

6.5.I Historic Environment Desk Based Assessment (Wider Works)

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1. Introduction

- 1.1.1 This report comprises a desk-based assessment (DBA), which sets out the terrestrial heritage baseline conditions for the proposed works. This DBA is included as an Appendix to the Environmental Statement (ES) to Environmental Statement (ES) **Volume 6, Chapter 5: Likely Significant Effects**
- 1.1.2 The purpose of the DBA is to identify all known designated and non-designated terrestrial historic assets located in the Wider Works site and the defined study areas (as set out in **Section 3.1**) to establish the archaeological and historical background.
- 1.1.3 The DBA assesses the potential for the survival of previously unknown historic assets and archaeological remains to exist in the Wider Works site and provides an assessment of the significance of the known historic assets and potential archaeological remains that have the potential to be affected by the proposed works. The DBA concludes with an assessment of potentially affected historic assets in the Wider Works site and study areas.

1.2 Site Location and Proposed Works

- 1.2.1 The Wider Works covers proposed works to an existing overhead line (4ZC) which is approximately 45 kilometre (km) long and is in North West Wales. The Wider Works will take place between Tower 4ZC140 near Pentir Work Site (SH 559675), approximately 4.5 km south-west of Bangor and Tower 4ZC005 near Trawsfynydd Work Site (SH 691385), approximately 1.2 km south of Gellilydan. The proposed works is located in the local planning authority boundaries of Gwynedd Council and Eryri National Park Authority. The location of the proposed works is illustrated on **Figure 6.5.I.1**.
- 1.2.2 The Wider Works comprise the following:
- Installation of approximately 23.5 km of fibre optic cable along the existing earth wire of the 4ZC overhead line between towers 4ZC070 and 4ZC140.
 - Installation and replacement of fittings on the SPEN circuit on the 4ZC overhead line for approximately 8 km between Towers 4ZC044 and 4ZC070 to remove existing 132 kilovolt (kV) conductors and replace with 400 kV conductors and replacement of the earthwire with Optical Ground Wire (OPGW).
 - Installation and replacement of fittings on the SPEN circuit on the on the 4ZC overhead line for approximately 6.5 km between Towers 4ZC005 and 4ZC027 to remove existing 132 kV conductors and replace with 400 kV conductors and replacement of the earthwire with OPGW.
- 1.2.3 Further information on the proposed works is provided in ES **Volume 6, Chapter 2: Wider Works**.

1.3 Aims

- 1.3.1 The aims of the assessment are:

- To place the Wider Works site in their historical and archaeological context through the collection of baseline information.
- To identify the presence of known historic assets (both designated and non-designated) located in the Wider Works site and the 500 metre (m) study area (see **Section 3**).
- To assess the potential for previously unrecorded archaeological remains in the Wider Works site.
- To identify the extent of previous ground disturbance which may have affected the survival of archaeological remains in the Wider Works site.
- To assess the significance of historic assets located in the Wider Works site and study area, and the likely significance of previously unrecorded archaeological remains that may be in the Wider Works site.
- To identify historic assets and previously unrecorded archaeological remains that have the potential to be impacted by the proposed works which will be taken forward for assessment in the ES.

1.4 Structure of the Document

1.4.1 This DBA is divided into the following sections:

- The legislative and planning policy framework is provided in **Section 2** (Legislation, Policy and Guidance).
- The methodology for the assessment and for the determination of the study areas is set out in **Section 3** (Assessment Methodology).
- A description of the archaeological and historical background of the Wider Works site and description of historic assets in the Wider Works site and study areas, as well as a summary of previous archaeological investigations undertaken in the study areas, is set out in **Section 4** (Heritage Baseline).
- **Section 5** assesses the potential for unrecorded archaeological remains to exist in the Wider Works site and provides an assessment of the significance of known and potential historic assets which have the potential to be impacted by the proposed works (Assessment of Baseline).
- A summary of the results of the assessment is provided in **Section 6** (Conclusions).

1.4.2 This DBA is supported by ES **Volume 8, Appendix 6.5.J: Gazetteer of Historic Assets and Archaeological Investigations**.

1.4.3 This DBA is supported by the following figures:

- **Figure 6.5.I.1:** Designated Historic Assets within 3 km of the Wider Works site.
- **Figure 6.5.I.2:** Non-designated Historic Assets within 500 m of Wider Works site.
- **Figure 6.5.I.3:** Historic Landscape Character Areas within 500 m of the Wider Works site.
- **Figure 6.5.I.4:** Historical OS Map 1888.
- **Figure 6.5.I.5:** Historical OS Map 1901.

- **Figure 6.5.I.6:** Historical OS Map 1920.
- **Figure 6.5.I.7:** Historical OS Map 1953.

2. Legislation, Policy and Guidance

2.1.1 Legislation, planning policy and guidance relevant to the historic environment and pertinent to the proposed works are detailed in ES **Volume 8: Appendix 1.1.A Legislation, Policy and Guidance** and are summarised below.

2.2 Legislation

- Ancient Monuments and Archaeological Areas Act 1979 (Ref 2.1).
- Planning (Listed Buildings and Conservation Areas) Act 1990 (Ref 2.2).
- The Historic Environment (Wales) Act 2016 (Ref 2.3).
- The Historic Environment (Wales) Act 2023 (Ref 2.4)
- The Hedgerow Regulations 1997 (Ref 2.5).

2.3 National Planning Policy

- Planning Policy Wales 2024 (Ref 2.6).
- Future Wales 2021 The National Plan to 2040 (Ref 2.7).
- Technical Advice Note 24: The Historic Environment (Ref 2.8).

2.4 Local Planning Policy

- Anglesey and Gwynedd Joint Local Development Plan 2011 – 2026 (Ref 2.9).

2.5 World Heritage Convention

- The Slate Landscape of Northwest Wales. Nomination as a World Heritage Site. Property Management Plan 2020 – 2030 (Ref 2.10).

2.6 Guidance

2.6.1 This DBA has been carried out using guidance from the following sources relevant to the terrestrial heritage assessment:

- Conservation Principles for the sustainable management of the historic environment in Wales (Ref 2.11).
- Heritage Impact Assessment in Wales (Ref 2.12).
- Managing Change to Listed Buildings in Wales (Ref 2.13).
- Managing Change to Registered Historic Parks and Gardens in Wales (Ref 2.14).
- Managing Conservation Areas in Wales (Ref 2.15).

- Managing Historic Character in Wales (Ref 2.16).
- Managing Lists of Historic Assets of Special Local Interest (Ref 2.17).
- Setting of Historic Assets in Wales (Ref 2.18).
- Chartered Institute for Archaeologists Standard and guidance for historic environment desk-based assessment (Ref 2.19).

3. Assessment Methodology

3.1 Study Area

- 3.1.1 The study areas set out below have been agreed through consultation with Heneb: The Trust for Welsh Archaeology and are presented on **Figures 6.5.I.1 and 6.5.I.2.**

Designated Historic Assets

3km Study Area

- 3.1.2 A study area of 3km from the Wider Works site has been defined to provide historical and archaeological context and to identify designated historic assets with the potential to be affected by the proposed works.
- 3.1.3 As the proposed works will not result in short-term or long-term change to the settings of designated historic assets, the settings of designated historic assets of the highest value (i.e., World Heritage Sites, scheduled monuments, Grade I and II* listed buildings, registered parks and gardens and conservation areas containing a number of assets of the highest value) will not be further assessed.
- 3.1.4 Designated historic receptors are identified with their reference number assigned by Cadw. Each receptor identifier is placed in parentheses and highlighted in bold in the text.

Non-designated Historic Assets

500 m Study Area

- 3.1.5 A study area of 500 m from the Wider Works site has been defined to provide historical and archaeological context and to identify non-designated historic assets with the potential to be affected by the proposed works. This study area will allow for non-designated historic assets to be set within their wider context and allow for the assessment of archaeological potential in the Wider Works site.
- 3.1.6 Undesignated historic receptors are identified with their Historic Environment Record (HER) reference number which uses the prefix 'PRN'. Each receptor identifier is placed in parentheses and highlighted in bold in the text. Any additional assets identified through other sources such as the PAS, NMR or National Museum Wales (NMW) databases are identified in the text using either the assigned prefix AEC or the number assigned by the organisation who holds the database. Each asset can be cross-referenced to the gazetteer in ES **Volume 8, 6.5.J Gazetteer of Previous Archaeological Investigations.**

3.2 Data and Information Sources

- 3.2.1 This assessment has collated cultural heritage data from several sources, comprising:

- Formal search of the Heneb HER for Gwynedd for information relating to non-designated historic assets, previous archaeological investigations, and historic landscape character data.
- Records from the National Monuments Record (NMR) of Wales, held by the Royal Commission for Ancient and Historic Monuments Wales (Ref 3.1).
- Records from the Museums Wales collections (Ref 3.2).
- Records held by Cadw on designated historic assets located in Wales (Ref 3.3).
- Published and unpublished literature (including a detailed review of reports for previous fieldwork carried out in proximity to the Wider Works site)
- Documentary, cartographic and other resources as deposited in the local archives.
- Local authority conservation area appraisals and management documents and their mapping.
- Various online resources including the British Geological Survey (BGS) Geology of Britain Viewer (Ref 3.4) and the British Geological Survey GeoIndex Onshore (Ref 3.5).
- Research Framework for the Archaeology of Wales (Ref 3.6).
- National Library of Scotland for historic maps (Ref 3.7).
- Vertical aerial photography of the study area available from the National Collection of Aerial Photographs (Ref 3.8), the Aerial Photography Unit ('APU') Welsh Government Aerial Photography (Ref 3.9), and the Britain from Above database (Ref 3.10).
- Available 50 centimetre (cm) to 1 m spatial resolution light detecting and ranging (LiDAR) data published by the Welsh Government (Ref 3.11) and the National Library of Scotland (Ref 3.7).
- Defence of Britain Archive (Ref 3.12).
- Relevant records available from the Portable Antiquities Scheme (PAS) (Ref 3.13).

3.3 Site Walkover Survey

3.3.1 A site visit and visual appraisal of historic assets in the Wider Works site and study area was undertaken between 12th and 14th November 2024 to:

- Identify known historic assets in the Wider Work site.
- Identify areas with the potential to contain any previously unidentified archaeological or historical remains.
- Identify and assess the setting of historic assets in the Wider Works site and study area.
- Identify the location, extent and severity of modern ground disturbance and previous construction impacts.
- Assess ground conditions and the suitability of the Wider Works site for further evaluation.

3.4 Previous Ground Disturbance

- 3.4.1 The previous impact to buried archaeological remains caused by historic development has been assessed using a five-point scale of 'very high', 'high', 'medium', 'low' and 'very low'. The definitions of which are set out in **Table 3-1**.

Table 3.1 – Level of Previous Ground Disturbance

Magnitude of previous disturbance	Description
Very High	Deep level basement/sub-basement excavated into the underlying natural geology resulting in the removal of all subsurface archaeological deposits.
High	Extensive and deep disturbance resulting in the removal of all but the deepest archaeological deposits such as wells or quarry pits, deep foundations, quarrying and large utilities.
Medium	Moderate previous disturbance which may extend to some depth, but where there remains the potential for archaeological remains to survive either between or beneath existing impact levels such as building foundations and utility trenches.
Low	Shallow previous disturbance such as areas of car parking and surfacing where archaeological remains may survive with limited truncation beneath the level of impact.
Very Low	No known historic development impacts to subsurface archaeological remains. Potential for the survival of archaeological horizons from Pre-history to the Post-medieval period.

3.5 Archaeological Potential

- 3.5.1 Archaeological potential assesses the possibility that unrecorded archaeological remains may exist in the Wider Works site in addition to the known archaeological resource identified in the baseline. The potential for unrecorded archaeological remains to exist in the Wider Works site has been determined by professional judgement guided by an assessment of the existing heritage resource and the impact of previous modern development or ground disturbance in the Wider Works site.
- 3.5.2 The potential for an area to contain archaeological remains is rated 'high', 'medium', 'low', 'negligible,' or 'unknown'. This rating is based on an understanding of the archaeological resource as a whole and takes into account its national, regional, and local context. The rating also considers the number and proximity of known and predicted archaeological/historical sites or find spots in the Wider Works site and the study areas.

3.6 Significance of Historic Assets

- 3.6.1 The assessment criteria to be used in the DBA is based on Cadw guidance on heritage impact assessment in Wales (Ref 2.12) and the setting of historic assets in Wales (Ref 2.18). Each heritage asset is assigned a significance (heritage value) rating in the DBA. The significance (heritage value) of historic assets has been determined by professional judgement guided by statutory and non-statutory designations, national, regional, and local policies, and archaeological research frameworks.
- 3.6.2 The value of a historic asset is guided by its designated status, but is derived also from its heritage interest, which is defined by Cadw as a combination of its evidential, historical, aesthetic, or communal interest. The setting of a historic asset can also contribute to its value. Using professional judgement and the results of consultation with heritage stakeholders, historic assets are also assessed on an individual basis and regional variations and individual qualities are considered where applicable. In articulating effects, professional judgement is made on the level of impact (positive or negative) that a historic asset will experience because of the proposed works, supported by an appropriate narrative linking this to how the asset will have its significance changed.
- 3.6.3 **Table 3-2** below provides the criteria for assigning heritage value, but in all cases professional judgement will be applied regarding the appropriate category for individual historic assets, with a justification for this assessment provided.

Table 3-2 – Criteria for Determining the Value of Historic Assets

Value of historic assets	Description
High	World Heritage Sites. Scheduled Monuments. Aircraft crash sites. Grade I and II* Listed Buildings. Registered battlefields. Grade I and II* registered parks and gardens. Conservation areas of demonstrable high value. Non-designated historic assets (archaeological sites, historic buildings, monuments, parks, gardens, or landscapes) that can be shown to have demonstrable national or international importance. Well preserved historic landscape character areas, exhibiting considerable coherence, time-depth, or other critical factor(s).
Medium	Grade II Listed Buildings. Conservation areas. Grade II registered parks and gardens. Non-designated historic assets (archaeological sites, historic buildings, monuments, park, gardens, or landscapes) that can be shown to have demonstrable regional importance. Averagely preserved historic landscape character areas, exhibiting reasonable coherence, time-depth, or other critical factor(s).

	Historic townscapes with historic integrity in that the assets that constitute their make-up are clearly legible.
Low	<p>Locally Listed Buildings.</p> <p>Non-designated historic assets (archaeological sites, historic buildings, monuments, park, gardens, or landscapes) that can be shown to have demonstrable local importance.</p> <p>Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade.</p> <p>Historic landscape character areas whose value is limited by poor preservation and/or poor survival of contextual associations.</p>
Very Low	<p>Assets identified on national or regional databases, but which have no evidential, historical, aesthetic, or communal value.</p> <p>Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade.</p> <p>Landscape with no or little significant historical merit.</p>

3.7 Limitations and Assumptions

- 3.7.1 The assessment has relied upon data and records provided by third parties, and it has been assumed that this information is accurate and up to date at the time of reporting.
- 3.7.2 Historic aerial photographic coverage of the Wider Works site and study area was not available from the National Collection of Aerial Photographs database (Ref 3.8), the APU Welsh Government Aerial Photography (available on DataMapWales) (Ref 3.9), or the Britain from Above database (Ref 3.10).

4. Heritage Baseline

4.1 Site Conditions

Geology

4.1.1

The underlying bedrock and superficial deposits varies along the route of the 4ZC overhead line which comprises the Wider Works component of the Project. These are as follows:

- 4ZC141 to 4ZC138. Fachwen Formation - Sandstone and conglomerate, interbedded. Sedimentary bedrock formed between 635 and 508 million years ago during the Ediacaran and Cambrian periods. Alluvium - clay, silt, sand and gravel. Sedimentary superficial deposit formed between 11.8 thousand years ago and the present during the Quaternary period (Ref 3.4).
- 4ZC137 to 4ZC117. Padarn Tuff Formation - Tuff, felsic. Igneous bedrock formed between 635 and 541 million years ago during the Ediacaran period. Till, Devensian - Diamicton. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (Ref 3.4).
- 4ZC116 to 4ZC109. Padarn Tuff Formation - Tuff, felsic. Igneous bedrock formed between 635 and 541 million years ago during the Ediacaran period. Hummocky (moundy) Glacial Deposits - gravel, sand, silt and clay. Sedimentary superficial deposit formed between 2.588 million and 11.8 thousand years ago during the Quaternary period (Ref 3.4).
- 4ZC108 to 4ZC099. Padarn Tuff Formation - Tuff, felsic. Igneous bedrock formed between 635 and 541 million years ago during the Ediacaran period. Glaciofluvial Sheet Deposits, Devensian - sand and gravel. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (Ref 3.4).
- 4ZC098 to 4ZC090. Llanberis Slates Formation - sandstone, siltstone and mudstone. Sedimentary bedrock formed between 526 and 508 million years ago during the Cambrian period. Glaciofluvial Fan Deposits, Devensian - sand and gravel. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (Ref 3.4).
- 4ZC089 to 4ZC081. Nant Ffrancon Subgroup - Siltstone. Sedimentary bedrock formed between 477.7 and 449 million years ago during the Ordovician period. Hummocky (moundy) Glacial Deposits - gravel, sand, silt and clay. Sedimentary superficial deposit formed between 2.588 million and 11.8 thousand years ago during the Quaternary period (Ref 3.4).
- 4ZC080 to 4ZC063. Llanbedrog Volcanic Group - Tuff and sandstone. Sedimentary and igneous bedrock formed between 458.4 and 449 million years ago during the Ordovician period. Glaciofluvial Sheet Deposits, Devensian - sand and gravel. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (Ref 3.4).

- 4ZC063 to 4ZC055. Nant Ffrancon Subgroup - Siltstone. Sedimentary bedrock formed between 477.7 and 449 million years ago during the Ordovician period. Till, Devensian - Diamicton. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (Ref 3.4).
- 4ZC055 to 4ZC050. Dol-cyn-afon Formation - Mudstone and siltstone. Sedimentary bedrock formed between 485.4 and 477.7 million years ago during the Ordovician period. Till, Devensian - Diamicton. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (Ref 3.4).
- 4ZC050 to 4ZC044. Ffestiniog Flags Formation - Mudstone, siltstone and sandstone. Sedimentary bedrock formed between 499 and 485.4 million years ago during the Cambrian period. Till, Devensian - Diamicton. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (Ref 3.4).
- 4ZC027 to 4ZC014. Maentwrog Formation - Mudstone, siltstone and sandstone. Sedimentary bedrock formed between 508 and 485.4 million years ago during the Cambrian period. No details available on superficial deposits (Ref 3.4).
- 4ZC014 to 4ZC005. Gamlan Formation - Mudstone and siltstone. Sedimentary bedrock formed between 508 and 499 million years ago during the Cambrian period. No details available on superficial deposits (Ref 3.4).

Previous Geotechnical Investigations undertaken in the Wider Works Site

- 4.1.2 No geotechnical data is available.

Topography

- 4.1.3 The Wider Works are proposed in a varied landscape ranging from mountainside heath, small river valleys, deciduous and coniferous woodland, and farmland with variable quality of pasture. The overall settlement pattern is that of substantial 19th-century farmhouses and outbuildings interspersed with hamlets and villages. Relict prehistoric settlements (hut groups and small forts) are dotted across the landscape, usually in the corners of fields, and some fields display a curvilinear pattern characteristic of the period.
- 4.1.4 The farming areas are characterised by large, regularly laid-out fields, and by estate farmhouses, outbuildings, and the smaller houses of estate workers. These are typically substantial two-storey dwellings covered with slate on the first floor, and with a few ornamental features such as decorated porches.
- 4.1.5 In several locations, ribbon developments of labourers' or quarrymen's cottages have developed alongside the road, along with several substantial chapels.

Findings from Site Walkover Surveys

- 4.1.6 A site walkover was carried out of the Wider Works site between 12th and 14th November 2024 to examine the area of proposed works as well as the 500 m study area. This survey noted three scheduled monuments and 13 non-designated historic assets on or close to the proposed access routes. No new assets were recorded as part of the walkover survey.

4.2 Previous Archaeological Investigations

- 4.2.1 There have been no previous archaeological investigations undertaken in the Wider Works site.
- 4.2.2 104 previous archaeological assessments and investigations have been undertaken in the 500 m study area. These archaeological investigations have been assigned a unique identification number HER public record numbers (PRN) by Heneb and presented in the gazetteer (ES **Volume 8: Appendix 6.5.J Gazetteer of Previous Archaeological Investigations**).
- 4.2.3 Archaeological surveys (PRN 40001 & 40003) of the Gwynedd Uplands were carried out between 1983 and 1992 (Ref 4.1).
- 4.2.4 A desk-based assessment (PRN 40147) was carried out by Gwynedd Archaeological Trust in 1993 in advance of improvements to a section of the A487, Maentwrog (Ref 4.2).
- 4.2.5 A desk-based assessment and field survey (PRN 40104) was carried out by the Gwynedd Archaeological Trust in 1992 in advance of a proposed extension to Criccieth Golf Club (Ref 4.3).
- 4.2.6 A field survey (PRN 40131) was carried out by the Gwynedd Archaeological Trust in 1994 in four pilot study areas for the Gwynedd Hut Groups Survey project (Ref 4.4).
- 4.2.7 A field survey (PRN 40132) was carried out in 1995 as part of a Cadw funded project to identify and record hut circle settlement sites in Gwynedd (Ref 4.5).
- 4.2.8 A desk-based assessment (PRN 40138) was carried out by the Gwynedd Archaeological Trust in 1994 to identify and record slate quarries and quarrying landscapes in Gwynedd (Ref 4.6).
- 4.2.9 A watching brief (PRN 40152) was undertaken by Gwynedd Archaeological Trust in 1992 during water pipeline replacement work at a section of known Roman road, Gellilydan (Ref 4.7).
- 4.2.10 A desk-based assessment (PRN 40169) was carried out by Gwynedd Archaeological Trust in 1993 in advance of the construction of a bypass at Llanunda to south of Llanllyfni as part of improvements to the A487 Bangor to Fishguard Trunk Road (Ref 4.8).
- 4.2.11 An archaeological evaluation (PRN 40284) consisting of geophysical survey and trial trenching was carried out by Gwynedd Archaeological Trust in 1995 in advance of the proposed construction of a bypass at Llanunda to south of Llanllyfni as part of improvements to the A487 Bangor to Fishguard Trunk Road (Ref 4.9).
- 4.2.12 A desk-based assessment and field survey (PRN 40322) carried out by Gwynedd Archaeological Trust in 1997 as part of a Cadw funded project to identify and examine deserted rural settlement sites in Gwynedd (Ref 4.10).
- 4.2.13 An excavation (PRN 40335) was undertaken by Gwynedd Archaeological Trust in 1995 of a field boundary immediately outside Caer defended enclosure which is a scheduled monument (CA149) (Ref 4.11).
- 4.2.14 A field survey (PRN 40406) was carried out in 1998 by the Gwynedd Archaeological Trust of deserted rural settlement sites in eastern Caernarfonshire as part of a Cadw funded thematic monument type survey (Ref 4.12).

- 4.2.15 Four medieval or sub-medieval rural settlements were surveyed and excavated in 2002 (PRN 40407) as part of the Deserted Rural Settlement Project (Ref 4.13).
- 4.2.16 A survey (PRN 40413) was made of metal mines in Gwynedd in 1998 (Ref 4.14).
- 4.2.17 A desk-based assessment and field survey (PRN 40427) was carried out by Gwynedd Archaeological Trust in 1997 in advance of the proposed construction of a gas pipeline between Llanwnda and Penygroes (Ref 4.15).
- 4.2.18 A watching brief and field visit (PRN 40438) was carried out by Gwynedd Archaeological Trust in 1997 during the construction of a new gas pipeline between Llanwnda and Penygroes in Gwynedd. A number of features identified in the desk-based assessment were recorded, and a number of new features were identified during the watching brief, including a burnt mound (Ref 4.16).
- 4.2.19 A desk-based assessment (PRN 40458) was prepared by Estell Warren Landscape Architects in 1998 on behalf of National Grid to assess five proposed alternative substation sites at Bryncir in Gwynedd (Ref 4.17).
- 4.2.20 Another desk-based assessment (PRN 40459) was carried out for the Magnox CCGT Connection and Infrastructure Works in 1998 for a substation at Bryncir (Ref 4.18).
- 4.2.21 An archaeological watching brief (PRN 40500) was carried out at an extension of the Cefn Graianog Quarry Extension in 2001 (Ref 4.19).
- 4.2.22 A desk-based assessment (PRN 40511) was prepared in 2000 for the A470 Cardiff to Glan Conwy Trunk Road (Ref 4.20).
- 4.2.23 An archaeological survey (PRN 40521) of prehistoric funerary and ritual monuments was carried out in North Gwynedd in 2002 (Ref 4.21). Similar surveys (PRN 40526, 40527 & 40529) on prehistoric funerary monuments were carried out elsewhere in Gwynedd between 2001 and 2005 (Ref 4.22; Ref 4.23; Ref 4.24).
- 4.2.24 Gwynedd Archaeological Trust was grant aided by Cadw to undertake a project concerned with Roman roads in north-west Wales between 2004-2005 (PRN 40538) (Ref 4.25). Further work (PRN 40542 & 40544) on the same project was carried out in the following subsequent years (Ref 4.26; Ref 4.27).
- 4.2.25 An archaeological excavation (PRN 40547) was carried out by Gwynedd Archaeological Trust in 2000 in advance of improvements to the A487 from Llanwnda to the south of Llanllyfni. The site was found to be mostly periglacial in origin (Ref 4.28).
- 4.2.26 A threat-related assessment (PRN 40569) of deserted ecclesiastical sites was carried out in 2004 in north-west Wales (Ref 4.29).
- 4.2.27 Desk-based assessments and field survey (PRN 40620 & 40621) were undertaken by Gwynedd Archaeological Trust in 2003 and 2005 as party of a Cadw funded assessment of prehistoric defensive enclosures in Gwynedd (Ref 4.30; Ref 4.31).
- 4.2.28 An archaeological watching brief (PRN 40679) was undertaken by Gwynedd Archaeological Trust in 2005 in advance of the installation of an underground electrical supply in the churchyard of St Rhedyw's Church in Llanllyfni. Archaeological activity recorded in the trench related to the 19th-century remodelling of the churchyard (Ref 4.32).
- 4.2.29 Engineering Archaeological Services Ltd were commissioned by Sedgwick associates, agents for NWS Dock Management Ltd, to undertake a desk-based assessment and field assessment (PRN 41463) at Y Felinheli harbour in 2001. The assessment aimed to

assess the archaeological potential of the development site in response to a planning application. The work identified a total of 21 sites during the assessment (Ref 4.33).

