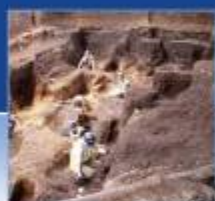


Llygad-enwyn Wind Turbine, Llanybydder, Carmarthenshire, Wales: Archaeological Desk-Based Assessment

Project No: 33129
July 2016



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Group

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CONSERVATION

Llygad-enwyn Wind Turbine, Llanybydder, Carmarthenshire, Wales: Archaeological Desk-Based Assessment

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This document has been prepared in accordance with AOC standard operating procedures

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1 INTRODUCTION

1.1 Project Background

- 1.1.1 AOC Archaeology has been commissioned by Locogen Ltd. to undertake an archaeological assessment covering the proposed erection of a wind turbine at Llygad-enwyn Farm, Llanybydder, Carmarthenshire, Wales NGR 254155, 244425 (**Figure 1**).
- 1.1.2 The site of the proposed development is located at Llygad-enwyn Farm, National Grid Reference: 254155, 244425, approximately 1 km to the northeast of Llanybydder in Carmarthenshire, near to the border with Ceredigion. The town of Lampeter is located 4.5 km to the northeast and the village of Llanllwni is 7 km to the southwest. The turbine location is at approximately 250 m AOD (Above Ordnance Datum) although the site drops steeply away towards the Afon Duar at approximately 115 m AOD. The extent of the landholding is illustrated in Figure 1 below, with the proposed turbine location indicated by the black circle and the proposed access route marked in blue (**Figure 2**).
- 1.1.3 The proposed turbine model is the EWT Directwind 54, which stands at 77m from blade to tip. The foundation will be circular with a diameter of approximately 13 m. It is expected that the required turbine transformer will be located in a transformer kiosk. The kiosk will be located next to the base of the tower and it will have maximum dimensions of 3.5 m x 2.5 m x 2.5 m (length x width x height). It is expected that the required turbine switchgear and the Distribution Network Operator's (DNO's) electrical equipment will be located in a sub-station. The building will be located next to the base of the tower and it will have maximum dimensions of 4.0 m x 4.0 m x 3.2 m (length x width x height). New access track will be constructed to provide access from the B4337 to connect with the minor road adjacent to Rhydybont Farm. An area of hardstanding (approximately 35 m x 20 m) will be provided with an adjacent area for laydown of turbine components. The proposed grid connection point is at the Dunbia Teify Park Factory.
- 1.1.4 This assessment was requested by Dyfed Archaeological Trust Development Management (DAT DM) to supplement the existing Supporting Environmental Document prepared by Locogen (February 2016).
- 1.1.5 This report details the results of the assessment and aims to identify the character and nature of the known and potential heritage resource within the site; assess the impact from past development; and, where possible, summarise the likely impact from the proposed development works, upon the known and potential heritage resource. The report will include recommendations for mitigation measures and / or further archaeological works; where required. The results of further works, such as evaluation trenching, can be used to inform upon the nature of any subsequent mitigation measures (if needed).

1.2 Preliminary Consultation

- 1.2.1 AOC Archaeology consulted with DAT DM to establish the brief and scope of the assessment. A generic brief for archaeological assessments was provided and the study areas (2km for non-designated sites and 5m for designated sites was agreed) (pers comm Mike Ings 20 April 2016). Mike Ings, Senior Planning Archaeologist at DAT DM and Archaeological Advisor to Carmarthenshire County Council, highlighted the need for a comprehensive assessment of all designated and non-designated assets and a site walkover to assess issues of setting.
- 1.2.2 AOC purchased an extract from the Dyfed Archaeological Trust Historic Environment Record (DAT HER) on the 11th of May 2016. All records of undesignated heritage assets and events within 2km of the application site are updated to that date (HER data, RCHAMW and PAS data). AOC purchased

an extract from Dyfed Archaeological Trust HER of all designated heritage assets within 5km on the 16th of May 2016 (CADW data).

- 1.2.3 A walkover survey of the proposed development site and surrounding heritage sites was undertaken on the 17th of May 2016 by AOC Archaeology.

2 ASSESSMENT METHODOLOGY & CRITERIA

2.1 Assessment Methodology & Criteria

Scope of the Assessment

- 2.1.1 This chapter comprises an archaeological desk-top assessment of the proposed wind turbine site and aims to identify and map the nature of the archaeological and built heritage resource within the site and surrounding study area. Where possible, the chapter assesses the likely impact upon the known and potential heritage resources which will result from the proposed development given the uncertainty of the existence and survival of subsurface archaeological material.
- 2.1.2 The chapter is derived from Historic Environment data, Online Historic Wales information held on the Coflein database, historic Ordnance Survey maps and other online sources and a walkover survey of the proposed development undertaken by AOC Archaeology.
- 2.1.3 The chapter includes recommendations for mitigation measures and/or further archaeological works, where the archaeological potential of the site warrants or where additional information on the site is required. Such works could include additional research, monitoring of geotechnical investigations, programmes of archaeological/built heritage surveying and/or archaeological field evaluation. The results of any further studies could then be used to inform the nature of any subsequent mitigation measures (if required), and provide advice upon the scope and design of the proposed development

Assessment Methodology

- 2.1.4 This chapter was prepared in compliance with the Chartered Institute for Archaeologists' Standard and Guidance for Historic Environment Desk-Based Assessment (CIfA 1990, rev. 2008, 2011 & 2014) and relevant statutory requirements, national, regional and local guidance, including the Ancient Monuments and Archaeological Areas Act, 1979; Planning (Listed Buildings and Conservation Areas) Act, 1990; Planning Policy Wales and local planning policy.
- 2.1.5 A study area of 2km from the proposed turbine location is used to assess the likely nature and extent of the archaeological and built heritage resource within the site and the immediate surrounding study area. The Dyfed HER database of archaeological sites, finds, events, monuments and designations is the primary source of information concerning the current state of archaeological and architectural knowledge in the study area. The assessment draws on information provided by the HER to establish descriptions of the heritage baseline conditions. The assessment also draws an information in publically available cartographic sources, online aerial photographic sources and archaeological/historical information from web-based and in-house sources as well as a walkover survey of the proposed development undertaken in May 2016. At the time of writing Carmarthenshire Archives was closed. The Local History section of the Carmarthen Library was consulted as part of this assessment.
- 2.1.6 All designated heritage assets within 5km of the proposed turbine including, Scheduled Monuments, Listed Buildings, Conservation Areas and Parks and Gardens included on the Register of Landscape of Historic Interest in Wales maintained by CADW are detailed in the designated gazetteer

(Appendix 2) and mapped on Figures 3. All non-designated assets are detailed in the non-designated gazetteer (Appendix C) and are mapped on Figure 4. This assessment includes consideration of the visual sensitivity of these assets, based on their monument typologies.

2.2 Assessment Criteria

- 2.2.1 The assessment aims to identify the known and likely archaeological potential of the site and the relative value or importance of such a resource/asset. Based on information provided by the client and where possible the likely magnitude of direct impacts upon such a resource and the potential for indirect impacts (e.g. visual impacts upon the setting of cultural heritage assets which may affect the significance of said assets) from the proposed development are assessed. The criteria for assessing these factors is detailed in Appendix A.
- 2.2.2 The likely magnitude of the impact of the proposed development works has been determined by identifying the level of effect from the proposed development upon the 'baseline' conditions of the heritage asset identified in the assessment. This effect can be either adverse (negative) or beneficial (positive) and is ranked according to the scale of major; moderate, minor and negligible. Where it is not possible to confirm the magnitude of impact (e.g. due to lack of development design information or details on buried deposits) a professional judgement as to the scale of such impacts has been applied.
- 2.2.3 The chapter comprises the archaeological desk-based assessment which has assessed the likely visual impact from the proposed turbine upon the setting of designated cultural heritage assets within the 5km study area, identifying those assets where there is potential for an impact upon setting. This assessment has used the Zone of Theoretical Visibility (ZTV) data provided by the client, a site walkover and visits to specific site located within the ZTV and general panoramas.

2.3 Limitations

- 2.3.1 This chapter has been prepared for submission to the planning authority, under the express instructions and solely for the use of Locogen Ltd and associated parties.
- 2.3.2 The chapter comprises the archaeological desk-based assessment of Historic Environment information from the DAT HER; designated assets data from CADW and readily available online aerial photographic evidence, historic mapping and historical sources.
- 2.3.3 The assessment did not include visits to local, regional or national archives or detailed assessment of aerial photographic evidence. The Carmarthenshire Archives was closed during the production of this assessment. The Carmarthen Local History Library was utilised as an alternative.
- 2.3.4 The locations, descriptions and designations of identified cultural heritage features (for example, the National Grid References) presented in the Gazetteer of Heritage Assets (**Appendix 8.1**) or referenced in the report text will be provided from various secondary sources (DAT HER and CADW). Any inaccuracies with this data will lie within the source material.
- 2.3.5 All the work undertaken in the production of this report will be based upon AOC Archaeology's professional knowledge and understanding of current (May 2016) and relevant United Kingdom standards and codes, technology and legislation.
- 2.3.6 The report has been undertaken in accordance with relevant local and national planning policy current to May 2016.

3 PLANNING BACKGROUND

3.1 Identified Heritage Assets & Key Planning Considerations

- 3.1.1 No designated heritage assets (Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Parks and Gardens *or Landscapes of Special Historic Interest*) are located within the ownership boundary.
- 3.1.2 Eight Scheduled Monuments lie within 5km of the proposed turbine. Three of these fall within 2km of the proposed turbine location, the Iron Age earthworks of Pen y Gaer (**CM101**), located on a prominent hill by Llanybydder and two Bronze Age round barrow cemeteries to the south, Pen Lan (**CD313**) and south-east, Blaen Carreg (**CM084**).
- 3.1.3 A total of 45 listed buildings fall within the 5km study area. Of these, one is Grade I Listed, St Gwenog Church (**CADW 9817**), and one Grade II* Listed, Rhiwson Uchaf House-and-Byre (**CADW 18374**). Both of these fall between 4.5km and 5km from the turbine location to the north-west. The nearest listed asset, the Grade II Church of St Patrick (**CADW 15638**), stands 1km north-east of the proposed turbine location.
- 3.1.4 The following non-designated heritage assets have been identified within or close to the areas of potential impact by the proposed development:
- Derwen-Gam, post medieval farmstead (**NPRN 17294, PRN 9897**)
Derwen-Gam farmstead appears on 19th century mapping and falls within the southern part of the site where a proposed access road is planned. The farmstead has been demolished and the site has not been re-developed.
- 3.1.5 The following non-designated heritage assets have been identified within or close to the boundary of ownership from an appraisal of local and national datasets. Although within the boundary of ownership, the current proposals do not involve direct physical impact upon any of the identified heritage assets:
- Llgag-enwyn Farm (**PRN 25372**)
‘Historic home described by Francis Jones in 1987’ (**PRN 25372**). Recorded on 19th century mapping.
 - Post medieval earthworks (platform) south of Llgag-enwyn Farm (**NPRN 412971**)
Recorded on 19th century mapping. Described under the broad class of agriculture and subsistence. No further description given.
 - Site of post medieval blacksmiths workshop, south of Llgad-enwyn Farm (**PRN 17237**)
No description given.
 - Derlwyn Farm Mill, in south of the area of ownership (**PRN 42098**)
‘Site of post-medieval mill, first recorded on the 1st edition Ordnance Survey map of 1891. The area alongside the river has been landscaped by the owner in order to level the ground and has been used for dumping rubbish. However, a small, rectangular hollow (c.5m by 3m) survives, just to the west of a bend in the river and may mark the site of the former mill building. The run-off leat that led from the mill, ran from east to west along the line of a field boundary. The owner has observed a

high concentration of stone in the field along the line of this and it is likely that very little remains of it' (**PRN 42098**).

