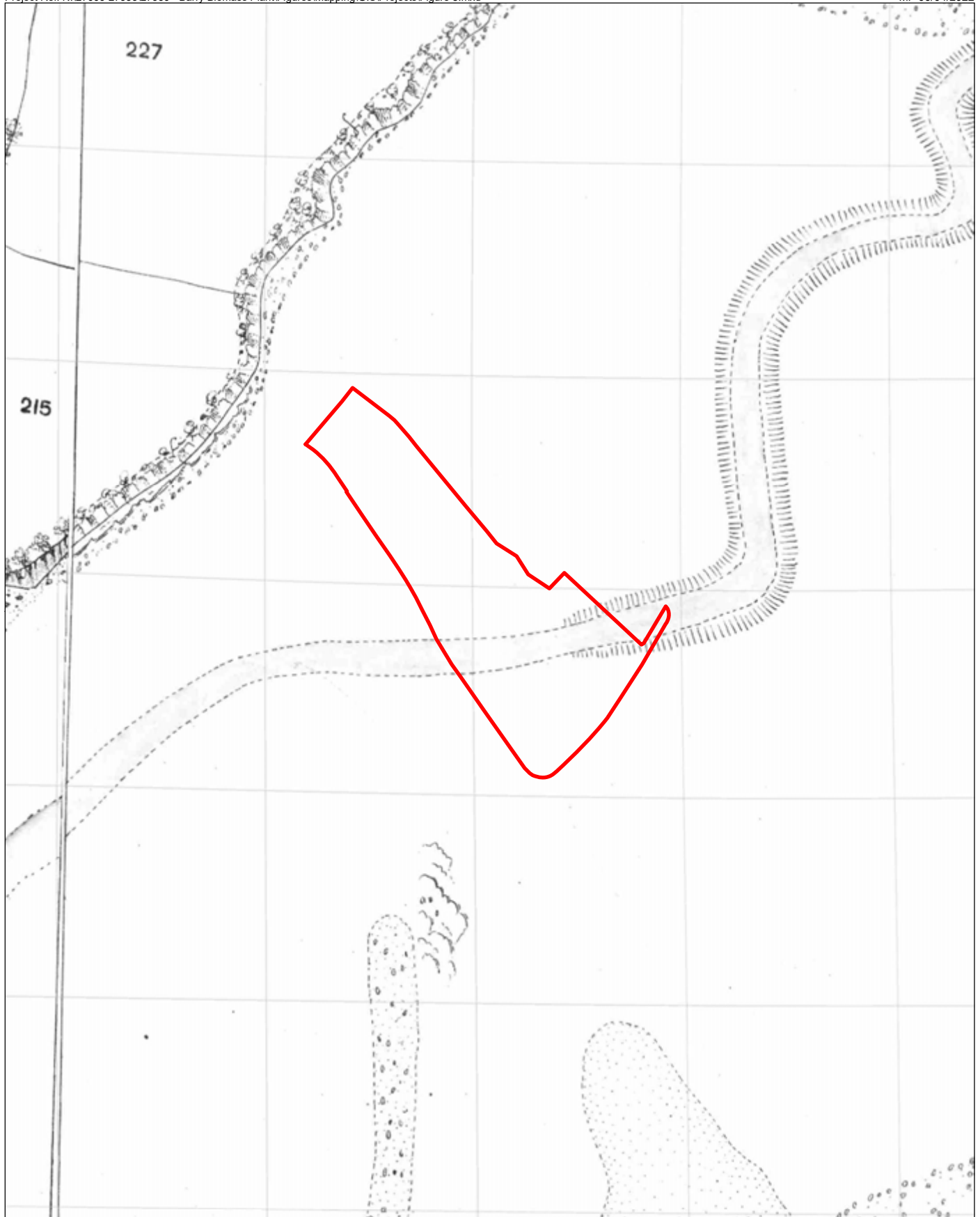


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Scale at A4: 1:3,500



Figure 5

1879 OS 1:10560



 Site Boundary

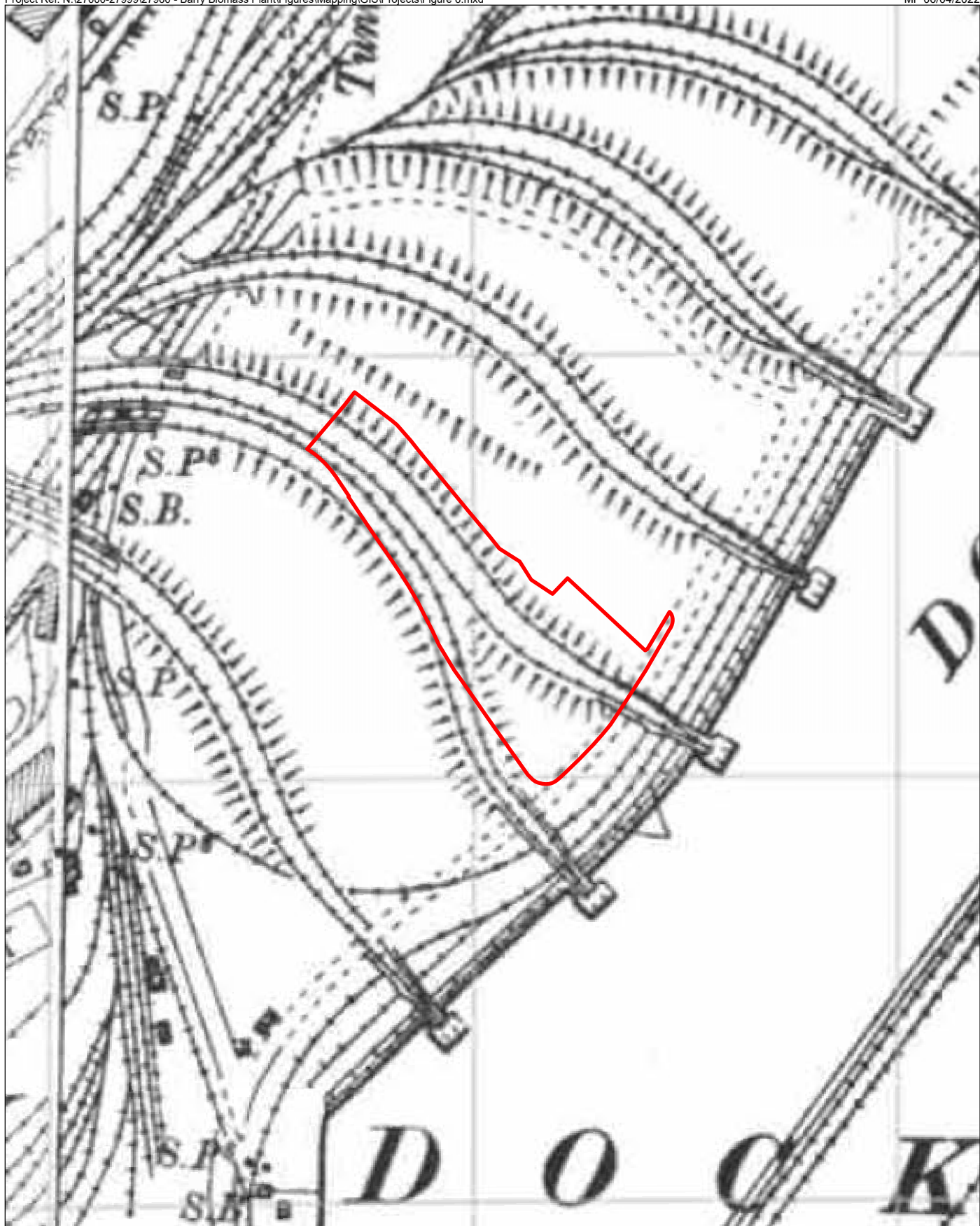


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Scale at A4: 1:2,500