- 4.2.30 A Romano-British site was partly excavated (PRN 42366) at Rhostryfan in Caernarvonshire in 1922 (Ref 4.34).
- 4.2.31 A desk-based assessment and field visits (PRN 40206 & 43449) were carried out by the Gwynedd Archaeological Trust of pre-19th-century churches in the late 1990s in the former county of Gwynedd (Anglesey, Gwynedd and western Conwy) as part of a Cadw funded survey of churches in Wales (Ref 4.35).
- 4.2.32 A cultural heritage assessment (PRN 44056) was carried out for a proposed road widening project at Ty Cerrig in Garndolbenmaen in 2009 (Ref 4.36).
- 4.2.33 An archaeological assessment (PRN 44095) was carried out on land at Cilfor, Talsarnau in 2010, in advance of a proposed extension to the Water Treatment Works (Ref 4.37).
- 4.2.34 A desk-based assessment (PRN 44337) was carried out by Gwynedd Archaeological Trust in 2010 as part of a Better Woodlands for Wales archaeological management plan at Cangen Adda, Trawsfynydd (Ref 4.38).
- 4.2.35 A desk-based assessment (PRN 44338) was carried out by Gwynedd Archaeological Trust in 2007 as part of a Better Woodlands for Wales archaeological management plan at Mynydd y Garnedd, Trawsfynydd (Ref 4.39).
- 4.2.36 A desk-based assessment (PRN 44353) was carried out by the Gwynedd Archaeological Trust in 1991 of all active mineral extraction sites in Gwynedd and, in the Snowdonia National Park (Ref 4.40).
- 4.2.37 A desk-based assessment (PRN 44367) was carried out in 2011 as part of a Masters Degree in Historic Environment Conservation to assess the character, significance and uses of corrugated iron buildings in north-west Wales. Level one building survey was also carried out on a small selection of the buildings (Ref 4.41).
- 4.2.38 An archaeological assessment (PRN 44426) was undertaken by Gwynedd Archaeological Trust for Cadw in 2010 as part of a programme of work to interpret the lower gate (the water gate) at Harlech Castle and the associated lands at Morfa Harlech (Ref 4.42).
- 4.2.39 A desk-based research project 'Early Celtic Societies in North Wales' (PRN 44557) was undertaken in collaboration with Bangor University in 2010 as an expansion of the 'Welsh Roundhouse Project'. The project assessed evidence for settlement from the Late Bronze Age to the early medieval period (late 2nd millennium BC to early 2nd millennium AD) in north-west Wales and examined the long-term processes of social change and settlement practices. Drew on previous work by E. Ghey, R. Johnston, E. Edwards and R. Pope, and a number of Gwynedd Archaeological Trust projects, in particular 'G1770 Defended enclosures survey' and 'G1104 Hut circle settlement survey' (Ref 4.43).
- 4.2.40 A desk-based assessment (PRN 44558) was carried out by Gwynedd Archaeological Trust in 2014 for the Glastir Private Woodland Management scheme. The project identified new sites in private woodlands in the Glastir scheme using historic Ordnance Survey digital mapping (Ref 4.44).
- 4.2.41 A field survey (PRN 44587) was carried out by Oxford Archaeology North in 2008 at an area of uplands in north-west Snowdonia as part of the Royal Commission on the

Ancient and Historical Monuments of Wales ('RCAHMW') funded uplands initiative project (Ref 4.45).

- 4.2.42 A field visit (PRN 44635) was made by the Gwynedd Archaeological Trust in 2016 to a number of slate quarries included in the World Heritage Site ('WHS') nomination for the Slate Industry of north Wales (Ref 4.46).
- 4.2.43 Gwynedd Archaeological Trust was commissioned by Gwynedd Consultancy to undertake an archaeological record in advance of, and a watching brief (PRN 44820) in 2011 during the improvements of a 650 m long stretch of the A487 between Bryncir and Dolbenmaen. The features being impacted upon were predominantly field boundaries but also included a copse of conifers, a barn and a clearance cairn (Ref 4.47).
- 4.2.44 Caulmert Ltd. commissioned Gwynedd Archaeological Trust to undertake an archaeological assessment (PRN 44826) in 2012 on land for a proposed new water treatment works at Dolbenmaen in Gwynedd. The scheme was located in an known area containing significant multi-period archaeological remains. Although it did not uncover any significant new archaeological evidence, the report recommended further survey and evaluation (Ref 4.48).
- 4.2.45 Gwynedd Archaeological Trust was grant-aided by Cadw in 2014 to examine the extent of the medieval and post-medieval road network in north-west Wales (PRN 44832). The work included a consideration of the creation and development of the roads as well as the potential for national designation (Ref 4.49).
- 4.2.46 Gwynedd Archaeological Trust examined the surviving remains of medieval field systems in north-west Wales as part of a 2014 Cadw grant aided pan Wales project. The work (PRN 44845) aimed to assess the potential for new schedulings or identify where existing schedulings should be extended (Ref 4.50).
- 4.2.47 Gwynedd Archaeological Trust carried out a scoping study of the surviving remains of medieval and post-medieval sites relating to agriculture and subsistence in north-west Wales as part of a 2013 Cadw grant-aided pan-Wales project (PRN 44846). The work aimed to assess the potential for new scheduling and focussed on often over-looked sites such as sheepfolds, rabbit warrens and peat cutting (Ref 4.51).
- 4.2.48 Gwynedd Archaeological Trust was commissioned by Gwynedd Consultancy to undertake a desk-based assessment (PRN 44861) at the Grade II Listed Pont Briwet railway bridge, Penrhyndeudraeth in 2010, in advance of upgrading the bridge and its approach roads. In addition to the bridge, the assessment identified a number of features in the area that could be affected by the works including a post-medieval wharf, boundary walls, nearby historic explosives works and the 19th-century Pont Briwet tollhouse (Ref 4.52).
- 4.2.49 Gwynedd Archaeological Trust was commissioned by RSK Environment Ltd to undertake an archaeological evaluation (PRN 44862) along a 20 m wide corridor of the proposed Pwllheli to Blaenau Ffestiniog gas pipeline in 2010. Thirty-three evaluation trenches were completed, targeting features identified during earlier desk-based assessment, walkover survey and geophysical survey work. Archaeological evidence identified during the evaluation included post-medieval field boundaries and field drains, and a probable Bronze Age burnt mound (Ref 4.53).
- 4.2.50 Gwynedd Archaeological Trust was commissioned by Gwynedd Consultancy to undertake a desk-based assessment (PRN 44863) in 2012 on land between Llwyn Mafon and Golan Junction on the current A487 in advance of road improvement. Twenty post-medieval features were identified, the most significant being the site of

former Cae Canol farm and the Gorseddau tramway. The remaining features comprised field boundaries and trackways (Ref 4.54).

- 4.2.51 Gwynedd Archaeological Trust (GAT) has carried out a programme of archaeological work (PRN 44869 & 44870) on the route of a replacement gas pipeline from Pwllheli to Blaenau Ffestiniog. The work included an archaeological watching brief during removal of topsoil and excavation of the pipe trench, and the archaeological excavation of sites identified during the watching brief. The work started on 16th March 2011 and was completed on 22nd September 2011 (Ref 4.55).
- 4.2.52 An archaeological assessment (PRN 44878) was completed in 2013 by Gwynedd Archaeological Trust along the route of a proposed new transfer main between Dolbenmaen Water Treatment Works and Cwmystadrlllyn Water Treatment Works (WTW), Gwynedd (Ref 4.56).
- 4.2.53 A heritage assessment (PRN 44889) in 2015 was funded by Cadw of First World War sites in north-west Wales coming under the theme of Military Landscapes. It focused on training camps, practice trenches, rifle and firing ranges and prisoner of war camps. 75 sites were identified and included in a gazetteer (Ref 4.57).
- 4.2.54 A similar assessment (PRN 44893) was carried out in 2017 under the theme of 'Infrastructure and Support'. It focused particularly on the military and auxiliary hospitals in the area but also looked at a range of activities that local people in north-west Wales undertook to help the war effort. This included efforts to increase food production and forestry, the work of local societies and the use of existing buildings to accommodate soldiers during training and Belgian refugees. Over all 93 sites have been identified and included in the gazetteer (Ref 4.58).
- 4.2.55 Gwynedd Archaeological Trust was commissioned by Cadw in 2013 to identify medieval and post medieval sites in Meirionnydd, to assess their condition and, where appropriate, to recommend sites for scheduling (PRN 44907). The project identified 440 mill or potential mill sites, through archive, cartographic and documentary research. Those sites showing potential as sites suitable for scheduling were visited in the field. These sites varied in date from the medieval period through to the 19th century, and consisted of a variety of site types and technologies (Ref 4.59).
- 4.2.56 Gwynedd Archaeological Trust was commissioned by Dŵr Cymru in December 2012 to carry out an archaeological assessment (PRN 44926) in advance of a renewal of the water mains between Golan and Pentrefelin. The assessment confirmed that there were 12 post-medieval archaeological features in the vicinity of the scheme and noted moderate potential for the survival of buried prehistoric and medieval archaeology. Recommendations included recording and reinstatement of landscape features, a watching brief during groundworks, and a palaeoenvironmental sampling programme (Ref 4.60).
- 4.2.57 The Cadw Scheduling Enhancement: Holy Wells project (PRN 45033) was grant aided by Cadw, and undertaken by Gwynedd Archaeological Trust in 2011, and formed part of a wider scheduling enhancement project which aimed to assess all monuments of medieval and post medieval date. This was one of four projects undertaken in 2010-11 to examine all ecclesiastical remains from the relevant period. The projects were undertaken with the primary aim of providing consistent and accurate information to allow the creation of a database of medieval ecclesiastical sites in north-west Wales, so that sites considered to be of national importance could be identified (Ref 4.61).

- 4.2.58 A desk-based assessment and field survey (PRN 45042) was carried out by Gwynedd Archaeological Trust in 2008 as part of a Cadw funded assessment of prehistoric defended enclosures in Gwynedd (Ref 4.62).
- 4.2.59 Gwynedd Archaeological Trust was commissioned by Cadw in 2012 to identify the medieval and post-medieval sites in Caernarvonshire, to assess their condition and, where appropriate, to recommend sites for scheduling (PRN 45048). The project identified 486 mill or potential mill sites, through archive, cartographic and documentary research. Those sites showing potential as sites suitable for scheduling were visited in the field. These sites varied in date from the medieval period through to the 19th century, and consist of a variety of site types and technologies. A database was created recording each of the mill sites individually with a unique site number (Ref 4.63).
- 4.2.60 Govannon Consultancy was commissioned in 2013 to carry out an Assessment of the significance of the Impact of the Development on the Historic Landscape ('ASIDOHL') (PRN 45068) of a slate waste tip associated with the Tan'rallt slate quarry in the Nantlle Valley, which it is proposed to be removed for secondary aggregate. This area lies in the Nantlle Valley, which is identified as a landscape of outstanding historic interest by the Register of Landscapes of Historic Interest in Wales. The study concluded that the impact of the proposed development on the registered historic landscape would be moderate, with the caveat that future development would be considerable (Ref 4.64).
- 4.2.61 RSK Environment Ltd (RSK) undertook an archaeological desk-based assessment and field reconnaissance survey (PRN 45076) in 2010 for a proposed 38 km-long pipeline between Pwllheli and Blaenau Ffestiniog in Gwynedd. The assessment was supported by an archaeological field reconnaissance survey, and a review of borehole data. In total, 618 archaeological sites or areas of interest were identified in the Study Area. These comprised 5 Scheduled Monuments, 189 Listed Buildings, four Conservation Areas, three Historic Parks and Gardens and 417 non-scheduled archaeological sites. Sites ranged from negligible to high archaeological importance and dated from the prehistoric to modern periods. Data was gathered for a study area of typically 1 km based on the proposed pipeline centreline (Ref 4.65). This was followed by a geophysical survey (PRN 45310) which identified a number of features. Most were thought to be geological with only a few of likely archaeological concern (Ref 4.66).
- 4.2.62 A watching brief (PRN 45108) was carried out by CPAT between February 25th and 23rd March 2016 to monitor topsoil stripping carried out during the construction of a new underground 33 kV power line from the Trawsfynydd Nuclear Power station towards Maentwrog in Snowdonia National Park (Ref 4.67).
- 4.2.63 In December 2012, Archaeology Wales undertook a desk-based assessment and site visit (PRN 45123) to examine the archaeological potential of land at Braich-y-Saint, Criccieth, Gwynedd, where a planning application has been submitted for the construction of two wind turbines. The site was in an area of known archaeological and historical importance, with two scheduled monuments and 26 listed buildings in the surrounding landscape. The aerial photographs suggested the presence of buried archaeology at the site, which was confirmed by the site visit, with corresponding earthworks identified. A standing stone, of possible prehistoric date, was also recorded in the bounds of the site during the walkover survey. The proposed development of the site was assessed as having a moderate impact upon these features (Ref 4.68).
- 4.2.64 Stratascan was commissioned in 2014 to undertake a geophysical survey (PRN 45234) of an area outlined for development by Gwynedd Archaeological Trust. The survey took place in 2014 and was ahead of a planned pipeline between Dolbenmaen and Cwmystadlyn. The survey revealed no probable archaeological features. A few

possible features of natural or archaeological origin were observed, mostly in the western area of the area. These included linear features and possible embankments / earthworks (Ref 4.69).

- 4.2.65 Clwyd-Powys Archaeological Trust was commissioned by Iberdrola Engineering and Construction in 2014 to undertake a cultural heritage assessment (PRN 45251) on the routes of two new underground electricity cables between Maentwrog and Trawsfynydd. The mitigation of five features by a combination of watching brief and avoidance was suggested (Ref 4.70).
- 4.2.66 Archaeology Wales was asked by the Royal Commission on the Ancient Monuments of Wales to undertake a series of archaeological investigations around Bwlch Derwin at Garndolbenmaen which included a walkover and metal detector survey (PRN 45254). The walkover survey in 2014 revealed no features. The metal detecting survey did reveal 216 finds, however all from post-medieval to modern in date, no material linked to the 1225 battle was recovered (Ref 4.71).
- 4.2.67 Bartlett-Clark Consultancy was commissioned by RSK Environment Ltd to undertake a geophysical survey (PRN 45310) to form part of an environmental evaluation on behalf of Multitech and Wales & West Utilities of a proposed gas pipeline between Pwllheli and Blaenau Ffestiniog. The survey was carried out in July and August 2009. The survey identified a number of features. Most were thought to be geological with only a few of likely archaeological concern (Ref 4.72).
- 4.2.68 Gwynedd Archaeological Trust was grant-aided by Cadw between 2016-18 to examine four of the quarries in the four largest WHS nominated areas (PRN 45330): Penrhyn, Dinorwic, Nantlle, and Ffestiniog. The work included updating existing site information and producing new records for previously un-surveyed areas (Ref 4.73).
- 4.2.69 Oxford Dendrochronology Laboratory was asked in 2014 by the Dating Old Welsh Houses group, in collaboration with the Royal Commission on the Ancient and Historical Monuments of Wales, to investigate the timbers at Llennyrch, Talsarnau, Merioneth, for dendrochronological analysis (PRN 45408) (Ref 4.74).
- 4.2.70 A desk-based assessment (PRN 45420) was carried out by Gwynedd Archaeological Trust on First World War military commemorative sites (Ref 4.75).
- 4.2.71 Gwynedd Archaeological Trust undertook a field survey and character area production (PRN 45422) of the slate landscapes of Northwest Wales as part of a 2018-19 Cadw grant-aided project as part of a World Heritage Site Nomination. The survey, which has been ongoing since 2015-16, was completed in 2018-19 with surveys of Gorseddau and Prince of Wales Slate Quarries, Railways and Mill; Bryneglwys Slate Quarry and Aberllefenni Slate Quarry (Ref 4.76).
- 4.2.72 A field visit (PRN 45425) was made by Gwynedd Archaeological Trust as part of a 2016-17 Cadw grant-aided project to a number of slate quarries included in the WHS nomination for the Slate Industry of north Wales (Ref 4.77).
- 4.2.73 Gwynedd Archaeological Trust undertook a Tir Gofal five-year review desk-based assessment (PRN 45445) in 2009 at four holdings: Bwlchcoediog, Dinas Mawddwy, Bryn-goleu, and Penyglanna (Ref 4.78).
- 4.2.74 Gwynedd Archaeological Trust carried out a desk-based assessment (PRN 45446) in 2008 as part of a Tir Gofal archaeological management plan at Tyn Drain, Tyddyn Garreg, Penrhyn Isaf, Pencefn Dinas (Ref 4.79).

- 4.2.75 Gwynedd Archaeological Trust carried out a desk-based assessment (PRN 45447) in 2008 as part of a Tir Gofal archaeological management plan at Coed Cae Du, Glyn Meibion Mawr, Tyddyn Cwper (Ref 4.80).
- 4.2.76 Gwynedd Archaeological Trust carried out a field survey (PRN 45448) in 2009 as part of the Tir Gofal scheme at Coed Cae Du, Tyddyn Cwper (Ref 4.81).
- 4.2.77 Gwynedd Archaeological Trust carried out a desk-based assessment (PRN 45466) in 2006 as part of a Better Woodlands for Wales archaeological management plan at Coed Felinrhyd (Ref 4.82).
- 4.2.78 Metal detecting find was made in the Llanrug area in 1999 (PRN 45591) and 2022 (PRN 46255) (Portable Antiquities Scheme) (Ref 4.83).
- 4.2.79 Metal detecting find was made in the Llanllyfni area in 2015 (PRN 45712) (Ref 4.84).
- 4.2.80 Metal detecting find was made in the Porthmadog area in 2017 (PRN 45759) (Ref 4.85).
- 4.2.81 Coracle Archaeology was commissioned by National Grid to undertake a geo-archaeological assessment (PRN 46008) of two borehole samples obtained from the Dwyryd Estuary as part of the Snowdonia Visual Impact Provision (VIP) project, in 2020. The work followed on from an assessment carried out by Cotswold Archaeology which indicated the preservation of a semi-terrestrial land surface below the modern estuary. The geo-archaeological assessment focused on sections from two cores (BH203 & BH205). BH203 was found to be early Holocene in age, but was unable to be radiocarbon dated. BH205 was radiocarbon dated and provided a datapoint for regional seal level curve, however it was found to provide no meaningful constraint on existing seal-level curves. No further investigation into the cores was recommended (Ref 4.86).
- 4.2.82 Gwynedd Archaeological Trust carried out a desk-based assessment (PRN 46032) in 2009 as part of a Tir Gofal archaeological management plan at Gwynfaes, Tanyralit, Llanllyfni in 2009 (Ref 4.87).
- 4.2.83 Gwynedd Archaeological Trust carried out a desk-based assessment (PRN 46033) in 2009 as part of a Tir Gofal archaeological management plan at Hendreforion, Llanllyfni in 2009 (Ref 4.88).
- 4.2.84 An archaeological evaluation (PRN 46058) was carried out in 2013 in advance of a proposed sand and gravel quarry at Llecheiddior Uchaf at Bryncir (Ref 4.89).
- 4.2.85 Gwynedd Archaeological Trust was commissioned by Natural Resources Wales to undertake a desk-based assessment (PRN 46070) as part of a review of the existing flood protection system for Porthmadog in 2021. The work was undertaken with a view to develop a long-term management plan and to inform option selection, scheme design, and any mitigation strategy that may be required for future works (Ref 4.90).
- 4.2.86 In May 2021, Gwynedd Archaeological Trust was commissioned by Dŵr Cymru to undertake an archaeological watching brief (PRN 46090) during trial hole investigations for the National Grid Snowdonia Visual Improvement Scheme. Four trial pits were excavated, three of which were monitored archaeologically. Two pits were in a waterlogged field and flooded immediately on excavation. No archaeological remains were noted during the watching brief (Ref 4.91).
- 4.2.87 Gwynedd Archaeological Trust was commissioned by William Homes (Bala) Ltd. to undertake archaeological mitigation (PRN 46092) in advance of housing development at Maes Dulyn, Penygroes in May and June 2021. The site was 1350 m to the north-east of Caer Engan Hillfort (CN148), an Iron Age defended settlement comprising a double

ramparted fortified enclosure overlooking the flood plain of the Afon Llyfni. The area was characterised by a thin layer of topsoil/vegetation overlying the glacial horizon which contained frequent stone inclusions, including numerous boulders. No archaeology was found during the controlled strip of the site (Ref 4.92).

- 4.2.88 Gwynedd Archaeological Trust was grant aided by Cadw in 2020-21 to undertake a project recording historic farmsteads in Ardudwy (PRN 46126), as part of a pan-Wales initiative to record surviving traditional farm buildings (Ref 4.93).
- 4.2.89 Gwynedd Archaeological Trust was grant-aided in 2016 to undertake an assessment (PRN 46216 & 46217) as part of a pilot study for the WHS nomination for the Slate Industry of north Wales (Ref 4.94).
- 4.2.90 Gwynedd Archaeological Trust carried out a desk-based assessment (PRN 46275) in 2008 as part of a Tir Gofal archaeological assessment management plan at Ystumcegid Isaf, Criccieth (Ref 4.95).
- 4.2.91 Gwynedd Archaeological Trust carried out a desk-based assessment (PRN 46276) in 2009 as part of a Tir Gofal archaeological assessment management plan at Caer Hectar, Pant Glas (Ref 4.96).
- 4.2.92 Gwynedd Archaeological Trust carried out a desk-based assessment (PRN 46277) in 2008 as part of a Tir Gofal archaeological assessment management plan at Darngae, Cwm Prysor (Ref 4.97).
- 4.2.93 Gwynedd Archaeological Trust carried out a field survey (PRN 46279) in 2011 as part of the Better Woodlands Wales scheme at Wern Estate (Ref 4.98).
- 4.2.94 A metal detecting find was made in the Dolbenmaen area in 2022 (PRN 46309) (Ref 4.99).
- 4.2.95 Gwynedd Archaeological Trust was grant aided by Cadw in 2023-24 to undertake a project recording historic farmsteads in the Llyn Penisula (PRN 46779), as part of a pan-Wales initiative to record surviving traditional farmsteads (Ref 4.100).
- 4.2.96 Gwynedd Archaeological Trust was grant aided by Cadw to undertake a project recording historic farmsteads in North Anglesey and West Meirionnydd (PRN 46608) in 2022-23, as part of a pan-Wales initiative to record surviving traditional farmsteads (Ref 4.101).
- 4.2.97 In 2022, AOC Archaeology Group was commissioned by Gwynedd Archaeological Trust on behalf of National Grid Wales to undertake a geoarchaeological assessment (PRN 46698) of the proposed location for the Eastern Tunnel Head Compound at the Dwyrdd Estuary, near Porthmadog. This works formed part of a broader programme of archaeological assessment works undertaken by GAT Provision (VIP), Snowdonia Project which aimed to reduce the visual impact of overhead lines across the Dwyrdd Estuary. The assessment concluded the area provided rich evidence for Holocene Landscape evolution, with potential for archaeological activity (Ref 4.102).

4.3 Historic Assets

Designated Historic assets

Within the Wider Works Site

4.3.1 There are three scheduled monuments in the Wider Works site:

- Hut Group Near Tan-y-Coed Pont Rhythallt (**CN232**);
- Caerau Ancient Village (**CN067**); and
- Caer Engan (**CN148**).

4.3.2 There is one registered historic park and garden (Grade II*) in the Wider Works site: Wern (**PGW(Gd)19(GWY)**).

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Within the 500 m Study Area

4.3.3 There is one World Heritage Site – the Slate Landscape of Northwest Wales (**UNESCO 1633**) in the 500 m study area.

The Slate Landscape of Northwest Wales (UNESCO 1633)

4.3.4 The Slate Landscape of Northwest Wales comprises six areas or component part which together represent an exceptional example of an industrial landscape which was profoundly shaped by quarrying and mining slate, and transporting it for national and international markets.

4.3.5 Each Component Part has its own unique character. They have been chosen for their scale (all of the largest relict quarries and quarrying areas are represented), for their significant landscape impact, for their integrity, and for the way in which they exemplify technology transfer and the transformation of a minority rural culture into a modern industrial society.

4.3.6 The components represent geographically discrete areas of the World Heritage Site of which one is in the 500 m study area: Component Part 3: Nantlle Valley Slate Quarry Landscape.

4.3.7 In each Component Part, significant elements – physical features which embody the attributes of Outstanding Universal Value – have been identified.

4.3.8 One of the elements which comprises Component Part 3 are the settlements on Cilgwyn Mountain (element 3.11) which are in the 500 m study area, approximately 50 m east of the Wider Works site.

4.3.9 From 1780 to 1940 this industry dominated world production of roofing slates, transforming both the environment and the communities who lived and worked here. The quarries and mines are monumental in scale, comprising stepped hillside workings, deep pits and cavernous underground chambers, massive cascading tips, ingenious water systems, and a range of industrial buildings. Outstanding technical equipment and major engineering features survive. Innovative transport systems linked quarries and processing sites with purpose-built coastal export harbours and with main-line railways. Grand country houses and estates built by leading industrialists' contrast with workers'

vernacular settlements, with their characteristic chapels and churches, band-rooms, schools, libraries, and meeting-places. By the late 19th century, the region produced about a third of the world output of roofing slates and architectural slabs. Its use in terraced houses, factories, warehouses, and elite architecture contributed to rapid global urbanization. It influenced building styles, encouraging the shallow-pitched roofs of the Georgian order. Technologies that were innovated, adopted, and adapted in the property include the ingenious application of waterpower, the development of bulk handling systems and the first known application of the circular saw for cutting stone. These were diffused by specialists and by emigration of skilled Welsh quarrymen to the developing slate industries of the United States, continental Europe, and Ireland. The Snowdon massif's narrow-gauge railway systems gained global influence and were adopted from Asia and America to Africa and Australasia.