- Rhyd-y-bont post medieval dwelling (**NPRN 17770**)

No description

- Rhyd-y-bont post medieval woollen mill (**NPRN 24846, PRN 25655**)

'Historic home described by Francis Jones in 1987' (**PRN 25655**)

- Ryd-y-bont post medieval factory (**PRN 17242**)

'Woollen factory' (**PRN 17242**)

3.1.6 The following heritage assets have been identified within the boundary of ownership during this assessment. Although within the boundary of ownership, the current proposals do not involve direct physical impact upon the identified heritage assets:

- Undated holloway (**AOC 1**)

During the site walkover a short section of a holloway was identified. This runs along the edge of the post medieval fir plantation; it predates the plantation as trees have been planted on top of the surviving ditches although a more specific date is not possible.

3.1.7 No Conservation Areas, World Heritage Sites or Registered Parks and Gardens fall within the 5km study area. None of the landscapes within 5km of the proposed turbine are included on the 'Register of Landscapes of Outstanding Special Historic Interest in Wales' maintained by CADW.

3.2 National & Local Planning Policy

The Historic Environment (Wales) Bill

3.2.1 The Historic Environment (Wales) Bill (March 2016) forms part of a suite of legislation, policy, advice and guidance for the protection and sustainable management of the Welsh historic environment. In broad terms, the Bill intends to give more effective protection to listed buildings and scheduled monuments, enhance existing mechanisms for the sustainable management of the historic environment, and introduce greater transparency and accountability into decisions taken on the historic environment.

3.2.2 Statute controls previously held under the Planning (Listed Buildings and Conservation Areas) Act 1990 and the Ancient Monuments and Archaeological Areas Act 1979 fall under the 2016 Historic Environment (Wales) Bill.

Planning Policy Wales

3.2.3 Planning Policy Wales (PPW) (8th Edition, January 2016) provides guidance on the preparation and content of development plans and advice on development control decisions and appeals. It is supplemented by a series of topic based Technical Advice Notes (TANs). Chapter 6 of PPW deals with conserving the Historic Environment and development control.

3.2.4 The objectives of PPW are as follows:

- preserve or enhance the historic environment, recognising its contribution to economic vitality and culture, civic pride and the quality of life, and its importance as a resource for future generations; and specifically to;
- protect archaeological remains, which are a finite and non-renewable resource, part of the historical and cultural identity of Wales, and valuable both for their own sake and for their role in education, leisure and the economy, particularly tourism;
- ensure that the character of historic buildings is safeguarded from alterations, extensions or demolition that would compromise a building's special architectural and historic interest; and to
- ensure that conservation areas are protected or enhanced, while at the same time remaining alive and prosperous, avoiding unnecessarily detailed controls over businesses and householders.

Carmarthenshire Local Development Plan (2014)

- 3.2.5 The Carmarthenshire Local Development Plan (LDP) was adopted at the meeting of the County Council on the 10th December 2014. The LDP sets out the spatial vision for the future of Carmarthenshire (excluding that area within the Brecon Beacons National Park) and a framework for the distribution and delivery of growth and development.

Policy EQ1 Protection of Buildings, Landscapes and Features of Historic Importance

Proposals for development affecting landscapes, townscapes buildings and sites or features of historic or archaeological interest which by virtue of their historic importance, character or significance within a group of features make an important contribution to the local character and the interests of the area will only be permitted where it preserves or enhances the built and historic environment.

- 3.2.6 Strategic Policy SP13 identifies that historical and cultural features of recognised importance, including Scheduled Ancient Monuments (SAM) will be protected as a reflection of national policy. However, not all nationally important remains which may merit preservation will necessarily be scheduled. Such remains and, in appropriate circumstances, other unscheduled archaeological remains of local importance and their setting may also be worthy of protection (PPW: Edition 7 Para 6.4.2). In this regard, the above policy seeks to reflect their significance either as locally important sites or as currently un-designated sites worthy of potential national designation.

4 ARCHAEOLOGICAL & HISTORICAL BACKGROUND

4.1 The Prehistoric Periods (Palaeolithic c. 500,000 – 10000 BC; Mesolithic c. 10000 to 4000 BC; Neolithic c. 4000-2200 BC; Bronze Age c. 2200-700 BC and Iron Age c. 700 BC - AD 43)

- 4.1.1 The RCAHMW records a number of undated heritage assets (**NPRN 13006, 4771, 767**), however the earliest dated occupation evidence within the 2km study area dates to the Bronze Age period. A group of three scheduled Bronze Age round barrows, Tan y Coed Cochion / Pen Lan, (**PRN 770, 771, 772, CD313**) are located running roughly east – west, 1.5km to the south of the proposed development. These individual monuments are also grouped as a cemetery by Dyfed HER (**PRN 42573**).

- 4.1.2 A second group of three scheduled Bronze Age round barrows are recorded at Blaen-Bydernyn, Blaen Carreg. The monuments are located running roughly north-west to south-east, 1.5 – 2.2km to the east of the proposed development. The individual monuments, Banc y Garn (**PRN 782, 783**) and Cerrig Mangor (**PRN 784**) are grouped as a cemetery by Dyfed HER (**PRN 42575**) and CADW (**CM084**). An earthwork close to the cemetery is argued to be modern well-hole rather than a barrow (**PRN 13006**).
- 4.1.3 The DHER also records an undesignated (and unconfirmed) Bronze Age cremation burial at Rhydowen (**PRN 806**), 3km to the east of the application site.
- 4.1.4 The scheduled hill fort of Pen y Gaer (**CM101**) is located on a low, but prominent hill to the south of Llanybydder. In addition to the hill fort, which are mostly of Iron Age origin, evidence of earlier occupation is testified by two Bronze Age cairns on the north-west slope, and extensive prehistoric field systems are recorded in the vicinity. The earthworks show evidence of re-working indicating it continued in use and medieval earthworks are also recorded on the south-eastern slopes.
- 4.1.5 Evidence of Iron Age occupation within the study area includes the remains of Blaen-Maes, a large defended enclosure on high ground above the Teifi Valley near Pencarreg (**NPRN 402874, Plate 3**). The monument lies approximately 0.3km to the north-east of the application site. Showing as dark parchmarks in pasture, the site comprises a large outer enclosure measuring 220m east to west enclosing a much smaller internal enclosure c.90m east to west. It occupies the summit of a hill, bounded by steep slopes on all but the east side, where land begins to rise again.
- 4.1.6 Dolgwm Isaf (**PRN 809**), also an Iron Age defended enclosure, lies within the study area, 2km to the north-east of the application site. The site is on a gentle north-eastern hillslope at 170m above sea level.
- 4.1.7 A rectangular defended enclosure, Pant y Baw (**PRN 766**), 1.6km to the west of the application site, may indicate Iron Age or Roman occupation. An Iron Age – Roman find spot is also recorded within the study area, Cellan (**PRN 805**), although there is no description of the character of the find spot.

4.2 The Roman Period (AD 43 – AD 410)

- 4.2.1 Four short segments of the Roman road RR69d that runs between Carmarthen and Llanfair Clydogau (**PRN 3382**) fall within the study area. The road runs south-west to north-east to the north-west of the application site. Three sections are identified from aerial photography study (**PRN 33964, 33965, 33966**) while the fourth was excavated in 1878 and was found to be 12ft wide (**PRN 33963**).
- 4.2.2 The RCAHMW also records a number of Roman find spots within the study area, although none lie within the ownership boundary (**NPRN 402873, 747, 724, 729**).

4.3 The Early Medieval (Saxon) Period (AD 410-1066)

- 4.3.1 A single early medieval asset is recorded within the 2km study area. Pencarreg Parish Church (**PRN 49315, 10137**), Grade II Listed and post-medieval in date, may have early medieval origins. The site lies 1.3km to the north-east of the application site. It occupies the summit of a prominent knoll and may be a re-used Iron Age defended enclosure. The site is dedicated to the 'Celtic' St Padarn, whose cult centre is in Ceredigion.

4.4 The Medieval Period (AD 1066-1500)

- 4.4.1 The site lies to the south of Pencarreg, which is known to be a centre of settlement from the medieval period based on the Parish Church. The extant remains date to the post medieval period, but documentary sources suggest an earlier origin and medieval material culture has been

recovered from the site (**PRN 727**). A water mill is also recorded to the south-west of the site at Rhyd y Bont (**12729**). No medieval heritage assets have been identified within or immediately adjacent to the proposed turbine and access road locations.

4.5 The Post-Medieval (AD 1500-1900) and Modern Period (post 1900)

4.5.1 The site lies within the agricultural hinterland of known post medieval settlement within the study area. There is little extant building remains pre-dating the post medieval period, with the main concentration of buildings at Llanybydder to the west and Pencarreg to the north. Post medieval farmsteads are located throughout the surrounding landscape.

4.5.2 Post-medieval heritage assets within the ownership boundary include:

- Llgag-enwyn Farm (**PRN 25372**)

‘Historic home described by Francis Jones in 1987’ (**PRN 25372**). Recorded on 19th century mapping.
- Post medieval earthworks (platform) south of Llgag-enwyn Farm (**NPRN 412971**)

Recorded on 19th century mapping. Described under the broad class of agriculture and subsistence. No further description given.
- Site of post medieval blacksmiths workshop, south of Llgad-enwyn Farm (**PRN 17237**)

No description given.
- Derlwyn Farm Mill, in south of the area of ownership (**PRN 42098**)

‘Site of post-medieval mill, first recorded on the 1st edition Ordnance Survey map of 1891. The area alongside the river has been landscaped by the owner in order to level the ground and has been used for dumping rubbish. However, a small, rectangular hollow (c.5m by 3m) survives, just to the west of a bend in the river and may mark the site of the former mill building. The run-off leat that led from the mill, ran from east to west along the line of a field boundary. The owner has observed a high concentration of stone in the field along the line of this and it is likely that very little remains of it’ (**PRN 42098**).
- Rhyd-y-bont post medieval dwelling (**NPRN 17770**)

No description
- Rhyd-y-bont post medieval woollen mill (**NPRN 24846, PRN 25655**)

‘Historic home described by Francis Jones in 1987’ (**PRN 25655**)
- Ryd-y-bont post medieval factory (**PRN 17242**)

‘Woollen factory’ (**PRN 17242**)
- Derwen-Gam, post medieval farmstead (**NPRN 17294, PRN 9897**)

Derwen-Gam farmstead appears on 19th century mapping and falls within the southern part of the site where a proposed access road is planned. The farmstead has been demolished and the site has not been re-developed.

Cartographic Evidence

- 4.5.3 First Series Ordnance Survey (sheet 57, surveyed 1834) provides further detail of the proposed development site. Individual fields are not illustrated, however Llygad-enwyn farm and Rhyd-y-bont are visible as are the access road between which survive to date. Of note is the hill on which the proposed turbine sits. The 1834 source illustrates a much larger area of woodland than survives to date; larger also than the 1890 1st edition Ordnance Survey. The turbine location is located in heavy woodland in the 19th century.
- 4.5.4 The 1840 Tithe Map (<http://discovery.nationalarchives.gov.uk/details/r/C2297814>, not illustrated) provides the earliest detailed cartographic record of the proposed site. *Llygadenwin House and Yard* is depicted (apportionment number 24) which is recorded as being owned by Herbert Evans and occupied by Thomas Lloyd. The farmstead is located within a large parcel of land which extends to the west and east. The northern boundary of this parcel of land is likely to respect the line of the Allt Llygad-enwyn plantation along which a holloway was noted during the site walkover. No field boundaries, structures or apportionment numbers are recorded in the vicinity of the proposed turbine location.
- 4.5.5 The Ordnance Survey 1888 map (**Plate 1**) provides further detail of the site. The northern part of the site is located within the Allt Llwyn crwn and Allt Llygad-enwyn plantations; the turbine location itself located in an area of forest in the 19th century. The layout of the remaining area remains enclosed agricultural land largely as it survives to date. Much of the upland area is annotated as marsh. The farmstead of Llygad-enwyn takes the form of an 'L' shaped structure (the 1889 1:2,500 map details three individual buildings with a number of smaller ancillary buildings) which has been replaced by 20th century farm buildings. An enclosure to the south of this may relate to the earthwork noted in the RCAHMW (NPRN 412971). The access road provides access from Rhyd-y-bont to the farm and on to the plantations. The industrial character of southern part of the site is clear. A cloth (also referred to as woollen) factory is noted and stretches of the river have been canalised and mill races constructed. A further cloth factory and a corn mill are also noted on the section of river between Rhyd-y-bont and Llanybydder. A ford is also noted by the Rhyd-y-bont factory.