Figure 6

1880 OS1:2500



 Site Boundary



0 25 50 75m
Scale at A4: 1:2,500



Figure 7

1898 OS 1:10560



 Site Boundary

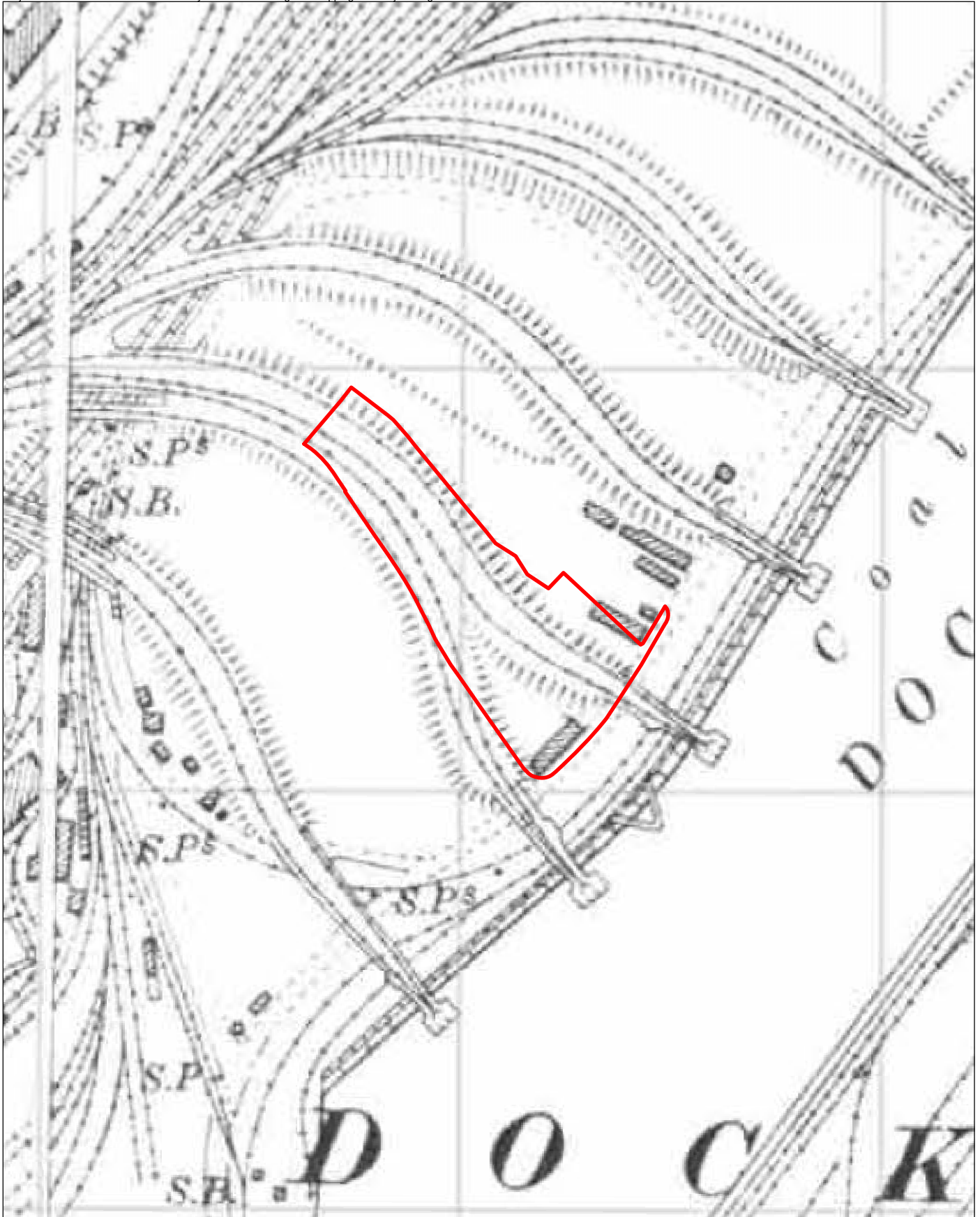


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Scale at A4: 1:2,500



Figure 8

1915 OS 1:10560



 Site Boundary