Scheduled Monuments

- 4.3.10 There are another 16 scheduled monuments in the 500 m study area; these comprise:
- Hafoty Ty-Newydd Enclosed Hut Group (**CN205**), approximately 350 m north-west;
 - Hut Circle Settlement and Field System South-East of Erw (**CN277**), approximately 60 m north-east;
 - Hut Circle South of Cae'r Sais (**CN266**), approximately 44 m north-west;
 - Enclosed Hut Circle Settlement in Coed Glan-yr-Afon (**CN267**), approximately 240 m north-west;
 - Hut Group near Pen Llwyn, Carmel (**CN238**), approximately 40 m north-west;
 - Enclosed Hut Circle North-West of Tan Rhiw (**CN262**), approximately 110 m north-east;
 - Caer Carreg y Fran (**CN058**), approximately 380 m south;
 - Ystum-Cegid Burial Chamber (**CN029**), approximately 100 m north;
 - Early Habitation Site 180m West of Pen-Yr-Allt (**CN088**), approximately 160 m north-west;
 - Pen-Isa'r-Waen Camp (**CN050**), approximately 370 m east;
 - Ancient Village 270m West of Bod Angharad (**CN080**), approximately 330 m north-west;
 - Hafotty Wern Las Hut Group & Fields (**CN151**), approximately 280 m north-west;
 - Pen-y-Gaer Camp (**CN149**), approximately 490 m north-west;
 - Carreg Lefain Cairn (**CN390**), approximately 440 m south-east;
 - Cae'r Odyn Unenclosed Hut (**CN206**), approximately 340 m north-west;
 - Enclosed Hut Group at Nurse Cae Du (**ME163**), approximately 210 m north-west.
- 4.3.11 There are 90 listed buildings in 500 m of the Wider Works site. These include five Grade II* and 85 Grade II listed buildings.
- 4.3.12 The Grade II* listed buildings comprise the following:
- Plas Glan-yr-Afon (**Cadw 3688**), approximately 470 m west;
 - Church of St Rhedyw (**Cadw 3799**), approximately 300 m north;

- Bryn Bras Castle (**Cadw 3804**), approximately 230 m south-east;
- Church of St Beuno (**Cadw 4623**), approximately 20 m north-west;
- Wern Manor (**Cadw 4626**), approximately 170 m south;

4.3.13

The Grade II listed buildings are dispersed across the study area and comprise farmstead and associated farm buildings, war memorials, ancillary buildings, schools, and churches dating to the post-medieval and modern periods. The closest Grade II listed buildings to the Wider Works site are as follows:

- Pant Du (**Cadw 3686**), approximately 5 m north-west;
- Lychgate at the Church of St Beuno (**Cadw 4285**), approximately 40 m south-west;
- Bryn-y-wern (**Cadw 4286**), approximately 50 m south;
- Courtyard Ranges to the W of Wern Manor, including Stables, Coachhouse and Tower (**Cadw 4627**), approximately 190 m south-west;
- Braich y Saint (**Cadw 15376**), approximately 92 m north-west;
- Braich y Saint (**Cadw 15377**), approximately 93 m north-west;
- Former Threshing Barn at Braich y Saint (**Cadw 15378**), approximately 129 m west;
- Cae'r-maen (**Cadw 19784**), approximately 170 m north;
- Cefn-y-meysydd isaf (**Cadw 21523**), approximately 64 m south-east;
- Chest Tomb in churchyard of the Church of St Beuno (**Cadw 21532**), approximately 27 m north-east;
- Pont y Felin (**Cadw 21543**), approximately 240 m south-west;
- Front Terrace, Balustrade and Steps at Wern Manor (**Cadw 21554**), approximately 220 m south;
- Tyn-Ilan (**Cadw 21557**), approximately 30 m west;
- Ornamental Garden Pool at Wern Manor (**Cadw 21569**), approximately 210 m south;
- Former Post Office & Nos 1-3 Maes Gerddi (**Cadw 21640**), 14 m south-west;
- Tyddyn y Gwydd (**Cadw 21801**), approximately 180 m south-west;
- Pen-y-braich (**Cadw 21808**), approximately 230 m south-east;
- Rhosgadfan House (**Cadw 21810**), approximately 210 m south-east;
- Erw (**Cadw 21815**), approximately 35 m south-west;
- Farmbuildings at Erw (**Cadw 21816**), approximately 49 m west;
- Bodgarad (**Cadw 21817**), approximately 217 m north-west;
- Tegfan and adjoining cottage to right (**Cadw 21818**), approximately 230 m north-east;
- Hay Barn at Bodgarad (**Cadw 21820**), approximately 194 m north-west;
- Pigsties at Bodgarad (**Cadw 21821**), approximately 220 m north-west;

- Cowhouse at Bodgarad (**Cadw 21822**), approximately 200 m north-west;
- Calf-rearing House/Cowhouse at Bodgarad (**Cadw 21823**), approximately 200 m north-west;
- Gorphwysfa (**Cadw 21824**), approximately 84 m north-east;
- Milestone (**Cadw 22046**), approximately 190 m west;
- Capel Tan-y-coed (**Cadw 22244**), approximately 18 m north-east;
- Sunday School/Vestry at Capel Tan-y-coed (**Cadw 22245**), approximately 4 m north-east;
- Hafod-rhug-isaf (**Cadw 22251**), approximately 10 m east;
- Gladiator statue (north) at Bryn Bras Castle (**Cadw 22259**), approximately 240 m south-east;
- Former Railway Carriage Shed (**Cadw 22648**), approximately 46 m north-west;
- 70 Ffordd Rhedyw (Rhedyw Road), Llanllyfni, Caernarfon (**Cadw 23661**), approximately 23 m north-east;
- Former Cowhouse to Dol-wenith (**Cadw 23662**), approximately 16 m south-east;
- Dol-wenith (**Cadw 23665**), approximately 30 m south-east;
- Pigsties at Dol-wenith (**Cadw 23665**), approximately 30 m south-east;
- Maes Mawr (**Cadw 23667**), approximately 160 m south-east;
- Eisteddfa-isaf (**Cadw 23691**), approximately 200 m east;
- Parc (**Cadw 23694**), approximately 165 m east;
- Turnpike (**Cadw 23697**), approximately 36 m north-west;
- Milestone (**Cadw 23710**), approximately 61 m north-west;
- Milestone (**Cadw 23711**), approximately 194 m north-west;
- Disused cottage to south-west of Llwyndu Canol (**Cadw 23718**), approximately 150 m north-west;
- Barn at disused cottage to south-west of Llwyndu Canol (**Cadw 23723**), approximately 150 m north-west;
- Tan-y-Ffordd (**Cadw 23726**), approximately 72 m south-east;
- Milepost to North of Llandecwyn (**Cadw 83457**), approximately 80 m west;
- Cartshed at Creigiau Duon (**Cadw 83991**), approximately 143 m north;
- Creigiau Duon (**Cadw 83995**), approximately 160 m north;
- Llennyrch Farm (**Cadw 87757**), approximately 5 m north-west; and
- Barn and Cart Shed at Llennyrch Farm (**Cadw 87758**), approximately 11 m north.

4.3.14 There are two registered historic park and gardens in 500 m of the Wider Works site. These are as follows:

- Bryn Bas Castle (**PGW(Gd)41(GWY)**), (Grade II), approximately 190 m south; and

- Former Nuclear Power Station at Trawsfynydd: Dragon Square and Dame Sylvia Crowe Garden (**PGW(Gd)64(GWY)**), (Grade II), approximately 330 m south-west.

4.3.15 There are no Conservation Areas in 500 m of the Wider Works site.

Non-designated Historic assets

Within the Site

4.3.16 There are 35 non-designated historic assets in the Wider Works site.

4.3.17 A site visit and visual appraisal of these historic assets in the Wider Works site and study area did not identify any areas with the potential to contain any previously unidentified archaeological or historical remains.

4.3.18 The historic assets in the Wider Works site are as follows:

- Bridge/Culvert, West of Hafod Rhug Isaf (**PRN 96204**);
- Field System, Caerau (**PRN 3319**);
- Footbridge, Afon Dwyfor (**PRN 30867**);
- Footbridge, South West of Chwiban y Gwynt (**PRN 96080**);
- Hendregadredd Garden, Llanystumdwy (**PRN 4443**);
- Hut Group (Enclosed), Bryn Brith, Carmel (**PRN 1386**);
- Hut Group E of Gerwen Farm, Llanwnda (**PRN 4196**);
- Llecheiddior-ganol, Dolbenmaen (**PRN 101473**);
- Llecheiddior-uchaf, Dolbenmaen (**PRN 101474**);
- Long Hut, Cae Forgan (**PRN 6734**);
- Long Hut, W of Cae-Forgan, Carmel (**PRN 1385**);
- Lunula Findspot, NE of Llecheiddior Uchaf (**PRN 2807**);
- Manilla, Findspot, Carmel (**PRN 24136**);
- No.74, Rhedyw Rd., Llanllyfni (**PRN 1895**);
- POW Camp, Site of, Bryncir (**PRN 7878**);
- Quernstone, Findspot, Bryn Brith, Carmel (**PRN 1783**);
- Railway Cutting, NW of Tan-yr-allt (**PRN 56997**);
- Railway Embankment, NW of Tan-yr-allt (**PRN 56996**);
- Route of old road, Garn Dolbenmaen (**PRN 62168**);
- Sheepfold, North of Pont-y-faen, Penmorfa (**PRN 96253**);
- Sheepfold, SE of Gwern-ddwryd (**PRN 25571**);
- Sheepfold, SW of Bryn-hyfryd (**PRN 25748**);
- Slate Quarry, Ymlych (**PRN 20203**);

- Sluice, Cae Uchaf (**PRN 34454**);
- Sluice, NW of Derwin Bach (**PRN 34389**);
- Spindle Whorl, Findspot, Bryn Brith, Carme (**PRN 1821**);
- Tank, East of Gwern-ddwryd (**PRN 25574**);
- Whetstone, Findspot, Bryn Brith, Carmel (**PRN 1823**);
- Building and Paddock, Cefn Faes (**PRN 1814**);
- Building, South of, Gwylan, Trawsfynydd (**PRN 90400**);
- Enclosure, NW of Trawsfynydd Power Station (**PRN 57332**);
- Farm building, Cefn-faes (**PRN 82021**);
- Farmstead, Llenyrch (**PRN 93466**);
- Sheepfold, E of Caersaeson (**PRN 28573**); and
- Sheepfold, South of Gwylan, Trawsfynydd (**PRN 90398**).

Within the 500 m Study Area

- 4.3.19 A further 637 non-designated archaeological assets have been identified in the 500 m study area. These non-designated assets comprise archaeological sites and findspots mostly dating to the post-medieval and modern periods, but also comprise smaller numbers of prehistoric, Roman, early medieval and medieval sites. Sites of unknown date have also been identified. These will be discussed as appropriate in the following section on the archaeological and historical background.

4.4 Archaeological and Historical Background

Palaeolithic and Mesolithic (1,000,00 BC to 4,000 BC)

- 4.4.1 Remains from the Palaeolithic period are rare, and to date, no material from this period has been yet identified in the Wider Works site or in the 500 m study area.
- 4.4.2 No Mesolithic findspots, archaeological remains or sites have been identified in the Wider Works site or in the 500 m study area, however, a number of prehistoric flint and chert artefacts were found during archaeological excavations in advance of the Porthmadog bypass at Y Bryn near Tremadog (**PRN 33595**), approximately 1.2 km east of the Wider Works site, including a number of cores and broken flakes of possible later Mesolithic date.

Neolithic to Bronze Age (4,000 BC to 700 BC)

- 4.4.3 As elsewhere, Neolithic settlement sites in Wales are particularly rare and archaeologists' interpretation could be due to a bias towards the survival of the large funerary monuments and ritual sites, the settlement sites having been destroyed by later activity and the erosion of topsoil in the later prehistoric and Romano-British periods.
- 4.4.4 Neolithic and early Bronze Age activity is mostly represented in the archaeological record by flint tools and funerary monuments.

- 4.4.5 More widely, North Wales contains numerous Neolithic funerary monuments, and has also recently yielded evidence, from Llanfaethlu on Anglesey, of an early Neolithic village – the first to be discovered in North Wales – which reveals a cluster of four houses.
- 4.4.6 One designated historic asset of Neolithic date has been identified in the 500 m study area. The Ystum-Cegid Burial Chamber (**CN029**) is approximately 100 m north of the site and consists of the remains of a chambered long cairn, dating to early Neolithic. The site comprises of a megalithic chamber with the remains of a passageway and associated cairn. The cairn material consists of turf covered stone which extends 10 m to the south and 5 m to the north of the chamber. The cairn is overlain by loose boulders and also by a field wall which is built through the chamber and follows the line of the passageway.
- 4.4.7 Also, a burnt mound (**PRN 34095**) and a pit containing burnt stone (**PRN 34097**), both of Neolithic date, were detected during archaeological evaluation north of Pentrefelin approximately 12 m and 100 m respectively south-east of the site (Ref 4.55).
- 4.4.8 The evidence for, and emphasis on, formal ritual and elaborate burial, so characteristic of the Earlier Bronze Age, fell away during the Later Bronze Age. Climate may, again, have contributed to the decline in popularity of the upland locations, which had previously been favoured for burial and ritual. In contrast, the evidence for settlement increases during this period. From the Later Bronze Age, hillforts begin to dominate the landscape. Undefended settlement is also well represented, as are field systems and other components of potentially contemporary landscapes. The quality of the field evidence in certain areas of Gwynedd is very high. The identifiable hierarchy of settlement reflects a perceived increase in the stratification of society dominated by a warrior aristocracy (Ref 4.103).
- 4.4.9 A number of historic assets of prehistoric date are in the Wider Works site which may be of Bronze Age date. An enclosed hut group (**PRN 1386**) is at Bryn Brith near Carmel and a field system can be found at Caerau (**PRN 3319**).
- 4.4.10 A ‘findspot’ is a chance find of archaeological evidence which is no longer in the context it was found in. Findspots inform the potential for associated archaeological remains, although they are no longer in-situ. The following findspots are in the site: a lunula was found north-east of Llecheiddior Uchaf (**PRN 2807**) and a spindle whorl was uncovered at Bryn Brith, Carmel (**PRN 1821**).
- 4.4.11 The following designated historic assets of Bronze Age date have also been identified in the 500 m study area:
- 4.4.12 The Carreg Lefain Cairn (**CN390**) comprises the well-preserved remains of a burial cairn, probably dating to the Bronze Age and on a slight terrace on the north-west facing slopes of Carreg Lefain, approximately 440 m south-east of the Wider Works site. The heather-covered cairn is circular on plan and measures about 11 m in diameter and up to 0.75 m in height. A well-defined kerb of large stones is visible around much of the perimeter and two larger upright stones stand in the cairn.
- 4.4.13 The Enclosed Hut Circle Settlement in Coed Glan-yr-Afron (**CN267**) comprises the remains of a compact enclosed settlement which probably dates from either Late Bronze Age or Iron Age, approximately 240 m north-west of the Wider Works site. The settlement includes the foundations of at least five circular huts set in a terraced rectangular enclosure. Also present are some associated contemporary field walls and a later rectangular hut.

- 4.4.14 The Hut Group near Pen Llywn (**CN238**) comprises the unusually complete remains of a substantial enclosed settlement, which probably dates from the Late Bronze Age or Iron Age, approximately 40 m north-west of the Wider Works site. It consists of six or seven closely conjoined circular huts around a small courtyard approached via a stone-bordered passage which leads to an entrance marked by orthostats.
- 4.4.15 Pen-y-Gaer Camp (**CN149**) comprises a rectangular enclosure on a small rocky hill, probably dating to the Late Bronze Age or Iron Age. It is approximately 490 m north-west of the Wider Works site. The enclosure measures 38 m by 35 m and is demarcated by a rubble wall 3 m thick, which was faced with large orthostats. The remains of the entrance can still be seen on the north-east side, where one large gatepost survives. The south-west wall has been largely robbed out. There are vague traces of a rectangular building in the south-east corner.
- 4.4.16 The Caer Odyn Unenclosed Hut (**CN206**) is approximately 340 m north-west of the Wider Works site. It comprises the remains of a single round hut, c.10 m in diameter. The wall of the hut is c.1.5 m thick and is lined externally with massive slabs, the entrance is to the north and a bank of stone runs away to the south-west. The site probably dates to the Bronze Age or Iron Age. Other huts, enclosures and fields survive nearby.
- 4.4.17 The following non-designated historic assets of Bronze Age date have also been identified in the 500 m study area:
- 4.4.18 Several burnt mounds of Bronze Age date have been in the 500 m study area: east of Afon Dwyfach, south of Bryncir (**PRN 154**); east of Graeanog Crossing (**PRN 128**), north-east of Cae-Forgan, Carmel (**PRN 1389**), north-east of Cae-forgan, Carmel (**PRN 2350**), a possible example north of Cae Uchaf (**PRN 61013**), a possible example north-west of Cae Uchaf (**PRN 61023**), south-east of Caerau Farm (**PRN 127**), and west of Garth-yr-hebog (**PRN 62710**).
- 4.4.19 A possible round barrow is at Bryn Beddau Isaf (**PRN 57620**).
- 4.4.20 The following non-designated historic assets of prehistoric date have also been identified in the 500 m study area, but possibly date to the Bronze Age as well:
- 4.4.21 Two burnt mounds of possible Bronze Age date have been identified north of Cae Uchaf (**PRN 2341 & 2342**).
- 4.4.22 Funerary monuments of possible Bronze Age date comprise a cairn north-west of Cae-Forgan, Carmel (**PRN 1387**) and a standing stone at Bryn Braich-y-sant (**PRN 29603**).
- 4.4.23 Burial sites with a cremation urn have been uncovered at Braich-y-saint (**PRN 2378**) and Llyn-y-mafon-isaf (**PRN 2377**).
- 4.4.24 Enclosed hut groups are near Hafod Rhug Isaf (**PRN 3707**), near Prysgol (**PRN 3694**), west of Hafod Rhug Isaf (**PRN 3695**) and Penyglannau (**PRN 1813**), while possible hut circles are east of Llwyn (**PRN 1815**) and north-west of Tallin (**PRN 4183**).
- 4.4.25 Field systems which possibly date from the Late Bronze Age are extant at Caerau (**PRN 3302**) and south-east of Caerau (**PRN 25765**).
- 4.4.26 A number of findspots are in the 500 m study area, which are indicative of settlement and ritual activity during the Bronze Age. These comprise an axehead at Garndolbenmaen (**PRN 98753**), a bronze lunula at Ty'r Dewin (**PRN 3331**), a bronze axe and palstave at Llanrug (**PRN 3705**), a bronze flat axehead also at Llanrug (**PRN 81553**), pottery at Penllystyn near Bryncir (**PRN 2809**), ten urns on Llystyn Farm,

Dolbenmaen (**PRN 2803**), a knife-dagger at Penyglannau (**PRN 4348**), and a cinery urn at Pen-y-Glannau near Tomen y Mur (**PRN 93615**).

- 4.4.27 A number of other findspots possibly date to the Bronze Age as well, and comprise the following – a brass riddle at Pant Glas (**PRN 3322**), a bronze sickle at Plas Llecheiddior (**PRN 2805**), bronze Tools in Llanrug Parish (**PRN 37030**), a looped palstave at Pant y Gwylliaid (**PRN 2808**), a miniature battle axe at Pantglas (**PRN 5737**); a quern stone fragment at Bryn Brith (**PRN 1822**), and an urn at Garnedd Wen (**PRN 5784**).

Iron Age (800 BC to AD 43)

- 4.4.28 The Iron Age roughly spans the centuries between approximately 800 BC and the beginning of the Roman conquest in AD 43. It is distinguished by the impressive numbers of surviving hillforts and settlements present in the archaeological record. However, archaeological excavations have been very rare and the material culture for the Iron Age in Wales is correspondingly sparse. What there is, largely recovered from deliberately deposited hoards, is exotic and unusual rather than domestic and every day. Swords, spearheads, and fine metalwork created in geographically widespread typological and artistic styles testify to broad cultural contacts and the presence of a warrior elite. However, the pottery or tools that could describe local society and the organisation of domestic life are usually lacking (Ref 4.104). Continuing into the Iron Age, hillforts begin to dominate the landscape. Undefended settlement is also well represented, as are field systems and other components of potentially contemporary landscapes.
- 4.4.29 The Caerau Ancient Village (**CN067**) is in the Wider Works site and comprises the remains of an enclosed Iron Age settlement of multiple hut circles and early fields on the lower slopes of Mynydd Craig Goch. The scheduled area includes two of the settlement sites and a part of the associated fields. The settlement may have been enclosed but it was probably not a defensive site. These field systems extend beyond the scheduled monument – Caerau (**PRN 3302**) and south-east of Caerau (**PRN 25765**).
- 4.4.30 Caer Engan hillfort (**CN148**) is in the Wider Works site and measures some 120 m by 64 m, occupying a rocky knoll and defended by a double rampart best preserved on the west and east sides. The ramparts make use of natural outcrops and shelves, and these are supplemented by artificial banks of earth.
- 4.4.31 A hut-circle settlement near Tan-y-Coed Pont Rhythallt (**CN232**) is in the Wider Works site. It probably dates to the Iron Age or Romano-British period. There are at least seven circular stone-walled huts, measuring from 3 m to 9 m in diameter, some linked by low stony banks, set in a compact group around a central 'courtyard' area. To the west are three circular stony platforms, possibly the remains of other huts.
- 4.4.32 The following designated historic assets of Iron Age date have also been identified in the 500 m study area:
- 4.4.33 As mentioned above in para 4.4.12, the Enclosed Hut Circle Settlement in Coed Glan-yr-Afron (**CN267**) comprises the remains of a compact enclosed settlement which probably dates from either Late Bronze Age or Iron Age, approximately 240 m north-west of the Wider Works site.
- 4.4.34 As mentioned above in para 4.4.13, a hut group near Pen Llywn (**CN238**) is approximately 40 m north-west of the Wider Works site, and comprises the unusually complete remains of a substantial enclosed settlement, which probably dates from the Late Bronze Age or Iron Age.

- 4.4.35 The remains of a well-preserved single hut circle north-west of Tan Rhiw (**CN262**) is approximately 110 m north-east of the Wider Works site. It is set on a levelled area in a concentric enclosure, which probably dates to the Iron Age or Romano-British period. The monument is in an area known to have been intensively settled during the period of its occupation, and field systems have been identified beyond the scheduled area.
- 4.4.36 The remains of a small hillfort Caer Carreg y Fran (**CN058**) is approximately 380 m south of the Wider Works site. It probably dates to the Iron Age period. The remains of a wall approximately 2.4 m wide follows the edge of the hilltop. It is mostly reduced to foundation level, although on the south is a well-preserved section with the outer face 0.8 m high. The creation of a footpath has resulted in a 1 m wide gap through the foundations of the wall on the west, but the original gateway, a simple gap approximately 4.5 m wide, is on the north. Six huts are in the interior, ranging in diameter from 4.5 m to 7.6 m and are built of laid masonry.
- 4.4.37 An early habitation site west of Pen-Yr-Allt (**CN088**) is approximately 160 m north-west of the Wider Works site. It comprises the remains of an enclosed prehistoric settlement, probably dating to the Iron Age. Three concentric rings of stone walling which vary in thickness. The innermost ring is a hut circle c.9 m in diameter, with an entrance on the east side. This is enclosed by a circular enclosure c.24 m in diameter. The space between contains the remains of other structures of a less substantial nature. The outer circle of stone walling has a diameter of c.64 m. The site was excavated in 1947-48. There were few finds, and none were closely datable, but they included a saddle-quern reused in the house wall and other utilised stones.
- 4.4.38 Pen-Isa'r-Waen Camp (**CN050**) is approximately 370 m east of the Wider Works site. This is an enclosed settlement of round huts and other irregular structures, probably dating to the Iron Age or Romano-British period. The enclosure is roughly oval in plan 45 m by 50 m. There may have been an entrance on the west side. In the enclosure are many stony banks up to 1 m high, although only two hut circles are clearly identifiable, both 8 m in diameter. Modern field walls now overlie much, but not all of, the enclosure wall. It seems likely that additional remains have been ploughed out to the north and east of the existing remains.
- 4.4.39 The Ancient Village 270 m West of Bod Angharad (**CN080**) is approximately 330 m north-west of the Wider Works site. The monument comprises the remains of two or three hut groups and associated cultivation terraces, all probably dating to the Iron Age and Roman-British periods.
- 4.4.40 Hafotty Wern Las Hut Group & Fields (**CN151**) is approximately 280 m north-west of the Wider Work site. It comprises the remains of a settlement or settlements, with associated fields, probably dating to the Iron Age and Roman-British periods. There is a group of four round huts. To the south-east, is an enclosed settlement of two rectangular and one circular hut, all built against the enclosing stone wall. Continuing to the south-east, and upslope, is a group of terraced field enclosures, two of them circular and concentric, with others of irregular shape grouped around them.
- 4.4.41 As mentioned above in paragraph 4.4.14, Pen-y-Gaer Camp (**CN149**) comprises a rectangular enclosure on a small rocky hill, probably dating to the Late Bronze Age or Iron Age. It is approximately 490 m north-west of the Wider Works site.
- 4.4.42 As mentioned above in paragraph 4.4.15, the Caer Odyn Unenclosed Hut (**CN206**) is approximately 340 m north-west of the Wider Works site. It comprises the remains of a single round hut, c.10m in diameter, probably dating to the Bronze Age or Iron Age.

- 4.4.43 Enclosed Hut Group at Nurse Cae Du (**ME163**) is approximately 210 m north-west of the Wider Works site. It comprises the remains of a small but substantial and undisturbed enclosed settlement, which probably dates to the late prehistoric or Romano-British periods. Two large circular huts and one long rectangular hut can be clearly seen, ranged around a central courtyard. Associated are field enclosures and paddocks.
- 4.4.44 Non-designated historic assets of prehistoric date are in the Wider Works site and possibly of the Iron Age period – a field system, Caerau (**PRN 3319**) and an enclosed hut group at Bryn Brith, Carmel (**PRN 1386**).
- 4.4.45 Findspots in the Wider Works site possibly date to the Iron Age and comprise the following – a spindle whorl (**PRN 1821**) and a whetstone (**PRN 1823**) at Bryn Brith Carmel.
- 4.4.46 The following non-designated historic assets of Iron Age date have also been identified in the 500 m study area:
- 4.4.47 Enclosures and hut circles of Iron Age date are north of Cae Uchaf (**PRN 60944**) in the 500 m study area.
- 4.4.48 Several historic assets of prehistoric date have also been identified in the wider 500 m study area, which possibly date to the Iron Age as well. There are enclosed hut groups near Hafod Rhug Isaf (**PRN 3707**), Prysgol (**PRN 3694**), west of Hafod Rhug Isaf (**PRN 3695**) and Penyglannau (**PRN 1813**). There are also possible hut circles east of Llwyn (**PRN 1815**) and north-west of Tallin (**PRN 4183**). Other settlements are recorded near Hafod Rhug Isaf (**PRN 3696**) and south of Berth (**PRN 37993**).
- 4.4.49 A number of findspots in the wider 500 m study area possibly date to the Iron Age and comprise the following – a quern stone fragment in Bryn Brith (**PRN 1822**) and a spindle whorl in Pentrefelin (**PRN 4056**).