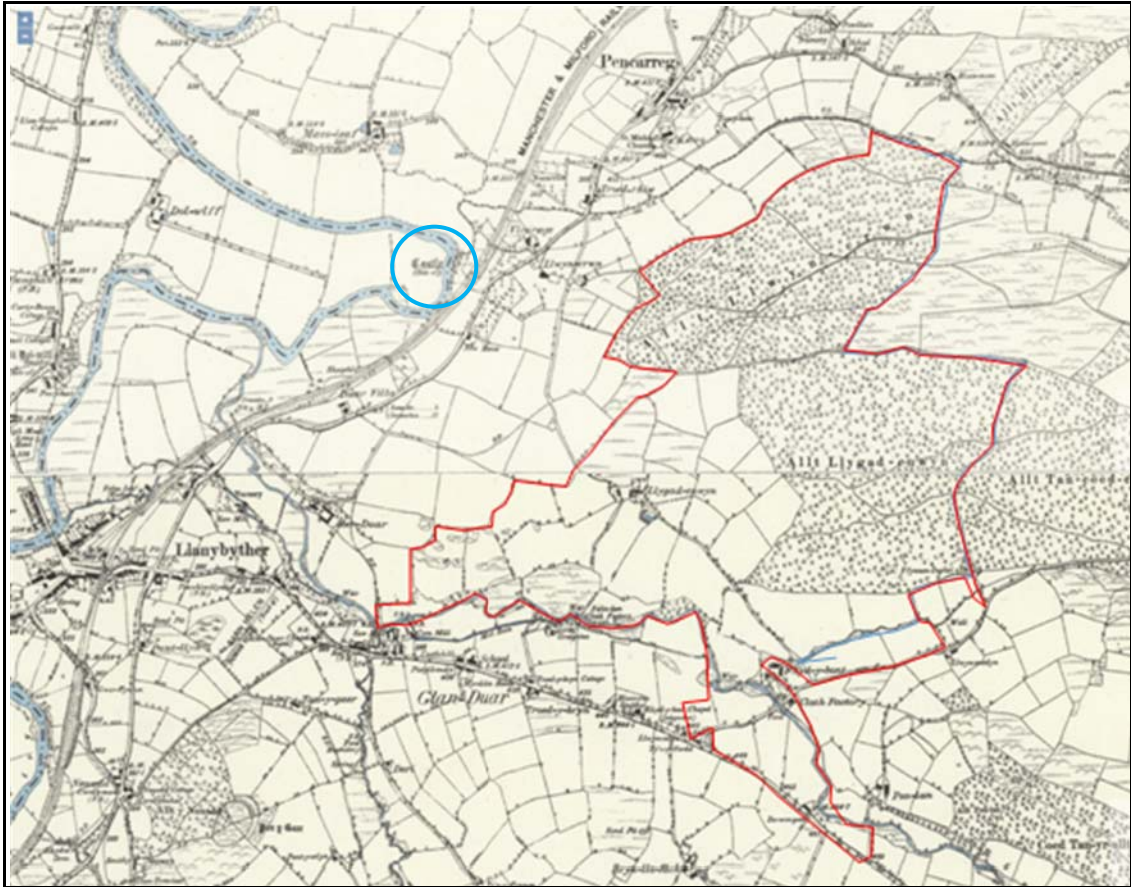


Plate 1: First Edition Ordnance Survey, 1890 (© National Library of Scotland) with site location in red and site marked as castle (site of) in blue.



Plate 2: Site of Castle denoted on the 1888 OS map.

- 4.5.6 Potentially the most significant site is that marked as 'site of castle', which is marked as 'entrenchments' on the 1904 OS map and corresponds with site **PRN 767** recorded on the DAT HER as a linear bank, which may match the 'entrenchment' label on the early 20th century map. It is

unclear if there are any upstanding remains or if this is local folklore. It is located on a meander/oxbow of the River Teifi. Nearby is a rectangular defended enclosure (**PRN 766**) which may be the same site. It could potentially be some form of medieval or earlier earthwork fort but this is speculative and would need ground investigation to confirm. It does not appear on maps later than the 1904 OS map.

- 4.5.7 The 1888 source illustrates the Manchester and Milford Railway which connected Llanybydder to the national rail network in 1867. This was originally part of an ill-fated scheme to link Manchester to the deepwater port at Milford Haven. The line was closed to passengers in February 1965 due to financial pressures to repair the line following flooding.
- 4.5.8 Subsequent mapping (1905 1:2,500, 1953 1:10,560, 1964 1:10,560 and 1972 1:2,500) illustrates little change within the ownership boundary. By 1972 the turbine location and proposed access road remained within woodland. Alterations to the farm buildings at Llgad-enwyn include the construction of the new farm building which survives to date (late 20th century in date). None of the 19th century farm buildings survive. Gradual amalgamation of fields is noted.
- 4.5.9 No features, structures or other remains are shown on any of the historic Ordnance Survey maps at the location proposed for the turbine or the proposed access route.

5 ADDITIONAL BACKGROUND RESEARCH

5.1 Previous Archaeological Site Investigations

- 5.1.1 No previous archaeological investigations are recorded as having been undertaken within the proposed development area.

5.2 Geotechnical investigations

- 5.2.1 No geotechnical surveys have been completed or are planned as part of the proposed works.

5.3 Aerial Photographs

- 5.3.1 Aerial photographs held at the Dyfed Archaeological Trust were reviewed. These were all dated from 1955. The review has identified the ditch surrounding the Iron Age hillfort to the north of the development boundary at Blaen-maes (**Plate 1**). The remaining aerial photographs did not reveal any hitherto unrecorded archaeological assets or possible features. Copies of the aerial photographs are located in Appendix D.

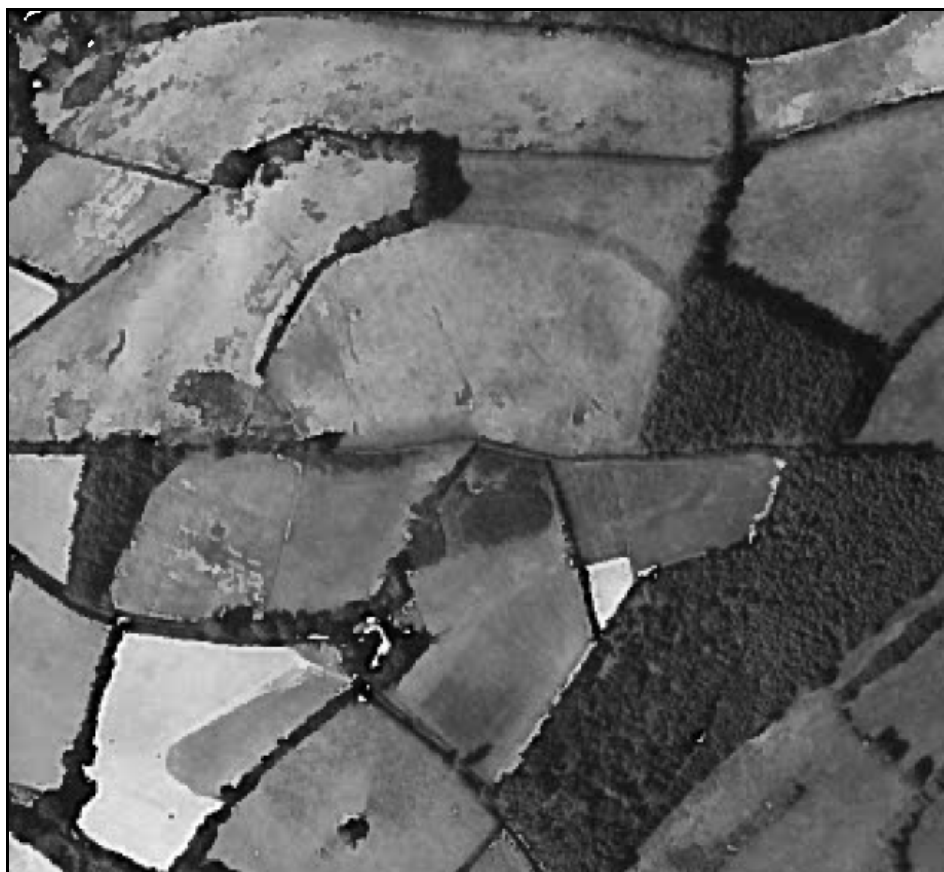


Plate 3: Cropmark of Iron Age hillfort ditch (**NPRN 402874**) taken in 1955 (Dyfed HER Ref 13336).

5.4 Site Walkover and Description

- 5.4.1 The proposed development site was visited on the 17th May 2016 to assess the existing land use and the potential for heritage constraints. The conditions were dry and overcast. The walkover survey covered the line of the proposed access, the proposed turbine location and surrounding areas, rather than the entire area within the boundary of ownership.
- 5.4.2 The proposed development is located on the north-west slope of a hill, the summit of which (289m OD) lies to the north-east of the turbine location. The survey established that there were clear views towards the turbine location from the south, south-east round to the west. Due to the topography and woodland cover to the north and east, views to the turbine location were limited from these directions.
- 5.4.3 The site is accessed from an entrance to Llgad-enwyn Farm on a small single track road by Rhyd-y-bont Mill. The Afon Duar runs under the road and a well preserved semi-industrial landscape comprising the mill, mill leat, river and dwellings survives. Part of the proposed access road runs south through an enclosed pasture field. No heritage assets were noted in this field and the proposed access road does not directly impact any of the identified features.
- 5.4.4 The proposed access road to the turbine location follows the line of a well established route which runs up to Llgad-enwyn and up to the plantations. The line of the original route runs along the edge of the plantation, taking the form of a hallway / ditched route (**AOC 1**). The route follows the line of the plantation, which is likely to be post-medieval in date, however some of the trees have been

planted on top of the ditches, suggesting that it pre-dates the plantation. A public footpath runs along the line of the holloway. The proposals avoid this section of path; with the construction of a new road curving across the neighbouring fields. This area is currently enclosed pasture (one field possibly used for arable purposes). The field boundaries are modern in date as the area was wooded until the late 20th century. Thus the proposals do not impact landscape features of antiquity.



Plate 4: Holloway through woodland (AOC 1) (dir. west).

- 5.4.5 The proposed turbine location is located in an east-west field on the south-western slop of the hill. A public footpath runs to the north of the northern field boundary which is, at ground level, obscured by the field boundary and the topography. Heavy woodland forms the western boundary which, in addition to the topography, obscures views in this direction. A clean cairn of stones indicates stone clearance of modern date in the north-west corner of the site.



Plate 5: View towards ridge / location of proposed turbine from Llgad-enwyn Farm (dir. north-east).

- 5.4.6 From ground level the site provides open views to the east round to the south. The scheduled hill fort of Pen y Gaer (**CM101**) is located on a low, but prominent hill to the south of Llanybydder. In addition to the hill fort, which are mostly of Iron Age origin, evidence of earlier occupation is testified by two Bronze Age cairns on the north-west slope, and extensive prehistoric field systems are recorded in the vicinity. The earthworks show evidence of re-working indicating it continued in use and medieval earthworks are also recorded on the south-eastern slopes. The entrance to the earthworks is to the west. The earthworks are not directly visible from the site (**Plate 5**).



Plate 6: View from the ridge towards Llanybydder and Pen y Gaer (scheduled hill fort CM101) (dir. south-west).



Plate 7: View from ridge towards south and Pen Lan (scheduled round barrow cemetery CM313) (dir. south).

- 5.4.7 From ground level the view from the proposed turbine location are also open to the south. A scheduled Bronze Age round barrow cemetery, Pen Lan (**CM313**) is located in a roughly east-west

alignment along the ridge to the south of the site (the closer and lower of the two ridges shown in **Plate 7**). The monuments are not directly visible from the application site.