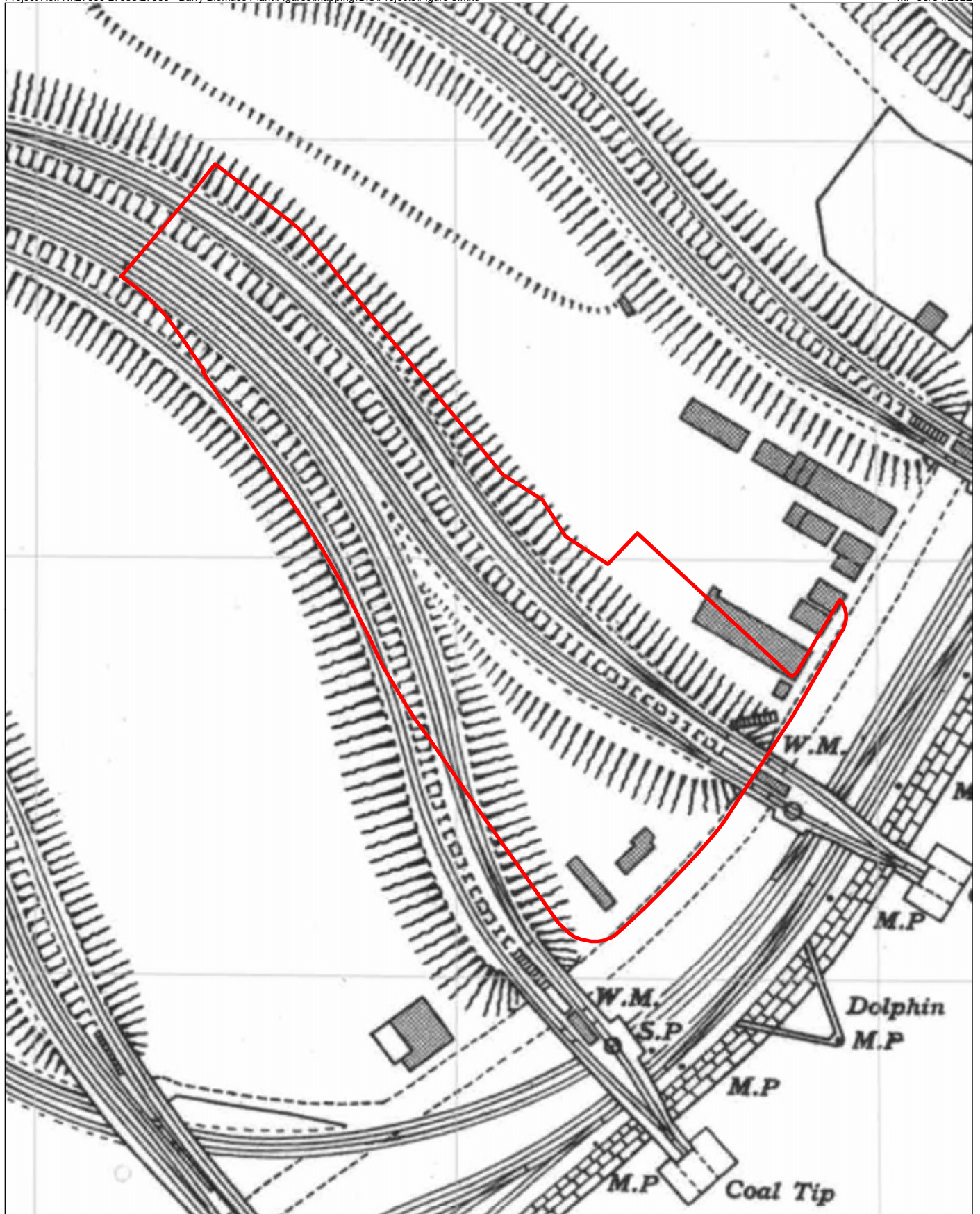


0 25 50 75m
Scale at A4: 1:2,500



Figure 9

1922 OS 1:10560



 Site Boundary

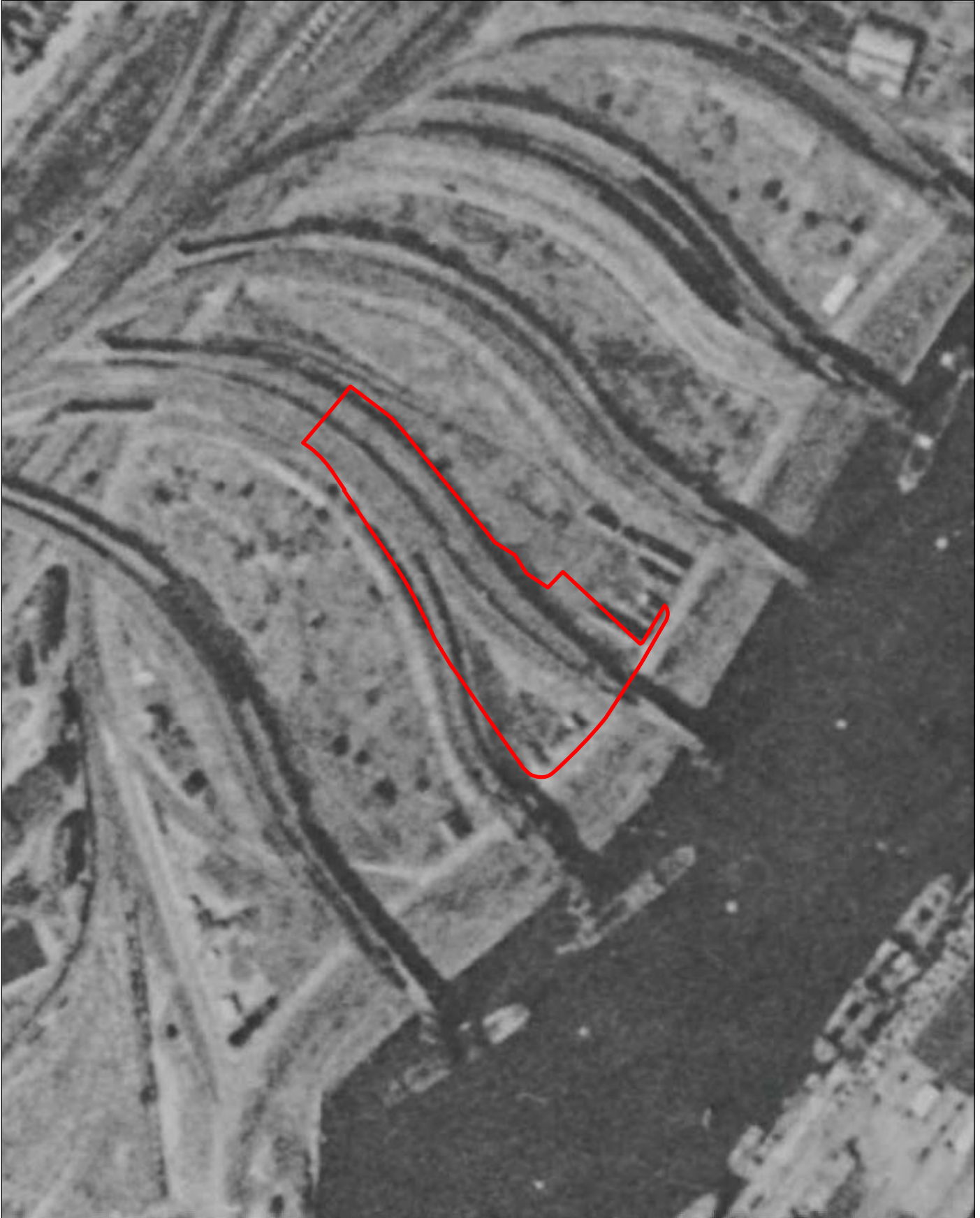


0 10 20 30m
Scale at A4: 1:1,250



Figure 10

1943 OS 1:1:2500



 Site Boundary



0 25 50 75m
Scale at A4: 1:2,500