Roman (AD 43 to AD 410)

- 4.4.50 North-west Wales contains some of the defining type-sites of the Roman period in Wales – the enclosed and unenclosed hut-groups together with some of the best known and extensively excavated military installations; Segontium being a prime example. It is also one of the few British regions which Classical sources specifically mention: the Anglesey campaign of AD 60 and the final capture of the island by Julius Agricola in AD 77 being notable geographical markers in the context of first century military operations (Ref 4.105).
- 4.4.51 The upland region of Gwynedd, saw less Roman settlement compared to south-east Wales, and to a lesser extent south-west Wales. Following its conquest in the 70s of the first century and a garrisoning phase which effectively only lasted to the mid-second century, its native communities accepted Roman rule but seemingly played no part in the process of 'Romanization'. Urban centres are notably absent, whilst there is no hint of villa development. Military remains are more obvious, and, in the case of Segontium, indicative of a long-lasting, but markedly localised garrisoning phase. There is evidence for the exploitation of the region's metals by Mediterranean-style business partnerships (societates), whilst Romanization has been perceived as being essentially limited to the circulation of a range of consumer durables – pottery, coinage, metalwork and objects of worked stone, such as rotary querns – on settlement sites whose origins lie in the latter centuries BC. When the politico-military infrastructure of Roman Britain collapsed

in the early fifth century, there was a return to a pre-Roman socio-economic framework in the region (Ref 4.105).

- 4.4.52 As mentioned above in paragraph 4.4.31, a hut circle settlement near Tan-y-Coed Pont Thythallt (**CN232**) probably dates to the Iron Age or Romano-British period and is in the Wider Works site.
- 4.4.53 Parts of Roman Roads linking Segontium to Bryn-y-gefeiliau (**PRN 17824**), Segontium to Pen Llystyn to Tomen y Mur (**PRN 17822**) and Segontium to Pen Llystyn to Tomen y Mur (**PRN 36433**) are projected to run through the 500 m study area.
- 4.4.54 The following designated historic assets of Roman date have been identified in the 500 m study area:
- 4.4.55 As mentioned above in paragraph 4.4.35, the remains of a well-preserved single hut circle north-west of Tan Rhiw (**CN262**) is approximately 110 m north-east of the Wider Works site, and probably dates to the Iron Age or Romano-British period.
- 4.4.56 As mentioned above in paragraph 4.4.38, Pen-Isa'r-Waen Camp (**CN050**) is approximately 370 m east of the Wider Works site. This an enclosed settlement of round huts and other irregular structures, probably dating to the Iron Age or Romano-British period.
- 4.4.57 As mentioned above in paragraph 4.4.39, the Ancient Village 270 m West of Bod Angharad (**CN080**) is approximately 330 m north-west of the Wider Works site. The monument comprises the remains of two or three hut groups and associated cultivation terraces, all probably dating to the Iron Age and Roman-British periods.
- 4.4.58 As mentioned above in paragraph 4.4.40, the Hafotty Wern Las Hut Group & Fields (**CN151**) is approximately 280 m north-west of the Wider Works site. It comprises the remains of a settlement or settlements, with associated fields, probably dating to the Iron Age and Roman-British periods.
- 4.4.59 As mentioned above in paragraph 4.4.43, the Enclosed Hut Group at Nurse Cae Du (**ME163**) is approximately 210 m north-west of the Wider Works site. It comprises the remains of a small but substantial and undisturbed enclosed settlement, which probably dates to the late prehistoric or Romano-British periods.
- 4.4.60 The following non-designated historic assets of Roman date have been identified in the 500 m study area:
- 4.4.61 There is a possible Roman Fort north of Derwin Bach (**PRN 789**) and the former site of a Roman Fort at Pen Llystyn (Bryncir Quarry) (**PRN 144**); the latter was a small auxiliary fort built to cover the route across the neck of the Llyn Peninsula. The possible site of a Roman Signal Station has been identified at Bryn Sisyllt (**PRN 29509**).
- 4.4.62 During the Roman occupation of Wales and England arterial roads were built to allow the quick and decisive movement of the Roman legions to subdue any rebellions quickly. Gwynedd has several of these important road's crossing through it.
- 4.4.63 Parts of Roman Roads linking Segontium to Canovium (**PRN 17596 & 17597**) and Segontium to Pen Llystyn to Tomen y Mur (**PRN 17553; 17558; 17557 & 17559**) are projected to run through the 500 m study area. Another route has been proposed to run directly between Segontium and Tomen y Mur (**PRN 17549**) and another Roman Road has been suggested at Coed Cae Newydd (**PRN 11007**). A watching brief conducted during a pipeline replacement work by Welsh Waters between Cae Glas Service

Reservoir and the A470 trunk road, at Gellilydan, revealed traces of a Roman road (**PRN 110659**) running north-west from the fort at Tomen-y-Mur (Ref 4.7).

- 4.4.64 Visible traces of Romano-British settlement can be found across the area – there are enclosed homesteads at Bryn Braich-y-saint (**PRN 2362**) and Ynys-ddu (**PRN 2363 & 2364**), enclosed hut groups north of Erw (**PRN 4202**), west of Cwm Bran (**PRN 111**), south-west of Cwm Bran (**PRN 112 & 113**), south-west of Tyddyn Bach (**PRN 579**) and north-west of Bryn Mair (**PRN 746**). Hut groups have also been identified south-west of Bryn Gors (**PRN 121**), south-west of Penyffridd, Rhosgadfan (**PRN 742**), south-west of Waunfawr (**PRN 5533**) and west of Penyffridd, Rhosgadfan (**PRN 741**). There is a homestead at Cae-Gwenllian (**PRN 2365**) and hut circles, south-west of Waunfawr (**PRN 5534**).
- 4.4.65 A defended enclosure is at Dol Afon (**PRN 90356**), an earthwork enclosure, south-east of Caerau (**PRN 114**), and long huts and a corn-drying kiln near Bod Angharad (**PRN 4197**).
- 4.4.66 Agricultural activity associated with these Romano-British settlements can be seen with the presence of lynchets at Braich y Saint, Criccieth (**PRN 36570**) and some of the field systems that originated in the Iron Age (see paras 4.4.35 and 4.4.44) possibly continued in use.
- 4.4.67 A number of findspots possibly date to the Roman Age, and comprise the following – a brooch at Llanrug (**PRN 96704**), a pot at Penllystyn, Bryncir Quarry (**PRN 2802**); a rotary quern at Gwernddwryd (**PRN 2356**), slag at Llanllyfni (**PRN 71202**), and a spindle whorl at Carmel (**PRN 24138**).

Early Medieval (AD 410 to 1066)

- 4.4.68 The period c AD 400-1075 in north-west Wales, spanning the centuries between the end of Roman rule and the first Norman intervention, is still poorly understood. The documentary evidence is notoriously sparse and frequently difficult to interpret. It suggests the possibility of Irish settlement in the region and the movement of Cunedda and his followers from Manaw Gododdin around the end of the Roman period. It indicates the establishment of the important kingdom of Gwynedd by the early 6th century and its gradual rise at the expense of probable minor kingdoms such as Rhos and Meirionydd. It is also possible to chart to some extent Anglo-Saxon alliances and hostilities and from the 9th century onwards Viking raids and likely settlement. At the same time, the documentary evidence can throw light on the development of Christianity by helping to identify major ecclesiastical sites (Ref 4.106).
- 4.4.69 In 1934, the hut group at Pant-y-Saer (Anglesey) was heralded as the first possible early medieval settlement in Wales because of the recovery of a penannular brooch during excavation. This was followed in the late 1950s and 1960s by minor excavation of the hillforts at Dinas Emrys and Degannwy, the early medieval phases of which were recognised by the presence of imported pottery. Over the last 25 years or so evidence of early medieval activity has become known by chance on a few hut group sites such as Graeanog and Cefn Cwmwd. The most spectacular discovery has been the Viking Age and earlier settlement at Y Glŷn, Llanbedrgoch (Ref 4.106).
- 4.4.70 It is generally agreed that there was a mixed farming economy in the north-west as elsewhere in Wales during the early medieval period and that the best use of pasture was probably facilitated by transhumance. However, in contrast with South Wales, there is no evidence concerning landed estates in the documentary record. The farming economy must have been sufficiently developed to have produced some excess to

support the lifestyles evidenced on the few high-status sites that have been recognised (Ref 4.106).

- 4.4.71 The origins of Christianity in North West Wales lie in the Roman period, though no evidence has so far been found. During the 5th and 6th centuries, the evidence of the inscribed stones suggests that Christianity expanded, at least amongst the upper echelons of society, and during the 6th century major monastic sites such as Bangor are likely to have been founded. Around the 8th century there may have been a gradual shift from burial in kin cemeteries to burial associated with ecclesiastical sites which eventually became parish churches and chapels of ease; in addition, some early cemeteries developed into local church sites. Some minor churches may have been connected with landed estates. Over the last few years there have been major advances enabling recognition and increased understanding of early medieval ecclesiastical and burial sites in North West Wales (Ref 4.106).
- 4.4.72 The following non-designated historic assets of early medieval date have been identified in the 500 m study area. A burnt mound (**PRN 34096**) excavated north of Pentrefelin was radiocarbon dated to the 7th century AD.
- 4.4.73 There is a four-sided enclosure (**PRN 743**) on a summit at Gaerwen; quadrilateral with rounded corners. A long hut lies over its north-east side. Another long hut can be found north-east of Llwyndu Bach (**PRN 583**).
- 4.4.74 There are holy wells at Ffynnon Beuno, near Rhosgadfan (**PRN 3452**) and Ffynnon Rhedyw, Llanllyfni (**PRN 2343**).
- 4.4.75 An inscribed Stone at Talsarnau bears an inscription in honour of St. Tecwyn (**PRN 4182**).

Medieval (1066-1640)

- 4.4.76 The 11th century saw the first Norman incursions into Wales, their initial defeat by Gruffydd ap Cynan (d. 1137) and the start of a successful period of Welsh rule which was to end in 1282/3 with the death of Llywelyn ap Gruffydd and conquest by Edward I. During the tense period which led to his eventual campaign of conquest, in July 1277, Edward launched a punitive expedition into North Wales with an army of 15,500 (Ref 4.107). From Chester, the army marched into Gwynedd, camping first at Flint and then Rhuddlan and Deganwy, most likely causing widespread damage to the areas it passed through.
- 4.4.77 As a result of King Edward I's attempt to bring Wales under England's rule, a number of defensive structures were constructed during 1276 and 1295. The original Norman town of Caernarfon and Castell Caernarfon was an example of King Edward I's fortified towns and exceptional medieval architecture. The town and castle, designed by a military architect, Master James of St George was designed to withstand damage (Ref 4.108) and protect royal interests in the region.
- 4.4.78 One site of medieval date is in the Wider Works site: the long hut at Cae Forgan (**PRN 6734**).
- 4.4.79 Non-designated historic assets of medieval date have been identified in the 500 m study area indicative of settlement and agricultural activity. A medieval field system and settlement is at Maes Hyfryd, Carmel (**PRN 4362**). A hut platform is at Caerau (**PRN 110**), a building and paddock at Cefn Faes (**PRN 1814**) and long huts at Bod Angharad (**PRN 6768**) and Tyddyn Bach (**PRN 6743**).

- 4.4.80 There are two possible relict medieval field systems at Eisteddfa (**PRN 37848**) and Pentrefelin (**PRN 55805**). There is possible ridge and furrow at Braich-y-Sain (**PRN 68725**).
- 4.4.81 There is a possible medieval deer park with sub-circular enclosure and narrow projection at Parc Caehylen near Llanrug (**PRN 38352**). Morphologically it resembles medieval deer parks and is on the lower slopes of the north-western edge of Cefn Du.
- 4.4.82 The battlefield site of Bryn Derwin (**PRN 60936**) is in the study area. It was fought in early June 1255 by Llywelyn ap Gruffudd and his forces against forces led by two of Llywelyn's brothers, Owain and Dafydd. After the victory at Bryn Derwin, Llywelyn achieved dominance over the principality of Gwynedd, and subsequently over much of native Wales.

Post-medieval (1640 to 1900)

- 4.4.83 The post-medieval period is one of the most significant periods to have shaped modern-day Wales. The majority of social, economic and landscape changes occurred during the post-medieval period because of heavy industry and agriculture.
- 4.4.84 Alongside farming, there were other primary industries that impacted the landscape, notably the slate industry which has shaped Gwynedd's landscape.
- 4.4.85 The Slate Landscape of Northwest Wales (**UNESCO 1633**) represents an exceptional example of an industrial landscape which was profoundly shaped by quarrying and mining slate and transporting it for national and international markets.
- 4.4.86 The components represent geographically discrete areas of the World Heritage Site of which one is in the 500 m study area, Component Part 3: Nantlle Valley Slate Quarry Landscape. One of the elements which comprises Component Part 3 are the settlements on Cilgwyn Mountain (element 3.11) which are in the 500 m study area, approximately 50 m east of the Wider Works site. These settlements were created in the early nineteenth century and were largely abandoned in the 1930 (Ref 2.11).
- 4.4.87 Due to large industries developing in Gwynedd, there was a surge in the construction of housing and commercial buildings. As a result of this, there was a specific local vernacular that developed from the ever-growing industrial communities (Ref 4.109).
- 4.4.88 340 non-designated historic assets of post-medieval date have been identified in the 500 m study area.
- 4.4.89 Of these, 16 non-designated historic assets of post-medieval date have been identified in the Wider Works site, mostly associated with the farming and slate quarrying industries that dominated this area of north-west Wales. These include the following sites below.
- 4.4.90 Post-medieval farm activity is reflected with the presence of a farm building at Cefn-faes (**PRN 82021**) and farmsteads at Llenyrch (**PRN 93466**), Llecheiddior-ganol near Dolbenmaen (**PRN 101473**) and Llecheiddior-uchaf also near Dolbenmaen (**PRN 101474**). A tank, east of Gwern-ddwryd (**PRN 25574**), is associated with a nearby farm.
- 4.4.91 Animal husbandry was a core activity with sheepfolds south-east of Gwern-ddwryd (**PRN 25571**), south-west of Bryn-hyfyd (**PRN 25748**), and east of Caersaeson (**PRN 28573**), and an enclosure north-west of Trawsfynydd Power Station (**PRN 57332**).

- 4.4.92 Railways were a feature of the area in the 19th and early 20th centuries with a railway cutting, north-west of Tan-yr-allt (**PRN 56997**) and a railway embankment, north-west of Tan-yr-allt (**PRN 56996**), but roads were also improved in this period as evidenced with a bridge west of Hafod Rhug Isaf (**PRN 96024**).
- 4.4.93 A disused slate quarry is recorded at Ymlych (**PRN 20203**).

Modern (1900 to Present)

- 4.4.94 During the early 20th century, industry continued to boom, creating a stabilised economy and increased population. During the First World War (WWI), Wales prepared communities and the landscape for heavy impact, as seen with other areas around Britain. Due to the relatively sparse nature of Gwynedd, a substantial range of buildings were constructed/re-used for the purpose of defence (Ref 4.110). Both newly constructed hospitals in Bangor and Caernarfon were used for injured soldiers serving in the war (Ref 5.59). Alongside this, other schemes such as large-scale food production (allotments) and forestry were also formed to help support the war effort.
- 4.4.95 During the Second World War (WWII), Wales continued to support the war effort then, whilst also defending the coastline of Gwynedd against invasion. One notable defensive structure still extant are WWII-era anti-tank cubes along Fairbourne beach (Ref 4.111). Despite evidence of WWII remains in Gwynedd, there are no known remains dating to WWII in the study area.
- 4.4.96 26 non-designated historic assets of modern date have been identified in the site or the 500 m study area. These include a domestic building at Bryn Seriol near Llanrug (**PRN 33340**), a mill at Melin Bryn-y-Gro, south of Llanllyfni (**PRN 37994**), a memorial hall at Penmorfa (**PRN 71533**), memorials at St Rhedyw's Church in Llanllyfni (**PRN 71665**), Penygroes County School (**PRN 71421**), Bethel Chapel (**PRN 71534**), and Rhosgadfan (**PRN 58679**), tree plantations at Wern (**PRN 68485 & 68486**), former golf course features associated with the Criccieth Golf Course (**PRN 36567, 36568 & 36569**) and trackways at Bryn Neuadd Farm (**PRN 62711 & 62714**) and at Llwyn Mafon Isaf (**PRN 62713**).
- 4.4.97 Two non-designated historic assets of post-medieval date have been identified in the Wider Works site. There is a footbridge, south-west of Chwiban y Gwynt (**PRN 96080**); and the site of a World War I prisoner of war camp near Bryncir (**PRN 7878**). The latter was a work camp affiliated to Frongoch, another prisoner of war camp in Gwynedd and opened by June 1919. It held 36 prisoners carrying out agricultural work.

Undated

- 4.4.98 171 non-designated historic assets of unknown date have been recorded in the 500 m study area. Of these 9 have been identified in the Wider Works site:
- 4.4.99 Some of these sites of unknown date pertain to settlement. There is a hut group east of Gerwen Farm, Llanwnda (**PRN 4196**), a long hut, west of Cae-Forgan, Carmel (**PRN 1385**) and a building, south of Gwylan near Trawsfynydd (**PRN 90400**).
- 4.4.100 Agricultural activities are reflected by the presence of a sheepfold, north of Pont-y-faen near Penmorfa (**PRN 96253**) and another sheepfold, south of Gwylan near Trawsfynydd (**PRN 90398**).
- 4.4.101 Communications were facilitated by a footbridge over the Afon Dwyfor (**PRN 30867**) and an old road at Garn Dolbenmaen (**PRN 62168**).

- 4.4.102 Drainage was an ongoing issue in certain locations on the site, and undated sluices can be found at Cae Uchaf (**PRN 34454**) and north-west of Derwin Bach (**PRN 34389**).

Cartographic Assessment

- 4.4.103 Historic cartographic sources of the area dating from before tithe maps of the mid- 19th century are largely limited to county level surveys of limited detail. A map published by Rev. William Bingley to accompany his book *Excursions in North Wales, including Aberystwith and the Devil's Bridge...* (1839) (Ref 4.112) depicts a settlement pattern similar to that which survives into the modern period with many of the large contemporary hamlets and villages in the study area and the surrounding landscape still evident today (see Plate 4-1).



Plate 4-1: Extract from map. Published in Rev. W. Bingley 1839 *Excursions in North Wales including Aberystwith and the Devil's Bridge*. Third edition. Longmans & Co. (British Library 10369.f.4; viewable on OldMaps Online)

- 4.4.104 Noticeable changes between the earlier editions of the OS six-inch series mapping (see **Figures 6.5.I.4 to 6.5.I.7**) and the contemporary landscape are largely limited to the settlement of Llanrug, Rhostryfan, Rhosgadfan, Carmel and Penygroes which developed and expanded in the late 19th and early 20th century, with the landscape of the site dominated by agricultural land, much of which appears to be pastoral and marginal upland ground. A number of railway lines such as the L & N.W.R.

Caernarvonshire Branch have been closed though road bridges and traces of embankments associated with the former railway lines are still visible.

LiDAR Assessment

- 4.4.105 Accessible LiDAR data was reviewed from the LiDAR data available on the National Museum of Scotland website (LiDAR DTM 50 cm-1.0 m) (Ref 3.7) to highlight if any further archaeological assets are identifiable in the site or in the 500 m study area.
- 4.4.106 LiDAR analysis in the site highlights the current layout and appearance of the countryside through which the 4ZC overhead line passes through. No new archaeological assets have been identified in the site.
- 4.4.107 The LiDAR imagery clearly illustrates the extent of the Caer Engan hillfort (**CN148**) in the area of proposed works (see Plate 4-2). The hillfort occupies a rocky knoll and is defended by a double rampart best preserved on the west and east sides. The ramparts make use of natural outcrops and shelves, and these are supplemented by artificial banks of earth.

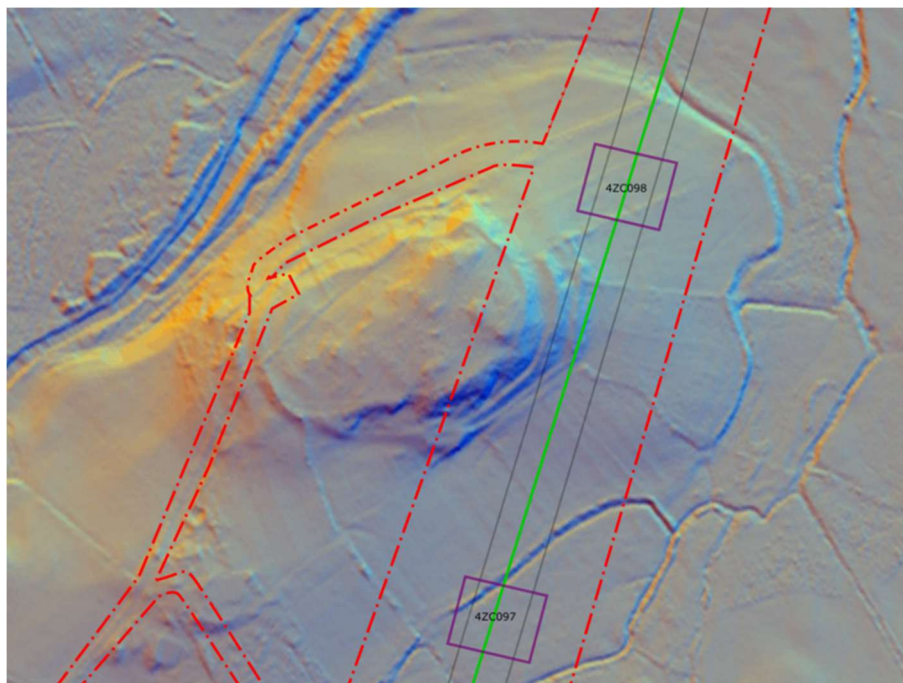


Plate 4-2: LiDAR imagery of Iron Age field system associated with Caer Engan hillfort (CN148) (reproduced with the permission of the National Library of Scotland).

- 4.4.108 The LiDAR imagery (see Plate 4-3) also illustrates the extent of the scheduled monument, the Caerau Ancient Village (**CN067**) in the area of the proposed works. The monument comprises the remains of an enclosed Iron Age settlement of multiple hut circles and early fields on the lower slopes of Mynydd Craig Goch. The scheduled area includes two of the settlement sites and a part of the associated fields. The field system continues south beyond the bounds of the scheduled monument (**PRN 3319**).

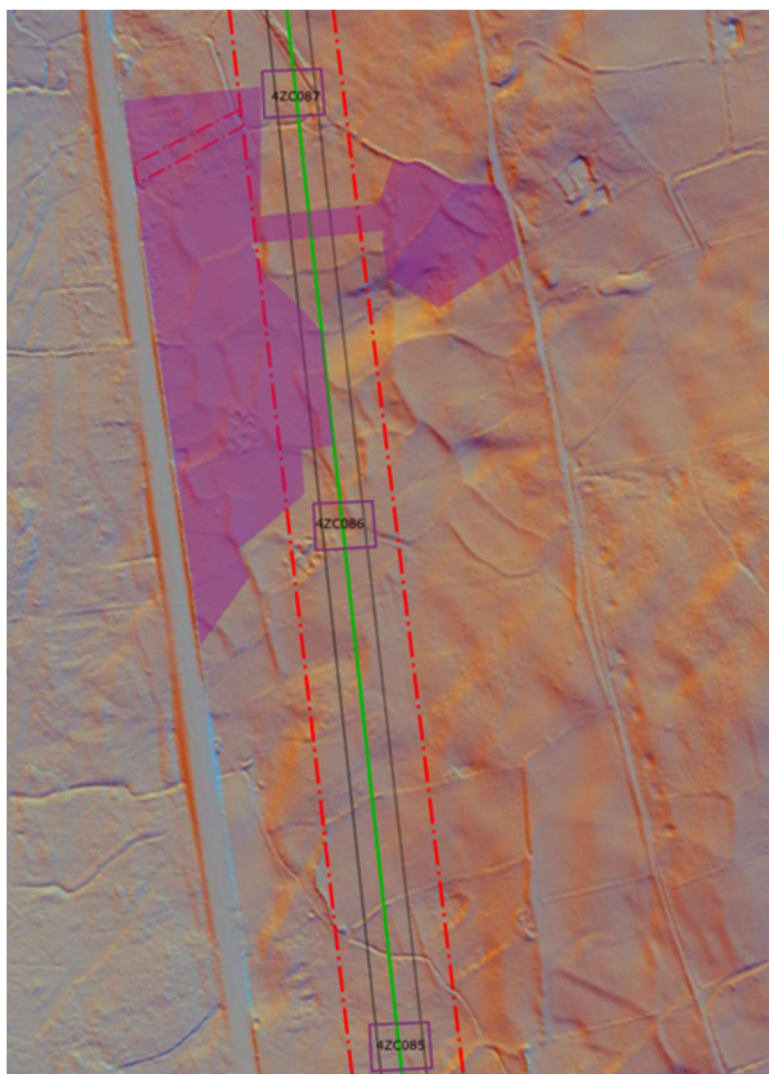


Plate 4-3: LiDAR imagery of Iron Age field system associated with Caerau Ancient Village (CN067) (scheduled area highlighted in purple) (reproduced with the permission of the National Library of Scotland).

Historic Landscape Characterisation

- 4.4.109 The Gwynedd Historic Landscape Characterisation (GHLC) forms part of a national project to characterise the historic landscape. The GHLC is formed of an assessment of historic and current mapping that separated blocks of landscape into types based upon morphology or land use. A number of GHLC types were identified in the Wider Works site. These are displayed below in **Table 4.1**.
- 4.4.110 The GIS data for the Extended Study of Historic Characterisation Landscape types in the Wider Works site was obtained from Heneb as part of the HER data request and is presented in **Figure 6.5.I.3**. Historic Land Classification (HLC) types presented in **Figure 6.5.I.3** have been used in this study to establish the existing time depth of the historic landscape of the Wider Works site and to examine how the surviving historic landscape relates to that of the surrounding areas, and to the rest of Gwynedd; this enables an assessment of the sensitivity of the historic landscape to change.
- 4.4.111 The Wider Works component of the Project run through a number of historic landscape types which are listed in **Table 4.1** and summarised in the following paragraphs.