- 5.4.8 In addition to the walkover of the site itself an appraisal of key view points towards the site was completed. The location of the scheduled Bronze Age cemetery at Blaen Carreg (**CM084**) was inspected. The cairns themselves were not easily identifiable and the view towards the turbine location was not, from eye level, clear. The woodland and topography between these monuments and the application site limited intervisibility.
- 5.4.9 The settlement of Pencarreg lies approximately 1km north-west of the turbine location and includes a number of Grade II Listed structures, the Church of St Patrick (**15638**), including railings to Daniel Evans (Daniel Ddu o Geredigion) in Pencarreg churchyard (**81231**), Pen-rhiw (**81232**), Troed-rhiw (**81233**). These fall within a valley and views towards the wind turbine, from ground level, are limited due to the woodland and topography between.

6 ASSESSMENT OF EVIDENCE

6.1 Past Impacts within the Site Boundary

- 6.1.1 The available evidence has been assessed in an attempt to determine the nature and extent of any previous impacts upon any potential below ground archaeological deposits, which may survive within the bounds of the proposed development site.
- 6.1.2 The following phases of construction are known on the site which have the potential to impact sub-surface archaeological deposits:
- In the 19th century the proposed turbine and northern access road was located in woodland which is likely to have impacted buried deposits.

6.2 Assessment of Archaeological Potential

- 6.2.1 The assessment has identified the following heritage assets within the ownership boundary. The following provides an assessment of the potential for archaeological remains associated with these known features to be impacted by the proposed development:
- Llgag-enwyn Farm (**PRN 25372**)
Cartographic sources indicate that the footprint of the 19th century farm buildings fall within the extent of the modern farm buildings. The potential is considered low for sub-surface remains associated with the pre-20th century farm and the significance is considered Local in line with the methodology statement (**Appendix A**).
 - Post medieval earthworks (platform) south of Llgag-enwyn Farm (**NPRN 412971**)
No evidence of an earthwork was visible during the site walkover. Cartographic sources indicate the earthworks were located within the area currently covered by the modern farm. Should groundworks be required for the construction of the new access road in this area there is potential for sub-surface remains associated with these earthworks. The potential is considered low and the significance is considered Local in line with the methodology statement (**Appendix A**).
 - Site of post medieval blacksmiths workshop, south of Llgad-enwyn Farm (**PRN 17237**)

No groundworks are planned in the vicinity of this asset. An assessment of this area did not identify and extant remains associated with this features and the potential for associated sub-surface remains to extend in the area of impact is considered very low.

- Derlwyn Farm Mill, in south of the area of ownership (**PRN 42098**)

No groundworks are planned in the vicinity of this asset. The potential for associated sub-surface remains to extend in the area of impact is considered very low.

- Rhyd-y-bont, post medieval dwelling (**NPRN 17770**)

The proposed access road in this area respects the existing access; no groundworks are anticipated in the vicinity of this asset.

- Rhyd-y-bont, post medieval woollen mill (**NPRN 24846, PRN 25655**)

The proposed access road in this area respects the existing access; no groundworks are anticipated in the vicinity of this asset.

- Ryd-y-bont, post medieval factory (**PRN 17242**)

The proposed access road in this area respects the existing access; no groundworks are anticipated in the vicinity of this asset.

- Derwen-Gam, post medieval farmstead (**NPRN 17294, PRN 9897**)

Derwen-Gam farmstead appears on 19th century mapping. The farmstead has been demolished and the site has not been re-developed. The current proposals involve the construction of an access road close to the footprint of the farmstead and enclosure boundary. There should be considered a high potential for sub-surface remains associated with this structure in this area. Archaeological deposits associated with this asset should be considered of Local Significance in line with Methodology Statement (**Appendix A**).

6.2.2 When considering the potential for previously unrecorded archaeological remains the following areas will be considered separately: the location of the proposed turbine, associated hardstanding and new access road; and the proposed access road to the south of Rhyd-y-bont.

6.2.3 The proposed turbine and hardstanding is located on a ridge which is currently used for pasture. No known heritage assets fall within or adjacent to this area and historic mapping indicates that this area was woodland in the 19th century. Assessment of the aerial photographic sources has not identified any potential features within this area. Based on proximity to known settlement activity, this area is unlikely to contain significant settlement evidence from the historic period. The potential for previously unrecorded prehistoric evidence is considered low based on proximity to known sites, topography and the probable disturbance caused by historic land-use (wooded).

6.2.4 The area south of Rhyd-y-bont is located close to a centre of post medieval settlement and industry. This area lies adjacent to the Afon Duar which has been canalised and a mill race constructed to the north of the river for powering the Rhyd-y-bont Mill (**PRN 17242**). The site of a post medieval farmhouse, Derwen-Gam (**PRN 9897**) is recorded on late 19th century mapping at the very south of this area, adjacent to the road. There should be considered a high potential for sub-surface remains associated with this structure in this area. Archaeological deposits associated with this asset should be considered of Local Significance in line with Methodology Statement (**Appendix A**). Based on the topography and proximity to the river there should also be considered a Low-Medium potential for previously unrecorded prehistoric evidence.

7 ASSESSMENT OF EFFECTS

7.1 Direct Effects

- 7.1.1 The proposed development scheme will comprise the erection of a single turbine with associated access tracks, underground cabling and electricity switchroom.
- 7.1.2 The turbine will be 77m in height to blade tip. The foundation will be circular with a diameter of approximately 13 m. It is expected that the required turbine transformer will be located in a transformer kiosk. The kiosk will be located next to the base of the tower and it will have maximum dimensions of 3.5 m x 2.5 m x 2.5 m (length x width x height). It is expected that the required turbine switchgear and the Distribution Network Operator's (DNO's) electrical equipment will be located in a sub-station. The building will be located next to the base of the tower and it will have maximum dimensions of 4.0 m x 4.0 m x 3.2 m (length x width x height). New access track will be constructed to provide access from the B4337 to connect with the minor road adjacent to Rhydybont Farm. An area of hardstanding (approximately 35 m x 20 m) will be provided with an adjacent area for laydown of turbine components.
- 7.1.3 Groundworks for the proposed turbine are likely to constitute between a Medium to High Magnitude of impact upon any earthwork or buried archaeological remains which may be present. However, no known heritage assets have been identified in or near this area and the potential for significant sub-surface remains in this area is considered low, with prehistoric potential Low to Medium.
- 7.1.4 The access track will utilise existing tracks wherever it is practical, limiting potential effects on any buried archaeological remains which may be present. Two section of new access track are required as part of the proposal. No known or potential heritage assets have been identified in the line of the northern section. However, the assessment has identified the potential for sub-surface remains associated with post-medieval occupation in the south of the site (south of Rhyd-y-bont). Based on the topography and proximity to the river there should also be considered a Low-Medium potential for previously unrecorded prehistoric evidence. The proposals involve the construction of a new stretch of access road in this area. The proposals consist a low impact on the potential archaeological resource in this area.

7.2 Indirect Effects

- 7.2.1 This assessment included a detailed site visit and visits to the designated assets within the 5km study area identified within the ZTV as being potentially impacted by the proposals. This appraisal of setting impacts is based upon Zone of Theoretical Visibility (ZTV) information, provided by the client. The following can be stated:

Scheduled Monuments

- Of the eight Scheduled Monuments within 5km of the proposed turbine, four fall within the ZTV (**CD117**, **CM313**, **CM084** and **CM196**). The remaining four monuments lie at the very edge of the ZTV (**CM101**, **CM173**, **CM315**, **CM312**).
- Although the scheduled remains of Pen y Gaer (**CM101**), located on a prominent hill visible from the site, which lies just outside the ZTV. Evidence of continued occupation on this prominent hill survive outside the scheduled areas. For example medieval earthworks are recorded on the south-eastern slopes (towards the proposed turbine location), and

prehistoric field systems and cairns are also recorded on the hill. As such the setting of the Pen y Gaer monument is considered to extend within the area of the ZTV. However, the proposed development is not considered to have a significant impact on the preserved, multi-period landscape of Pen y Gaer: Views to and from these monuments across the valley as a whole will not be significantly restricted.

- The proposed turbine will be visible from below hub height when viewed from the Pen Lan round barrow cemetery (**CD313**). It was not possible to visit these monuments as part of this assessment to check condition, accessibility and intervisibility with the site. However, these monuments are located on the neighbouring ridge of the Afon Duar valley and intervisibility between the proposed turbine and monument location was confirmed during the site walkover. Bronze Age funerary monuments have a general high visual sensitivity based on deliberate positioning within the landscape. The construction of a single turbine is not considered, however, to constitute a significant visual impact on these monuments; views to and from these monuments across the valley as a whole will not be significantly restricted.
- The proposed turbine will be visible from below hub height when viewed from the Three Round Cairns SE of Blaen Carreg (**CM084**). The location of the scheduled Bronze Age cemetery at Blaen Carreg (**CM084**) was inspected during the site walkover. The cairns themselves were not easily identifiable and the view towards the turbine location was not, from ground level, clear. The woodland and topography between these monuments and the application site limited intervisibility. As such, these monuments are not considered to have a high sensitivity to change at the proposed turbine location.
- The proposed turbine will also be visible, at hub height, when viewed from the Scheduled Llanwnnen Ring Motte (**CD117**), a D-shaped enclosure, about 24m north-south by 18m, is located on steep natural scarps above the valley of the Grannell within the township of Llanwnnen, 3km to the north of the proposed turbine location. This type of monument is considered to have high visual sensitivity based on deliberate and prominent positioning within the landscape. The proposed turbine is located on the south-western slope of the Afon Duar valley and the site visit confirmed that views to the north were restricted. The earthworks at Llanwnnen are located in a separate valley to the north. Taking all these factors into consideration, the construction of a single turbine is not considered to constitute a significant visual impact on this monument.
- The proposed turbine will also be visible, at hub height, when viewed from the Scheduled Pant-Teg Standing Stone (**CM196**), located approximately 4.5km to the south-east of the proposed turbine location. Clear intervisibility within this monument was not identified during the site walkover and the monument is located within a neighbouring valley. Although these prehistoric monuments generally have high visual sensitivity, this monument is not considered to be significantly sensitive to change at the proposed turbine location.

Listed Buildings

- The ZTV indicates that the proposed turbine will be theoretically visible to either hub or blade tip from 39 Listed Buildings (**9381, 9382, 9817, 10433, 10452, 10453, 10454, 15638, 18071-88, 18366, 18370-74, 21392, 22265, 23883, 80702, 81231-33294**) located within 5km of the proposed turbine location. Of these, the following listed buildings within Llanybydder (**9381, 9382, 9381, 80702, 23883, 18372, 18372, 22265**) were considered to have intervisibility with the site based on the results of the site walkover.
- The visual sensitivity of these assets will vary with some of the Listed Buildings being more visually sensitive to changes to their settings than others and it also needs to be acknowledged that whilst theoretical, visibility will in many cases be either impeded or blocked by intervening vegetation, trees and buildings especially where assets lie within townscapes.
- Six listed buildings lie outside or on the edge of the ZTV (**80703, 80704, 80705, 80707, 81234, 81235**).