Figure 11

1945 Aerial Photograph (Google Earth Image)



 Site Boundary

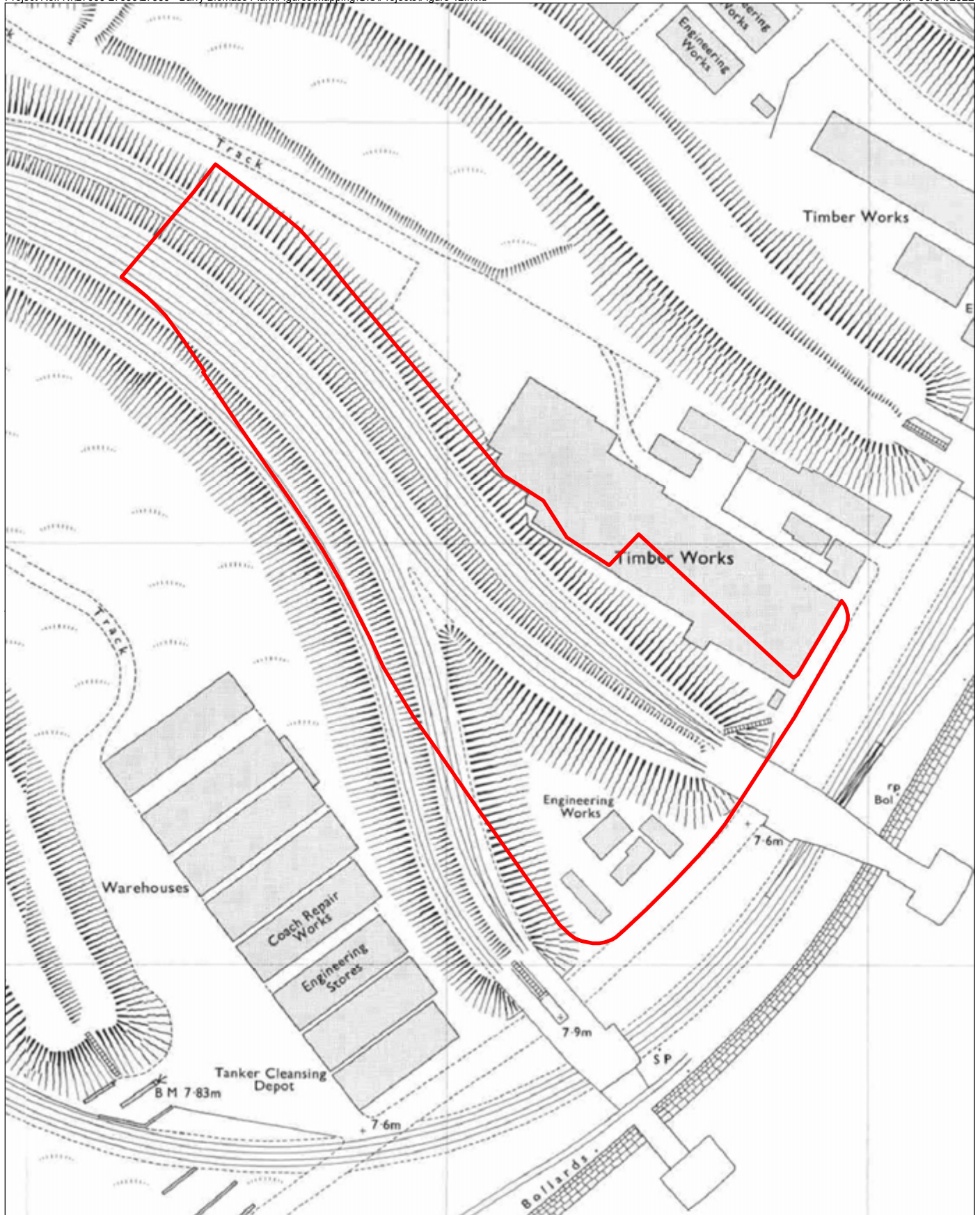


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Scale at A4: 1:1,250



Figure 12

1965 OS 1:10560



 Site Boundary

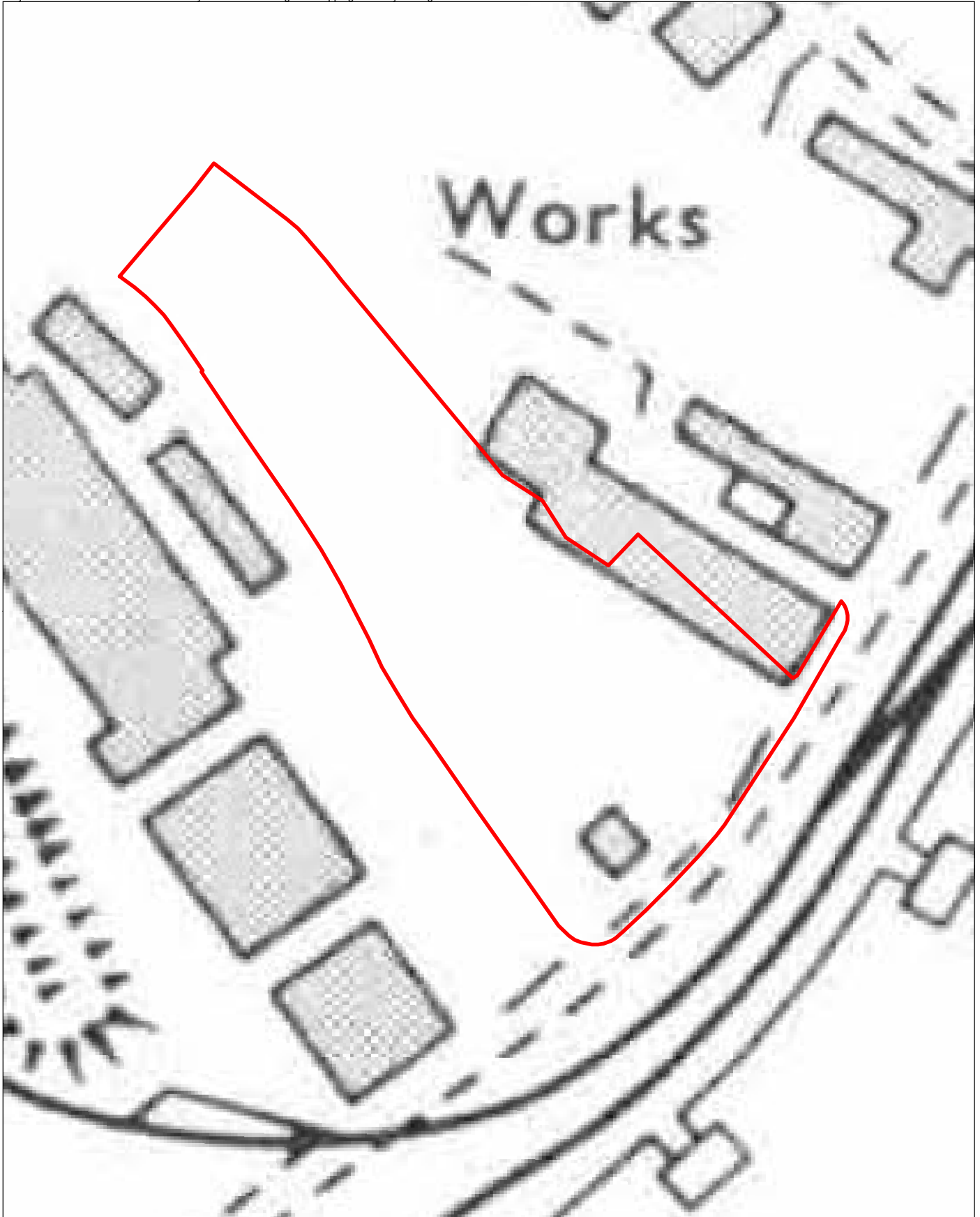