Table 4.1 – Gwynedd Historic Landscape Types

HLC number	HLC name	Sub-type
Arfon Area 42	Gwaen Gynfi enclosed area	Industrial settlement (slate quarry)
Arfon Area 50	Afon Rhythallt	River valley
Caernarfon/Nantlle Area 36	Arfon plateau	Lowland plain, some relict archaeology
Caernarfon/Nantlle Area 17	Cefn Du Enclosures	Irregular enclosures with dwellings
Caernarfon/Nantlle Area 25	Moel Tryfan lower slopes	Irregular and curvilinear enclosures, relict archaeological sites, scattered settlement
Caernarfon/Nantlle Area 20	Moel Tryfan enclosures	Small enclosures, dual economy settlement
Caernarfon/Nantlle Area 22	Rhostryfan-Rhosgadfan	Industrial settlement, ribbon development
Caernarfon/Nantlle Area 24	Carmel	Industrial settlement, roads
Caernarfon/Nantlle Area 49	Floor of Nantlle Valley	Canalised river, road
Caernarfon/Nantlle Area 15	Nebo	Nineteenth-century enclosures, dispersed settlement
Caernarfon/Nantlle Area 34	Lleuar	Field patterns, farms, relict archaeological sites
Vale of Ffestiniog Area 8	Wern	Post-medieval house, gardens, garden designer association
Vale of Ffestiniog Area 14	Glaslyn estuary - reclaimed land	19th-century reclaimed land
Ardudwy Area 30	Morfa Harlech - fieldscape	Reclaimed marsh, regular field pattern, cut drainage boundaries, 19th-century farmsteads
Ardudwy Area 5	Coed Felinrhyd & Moel Tecwyn	Drystone walls, forestry, reservoir
Ardudwy Area 22	Wooded valleys around Bryn Bwbach	Wooded hill slopes, stone-built farmhouses
Trawsfynydd Area 18	Coed Caersaeson	Forestry, farmsteads
Trawsfynydd Area 16	Farming settlements north of Trawsfynydd	Farmsteads, enclosures, woods
Trawsfynydd Area 5	Trawsfynydd power station and lake	Lake, dam, power station

- 4.4.112 The Gwaen Gynfi enclosed area (**Area 42**) is distinguished by small enclosures each supporting a cottage, and some larger sheepfolds, though the pattern of settlement is much less regular than in the similar landlord-settled community at Mynydd Llandygái, suggesting that the enclosures themselves were carried out by the quarrymen under the agent's eye, rather being directly controlled by the Vaynol estate. A number of the settlements, such as Garnedd, represent unsanctioned squatter encroachment from the eighteenth century. The dwellings for the most part show typical estate influence, with some polite features, and are sufficiently large to suggest that they may be later 19th-century rebuilds of the original dwellings of the 1830s and '40s.
- 4.4.113 The Afon Rhythallt (**Area 50**) is a flat river valley, narrowing and deepening towards the lower end of the area. The river powered a number of small-scale mills from at least the early 19th century onwards. The Dinorwic Railway of 1843 and the London and North Western Railway branch-line from Caernarfon to Llanberis of 1869 pass through the area; the trackbeds survive, along with much of the infrastructure.
- 4.4.114 The Arfon plateau (**Area 36**) is made up of largely improved pasture, most of which was formerly Vaynol land. The pattern of substantial 19th-century farmhouses and outbuildings is typical of the estate. Relict prehistoric settlements (hut groups and small forts) are dotted across the landscape, usually in the corners of fields, and some fields display a curvilinear pattern characteristic of this period.
- 4.4.115 The Cefn Du Enclosures (**Area 17**) is formerly part of the Waun Fawr, where tenants of Treflan had the right to graze their animals. An area of late 18th- and early 19th-century squatter enclosure originating in the development of the slate quarries at Cefn Du and Cilgwyn. An ad-hoc arrangement of largely vernacular dwellings set in small irregular enclosures, sometimes no more than a garden or vegetable plot, is evident at the south-western end, with larger dwellings and more regular patterns predominating towards Llanrug. There are some shops and chapels along the Waunfawr to Llanrug road, and the area also includes the approach road to Guglielmo Marconi's wireless station on the common.
- 4.4.116 The field patterns of the Moel Tryfan lower slopes (**Area 25**) show origins in the late prehistoric period, and there is substantial evidence for settlement and farming of that period. Interestingly, relatively few 'long huts' survive in the area and there is little evidence for medieval activity, and much of the settlement and many of the field walls which characterise the current landscape date from the 19th century.
- 4.4.117 Moel Tryfan enclosures (**Area 20**) is an area of crown common enclosed without legal sanction by quarrymen-cottagers from 1798 onwards, which lay at the centre of the only successful resistance to aristocratic enclosure in 19th-century Gwynedd in the 1820s. The development of the slate industry also led to the construction of a number of industrial roads and railways in the area.
- 4.4.118 Rhostryfan-Rhosgadfan (**Area 22**) comprises two nucleations arising from the dual economy of quarry and tyddy (homestead), established on crown commons from 1798 onwards. These associated settlements are made up of a variety of traditional vernacular and 'industrial-vernacular' dwellings, as well as standard late 19th-century terracing, shops and chapels, with some decorative ironwork, and 20th-century social housing. The ad-hoc nature of these two communities and their development is evident in the topography.

- 4.4.119 Carmel (**Area 24**) comprises a concentration of *tai moel* (landless houses) on the road from the Arfon coastal plain to the commons. The village takes its name from the Calvinistic Methodist chapel established here in 1827. This settlement is made up of a variety of traditional vernacular and 'industrial-vernacular' dwellings, as well as standard late 19th-century terracing, shops and chapels, with some decorative ironwork, and 20th-century social housing. The ad-hoc nature of this community is evident in the topography and in the narrow streets, based on a main street with cross-roads at one end.
- 4.4.120 The floor of Nantlle Valley (**Area 49**) comprises a flat valley floor, much altered and restricted by the extensive dumping of slate waste in the 19th and 20th centuries. The area has traditionally been in the hands of a number of lesser local landowners, and represented the lowland holdings of farms just above the break of slope. The lower part of the area is dominated by the hill-fort of *Caer Engan*.
- 4.4.121 Nebo (**Area 15**) is an enclosed landscape which has evolved a distinctive pattern of vernacular dwellings, often rebuilt or surviving adjacent to, or contiguous with, a substantial late 19th-century farmhouse. There are some short rows of terraced housing. Building material is generally field stones. Several of the dispersed dwellings are second homes, and many have been altered by the addition of porches and conservatories. The area includes one small nucleation, the hamlet of Nebo, centred on, and deriving its name from, a nonconformist chapel. The buildings are here substantially constructed.
- 4.4.122 Lleuar (**Area 34**) is low-lying pastoral area, formerly part of the Lleuar estate, in which the dominant building type is a substantial 19th-century farmhouse. In some cases, there is an older dwelling immediately adjacent, often converted into a store or shed. Field boundaries are variously dry-stone walls or stone-faced banks, in some cases with hedges. There are several 'isolated' relict archaeological sites (hut group settlements and small hillforts) which make an interesting comparison with the higher, marginal areas.
- 4.4.123 Wern (**Area 8**) comprises a country house surrounded by a modest park, of which the part to the west, on rising ground, may date back to the 18th century or earlier. This part contains a wooded hill – the woods probably originally planted in the 18th century – with a derelict 'look-out tower' or folly. There is also a lake. The eastern part of the park is low-lying and marshy but has two circular copses, probably planted in the 19th century, which are sited so as to break up the continuous line of the horizon. To the south-east of the house are the pleasure grounds, which are about half wilderness and shrubbery and half lawns with formal features. The wilderness is to the south and provides a screen for the road and railway; there are paths through it which are now overgrown, and a former drive, the entrance to which has recently been reopened.
- 4.4.124 The Glaslyn estuary (**Area 14**) is a flat area, though there are some outcrops which would have been islands pre-1813. The lanes across the reclaimed areas tend to be long and straight. Farmhouses are largely modern and concrete-built, though the farm-buildings themselves are often of 19th-century build, with walls of rounded local stone. Fields are regular in shape (due to the need for drainage ditches), but boundaries are a surprising mixture of stone walls, earth banks and post-and-wire fences. Both standard- and narrow-gauge railways run through the area.
- 4.4.125 The Morfa Harlech – fieldscape (**Area 30**) is agricultural in nature and is characterised by a regular pattern of fields, defined mainly by cut drainage features (some with hedges alongside) and/or earthen banks. The farmsteads themselves, late 19th or early 20th century in date consist of fairly standard, two-storeyed, two bay, square houses

with two side chimneys. Most of them have associated outbuildings, either tacked on to the rear of the house or around a small yard.

- 4.4.126 Coed Felinrhyd & Moel Tecwyn (**Area 5**) is a large area which contains little in the way of historical character. Its underlying, rocky nature has meant that it was formerly 'waste' and was never improved, and although it contains two upland farms these are 19th-century in date and probably relate to the period when the field walls were erected. The eastern side of the area is covered by 20th-century pine forest, although there is some ancient woodland (Coed Cae-yn-y-coed) on the northern slopes above the Dwyrdd and up into Ceunant Llenyrch. Llyn Tecwyn Uchaf is a 20th-century reservoir in the centre of the area.
- 4.4.127 Wooded valleys around Bryn Bwbach (**Area 22**). The principal historic characteristics are the heavily-wooded hillslopes, with intervening pasture fields. The other defining characteristic are the scattered farms of different periods and styles which comprise the main settlement pattern. In the upper reaches of the area, around the latter farmsteads, the enclosed fields and woods give way to marshy, upland waste. There are virtually no relict archaeological sites here, and just a couple of minor roads and trackways.
- 4.4.128 Coed Caersaeson (**Area 18**) is an area comprises mainly 20th century forestry on top of a rocky outcrop, with a number of 18th-19th century farms to the north. The area lies between two rivers, Afon Tafarn-helyg to east and Afon Prysor to west, and is bounded by Llyn Trawsfynydd to the south. The underlying rocky outcrop of Craig Gyfynys has been planted by sitka spruce and this comprises the largest part of the area. The six farms in the northern part of the area are all recorded on the 1840 tithe map, clustered together in a relatively small area surrounded by a pattern of small, irregular fields with an area of woodland on the edge of what is now Llyn Trawsfynydd. The then-main road to Harlech which led from the predecessor to the A470, passes through the area, more or less along the line of the current road which forms the northern edge of the area.
- 4.4.129 Farming settlements north of Trawsfynydd (**Area 16**) comprises farms and an associated field pattern which are recorded on the tithe map. Given the absence of evidence for earlier settlement (either relict or in the form of late medieval houses), this is a marginal farming landscape of late 18th to early 19th century date. Certainly the regular field pattern around Coed-cae-du (a listed building dating from the 16th century) suggests a relatively late date, and the fields could have been laid out alongside the original 18th- to 19th-century post road which came up from Tan-y-Bwlch and ran to the west of the farm (it is still visible in part) and was presumably re-routed when the lake was constructed. The modern A470 follows the latter line.
- 4.4.130 Trawsfynydd power station and lake (**Area 5**). Most of this area comprises an artificial lake built in connection with two power stations in the 20th century. There are several dams associated with the lake, and two power stations – Trawsfynydd nuclear power station on the northern shore and Maentwrog hydroelectric power station outside the project area to the north, on the banks of the Dwyrdd. The nuclear station has now been decommissioned, and the site is being heavily promoted as a leisure and tourist attraction, principally for fishing and boating.

Registered Historic Landscapes

- 4.4.131 The Wider Works site is in a number of registered historic landscapes (see **Table 4.2**).

Table 4.2 – Gwynedd Registered Historic Landscapes

Reg. number	Historic landscape name
HLW(Gw)6	Dinorwig
HLW(Gw)9	Nantlle Valley
HLW(Gw)7	Aberglaslyn
HLW(Gw)2	Ardudwy
HLW(Gw)11	Trawsfynydd Basin and Cwm Prysor

4.4.132 The valley of **Dinorwig (HLW(Gw)6)** or Nant Peris, is on the north-west side of the Snowdonian massif. The valley has been heavily glaciated with its craggy edges rising steeply on both sides. The summit of Yr Wyddfa, the highest peak in Wales at 1085 m above ordnance datum (OD) , towers above the valley and defines the southern extent of this area. The valley, with its twin lakes Padarn and Peris, opens north westwards onto the gently undulating Arfonian plateau at about 100 m above OD. The area has retained considerable evidence for late prehistoric land use and settlement, and for medieval land holdings, but superimposed over these earlier patterns, and dominating the present landscape, are the extensive remains of 19th and 20th centuries slate quarries, their associated settlements and transport infrastructure. These developments were linked to, the Vaynol Estate. The evidence for late prehistoric landscape organisation is not as well-preserved as in other areas because of later agricultural improvements. However, it is often possible to trace the former extents of destroyed settlements and field systems where surviving fragments have been incorporated into later features. In 1809, the Vaynol Estate developed the Dinorwig quarries of Nant Peris. The quarries and their attendant settlements have left an indelible mark on this landscape. The main complex of workings on either side of the Peris valley is dominated by the Dinorwig quarries on the north side, with their massive waste tips and stepped working floors. There is a wealth of industrial archaeological remains at the Vivian quarry and at the Dinorwig quarry workshop complex. The patchwork of quarrymen's tyddynod or smallholdings can also be seen on former common land on the surrounding slopes, while the settlements of Llanberis, Dinorwig, Deiniolen, Cwm-y-glo Llanrug, Bethel and Port Dinorwig owe their development and present character to the industry.

4.4.133 The **Nantlle Valley (HLW(Gw)9)** a typical U-shaped, glaciated valley with steeply rising sides above a flat floor about 100 m above OD. On either side there are hanging tributary valleys, and the area extends to the watershed summits above these. The area contains extensive and well-preserved remains associated with the industrial extraction of slate. The most widespread evidence for early occupation is to be found in an extensive range of late prehistoric, relict settlements and fields on the south facing slopes of the valley around Caeronwy. The entrance to the valley is guarded by a small Iron Age fort known as Caer Engan, sited on a natural knoll next to the River Llyfni. Little is known however, of the early occupation of the valley floor, although much may have been buried by the later slate workings and tips. The scale of working was smaller, and surviving features are more widespread, due partly to the fact that several landowners (by contrast to the large Vaynol Estate) were involved. The smaller scale of many of the enterprises in this district, and perhaps differing land tenure arrangements, produced a distinctive landscape of dispersedcrofting settlements on the slopes above the valley. As the demand for slate reached a peak in the mid-19th century, a spread of

new settlements grew up associated with the quarries, with Biblical names such as Carmel (Fron), Cesaraea, Nebo, Nasareth, although some of these fall outside the area described here. For the most part, these settlements were unplanned, usually just rows of houses strung along a road.

4.4.134

Aberglaslyn (HLW(Gw)7) comprises Traeth Mawr, or the former tidal estuary at the mouth of the River Glaslyn which flows south from Eryri into Tremadog Bay. The area represents probably one of the most ambitious 19th-century land reclamation schemes, certainly in Wales, if not in Britain. The area includes all the reclaimed land up to the base of the cliffs or slopes surrounding the former estuary as far as Aberglaslyn, the planned town of Tremadog, and Porthmadog Harbour. The creation of Tremadog represents the fulfilment of the dreams of William Madocks, MP for Boston in Lincolnshire, who had a vision of improving this part of south Caernarfonshire. His scheme also included land reclamation, road building and the introduction of rural industry, as well as securing the means by which the Ffestiniog slate quarries could expand with the provision of harbour works at Porthmadog. All these features survive in the present landscape. Early in 1808, work began on the Great Embankment or, as it is now known, the Porthmadog Cob. The diversion of the River Glaslyn led to the scouring out of a new harbour alongside the rocky Ynys Tywyn, and a harbour licence was obtained in 1821 which initiated the development of Porthmadog. A narrow-gauge tramway (the present Ffestiniog Railway) was built across the Cob connecting the harbour with the Ffestiniog quarries in 1836.

4.4.135

Ardudwy (HLW(Gw)2) has an exceptional wealth of relict archaeological remains, from the prehistoric period to the recent past. Concentrations of Bronze Age ritual and funerary monuments occur in a number of places, but principally along, or near to, ancient trackways which straddle the area from the coast over the mountains to the east. The area has several, generally small examples of Iron Age hillforts evenly distributed on the higher slopes and spurs throughout the district. These forts are often nodal points in extensive relict systems of huts, fields and enclosures surviving on the surrounding slopes. On the higher slopes, isolated clusters of huts with smaller paddocks or enclosures occur in frequent numbers. A similarly extensive pattern is evident in the medieval period with groups of rectangular buildings scattered among, often quite large and extensive, field systems on the lower slopes, and dispersed clusters of slighter structures and smaller paddocks on the higher slopes. Their remains are often superimposed upon, or incorporated into, some of the earlier, late prehistoric patterns. The process of estate expansion in the post-medieval period saw the illegal enclosure of common land, and several of the stonewalled fields and settlements at middle and higher elevations in the area belong to this period. At the same time, many of the older sites which had been temporary summer settlements, or *hafotai*, in a long-established system of seasonal transhumance between lowland and upland, became permanent settlements. The enclosure of the Ardudwy landscape culminated in a final district-wide period of enclosure initiated in the 19th century by landowners with Parliamentary Enclosure Acts. The higher slopes and summits are criss-crossed with high stone (ffridd) walls. As larger areas of the district became permanently enclosed, sheep farming increased to supply the expanding woollen industry.

4.4.136

Trawsfynydd Basin and Cwm Prysor (HLW(Gw)11). The Trawsfynydd Basin forms a distinctive topographical unit to the south of Eryri, between the Rhinog Mountains and the western foothills of the Arenig. This characteristically upland and remote area of Wales, apart from being a historic route corridor, contains well preserved evidence of military control and activities, from the Roman period onwards, as well as a small range of late prehistoric, medieval and later settlement. However, since 1960, the reactor building of the Trawsfynydd nuclear power station has dominated the prospects of the

basin floor from all directions. The complex around Tomen-y-mur is unparalleled in Wales and includes the fort itself, fragments of a bath house, an amphitheatre, a parade ground which is overlooked by a mound thought to be the tribunal, a vicus or civilian settlement, a bridge, a road, leats, barrows and so on, in an almost undisturbed setting. The Normans built an earthen motte in the Roman fort, probably because its location was still militarily and strategically central in relation to Gwynedd and therefore an easy base from which to mount attacks, with a surviving network of Roman roads coming in from the north, east and south. Trawsfynydd itself is a characteristic slate quarrying village of more recent origin, which developed in the last century when most of the men worked in the quarries at Blaenau Ffestiniog. However, close to the Roman remains at Tomen-y-mur are the remains of Braich Ddu slate quarry, a shallow, dispersed working that produced slate. It closed in 1868, but some significant features remain, including the rough slab causeway with an interesting bridge. The Maentwrog hydro-electric power station was built near Trawsfynydd in 1928, which led to the creation of an artificial lake here, and in the 1960s the nuclear power station was added and the lake extended. The latter building was designed by the architect Sir Basil Spence and the immediately surrounding area landscaped by Sylvia Crowe.

5. Assessment of Baseline

5.1 Previous Ground Disturbance

- 5.1.1 Historic cartographic evidence dating from the mid-19th to mid-20th centuries illustrates that the Wider Works component (works to the existing 4ZC overhead line) of the project would occupy rural areas, largely comprising pastoral farmland of mixed quality, woodlands and rough mountainous terrain. Historic settlement in the immediate area of the Wider Works site comprises mostly dispersed farmhouses and farmsteads, with the occasional nucleated settlement in the form of hamlets and small villages. No borehole data is available for the Wider Works site. The original installation of foundation pads for the towers along the 4ZC overhead line would have disturbed the topsoil and subsoil deposits and a high level of ground disturbance is assessed for the footprint and immediate environs of the towers. Although the tower sites have been subject to previous ground disturbance, areas outside of the immediate environs may not have been disturbed. There are no known historic development impacts on topsoil and subsurface deposits. Outside of the tower sites a **low** level of ground disturbance is assessed.

5.2 Archaeological Potential

Palaeolithic to Mesolithic

- 5.2.1 There are no known assets of a Palaeolithic or Mesolithic date recorded in the Wider Works site. There is no indication that this activity extends to in the Wider Works site or elsewhere in the 500 m study area, and as such, the potential for encountering remains of this period is considered **negligible**.

Neolithic to Bronze Age

- 5.2.1 There are no known assets of a Neolithic date recorded in the Wider Works site though designated and non-designated historic assets of Neolithic date are known in the 500 m study area (see paragraphs 4.4.3 to 4.4.7).
- 5.2.2 Two non-designated historic assets of prehistoric date are in the Wider Works site which may be of Bronze Age date – an enclosed hut group (**PRN 1386**) is at Bryn Brith near Carmel and a field system can be found at Caerau (**PRN 3319**).
- 5.2.3 Eight isolated findspots are in the Wider Works site which are indicative of Bronze Age or possible Bronze Age activity. These comprise an axe head at Garndolbenmaen (**PRN 98753**), a bronze lunula at Ty'r Dewin (**PRN 3331**), a bronze axe and palstave at Llanrug (**PRN 3705**), a bronze flat axe head also at Llanrug (**PRN 81553**), pottery at Penllystyn near Bryncir (**PRN 2809**), a knife-dagger at Penyglannau (**PRN 4348**), a cinery urn at Pen-y-Glannau near Tomen y Mur (**PRN 93615**) and ten burial urns on Llystyn Farm, Dolbenmaen (**PRN 2803**).
- 5.2.4 Outside the Wider Works site, both designated and non-designated historic assets of Bronze Age and possible Bronze Age date have also been identified in the 500 m study area (see paragraphs 4.4.11 to 4.4.27).

- 5.2.5 Given that sites of Neolithic and Bronze Age date are recorded in the Wider Works site and the 500 m study area, the potential for unknown remains from this period in the Wider Works site would be considered **medium** in any areas of ground that have not been previously disturbed.

Iron Age

- 5.2.6 There are three designated historic assets of Iron Age date in the Wider Works site – the Caerau Ancient Village (**CN067**), Caer Engan hillfort (**CN148**), and a hut-circle settlement near Tan-y-Coed Pont Rhythallt (**CN232**). It is considered that there is a **high** potential to encounter previously unrecorded Iron Age remains in these areas of the Wider Works site.
- 5.2.7 Elsewhere along the Wider Works site, the potential for unknown remains from the Iron Age would be considered **medium** in any areas of ground that have not been previously disturbed as both designated and non-designated historic assets of Iron Age and possible Iron Age date have also been identified in the 500 m study area (see paragraphs 4.4.32 to 4.4.49).

Roman

- 5.2.8 As mentioned above in paragraph 4.4.31, a hut circle settlement near Tan-y-Coed Pont Thythallt (**CN232**) probably dates to the Iron Age or Romano-British period and is in the Wider Works site. It is considered that there is a **high** potential to encounter previously unrecorded Roman-British remains in this area of the Wider Works site.
- 5.2.9 Designated and non-designated historic assets of Roman date and possible Roman date have also been identified in the 500 m study area (see paragraphs 4.4.53 to 4.4.67). The potential for unknown remains from this period elsewhere in the Wider Works site would therefore be considered **medium** in any areas of ground that have not been previously disturbed.

Early Medieval

- 5.2.10 There are no known assets of early medieval date recorded in the Wider Works site. While there are a small number of non-designated historic assets in the 500 m study area (see paragraphs 4.4.72 to 4.4.75), there is no indication that this activity extends to in the Wider Works site, and as such, the potential for encountering remains of this period is considered **low**.

Medieval

- 5.2.11 As mentioned above in paragraph 4.4.78, one site of medieval date is in the Wider Works site – the long hut at Cae Forgan (**PRN 6734**). While there are a small number of non-designated historic assets in the 500 m study area (see paragraphs 4.4.79 to 4.4.82), there is no indication that this activity extends to in the Wider Works site, and as such, the potential for encountering remains of this period is considered **low**.

Post-Medieval

- 5.2.12 As mentioned in paragraph 4.4.86, one of the elements which comprises Component Part 3 (Nantlle Valley Slate Quarry Landscape) of the Slate Landscape of Northwest Wales World Heritage (**UNESCO 1633**) are the settlements on Cilgwyn Mountain

(element 3.11) which are in the 500 m study area, approximately 50 m east of the Wider Works site. These settlements were created in the early 19th century and were largely abandoned in the 1930. (Ref 2.11).

- 5.2.13 As mentioned in paragraphs 4.4.89 to 4.4.93, 16 non-designated historic assets of post-medieval date have been identified in the Wider Works site, mostly associated with the farming and slate quarrying industries that dominated this area of North West Wales.
- 5.2.14 Post-medieval farm activity is reflected with the presence of a farm building at Cefn-faes (**PRN 820021**) and farmsteads at Llenyrch (**PRN 93466**), Llecheiddior-ganol near Dolbenmaen (**PRN 101473**) and Llecheiddior-uchaf also near Dolbenmaen (**PRN 101474**). A tank, east of Gwern-ddwryd (**PRN 25574**), is associated with a nearby farm.
- 5.2.15 Animal husbandry was a core activity with sheepfolds south-east of Gwern-ddwryd (**PRN 25571**), south-west of Bryn-hyfyd (**PRN 25748**) and east of Caersaeson (**PRN 28573**), and an enclosure north-west of Trawsfynydd Power Station (**PRN 57332**).
- 5.2.16 Railways were a feature of the area in the 19th and early 20th centuries with a railway cutting, north-west of Tan-yr-allt (**PRN 56997**) and a railway embankment, north-west of Tan-yr-allt (**PRN 56996**), but roads were also improved in this period as evidenced with a bridge west of Hafod Rhug Isaf (**PRN 96024**).
- 5.2.17 A disused slate quarry is recorded at Ymlych (**PRN 20203**).
- 5.2.18 An additional 334 non-designated historic assets of post-medieval date have been identified in the 500 m study area.
- 5.2.19 The potential for unknown remains from this period in the Wider Works site would be considered **medium** in any areas of ground that have not been previously disturbed.

Modern

- 5.2.20 Two non-designated historic assets of post-medieval date have been identified in the Wider Works site. There is a footbridge, south-west of Chwiban y Gwynt (**PRN 96080**); and the site of a World War I prisoner of war camp near Bryncir (**PRN 7878**).
- 5.2.21 24 additional non-designated historic assets of modern date have been identified in the 500 m study area. These include a domestic building at Bryn Seriol near Llanrug (**PRN 33340**), a mill at Melin Bryn-y-Gro, south of Llanllyfni (**PRN 37994**), a memorial hall at Penmorfa (**PRN 71533**), memorials at St Rhedyw's Church in Llanllyfni (**PRN 71665**), Penygroes County School (**PRN 71421**), Bethel Chapel (**PRN 71534**), and Rhosgadfan (**PRN 58679**), tree plantations at Wern (**PRN 68485 & 68486**), former golf course features associated with the Criccieth Golf Course (**PRN 36567, 36568 & 36569**) and trackways at Bryn Neuadd Farm (**PRN 62711 & 62714**) and at Llwyn Mafon Isaf (**PRN 62713**). The potential for unknown remains from this period in the Wider Works site would be considered **medium** in any areas of ground that have not been previously disturbed.