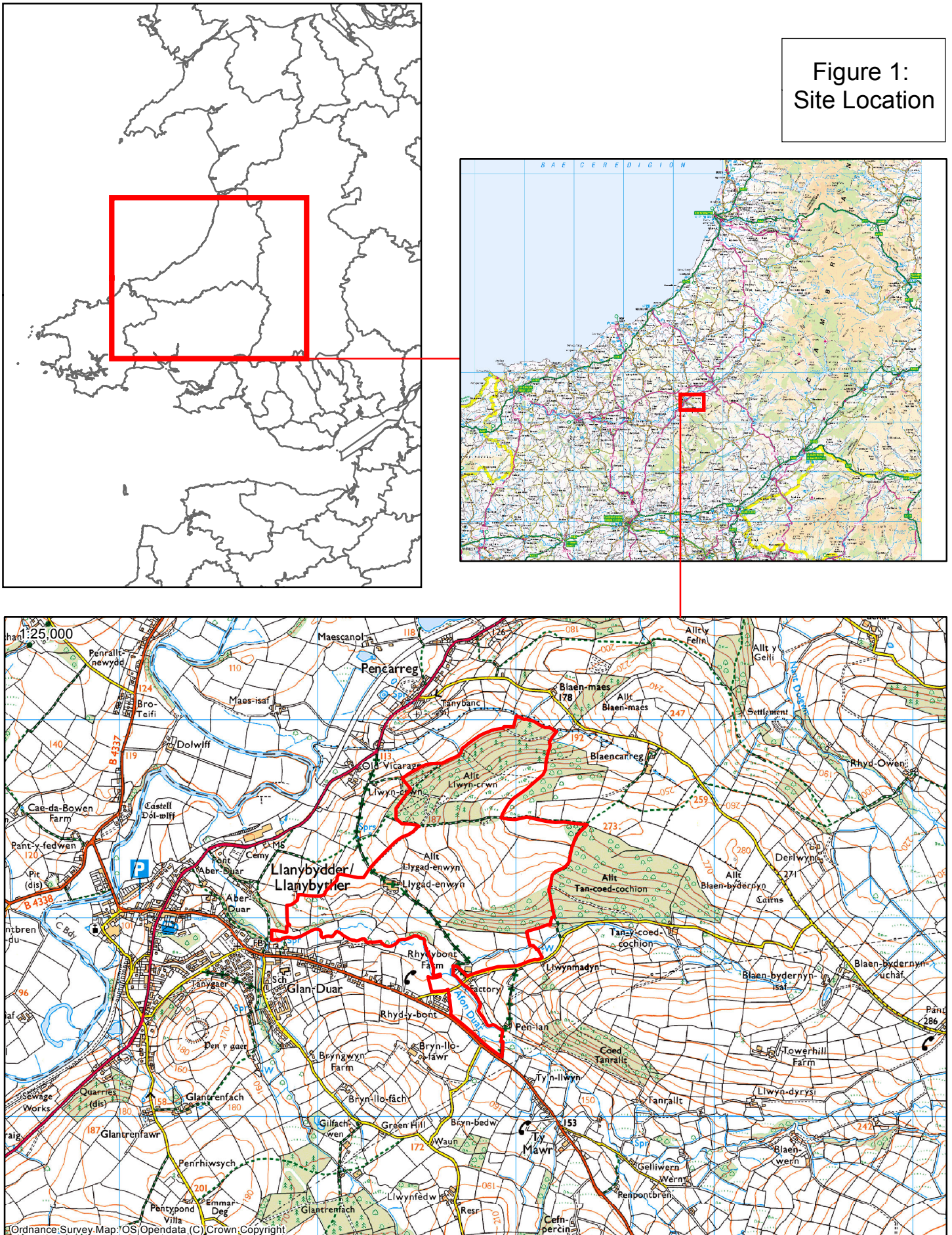
7.3 Mitigation, Residual Effects and Conclusion

- 7.3.1 The assessment has identified a number of heritage assets within the ownership boundary, however the current proposals do not involve direct impact upon these. The potential for previously unrecorded archaeological deposits at the proposed turbine location is considered low.
- 7.3.2 While the nature of the below ground deposits is unknown, this assessment has indicated potential for post medieval and prehistoric remains in the southern part of the site. A new access road is proposed in this area, the impact of which is considered to be minor based on the size and character of the proposals. As significant remains in this area are not expected it is suggested that an archaeological watching brief is implemented as a final mitigation strategy in this area. It is recommended that this is secured as a condition of planning.
- 7.3.3 The specific visual impacts of the proposed turbine on the settings of designated heritage assets are not deemed to be significant in terms of adverse impact. This is based upon the nature of the surrounding Scheduled Monuments and Listed Buildings, with the impact of a single turbine being considered to be Low Adverse on monuments of National Significance leading to a Slight Significance of Effect. Beyond mitigation by design undertaken as part of the design process, there is no direct mitigation than can be offered to lessen visual impacts upon setting nor is any deemed to be necessary in the case of this development.
- 7.3.4 Assuming that no mitigation will be required, the overall Residual Impact is deemed to be Slight Adverse.
- 7.3.5 The final decision rests with Mike Ings, Senior Planning Archaeologist at DAT DM and Archaeological Advisor to Carmarthenshire County Council.

8 REFERENCES

- *Carmarthenshire Local Development Plan (2014)*
- Chartered Institute for Archaeologists' Standard and Guidance for Historic Environment Desk-Based Assessment (CifA 1990, rev. 2008, 2011 & 2014)
- Planning Policy Wales 8th Edition (January 2016)
- Historic Environment (Wales) Bill (March 2016)

Figure 1:
Site Location



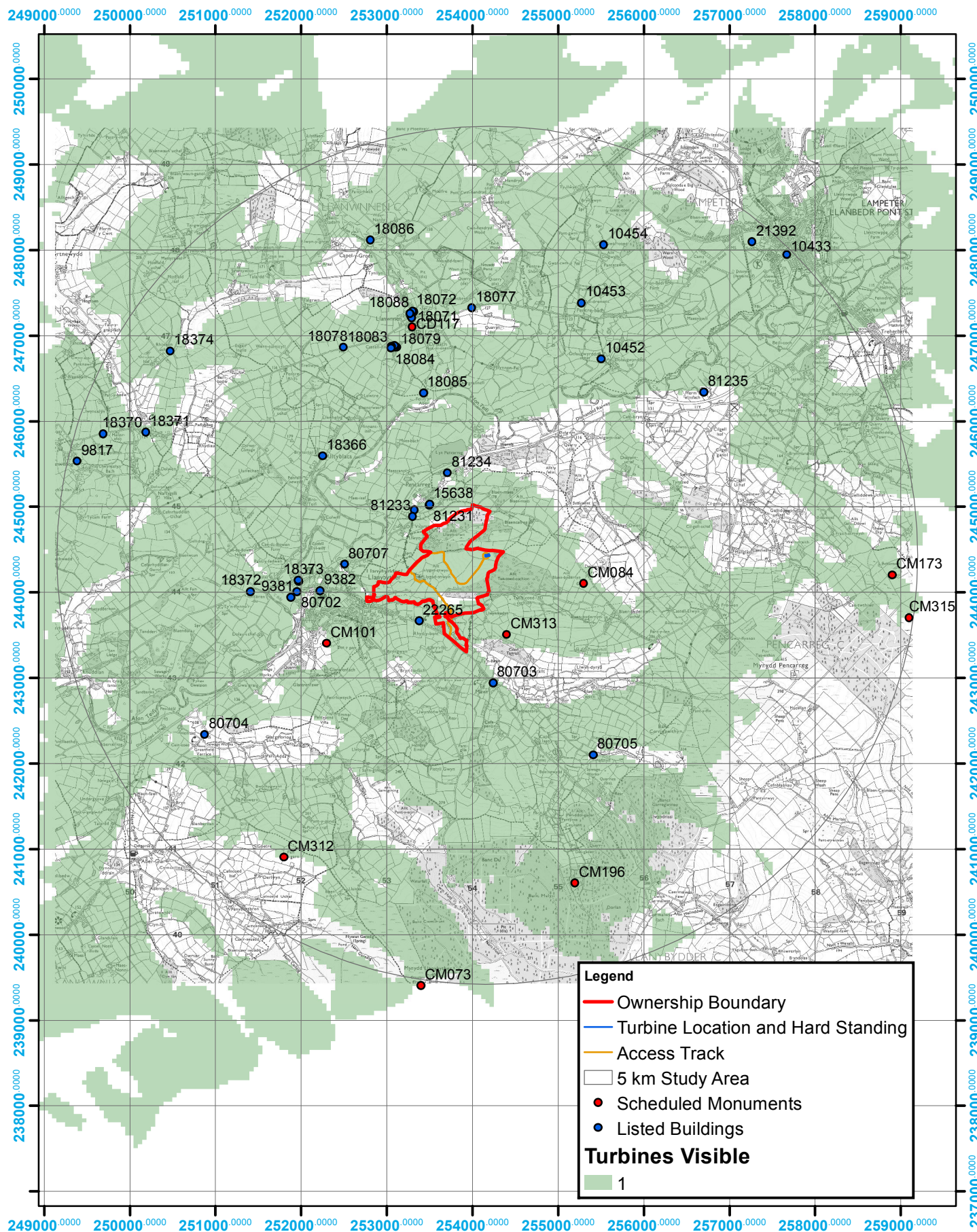


Figure 3: Designated Heritage Asset Map

Project No.: 33129

Date: 19.05.2016

Scale at A4: 1:60,000



(c) AOC Archaeology 2016

0 640 1,280 1,920 2,560 Meters

Cartographic data derived from OS OpenData, Crown Copyright



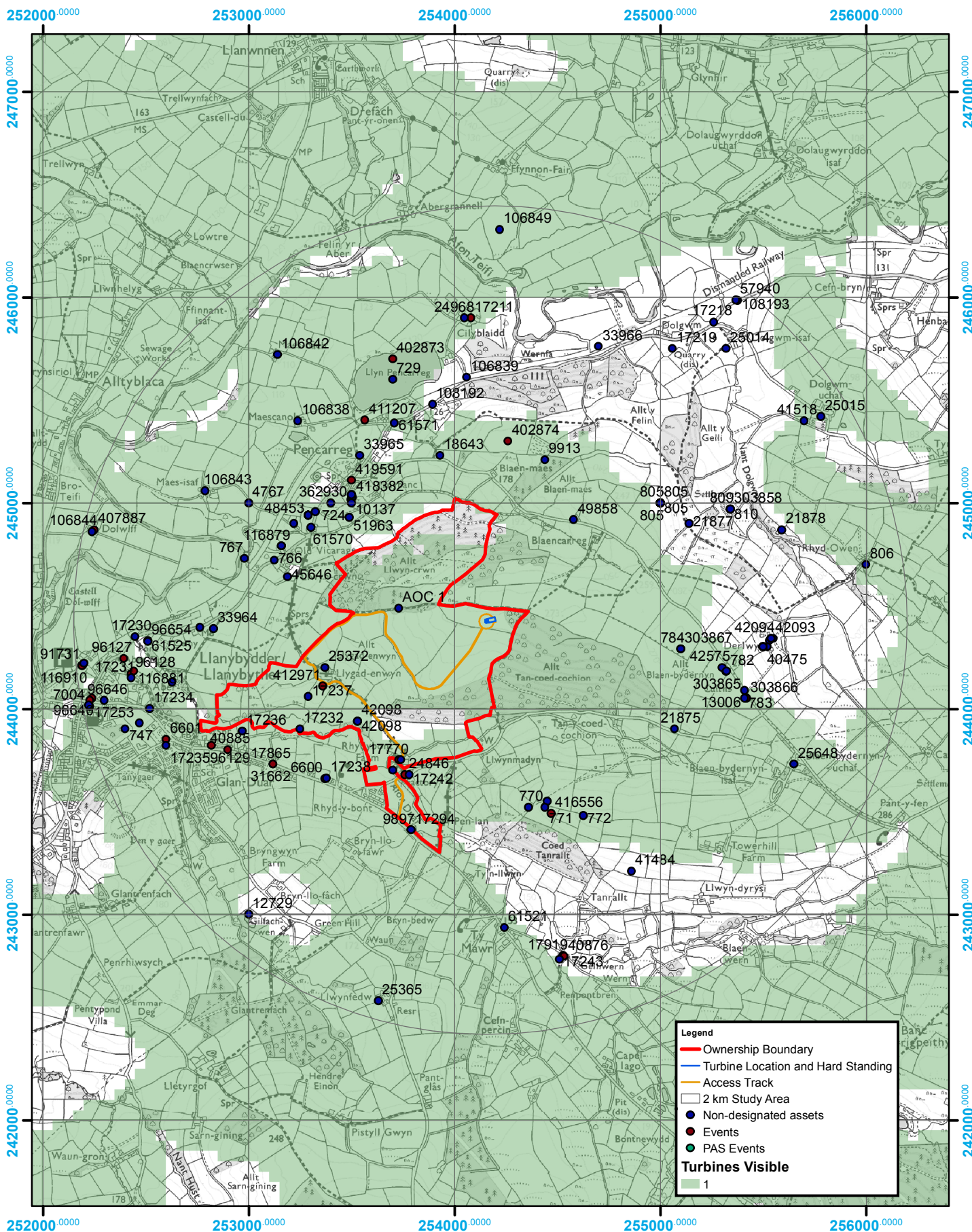


Figure 4: Non-designated Heritage Asset Map

Project No.: 33129

Date: 19.05.2016

Scale at A4: 1:24,974



(c) AOC Archaeology 2016

0 260 520 780 1,040 Meters

Cartographic data derived from OS OpenData, Crown Copyright



APPENDICES

APPENDIX A ASSESSMENT SCOPE & CRITERIA

Scope of the Assessment

This report details the results of an archaeological and built heritage assessment and aims to identify and map the nature of the heritage resource within the site and surrounding study area. Where possible, the assessment will evaluate the likely impact from the proposed development scheme, upon the known and potential heritage resource.