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Scale at A4: 1:1,250



Figure 13

1971 OS 1:1250



 Site Boundary

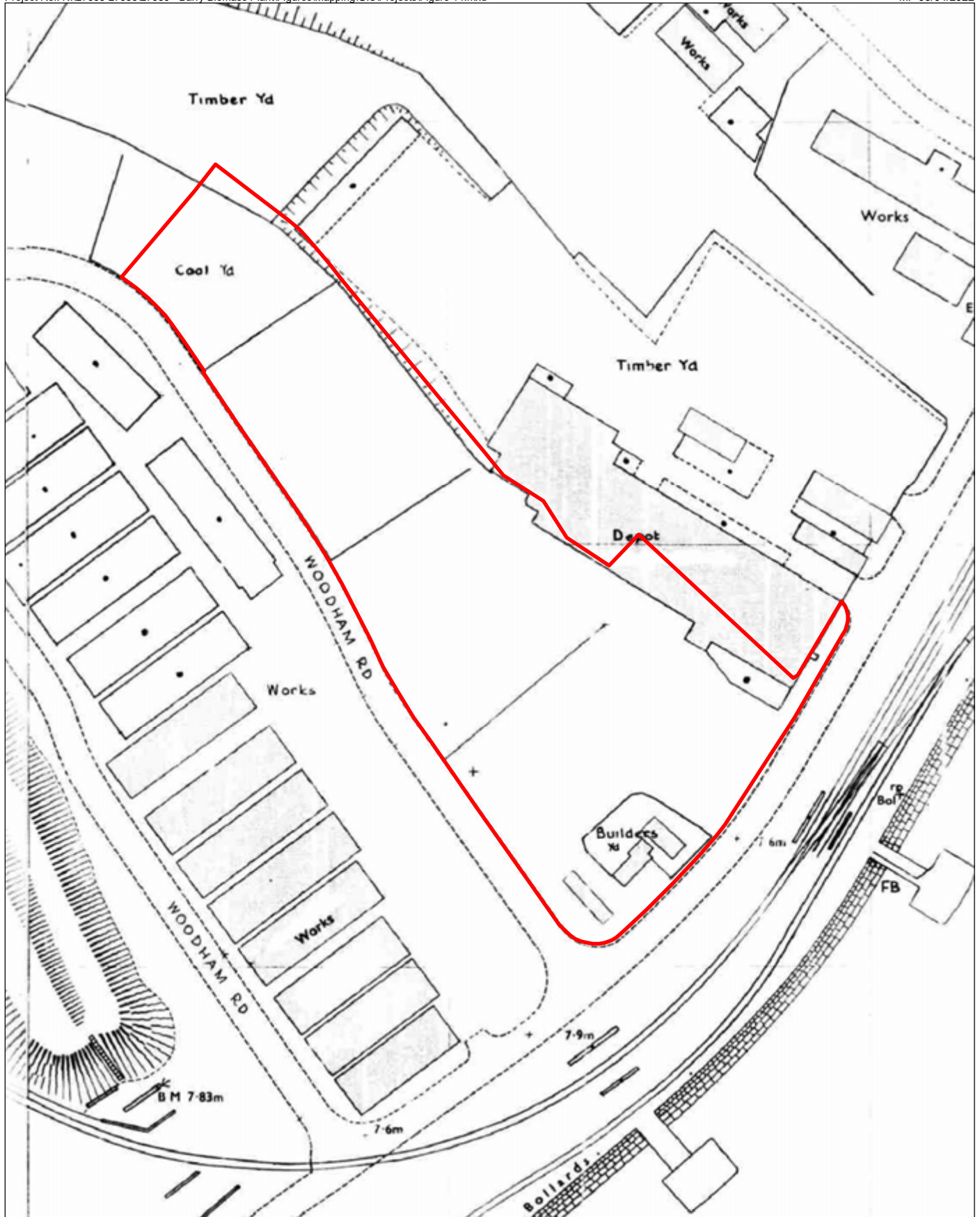


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Figure 14

1982 OS 1:10000



 Site Boundary