Summary of Archaeological Potential and Significance of Archaeological Remains

- 5.2.22 In the preceding section, the assessment of archaeological potential identified a high potential for archaeological remains dating to the Iron Age to be uncovered in the Wider Works site at Caerau Ancient Village (**CN067**), Caer Engan hillfort (**CN148**); and both

Iron Age and Romano-British remains at a hut-circle settlement near Tan-y-Coed Pont Rhythallt (**CN232**).

- 5.2.23 Elsewhere along the Wider Works site, there is also a medium potential for archaeological remains dating to the Neolithic, Bronze Age, Iron Age, Roman period, post-medieval and modern periods.
- 5.2.24 For the early and medieval periods, there is a low potential to encounter archaeological remains.
- 5.2.25 For the Palaeolithic and Mesolithic periods, there is a negligible potential to encounter archaeological remains.
- 5.2.26 The significance of potential unrecorded archaeological remains would derive from their archaeological and historical interest and their potential to contribute to our understanding of past human activity based on national, regional, or local frameworks. Isolated artefactual material or truncated/disturbed remains is of low value, whilst well preserved and in situ evidence for occupation/settlement remains could be of medium or even high value.
- 5.2.27 Evidence of Iron Age archaeological remains is likely to consist of further settlement remains such as pits, ditches, buildings, and hearths. Any such remains would likely be of **medium to high value** as they could be of interest at a regional and even potentially national level if considered to be associated with the Iron Age scheduled monument sites.

5.3 Historic Landscape Sensitivity to Change

- 5.3.1 The importance and significance of historic landscape character is assessed in terms of sensitivity to change. Those with a high sensitivity to change should be accommodated and preserved where possible in new developments or should be subject to well managed changes. Historic landscapes with a lower sensitivity to change can be potentially enhanced by new developments and can absorb most types and scales of essential, well-managed change.
- 5.3.2 The Wider Works site is in a post-medieval landscape comprising extant agricultural fields and woodland. Due to the modern industrial nature of the 4ZC overhead line on the Wider Works site, there is no connection between the site and the post-medieval agricultural landscape in which it is situated.
- 5.3.3 Post-medieval field systems are common throughout Gwynedd and Wales, reducing its sensitivity.
- 5.3.4 The historic landscape character of the Wider Works site is therefore assessed as being of **low value** and the sensitivity to change is assessed as **low**.
- 5.3.5 The proposed works would not alter the ability to appreciate the historic landscape of the Wider Works site, as following the installation of fibre optic cable along the existing earth wire of the 4ZC overhead line between Towers 4ZC070 and 4ZC140, and replacing existing 132 kV conductors with 400 kV conductors between Towers 4ZC044 and 4ZC070, and between Towers 4ZC005 and 4ZC027, as well as replacing the earth wire with OPGW.

5.4 Assets scoped out of ES Assessment

- 5.4.1 The assessment of significance and setting outlined in the previous section allows for consideration of the potential for the proposed works to result in effects to designated and non-designated historic assets through change to their settings and/or physical impacts. It also allows for the identification of assets where there is no potential for the proposed works to result in such effects. Such assets can now be scoped out of further assessment. **Table 5-1** provides a summary of these assets which are scoped out of further assessment because the proposed works would not result in physical or additional setting impacts.

Table 5.1 – Assets Scoped out of Further Assessment

Reference	Designation and grade	Name
UNESCO 1633	World Heritage Site	The Slate Landscape of Northwest Wales – Component Part 3: Nantlle Valley Slate Landscape
CN205	Scheduled Monument	Hafoty Ty-Newydd Enclosed Hut Group
CN277	Scheduled Monument	Hut Circle Settlement and Field System South-East of Erw
CN266	Scheduled Monument	Hut Circle South of Cae'r Sais
CN267	Scheduled Monument	Enclosed Hut Circle Settlement in Coed Glan-yr-Afon
CN238	Scheduled Monument	Hut Group near Pen Llwyn, Carmel
CN262	Scheduled Monument	Enclosed Hut Circle North-West of Tan Rhiw
CN058	Scheduled Monument	Caer Carreg y Fran
CN029	Scheduled Monument	Ystum-Cegid Burial Chamber
CN088	Scheduled Monument	Early Habitation Site 180m West of Pen-Yr-Allt
CN050	Scheduled Monument	Pen-Isa'r-Waen Camp
CN080	Scheduled Monument	Ancient Village 270m West of Bod Angharad
CN151	Scheduled Monument	Hafotty Wern Las Hut Group & Fields
CN149	Scheduled Monument	Pen-y-Gaer Camp
CN390	Scheduled Monument	Carreg Lefain Cairn
CN206	Scheduled Monument	Cae'r Odyn Unenclosed Hut
ME163	Scheduled Monument	Enclosed Hut Group at Nurse Cae Du
Cadw 3688	Grade II* listed building	Plas Glan-yr-Afon
Cadw 3799	Grade II* listed building	Church of St Rhedyw

Reference	Designation and grade	Name
Cadw 3804	Grade II* listed building	Bryn Bas Castle
Cadw 4623	Grade II* listed building	Church of St Beuno
Cadw 4626	Grade II* listed building	Wern Manor
Cadw 3686	Grade II listed building	Pant Du
Cadw 4285	Grade II listed building	Lychgate at the Church of St Beuno
Cadw 4286	Grade II listed building	Bryn-y-wern
Cadw 4627	Grade II listed building	Courtyard Ranges to the W of Wern Manor, including Stables, Coachhouse and Tower
Cadw 15376	Grade II listed building	Braich y Saint
Cadw 15377	Grade II listed building	Braich y Saint
Cadw 15378	Grade II listed building	Former Threshing Barn at Braich y Saint
Cadw 19784	Grade II listed building	Cae'r-maen
Cadw 21523	Grade II listed building	Cefn-y-meysydd isaf
Cadw 21532	Grade II listed building	Chest Tomb in churchyard of the Church of St Beuno
Cadw 21543	Grade II listed building	Pont y Felin
Cadw 21554	Grade II listed building	Front Terrace, Balustrade and Steps at Wern Manor
Cadw 21557	Grade II listed building	Tyn-Ilan
Cadw 21569	Grade II listed building	Ornamental Garden Pool at Wern Manor
Cadw 21640	Grade II listed building	Former Post Office & Nos 1-3 Maes Gerddi
Cadw 21801	Grade II listed building	Tyddyn y Gwydd
Cadw 21808	Grade II listed building	Pen-y-braich
Cadw 21810	Grade II listed building	Rhosgadfan House
Cadw 21815	Grade II listed building	Erw
Cadw 21816	Grade II listed building	Farmbuildings at Erw
Cadw 21817	Grade II listed building	Bodgarad
Cadw 21818	Grade II listed building	Tegfan and adjoining cottage to right
Cadw 21820	Grade II listed building	Hay Barn at Bodgarad
Cadw 21821	Grade II listed building	Pigsties at Bodgarad
Cadw 21822	Grade II listed building	Cowhouse at Bodgarad

Reference	Designation and grade	Name
Cadw 21823	Grade II listed building	Calf-rearing House/Cowhouse at Bodgarad
Cadw 21824	Grade II listed building	Gorphwysfa
Cadw 22046	Grade II listed building	Milestone
Cadw 22244	Grade II listed building	Capel Tan-y-coed
Cadw 22245	Grade II listed building	Sunday School/Vestry at Capel Tan-y-coed
Cadw 22251	Grade II listed building	Hafod-rhug-isaf
Cadw 22259	Grade II listed building	Gladiator statue (north) at Bryn Bras Castle
Cadw 22648	Grade II listed building	Former Railway Carriage Shed
Cadw 23661	Grade II listed building	70 Ffordd Rhedyw (Rhedyw Road), Llanllyfni, Caernarfon
Cadw 23662	Grade II listed building	Former Cowhouse to Dol-wenith
Cadw 23665	Grade II listed building	Dol-wenith
Cadw 23667	Grade II listed building	Maes Mawr
Cadw 23691	Grade II listed building	Eisteddfa-isaf
Cadw 23694	Grade II listed building	Parc
Cadw 23697	Grade II listed building	Turnpike
Cadw 23710	Grade II listed building	Milestone
Cadw 23711	Grade II listed building	Milestone
Cadw 23718	Grade II listed building	Disused cottage to south-west of Llwyndu Canol
Cadw 23723	Grade II listed building	Barn at disused cottage to south-west of Llwyndu Canol
Cadw 23726	Grade II listed building	Tan-y-Ffordd
Cadw 83457	Grade II listed building	Milepost to North of Llandecwyn
Cadw 83991	Grade II listed building	Cartshed at Creigiau Duon
Cadw 83995	Grade II listed building	Creigiau Duon
Cadw 87757	Grade II listed building	Llennyrch Farm
Cadw 87758	Grade II listed building	Barn and Cart Shed at Llennyrch Farm
PGW(Gd)41(GWY)	Grade II registered historic park and garden	Bryn Bas Castle

Reference	Designation and grade	Name
PGW(Gd)64(GWY)	Grade II registered historic park and garden	Former Nuclear Power Station at Trawsfynydd: Dragon Square and Dame Sylvia Crowe Garden
HLW(Gw)6	Registered Historic Landscape	Dinorwig
HLW(Gw)9	Registered Historic Landscape	Nantlle Valley
HLW(Gw)7	Registered Historic Landscape	Aberglaslyn
HLW(Gw)2	Registered Historic Landscape	Ardudwy
HLW(Gw)11	Registered Historic Landscape	Trawsfynydd Basin and Cwm Prysor
Historic Landscape Character Areas – see paragraphs 4.4.112 to 4.4.131 & Table 4.1	N/A	See paragraphs 4.4.112 to 4.4.131 & Table 4.1

- 5.4.2 The remaining assets discussed in the Assessment of the Baseline that are not listed above are those where the assessment has identified the potential for the proposed works to result in impacts to the assets, either through physical impacts or through change to their setting. These assets will be taken forward for assessment in ES **Volume 6, Chapter 5: Likely Significant Effects.**

6. Conclusion

- 6.1.1 The assessment outlined in this report considers the historic environment baseline to determine the potential for the proposed works to affect the assets. It also allows for the identification of assets which will not be impacted. Only the assets that this assessment has identified are considered in the ES. The historic assets potentially impacted are set out in **Table 6.1** below and are therefore scoped into further assessment in **ES Volume 6, Chapter 5: Likely Significant Effects**.

Table 6.1 – Assets scoped into further assessment in the Wider Works site

Reference	Designation and grade	Name
CN232	Scheduled Monument	Hut Group Near Tan-y-Coed Pont Rhythallt
CN067	Scheduled Monument	Caerau Ancient Village
CN148	Scheduled Monument	Caer Engan
PRN 17824	Non-designated asset	Part of Roman road, Segontium - Bryn-y-gefeiliau
PRN 17822	Non-designated asset	Part of Roman Road, Segontium to Pen Llystyn to Tomen y Mur
PRN 36434	Non-designated asset	Part of a Roman road
PRN 741	Non-designated asset	Hut Group, SW of Penyffridd, Rhosgadfan
PRN 742	Non-designated asset	Hut Group, SW of Penyffridd, Rhosgadfan
PRN 33995	Non-designated asset	Stone Gateposts, E of Bodychain Isaf
PRN 3319	Non-designated asset	Field System, Caerau
PRN 789	Non-designated asset	Roman Fort (Possible), North of Derwin Bach
PRN 7878	Non-designated asset	POW Camp Site of, Bryncir
PRN 62168	Non-designated asset	Route of old road, Garn Dolbenmaen
PRN 25574	Non-designated asset	Tank, East of Gwern-ddwryd
PRN 1814	Non-designated asset	Building and Paddock, Cefn Faes
PRN 90398	Non-designated asset	Sheepfold, South of Gwylan, Trawsfynydd

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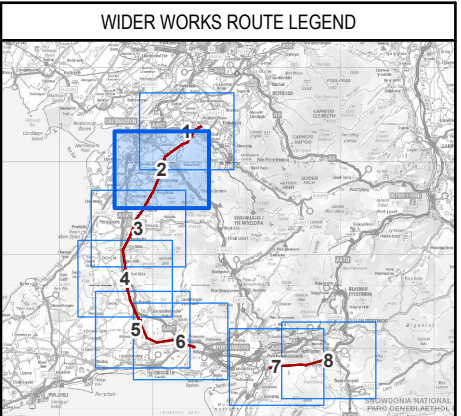
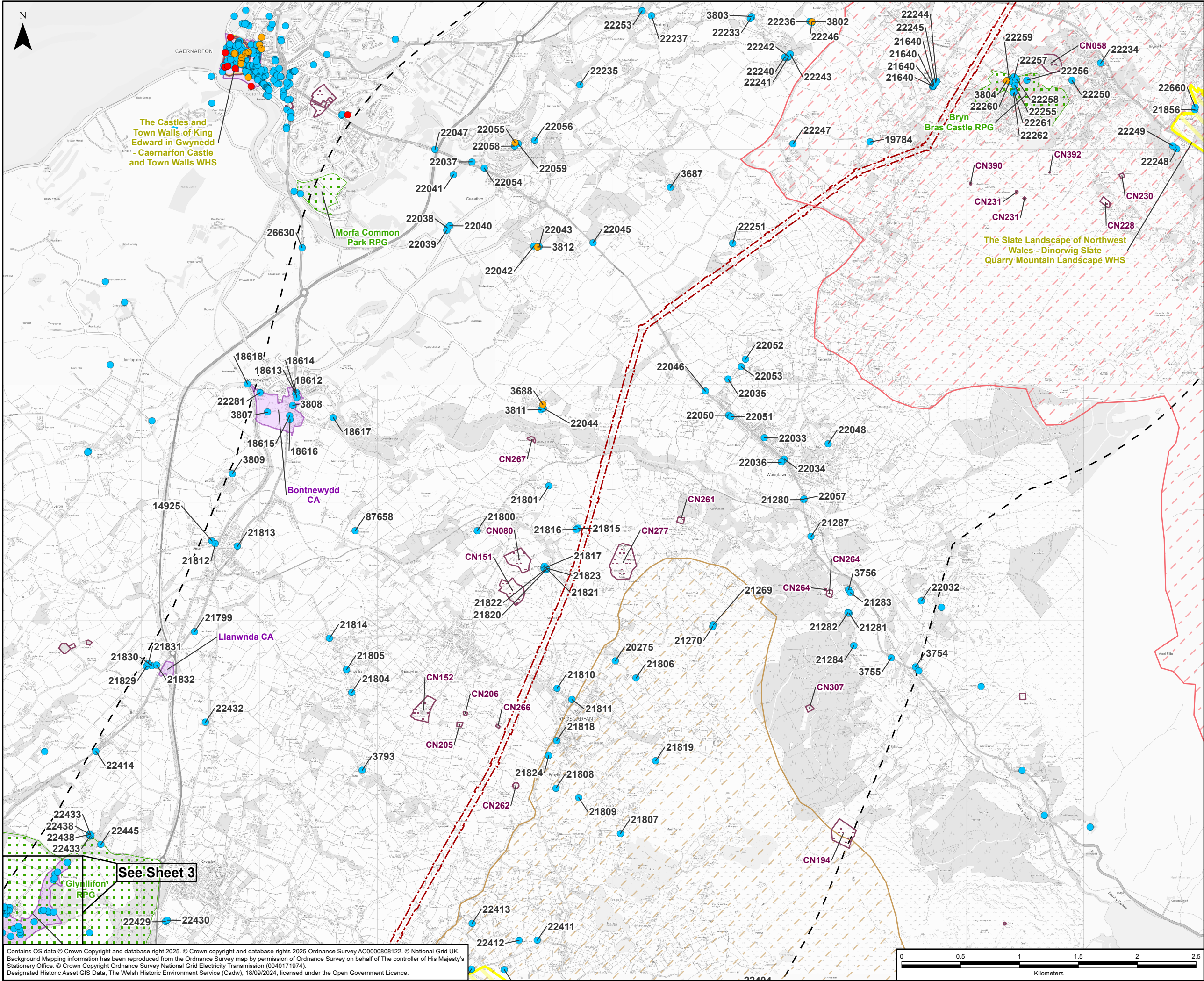
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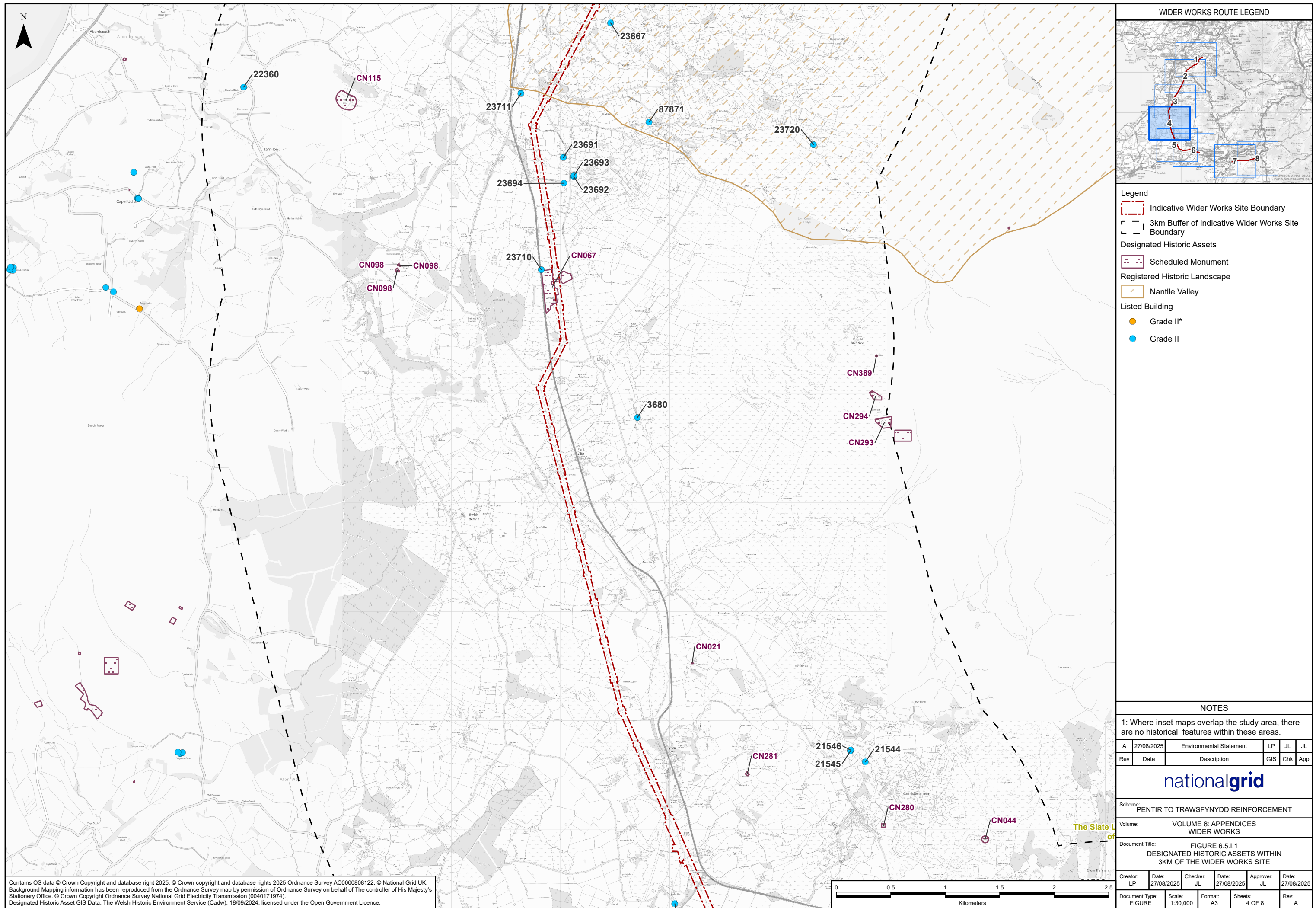
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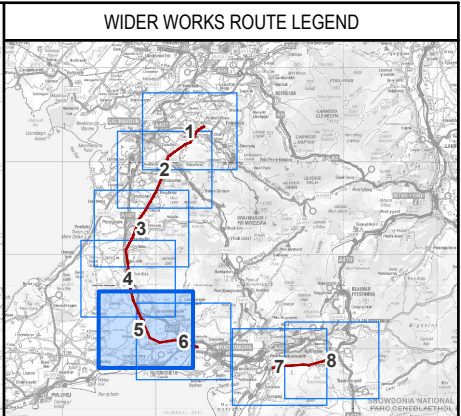
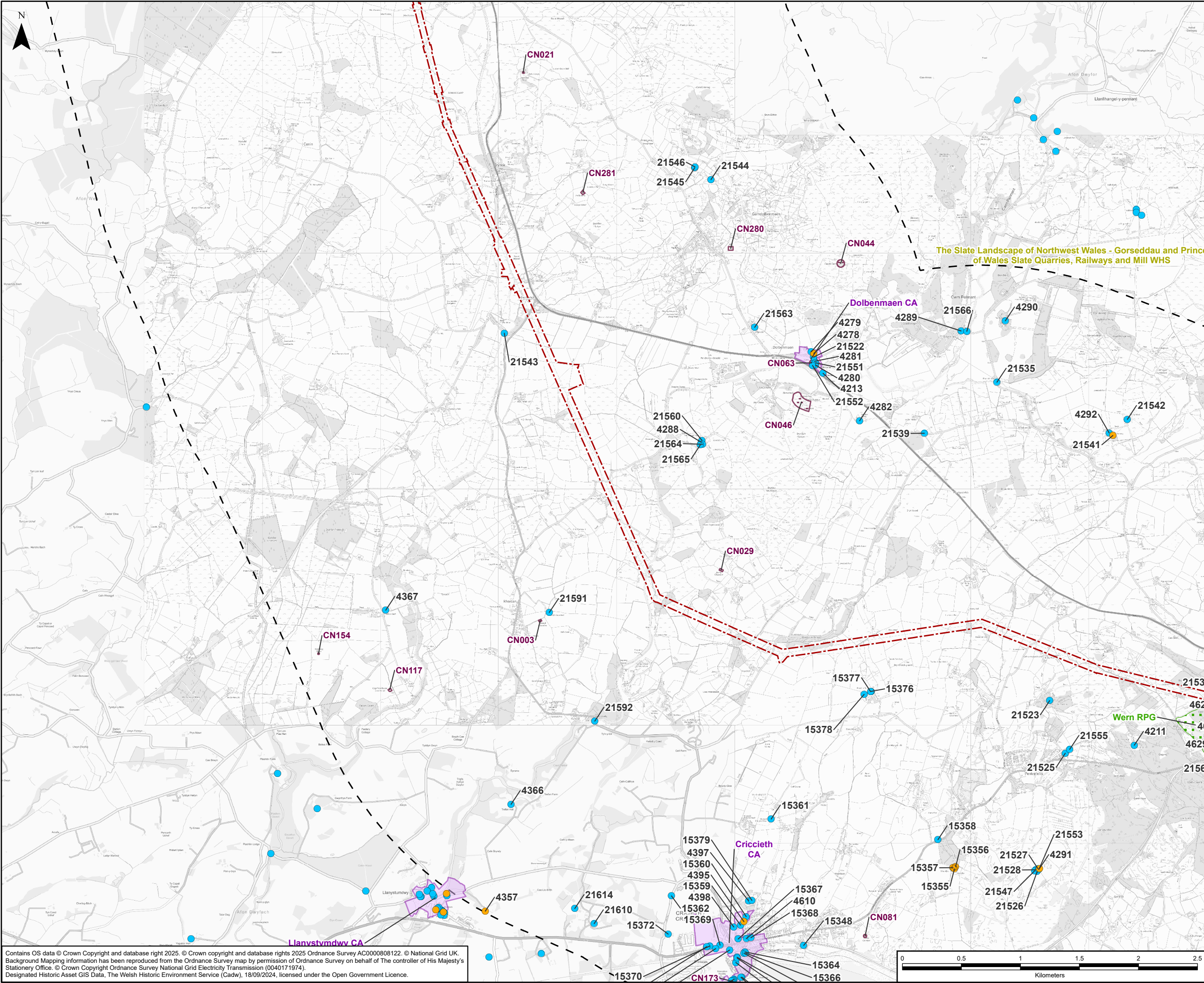


- Legend
- Indicative Wider Works Site Boundary
 - 3km Buffer of Indicative Wider Works Site Boundary
 - Designated Historic Assets
 - World Heritage Site (WHS)
 - Scheduled Monument
 - Registered Park and Garden (RPG)
 - Conservation Area (CA)
 - Registered Historic Landscape
 - Dinorwig
 - Nantlle Valley
 - Listed Building
 - Grade I
 - Grade II*
 - Grade II

NOTES					
1: Where inset maps overlap the study area, there are no historical features within these areas.					
A	27/08/2025	Environmental Statement	LP	JL	JL
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.1 DESIGNATED HISTORIC ASSETS WITHIN 3KM OF THE WIDER WORKS SITE					
Creator: LP	Date: 27/08/2025	Checker: JL	Date: 27/08/2025	Approver: JL	Date: 27/08/2025
Document Type: FIGURE	Scale: 1:30,000	Format: A3	Sheets: 2 OF 8	Rev: A	