This report will include recommendations for mitigation measures and / or further archaeological works; where the archaeological potential of the site warrants, or where additional information on the site is required.

Further works could include additional research, monitoring of geotechnical investigations, programmes of archaeological surveying and / or field evaluation. The results of any further studies can be used to inform upon the nature of any subsequent mitigation measures (if required), and provide advice upon the scope and design of the proposed development

The assessment has used the sources listed in below to identify and map Heritage Assets and other relevant find spots or evidence within the site and defined study area. Heritage Assets are defined in national planning guidance and can include designated assets (Scheduled Monuments, Listed Buildings etc.), standing, buried or submerged remains, historic buildings and structures, parks and gardens and areas, sites and landscapes - whether designated or not.

Assessment Criteria

The potential for surviving archaeological evidence of past activity within the site is expressed in the report as ranging between the scales of:

- High – The available evidence suggests a high likelihood for past activity within the site and a strong potential for archaeological evidence to survive intact or reasonably intact;
- Medium – The available evidence suggests a reasonable likelihood for past activity within the site and a potential that archaeological evidence may survive although the nature and extent of survival is not thought to be significant;
- Low – The available evidence suggests archaeological evidence of significant activity is unlikely to survive within the site, although some minor land-use may have occurred.
- Uncertain - Insufficient information to assess.

Buried archaeological evidence is, by its very nature, an unknown quantity which can never be 100% identified during a desk-based assessment. The assessed potential is based on available evidence but the physical nature and extent of any archaeological resource surviving within the site cannot be confirmed without detailed information on the below ground deposits or results of on-site fieldwork.

Where potential or known heritage assets are identified, the heritage significance of such assets is determined by reference to existing designations where available. For previously unidentified sites where no designation has been assigned, an estimate has been made of the likely historic, artistic or archaeological importance of that resource based on professional knowledge and judgement.

Adjustments to the classification (Table 2, below) are occasionally made, where appropriate; for some types of finds or sites where there is no consistent value and the importance may vary from local to national. Levels of importance for any such areas are generally assigned on an individual basis, based on professional judgement and advice.

TABLE 1: Assessing the Significance of a Heritage Assets

SIGNIFICANCE OF HERITAGE ASSET IMPORTANCE	
NATIONAL	The highest status of asset, e.g. Scheduled Monuments (or undesignated assets of schedulable quality and importance), Grade I and Grade II* Listed Buildings. Well preserved historic landscape, whether inscribed or not, with exceptional coherence, time depth, or other critical factor(s)
REGIONAL	Designated or undesignated archaeological sites; well preserved structures or buildings of historical significance, historic landscapes or assets of a reasonably defined extent and significance, or reasonable evidence of occupation / settlement, ritual, industrial activity etc. Examples may include burial sites, deserted medieval villages, Roman roads and dense scatter of finds.
LOCAL	Undesignated sites with some evidence of human activity but which are in a fragmentary or poor state, or assets of limited historic value but which have the potential to contribute to local research objectives, structures or buildings of potential historical merit. Examples include sites such as historic field systems and boundaries, agricultural features such as ridge and furrow, ephemeral archaeological evidence etc.
NEGLIGIBLE	Historic assets with very little or no surviving archaeological interest or buildings and landscapes of no historical significance. Examples include destroyed antiquities, buildings of no architectural merit, or relatively modern landscape features such as quarries, field boundaries, drains and ponds etc.
UNKNOWN	Insufficient information exists to assess the importance of a feature (e.g. unidentified features on aerial photographs).

The likely magnitude of the impact of the proposed development works is determined by identifying the level of effect from the proposed development upon the 'baseline' conditions of the site and the heritage resource identified in the assessment. This effect can be either adverse (negative) or beneficial (positive). The criteria for assessing the magnitude of impact are set out in Table 3 below.

TABLE 2: Criteria for Determining Magnitude of Impact

LEVEL OF MAGNITUDE	DEFINITION
ADVERSE	
HIGH	Substantial impacts fundamentally changing the baseline condition of the receptor, leading to total or considerable alteration of character or setting – e.g. complete or almost complete destruction of the archaeological resource; dramatic visual intrusion into a historic landscape element; adverse change to the setting or visual amenity of the feature/site; significant increase in noise or changes in sound quality; extensive changes to use or access. Substantial harm to or loss of a grade II listed building, park or garden. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites,
MEDIUM	Impacts changing the baseline condition of the receptor materially but not entirely, leading to partial alteration of character or setting – e.g. a large proportion of the archaeological resource damaged or destroyed; visual intrusion into key aspects of the historic landscape; and changes in noise levels or use of a site that would result in detrimental changes to historic landscape character.

LOW	Detectable impacts which alter the baseline condition of the receptor to a small degree – e.g. a small proportion of the surviving archaeological resource is damaged or destroyed; minor severance, change to the setting or structure or increase in noise; and limited encroachment into character of a historic landscape.
NEGLIGIBLE	Barely distinguishable adverse change from baseline conditions, where there would be very little appreciable effect on a known site, possibly because of distance from the development, method of construction or landscape or ecological planting, that are thought to have no long term effect on the historic value of a resource.
BENEFICIAL	
NEGLIGIBLE	Barely distinguishable beneficial change from baseline conditions, where there would be very little appreciable effect on a known site and little long term effect on the historic value of a resource.
LOW	Minimal enhancement to key historic landscape elements, parcels or components, such as limited visual improvements or reduction in severance; slight changes in noise or sound quality; minor changes to use or access; resulting in a small improvement in historic landscape character.
MEDIUM	Changes to key historic elements resulting in welcome changes to historic landscape character. For example, a major reduction of severance or substantial reductions in noise or disturbance such that the value of known sites would be enhanced.
HIGH	Positive changes to most or all key historic landscape elements, parcels or components; visual changes to many key aspects of the historic landscape; significant decrease in noise or changes in sound quality; changes to use or access; resulting in considerable welcome changes to historic landscape character.

In certain cases it is not possible to confirm the magnitude of impact upon a heritage resource, especially where anticipated buried deposits exist. In such circumstances a professional judgement as to the scale of such impacts is applied.

APPENDIX B GAZATTEER OF DESIGNATED HERITAGE ASSETS

The following table lists all the designated assets identified by the assessment. A 5km study area for designated assets was established for this assessment following consultation with Dyfed Archaeological Trust. This information is sourced by the Dyfed Historic Environment Record (DHER – PRN) and from CADW.

TABLE 3: Designated Heritage Asset List

CAWD REF.	NAME	DESIGNATION
CD117	LLANWNNEN RING MOTTE	SM
CM084	THREE ROUND CAIRNS SE OF BLAEN CARREG	SM
CM101	PEN Y GAER	SM
CM313	PEN LAN ROUND BARROW CEMETERY	SM
CM173	CAER PENCARREG	SM
CM315	GELLI DEWI UCHAF LINEAR ROUND BARROW CEMETERY	SM
CM073	CRUGIAU EDRYD ROUND BARROWS	SM
CM196	PANT-TEG STANDING STONE	SM
CM312	DERLWYN ROUND BARROW CEMETERY	SM
9381	CHURCH OF ST PETER	II
9382	CROSS HANDS HOTEL	II
9817	ST GWENOG CHURCH	I
10433	CAPEL SOAR	II
10452	DOLAU-GWYRDDON UCHAF, LLANWNNEN ROAD, PENTRE BACH	II
10453	DOL-DREMENT, LLANWNNEN ROAD, PENTRE BACH	II
10454	GWAR-COED FARMHOUSE, MAESTIR ROAD, PENTRE BACH	II
15638	CHURCH OF ST PATRICK	II
18071	CHURCH OF ST LUCIA AND ST GWYNIN	II
18072	S.M. HUGHES MONUMENT AND RAILED ENCLOSURE IN LLANWNNEN CHURCHYARD	II
18073		
18074		
18075	LLANWNNEN POST OFFICE	II
18076	TELEPHONE BOX OUTSIDE POST OFFICE	II
18077	MILESTONE ON A475 E OF LLANWNNEN	II

CAWD REF.	NAME	DESIGNATION
18078	MILESTONE ON A475 TO W OF LLANWNNEN	II
18079	CASTELL-DU	II
18080	OUTBUILDING TO SW OF CASTELL-DU	II
18081	COACH-HOUSE AND STABLES AT CASTELL-DU	II
18082	BARN AND CART-SHED RANGE AT CASTELL-DU	II
18083	OUTBUILDING IN W ANGLE OF FARMYARD AT CASTELL-DU	II
18084	RANGE OF OUTBUILDINGS ON S SIDE OF FARMYARD AT CASTELL-DU	II
18085	FELIN YR ABER	II
18086	PONT ABERCERDINEN	II
18087		II
18088		II
18366	MILEPOST ON B4337 AT ALLTYBLACA	II
18370	MILESTONE ON A475 E OF DREFACH	II
18371	WAR MEMORIAL	II
18372	PONTBRENDU	II
18373	PONT LLANYBYDDER (PARTLY IN LLANYBYDDER COMMUNITY)	II
18374	RHIWSON UCHAF HOUSE-AND-BYRE	II*
21392	PAVILION ON S SIDE OF COLLEGE PLAYING FIELD	II
22265	CAPEL RHYDYBONT	II
23883	PONT LLANYBYDDER (PARTLY IN LLANWENOG COMMUNITY)	II
80702	DOLGWM STORES	II
80703	FORMER COTTAGE TO W OF BEEHIVE COTTAGE	II
80704	MILE MARKER AT PONT YR HENFAES	II
80705	PEITHYN, INCLUDING ATTACHED GARDEN WALLS	II
80707	THE VICARAGE	II
81231	MONUMENT INCLUDING RAILINGS TO DANIEL EVANS (DANIEL DDU O GEREDIGION) IN PENCARREG CHURCHYARD	II
81232	PEN-RHIW	II
81233	TROED-RHIW	II
81234	PLAS COTTAGE	II

LLYGAD-ENWYN WIND TURBINE, LLANYBYDDER, CARMARTHENSHIRE, WALES:
ARCHAEOLOGICAL DESK-BASED ASSESSMENT

CAWD REF.	NAME	DESIGNATION
81235	OLD HOUSE, WITH ATTACHED FARM BUILDINGS, AT FELIN FACH	II
253294	247204	II

APPENDIX C GAZETTEER OF HERITAGE ASSETS

In order to understand the nature and extent of the surrounding archaeological resource, a study area of a 2km radius from the centre of the proposed development site was adopted.

The following gazetteer combines datasets from the Dyfed Archaeological Trust Historic Environment Record (DHER – PRN), the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW – NPRN) and the Portable Antiquity Scheme (PAS). All datasets were supplied by Dyfed Archaeological Trust. This gazetteer represents a summary of the search results; full search (provides individual site descriptions and sources) can be provided upon request. Where previously unrecorded heritage assets are identified, these will be given an AOC reference e.g. (AOC 1).