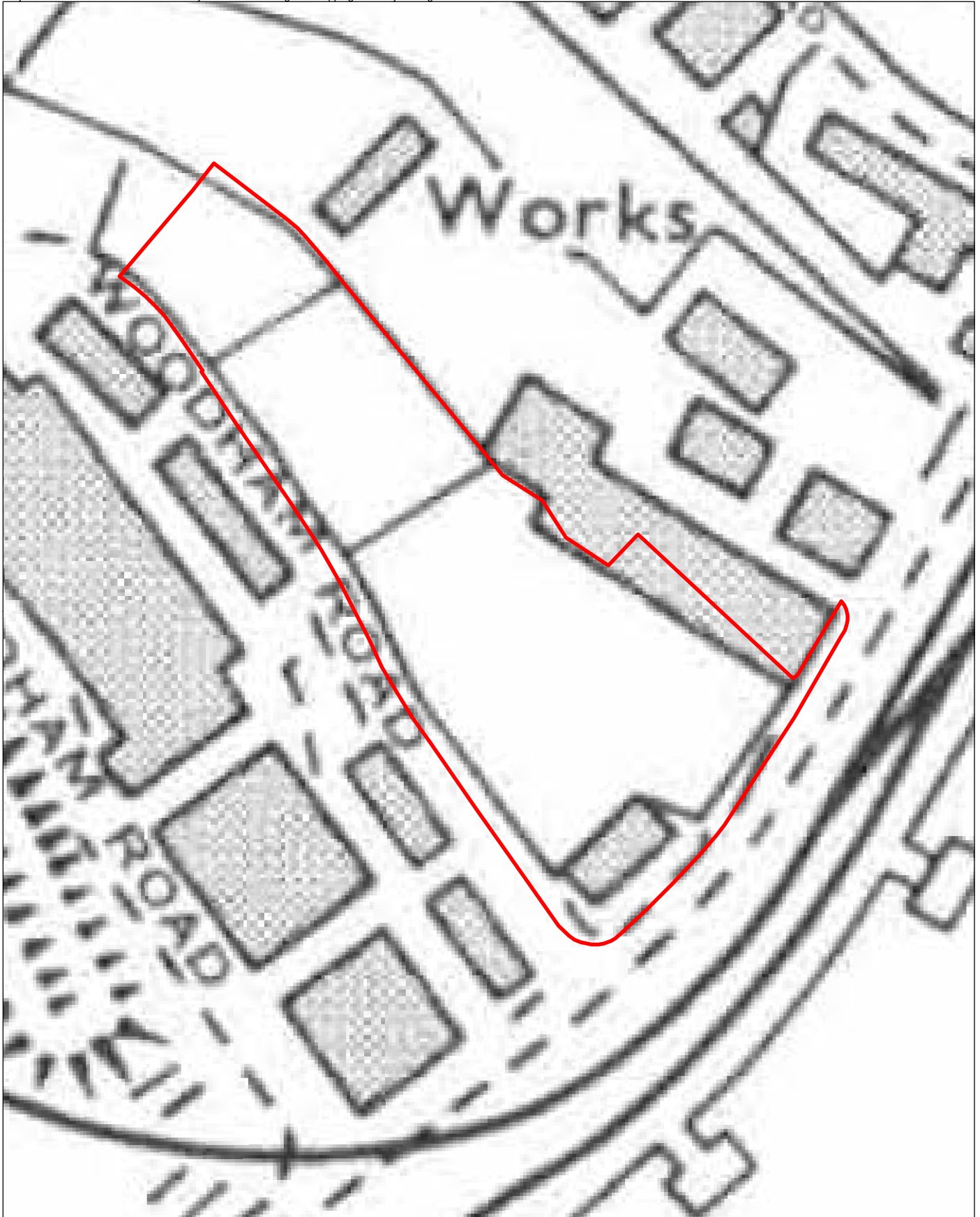


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Scale at A4: 1:1,250



Figure 15

1990 OS 1:1250



 Site Boundary



0 10 20 30m
Scale at A4: 1:1,250



Figure 16

1991 OS 1:10000



 Site Boundary



0 10 20 30m
Scale at A4: 1:1,250



Figure 17

2001 Aerial Photograph (Google Earth Image)



 Site Boundary



0 10 20 30m
Scale at A4: 1:1,250



Figure 18

2009 Aerial Photograph (Google Earth Image)



 Site Boundary



0 10 20 30m
Scale at A4: 1:1,250



Figure 19

2018 Aerial Photograph (Google Earth Image)



 Site Boundary



0 10 20 30m
Scale at A4: 1:1,250



Figure 20

2021 Aerial Photograph (Google Earth Image)



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 Site Boundary



0 10 20 30m
Scale at A4: 1:1,000



Figure 21

Site as Existing



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