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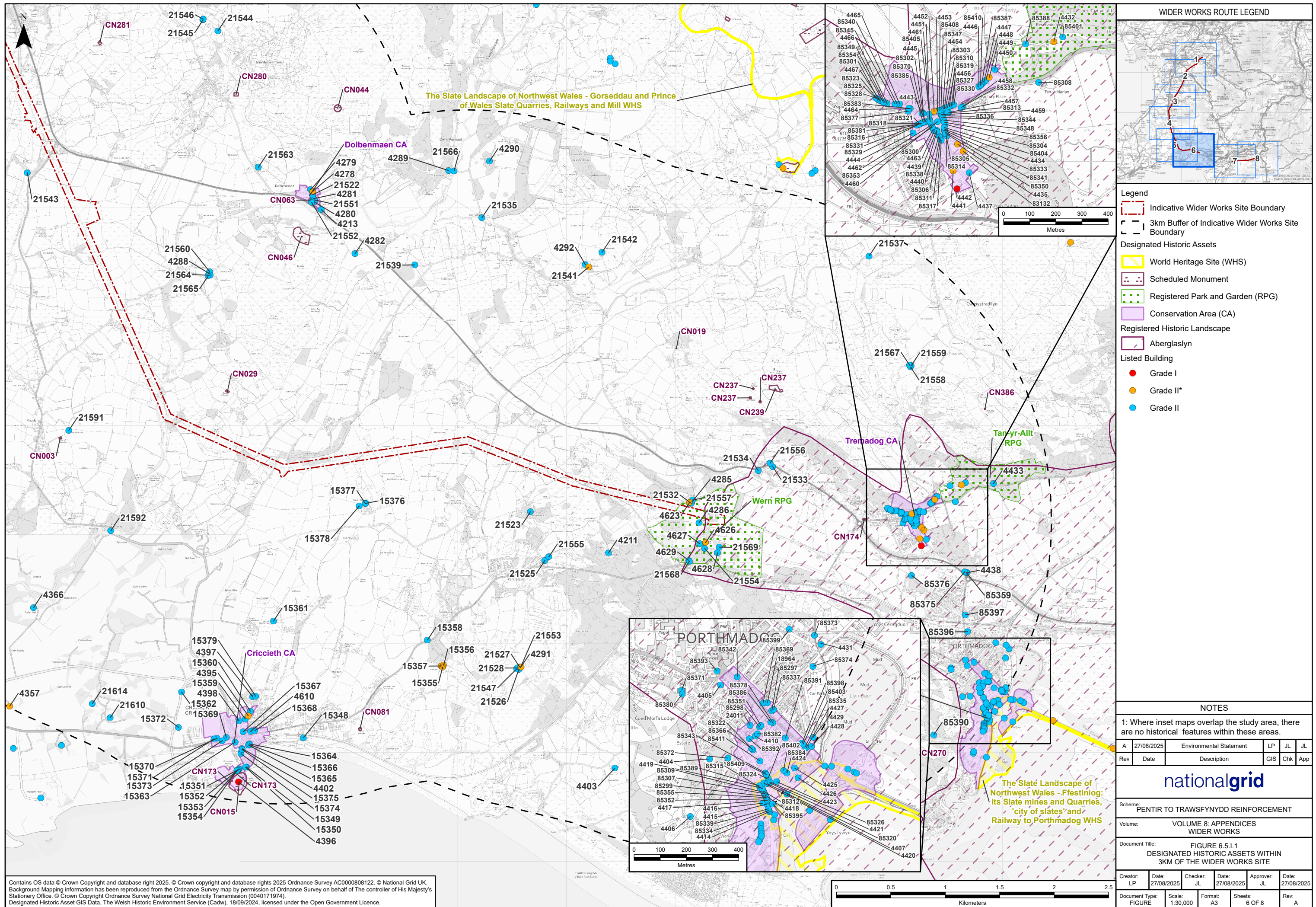


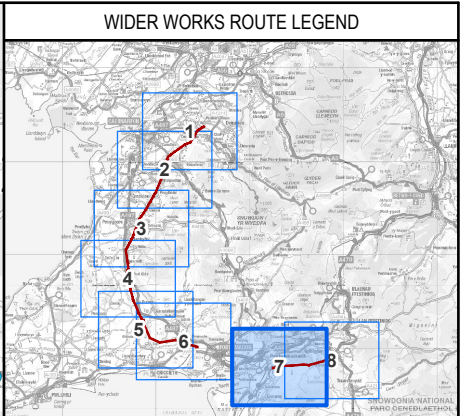
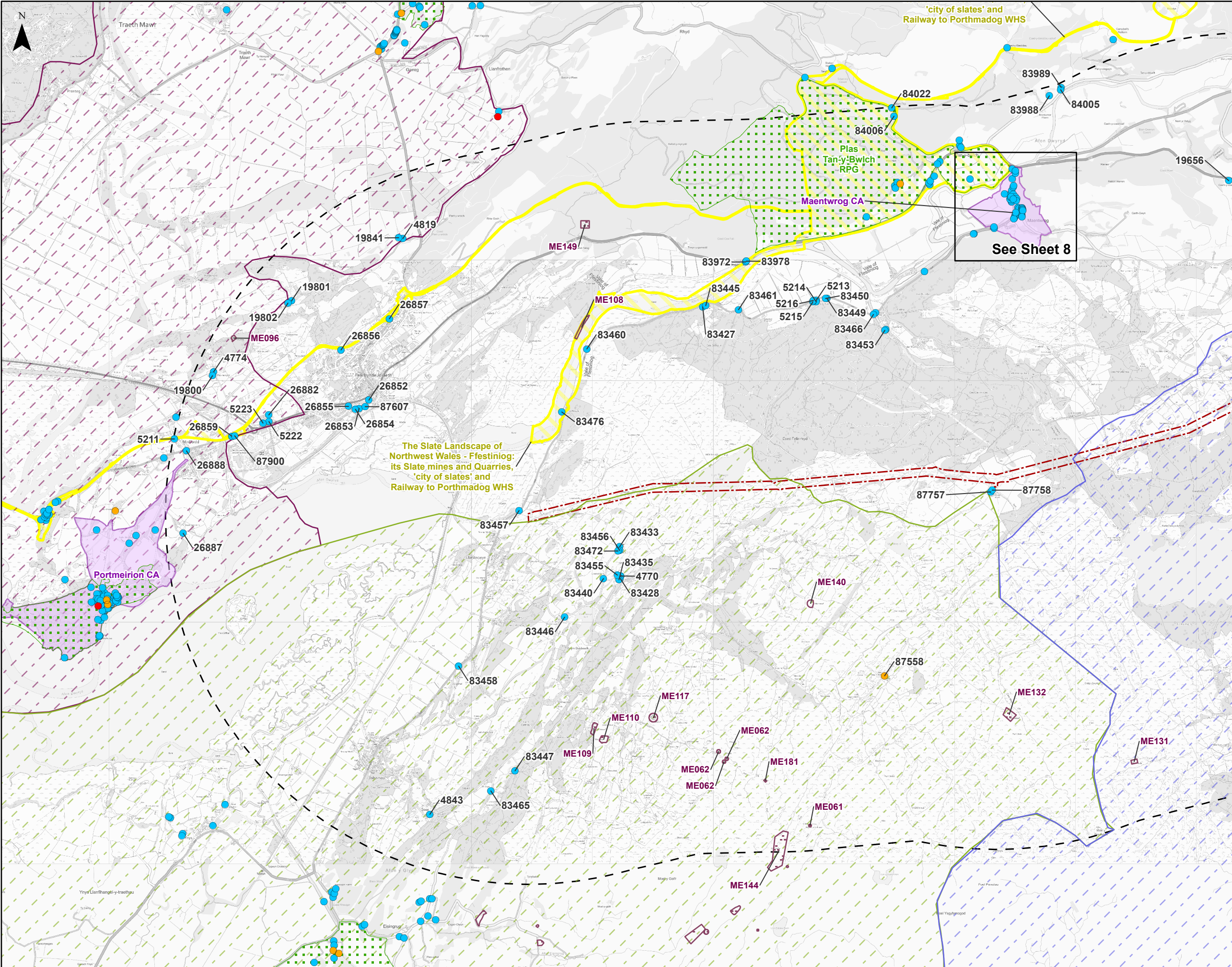
Legend

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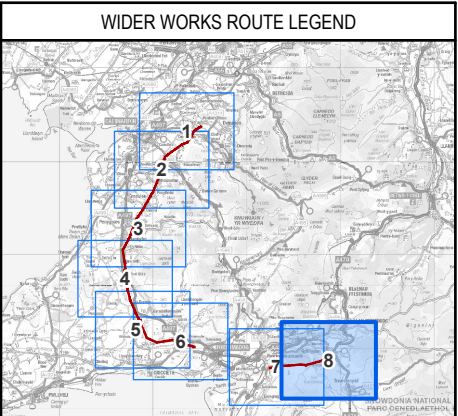
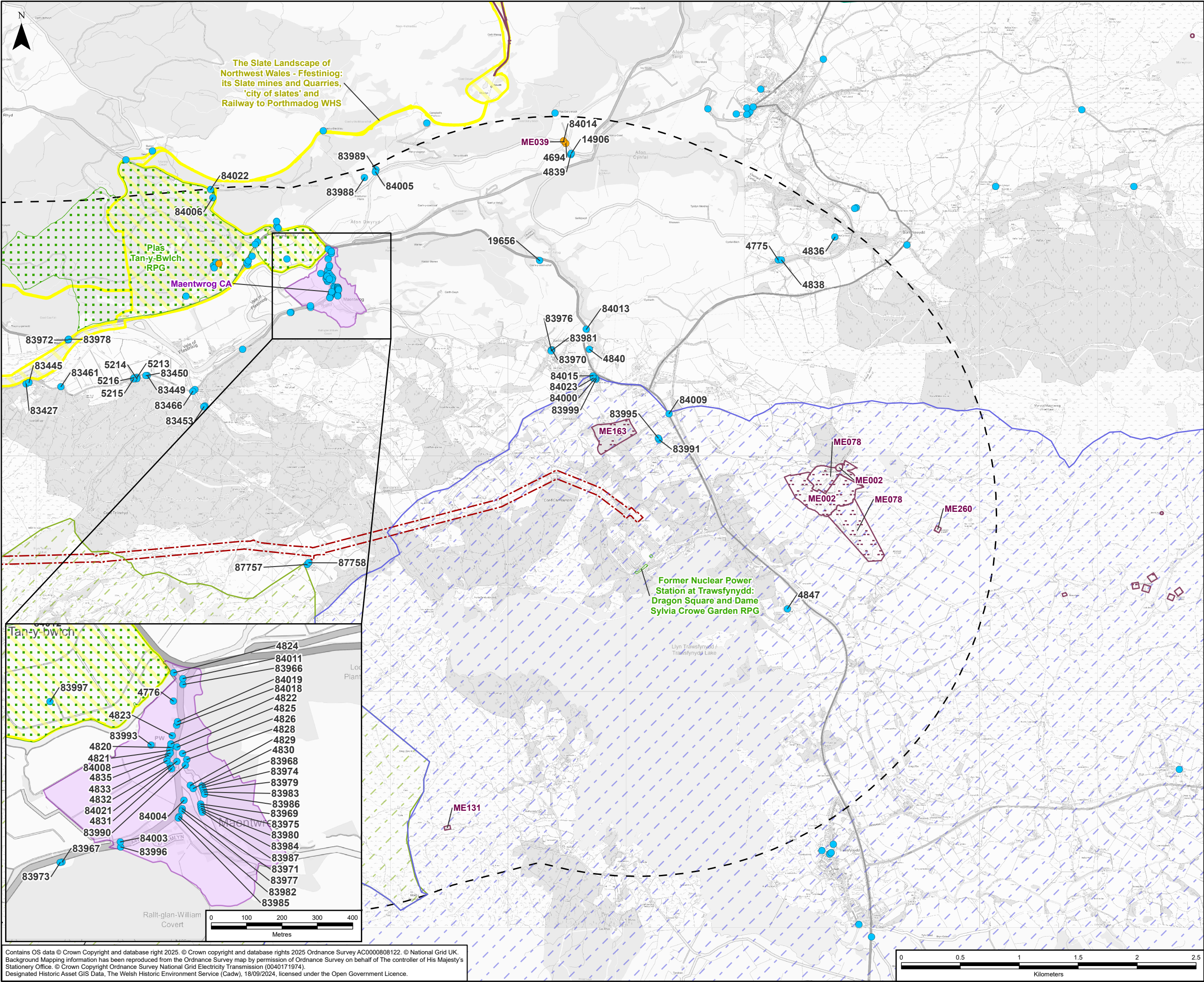


- Legend**
- Indicative Wider Works Site Boundary
 - 3km Buffer of Indicative Wider Works Site Boundary
 - Designated Historic Assets
 - World Heritage Site (WHS)
 - Scheduled Monument
 - Registered Park and Garden (RPG)
 - Conservation Area (CA)
 - Registered Historic Landscape
 - Aberglaslyn
 - Ardudwy
 - Transfynydd Basin and Cwm Prysor
 - Listed Building
 - Grade I
 - Grade II*
 - Grade II

NOTES					
1: Where inset maps overlap the study area, there are no historical features within these areas.					
A	27/08/2025	Environmental Statement	LP	JL	JL
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.1 DESIGNATED HISTORIC ASSETS WITHIN 3KM OF THE WIDER WORKS SITE					
Creator: LP	Date: 27/08/2025	Checker: JL	Date: 27/08/2025	Approver: JL	Date: 27/08/2025
Document Type: FIGURE	Scale: 1:30,000	Format: A3	Sheets: 7 OF 8	Rev: A	

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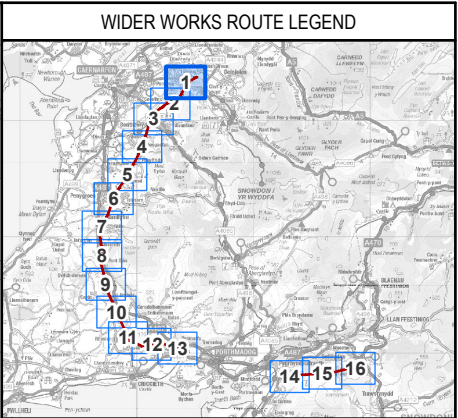
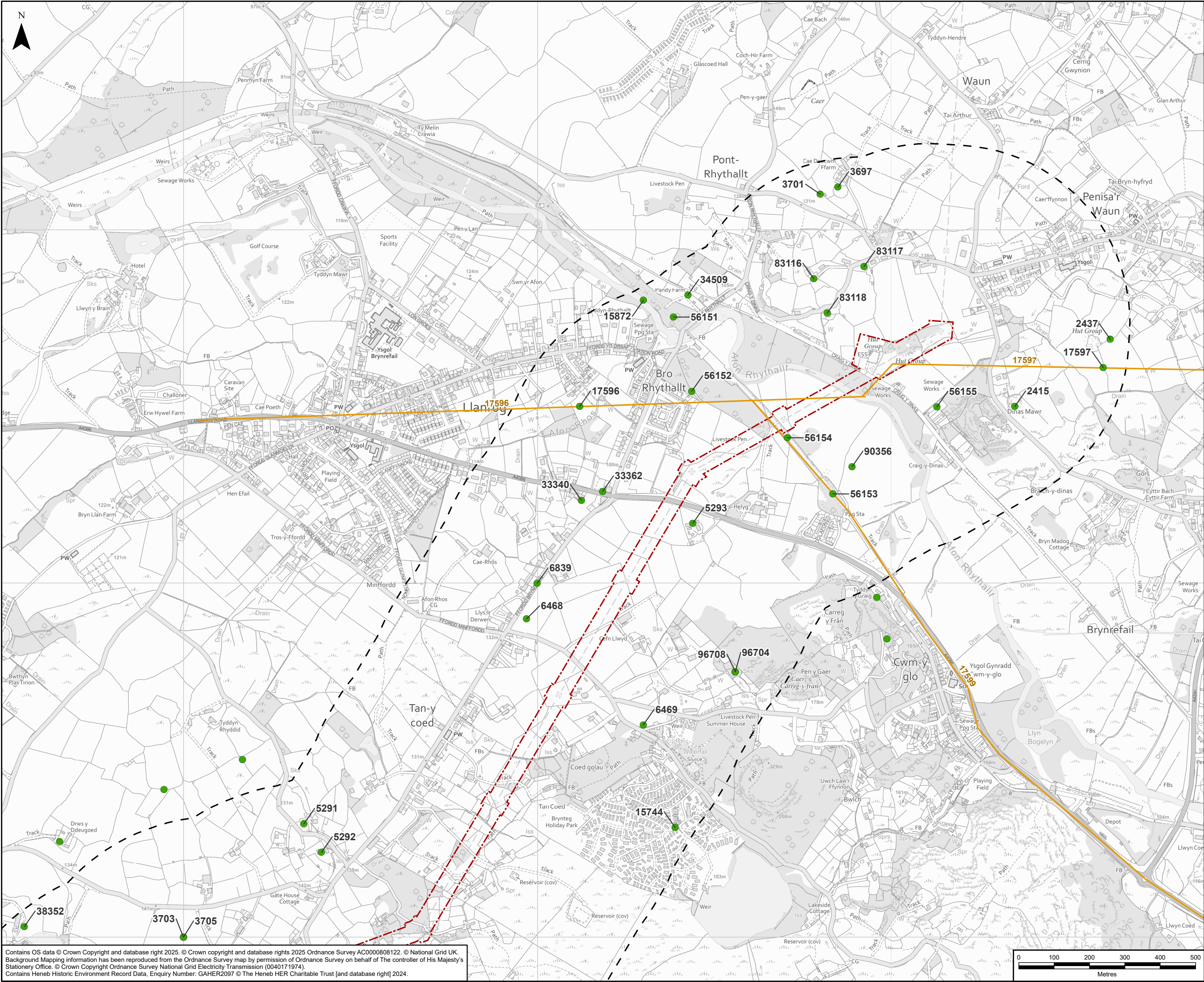
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- Legend**
- Indicative Wider Works Site Boundary
 - 3km Buffer of Indicative Wider Works Site Boundary
 - Designated Historic Assets
 - World Heritage Site (WHS)
 - Scheduled Monument
 - Registered Park and Garden (RPG)
 - Conservation Area (CA)
 - Registered Historic Landscape
 - Ardudwy
 - Blaenau Ffestiniog
 - Transfynydd Basin and Cwm Prysor
 - Listed Building
 - Grade II*
 - Grade II

NOTES					
1: Where inset maps overlap the study area, there are no historical features within these areas.					
A	27/08/2025	Environmental Statement	LP	JL	JL
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.1 DESIGNATED HISTORIC ASSETS WITHIN 3KM OF THE WIDER WORKS SITE					
Creator: LP	Date: 27/08/2025	Checker: JL	Date: 27/08/2025	Approver: JL	Date: 27/08/2025
Document Type: FIGURE	Scale: 1:30,000	Format: A3	Sheets: 8 OF 8	Rev: A	

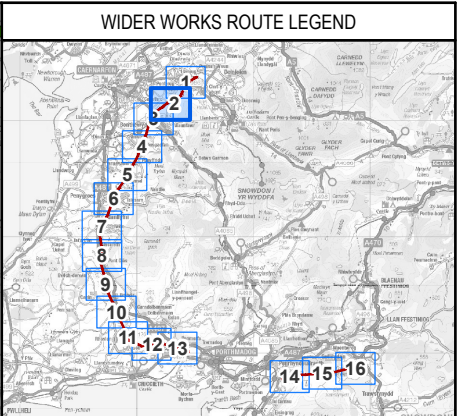
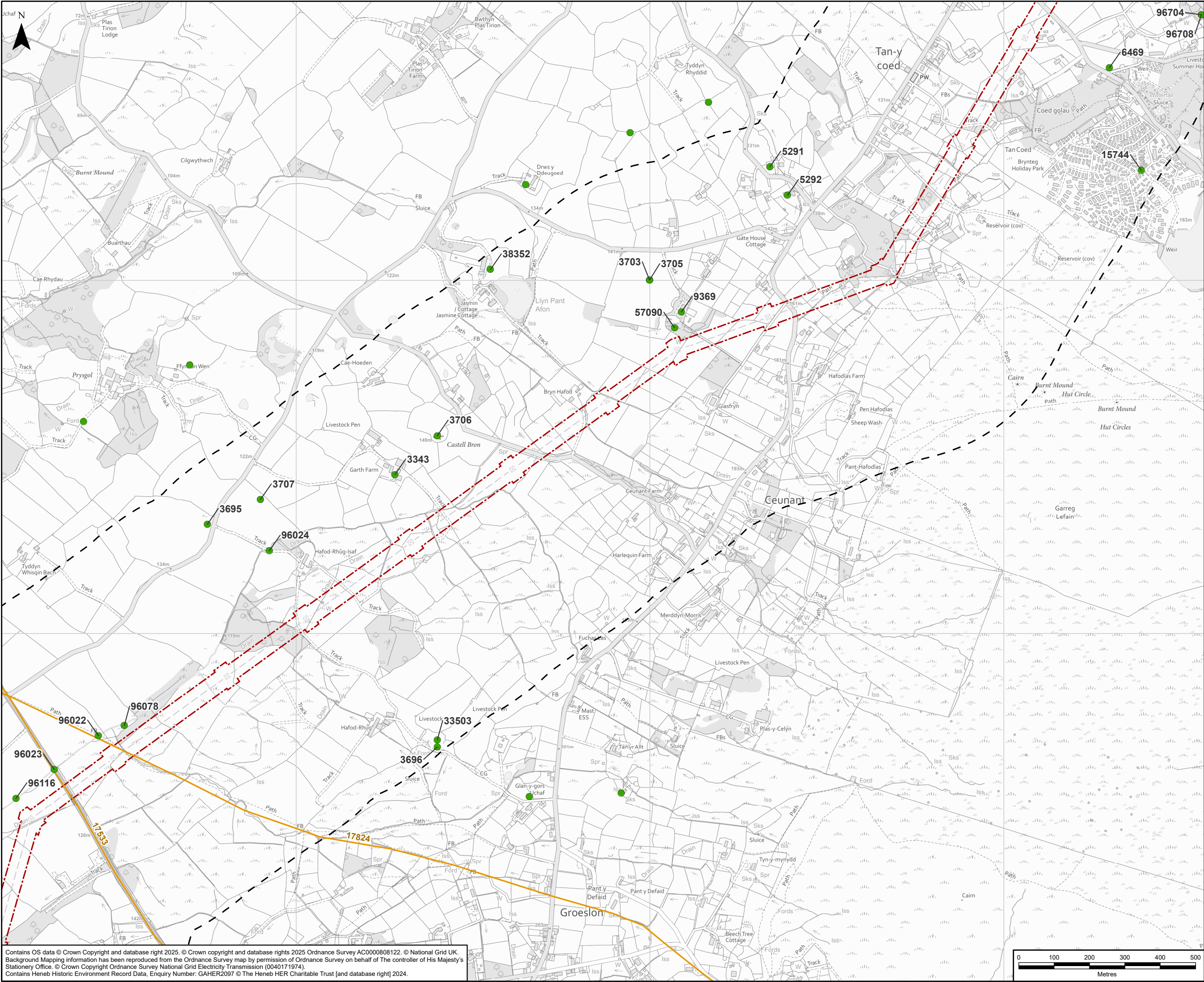
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- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Roman Road (Indicative Alignment)

A	27/08/2025	Environmental Statement	AB	EC	AM
Rev	Date	Description	GIS	Chk	App
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.2 NON-DESIGNATED HISTORIC ASSETS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
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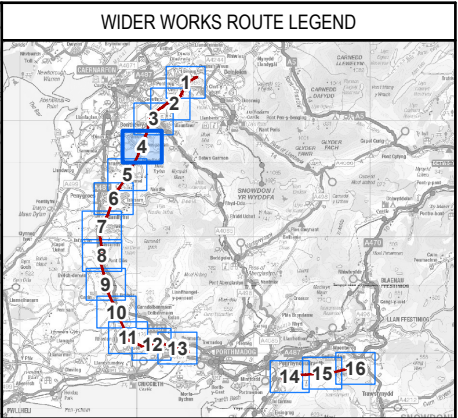
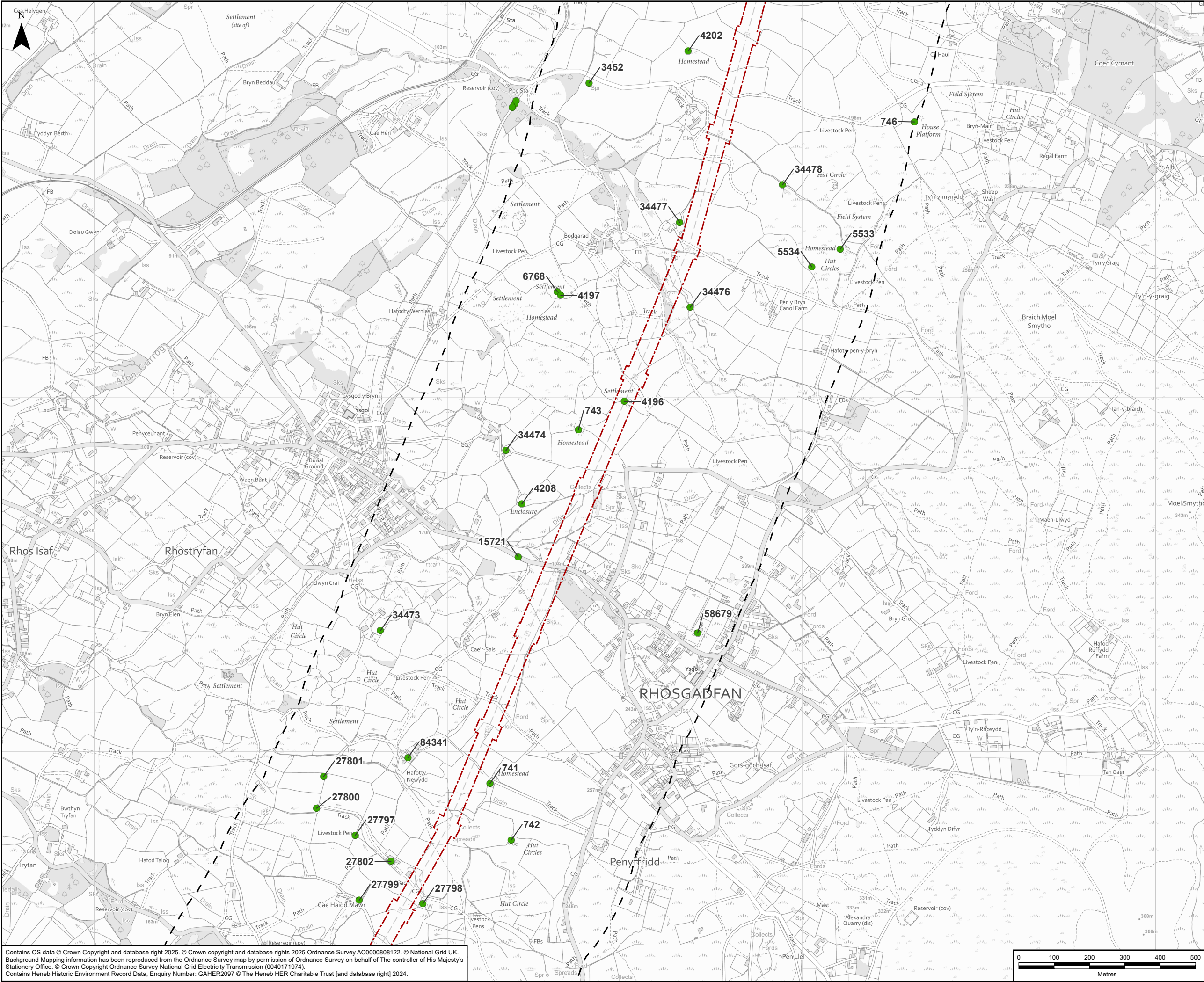
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- Legend
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Roman Road (Indicative Alignment)