Abbreviations:

AOC No.: Number assigned to sites or features not previously recorded, referred to in the text in round brackets e.g. (AOC 1)

PRN: Dyfed Archaeological Trust Historic Environment Record

NPRN: Royal Commission on the Ancient and Historical Monuments of Wales

PAS: Portable Antiquity Scheme

NGR: National Grid Reference

TABLE 4: Gazetteer of Relevant Heritage Assets

REF NUMBER.	NAME	TYPE	SOURCE	AOC PERIOD
13006	BANC Y GARN	WELL, ROUND BARROW	RCAHMW	UNDATED
4771	LAMPETER	INSCRIBED STONE?	RCAHMW	UNKNOWN
767	PANT Y BAW	UNKNOWN, BANK (EARTHWORK)	RCAHMW	UNKNOWN
362930		COIN	RCAHMW	UNKNOWN
303866	BANC-Y-GARN II, CAIRN B, PENCARREG	CAIRN	RCAHMW	UNKNOWN
303858	DOLGWM ISAF, DEFENDED ENCLOSURE, PENCARREG	DEFENDED ENCLOSURE	RCAHMW	UNKNOWN
416556	PEN LAN ROUND BARROW CEMETERY	ROUND BARROW CEMETERY	RCAHMW	PREHISTORIC
806	RHYDOWEN; BANC Y	CREMATION BURIAL	DYFED	BRONZE AGE
42573	TAN Y COED COCHION; PEN LAN	ROUND BARROW CEMETERY	DYFED	BRONZE AGE
303865	BANC-Y-GARN I, CAIRN A, PENCARREG	CAIRN	DYFED	BRONZE AGE
303867	CERRIG MANGOR, CAIRN	CAIRN	DYFED	BRONZE AGE
9913	BLAEN-MAES	DEFENDED ENCLOSURE	DYFED	IRON AGE
809	DOLGWM ISAF	DEFENDED ENCLOSURE	DYFED	IRON AGE
402874	HILLFORT, BLAEN-MAES, PENCARREG	HILLFORT	DYFED	IRON AGE
766	PANT Y BAW	DEFENDED ENCLOSURE	DYFED	IRON AGE ?, ROMAN ?
805	CELLAN	FINDSPOT	DYFED	IRON AGE, ROMAN

LLYGAD-ENWYN WIND TURBINE, LLANYBYDDER, CARMARTHENSHIRE, WALES:
ARCHAEOLOGICAL DESK-BASED ASSESSMENT

33964	GLYN	ROAD	RCAHMW	ROMAN
33963	LLANYBYTHER CEMETERY	ROAD	RCAHMW	ROMAN
729	LLYN PENCARREG	FINDSPOT	RCAHMW	ROMAN
33965	PENCARREG	ROAD	RCAHMW	ROMAN
724	ST PATRICK'S CHURCH; TANYRALLT	FINDSPOT	RCAHMW	ROMAN
747	SUNNY HILL	FINDSPOT	RCAHMW	ROMAN
33966	TAN-YR-ALLT	ROAD	RCAHMW	ROMAN
402873	LLYN PENCARREG ROMAN MACE FIND	FINDSPOT	RCAHMW	ROMAN
51963	TAN Y BANC	ROAD ?	RCAHMW	ROMAN ?
49315	PENCARREG PARISH CHURCH; AT PADARN'S; ST PATRICKS	CHURCHYARD	DYFED	EARLY MEDIEVAL
10137	ST PADARN	DELETED	DYFED	EARLY MEDIEVAL
11758	KING'S MEADOW; KING'S CELLAR	PLACENAME	DYFED	MEDIEVAL
4767	PENCARREG	FINDSPOT	DYFED	MEDIEVAL
727	PENCARREG PARISH CHURCH; ST PADARN'S; ST PATRICK'S	CHURCH	DYFED	MEDIEVAL
12729	RHYD Y BONT	WATERMILL	DYFED	MEDIEVAL
24058	ABER DUAR	FARMSTEAD, COUNTRY HOUSE	DYFED	MEDIEVAL; POST- MEDIEVAL
6601	ABERDUAR WELSH BAPTIST CHURCH, LLANYBYDDER;ABERDYAR	CHAPEL	DYFED	POST MEDIEVAL
96129	ALBION MILL, LLANYBYTHER	CORN MILL	DYFED	POST MEDIEVAL
17211	CIL BLAIDD;CIL-Y-BLAIDD	DWELLING	DYFED	POST MEDIEVAL
17253	CROSS HANDS HOTEL	HOTEL	DYFED	POST MEDIEVAL
17294	DERWEN-GAM	HOUSE	DYFED	POST MEDIEVAL
407887	DOL-WLFF	FARMHOUSE	DYFED	POST MEDIEVAL
116910	FELIN ISAF WOOLLEN MILL, LLANYBYDDER	WOOLLEN MILL	DYFED	POST MEDIEVAL
96654	LLANYBYDDER VICARAGE	VICARAGE	DYFED	POST MEDIEVAL
96646	LLANYBYDDER WAR MEMORIAL	WAR MEMORIAL	DYFED	POST MEDIEVAL
96640	LLANYBYDDER;LLANYBYTHER	TOWN	DYFED	POST MEDIEVAL
116881	LLANYBYTHER CORN MILL;LLANYBYTHER MILL, LLANYBYDDER	CORN MILL	DYFED	POST MEDIEVAL
96128	LLANYBYTHER SAWMILL, LLANYBYDDER	SAW MILL	DYFED	POST MEDIEVAL
96127	LLANYBYTHER WEAVING MILL, LLANYBYDDER	WOOLLEN MILL	DYFED	POST MEDIEVAL

LLYGAD-ENWYN WIND TURBINE, LLANYBYDDER, CARMARTHENSHIRE, WALES:
ARCHAEOLOGICAL DESK-BASED ASSESSMENT

40876	LLANYBYTHER WOOL FACTORY; GELLI WERN MILL; WERNNANT FACTORY	WOOLLEN MILL	DYFED	POST MEDIEVAL
412971	LLYGAD-ENWYN, EARTHWORKS	PLATFORM	DYFED	POST MEDIEVAL
116879	OLD VICARAGE, PENCARREG;LLANYBYDDER RECTORY	VICARAGE	DYFED	POST MEDIEVAL
17770	RHYD-Y-BONT	DWELLING	DYFED	POST MEDIEVAL
24846	RHYDYBONT MILL	WOOLLEN MILL	DYFED	POST MEDIEVAL
6600	RHYDYBONT WELSH INDEPENDENT CHAPEL, RHYDYBONT, LLANYBYDDER	CHAPEL	DYFED	POST MEDIEVAL
40885	SIWAN WOOLLEN MILL	WOOLLEN MILL	DYFED	POST MEDIEVAL
418382	ST PATRICK'S CHURCH, PENCARREG	CHURCH	DYFED	POST MEDIEVAL
17865	TROED-Y-BRYN COTTAGE	HOUSE	DYFED	POST MEDIEVAL
31662	TROED-Y-BRYN PIGSTY AND COWSHED	COW SHED, PIGSTY	DYFED	POST MEDIEVAL
17919	WOOLLEN FACTORY	DWELLING	DYFED	POST MEDIEVAL
17237		BLACKSMITH'S WORKSHOP	DYFED	POST_MEDIEVAL
17235	ABER-DUER CHAPEL	CHAPEL	DYFED	POST-MEDIEVAL
25648	BLAEN BYDERNYN; RHOSDUON TOWER	DWELLING	DYFED	POST-MEDIEVAL
24968	CIL-BLAIDD; CILYBLAIDD	MAJOR DWELLING	DYFED	POST-MEDIEVAL
106839	COTTAGE NEAR CILYBLAIDD	COTTAGE	DYFED	POST-MEDIEVAL
42091	DERLWYN FARM	FARMSTEAD	DYFED	POST-MEDIEVAL
42092	DERLWYN FARM	FARMHOUSE	DYFED	POST-MEDIEVAL
42093	DERLWYN FARM	COW HOUSE	DYFED	POST-MEDIEVAL
42094	DERLWYN FARM	COMBINATION FARM BUILDING	DYFED	POST-MEDIEVAL
42095	DERLWYN FARM	STABLES	DYFED	POST-MEDIEVAL
42096	DERLWYN FARM	BARN	DYFED	POST-MEDIEVAL
42097	DERLWYN FARM	CART HOUSE	DYFED	POST-MEDIEVAL
42098	DERLWYN FARM	MILL	DYFED	POST-MEDIEVAL
42098	DERLWYN FARM	MILL	DYFED	POST-MEDIEVAL
9897	DERWEN-GAM	FARMHOUSE	DYFED	POST-MEDIEVAL
25015	DOLGWM UCHA; DOLGWM UCHAF	DWELLING, FARMSTEAD	DYFED	POST-MEDIEVAL
810	DOLGWM UCHAF	COCKPIT ?	DYFED	POST-MEDIEVAL
25014	DOLGWM-ISSA; DOLGWM ISAF	DWELLING, FARMSTEAD	DYFED	POST-MEDIEVAL

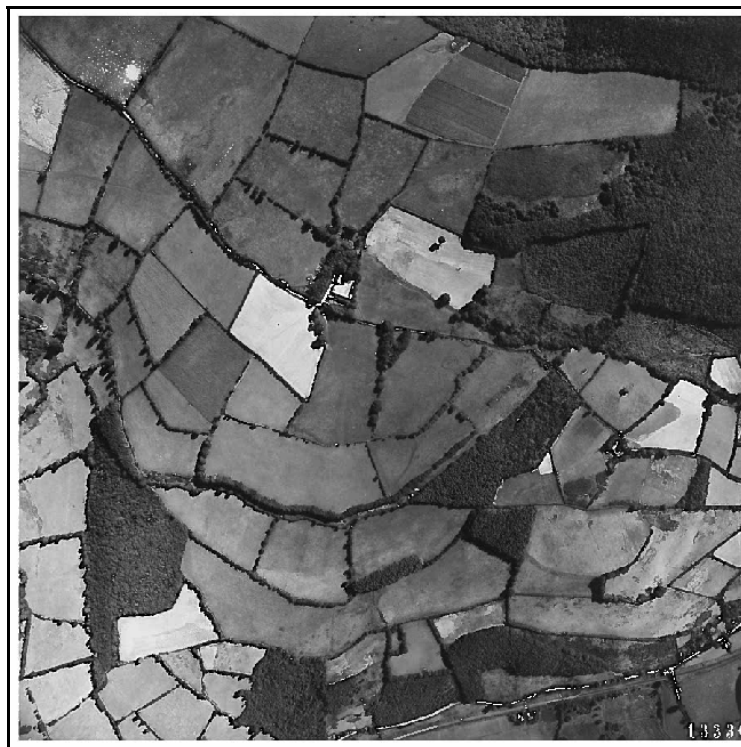
LLYGAD-ENWYN WIND TURBINE, LLANYBYDDER, CARMARTHENSHIRE, WALES:
ARCHAEOLOGICAL DESK-BASED ASSESSMENT

106844	DOLWLFF	FARMSTEAD	DYFED	POST-MEDIEVAL
17232	FELIN BAN	MILL ?	DYFED	POST-MEDIEVAL
17260	FELIN ISAF	MILL	DYFED	POST-MEDIEVAL
106849	FFYNNON FAIR	FARMSTEAD	DYFED	POST-MEDIEVAL
25365	LLWYN Y FEDW	DWELLING	DYFED	POST-MEDIEVAL
25372	LLYGAD ENWYN	DWELLING	DYFED	POST-MEDIEVAL
106842	MAES BACH	FARMSTEAD	DYFED	POST-MEDIEVAL
106838	MAES CANOL	FARMSTEAD	DYFED	POST-MEDIEVAL
106837	MAES ISAF	FARMSTEAD	DYFED	POST-MEDIEVAL
106843	MAES ISAF	FARMSTEAD	DYFED	POST-MEDIEVAL
17230	PONT ABER-DUAR	BRIDGE	PAS	POST-MEDIEVAL
17218	PONT DOLGWM ISAF	BRIDGE	RCAHMW	POST-MEDIEVAL
25655	RHYD Y BONT	DWELLING	RCAHMW	POST-MEDIEVAL
21878	RHYD-OWEN-FACH	COTTAGE ?	RCAHMW	POST-MEDIEVAL
17241	RHYD-Y-BONT	BRIDGE ?	RCAHMW	POST-MEDIEVAL
21877	TAI-CWM	COTTAGE ?	RCAHMW	POST-MEDIEVAL
21875	TY-NEWYDD	COTTAGE ?	RCAHMW	POST-MEDIEVAL
17243	WERNNANT WOOLEN FACTORY	FACTORY	RCAHMW	POST-MEDIEVAL
17219		QUARRY	RCAHMW	POST-MEDIEVAL
17229		VICARAGE	RCAHMW	POST-MEDIEVAL
17231		MILL	RCAHMW	POST-MEDIEVAL
17233		BLACKSMITHS WORKSHOP	RCAHMW	POST-MEDIEVAL
17234		BLACKSMITHS WORKSHOP	RCAHMW	POST-MEDIEVAL
17236		SCHOOL	RCAHMW	POST-MEDIEVAL
17242		FACTORY	RCAHMW	POST-MEDIEVAL
18643		SCHOOL	RCAHMW	POST-MEDIEVAL
108191		MILESTONE	RCAHMW	POST-MEDIEVAL
108192		MILESTONE	RCAHMW	POST-MEDIEVAL
108193		MILESTONE	RCAHMW	POST-MEDIEVAL
91731	FELIN ISAF MILK COOLING CENTRE, LLANYBYDDER	DAIRY	DYFED	MODERN
411207	PENCARREG RAILWAY HALT, PENCARREG	RAILWAY HALT	DYFED	MODERN
419591	PENCARREG	VILLAGE	DYFED	MULTIPERIOD

APPENDIX D AERIAL PHOTOGRAPHS



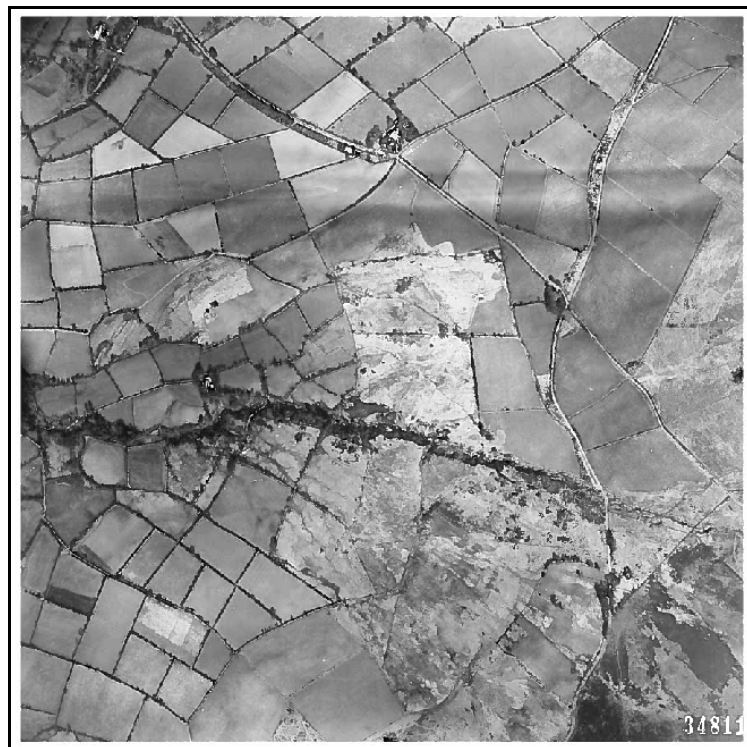
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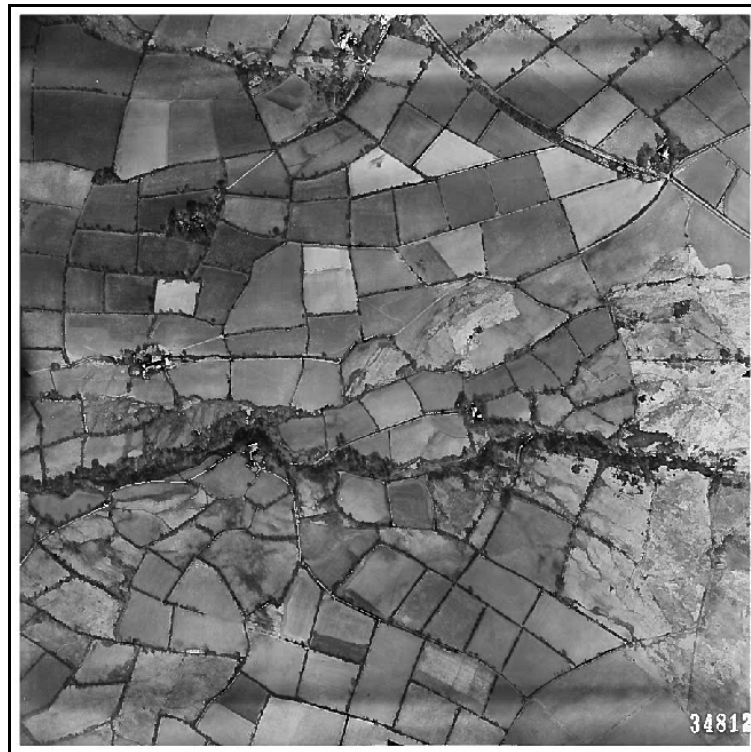
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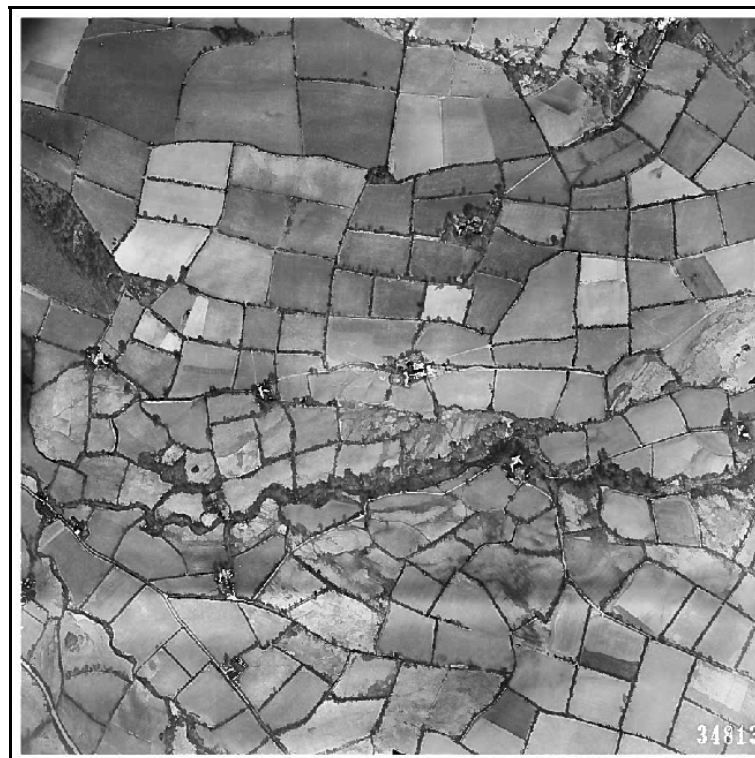
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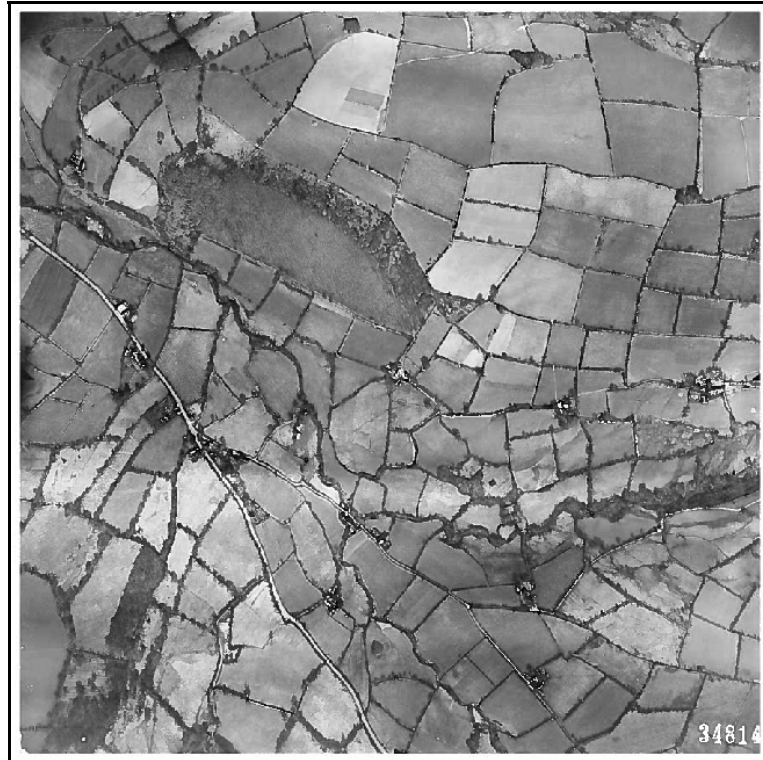
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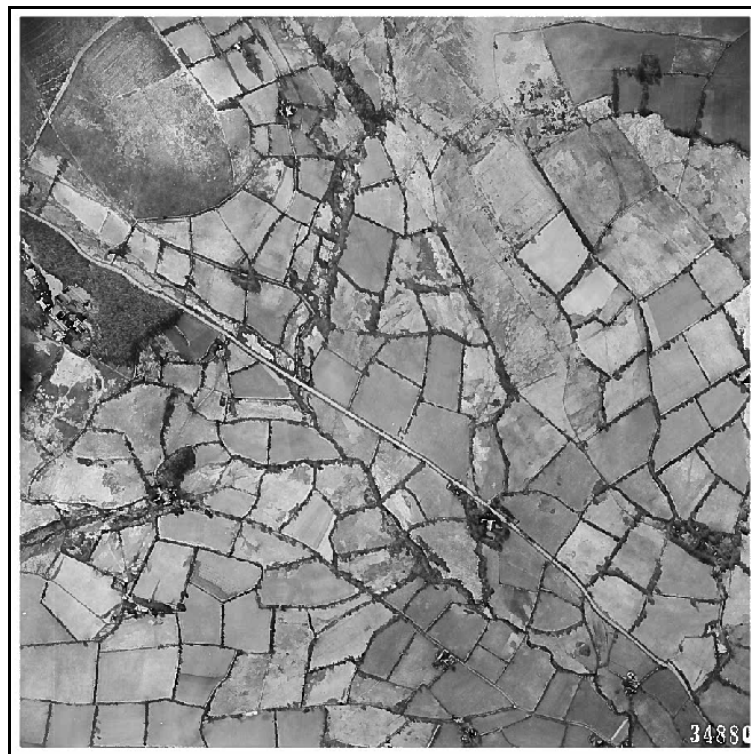
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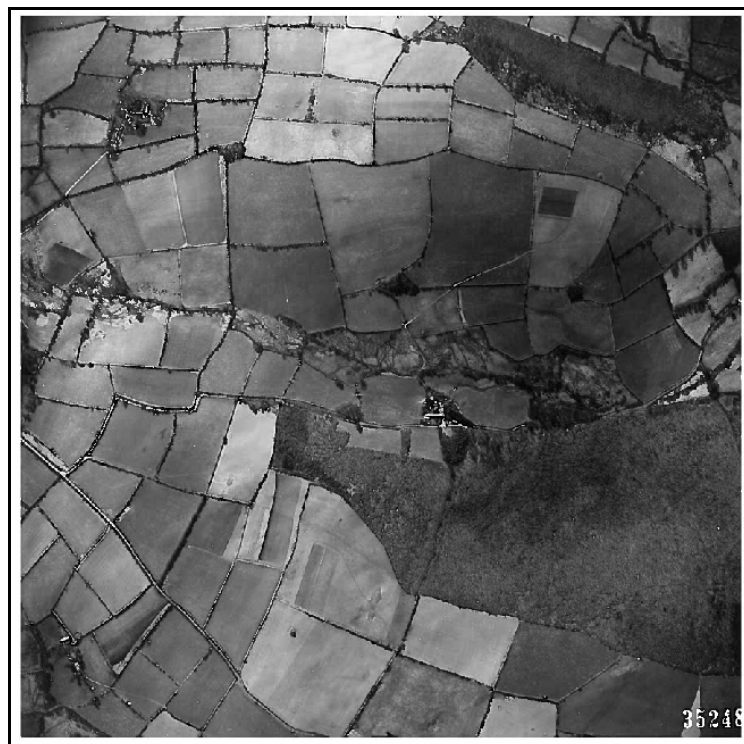
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Dyfed HER Ref 25252



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