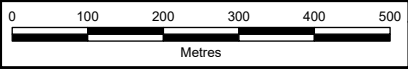
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A	27/08/2025	Environmental Statement	AB	EC	AM
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.2 NON-DESIGNATED HISTORIC ASSETS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
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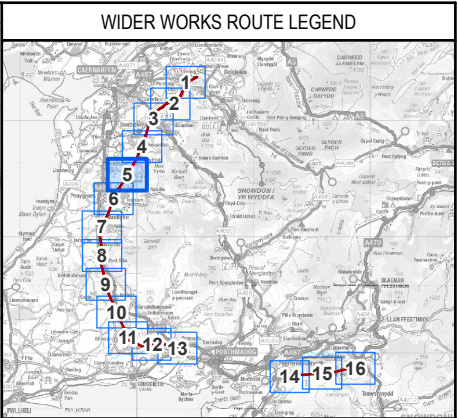
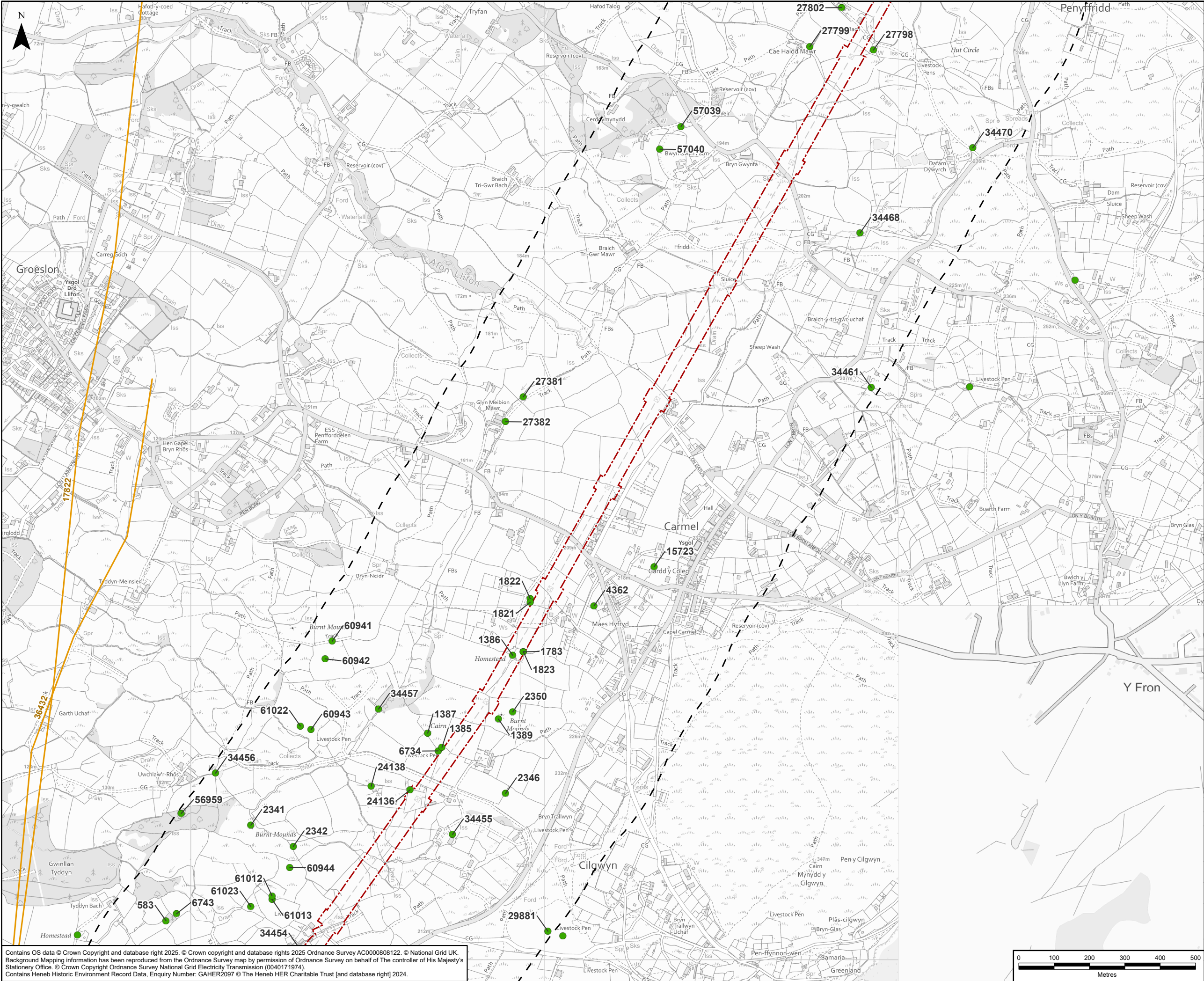


- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset

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A	27/08/2025	Environmental Statement	AB	EC	AM
Rev	Date	Description	GIS	Chk	App
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Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
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Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
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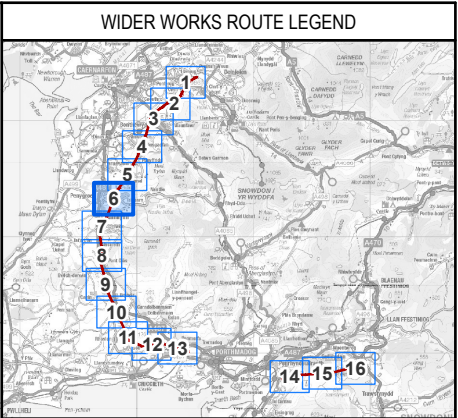
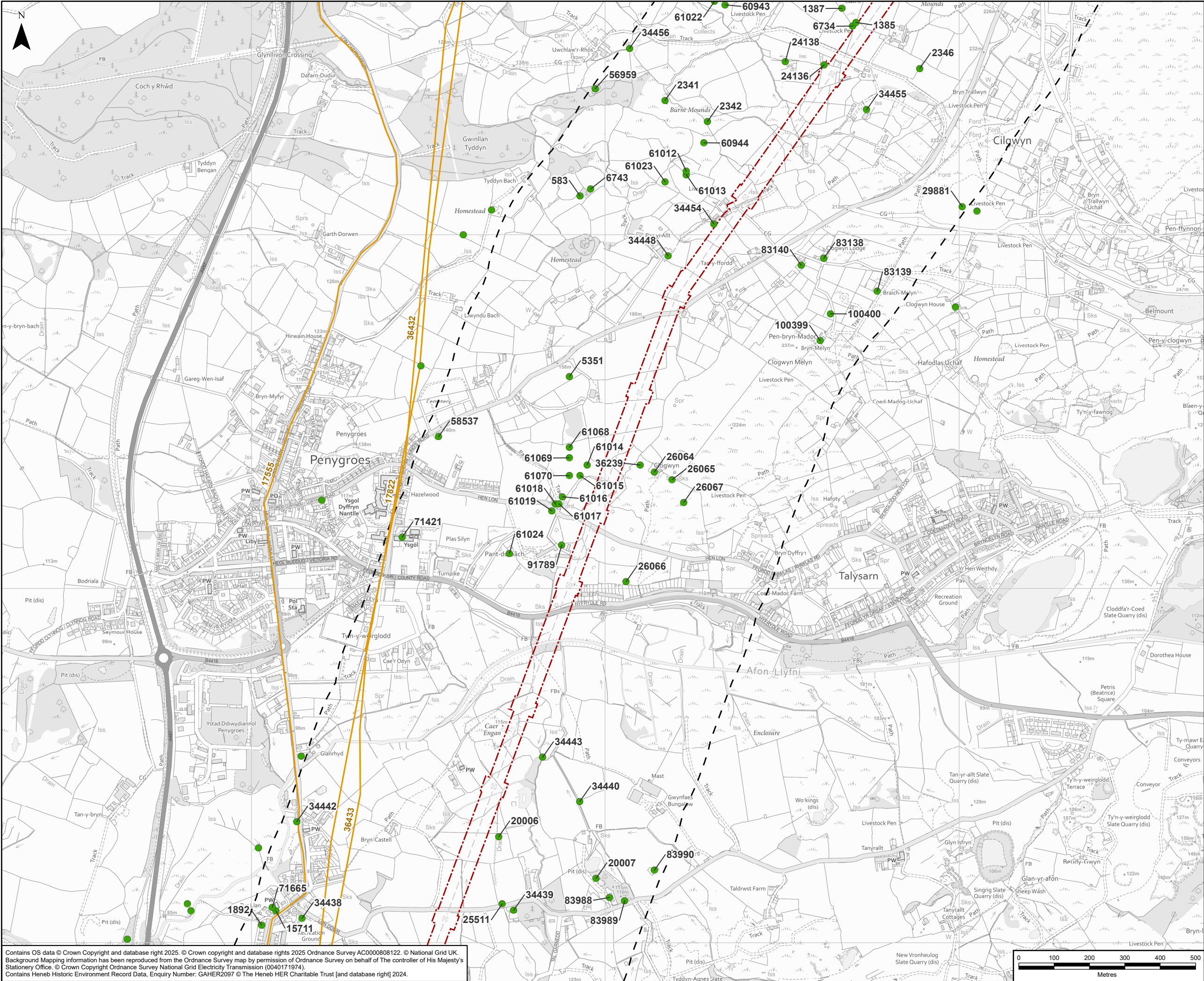


- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Roman Road (Indicative Alignment)

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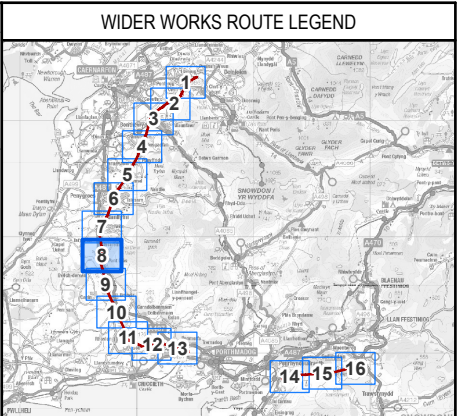
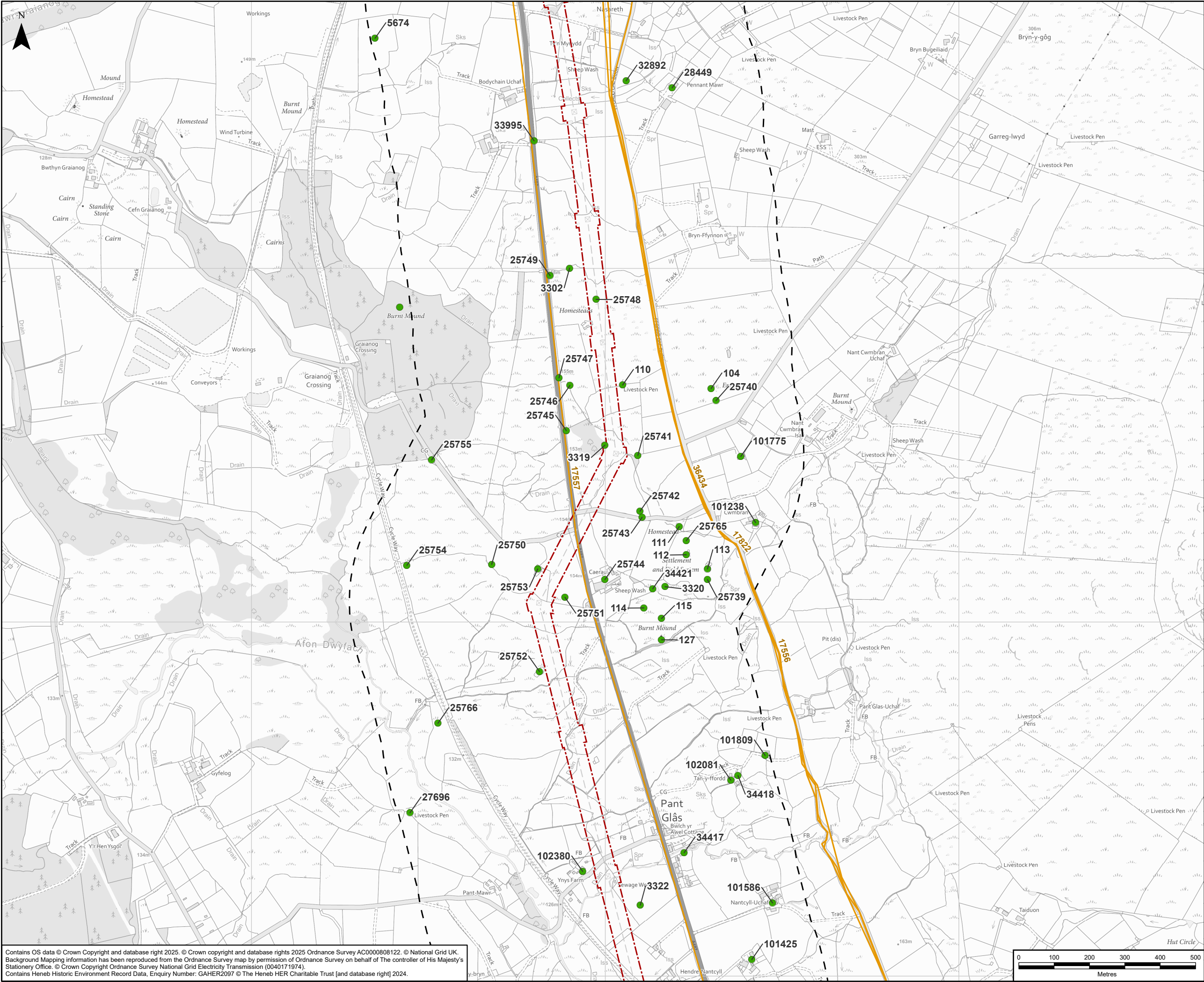
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Volume: VOLUME 8: APPENDICES WIDER WORKS					
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Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 5 OF 16	Rev: A	



- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Roman Road (Indicative Alignment)

A	27/08/2025	Environmental Statement	AB	EC	AM
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.2 NON-DESIGNATED HISTORIC ASSETS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 6 OF 16	Rev: A	

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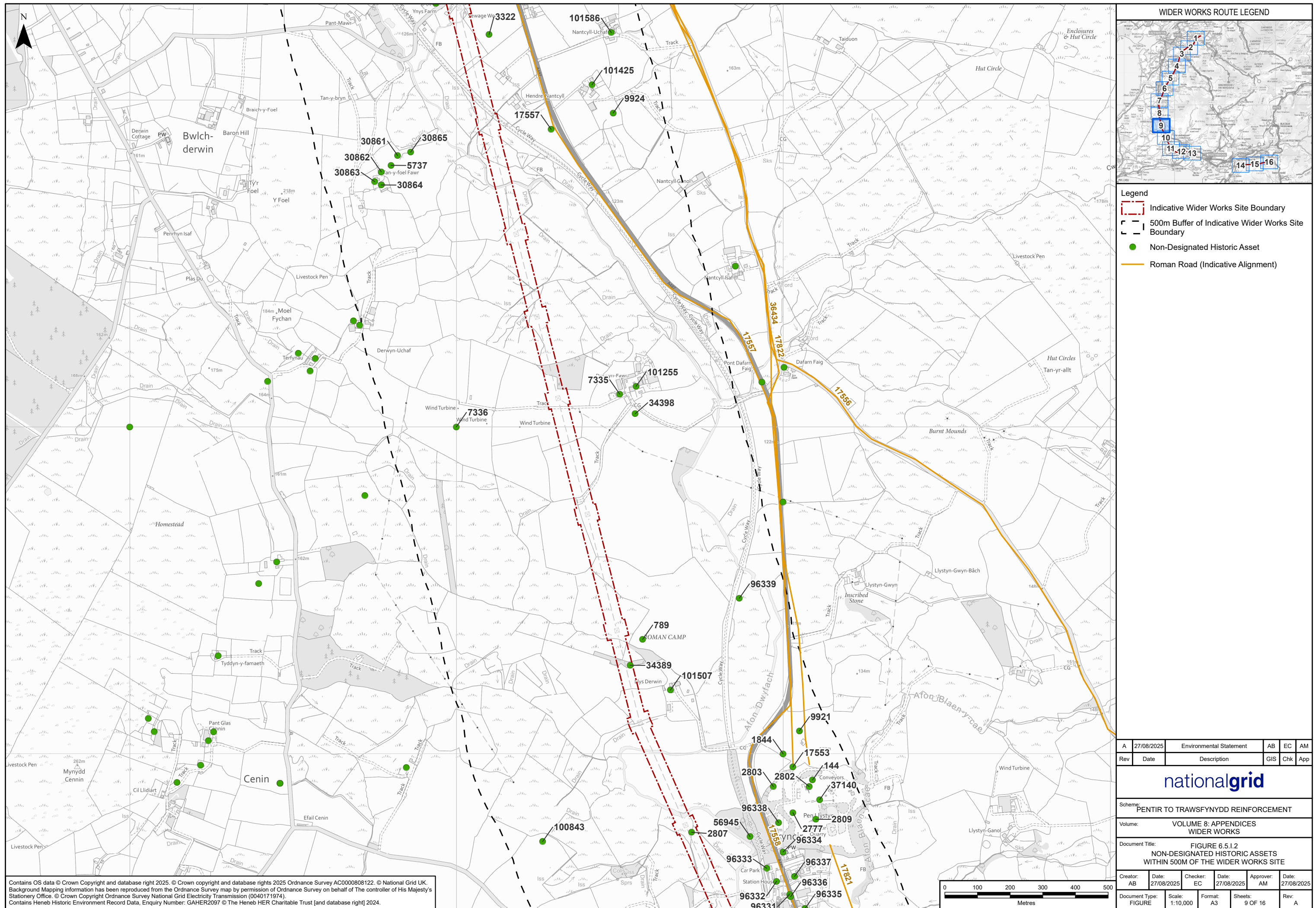


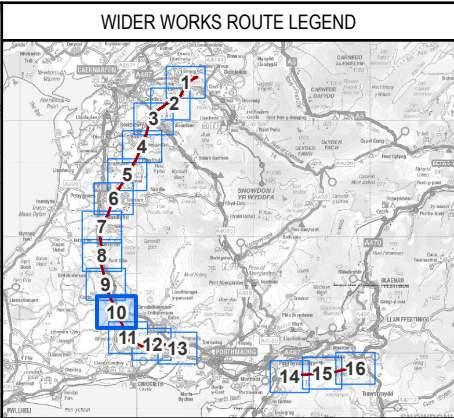
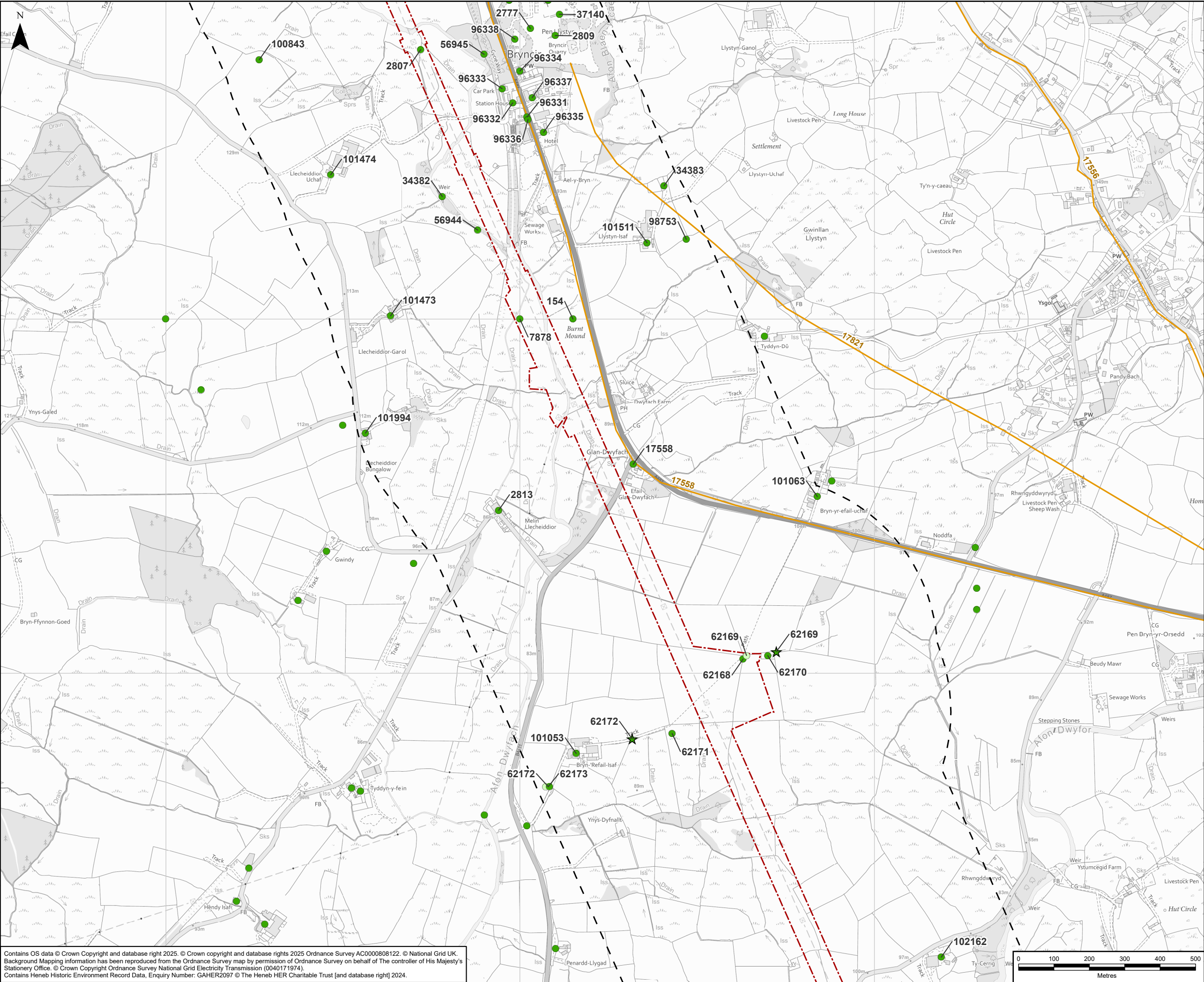
- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Roman Road (Indicative Alignment)

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A	27/08/2025	Environmental Statement	AB	EC	AM
Rev	Date	Description	GIS	Chk	App
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Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.2 NON-DESIGNATED HISTORIC ASSETS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
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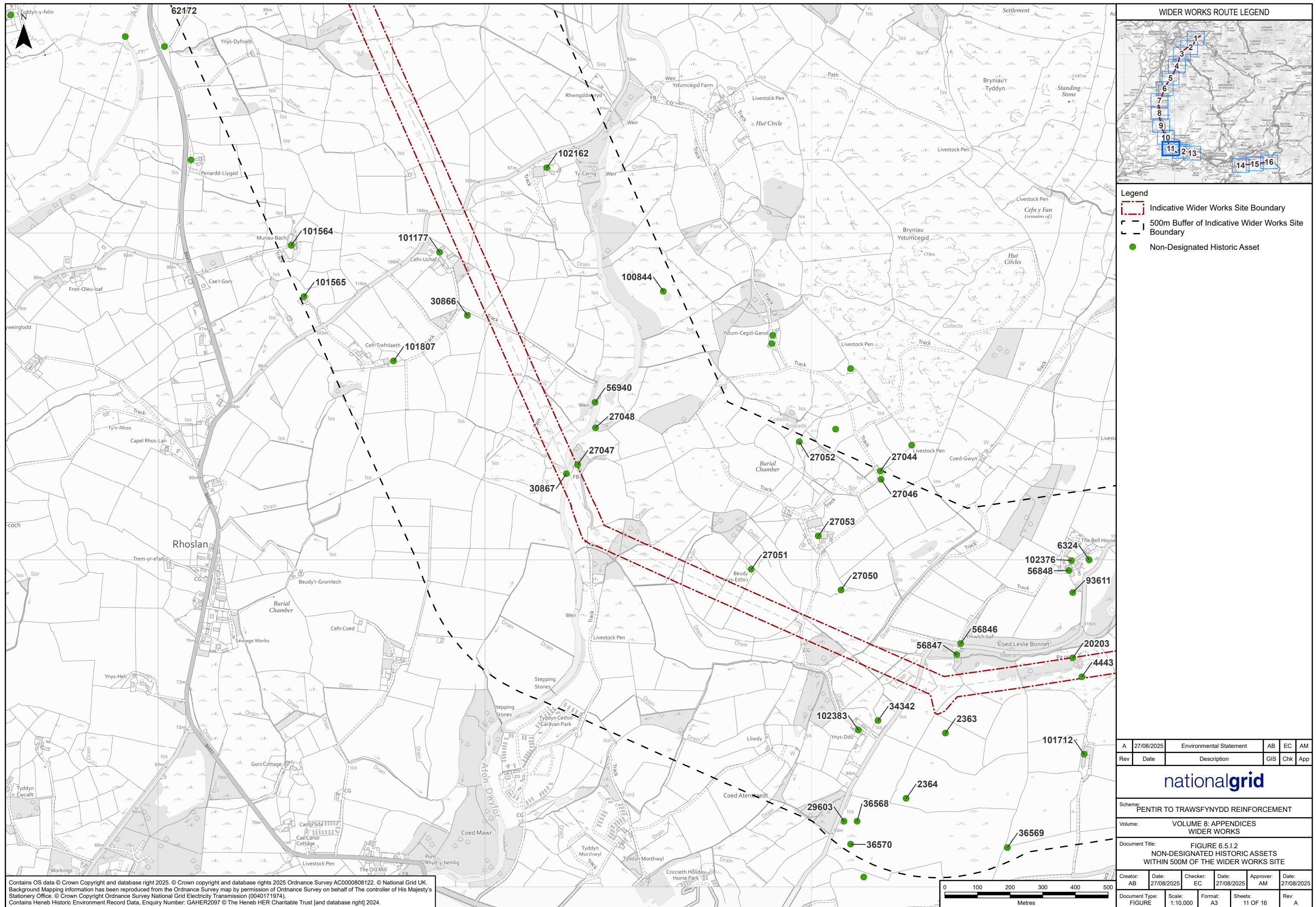


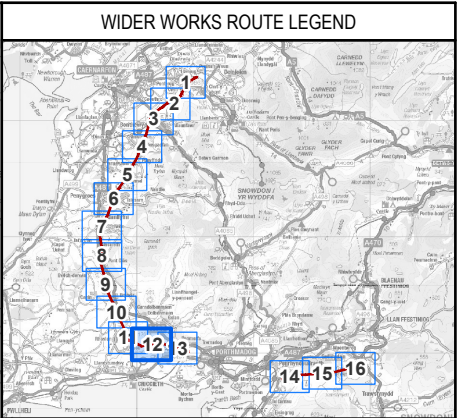
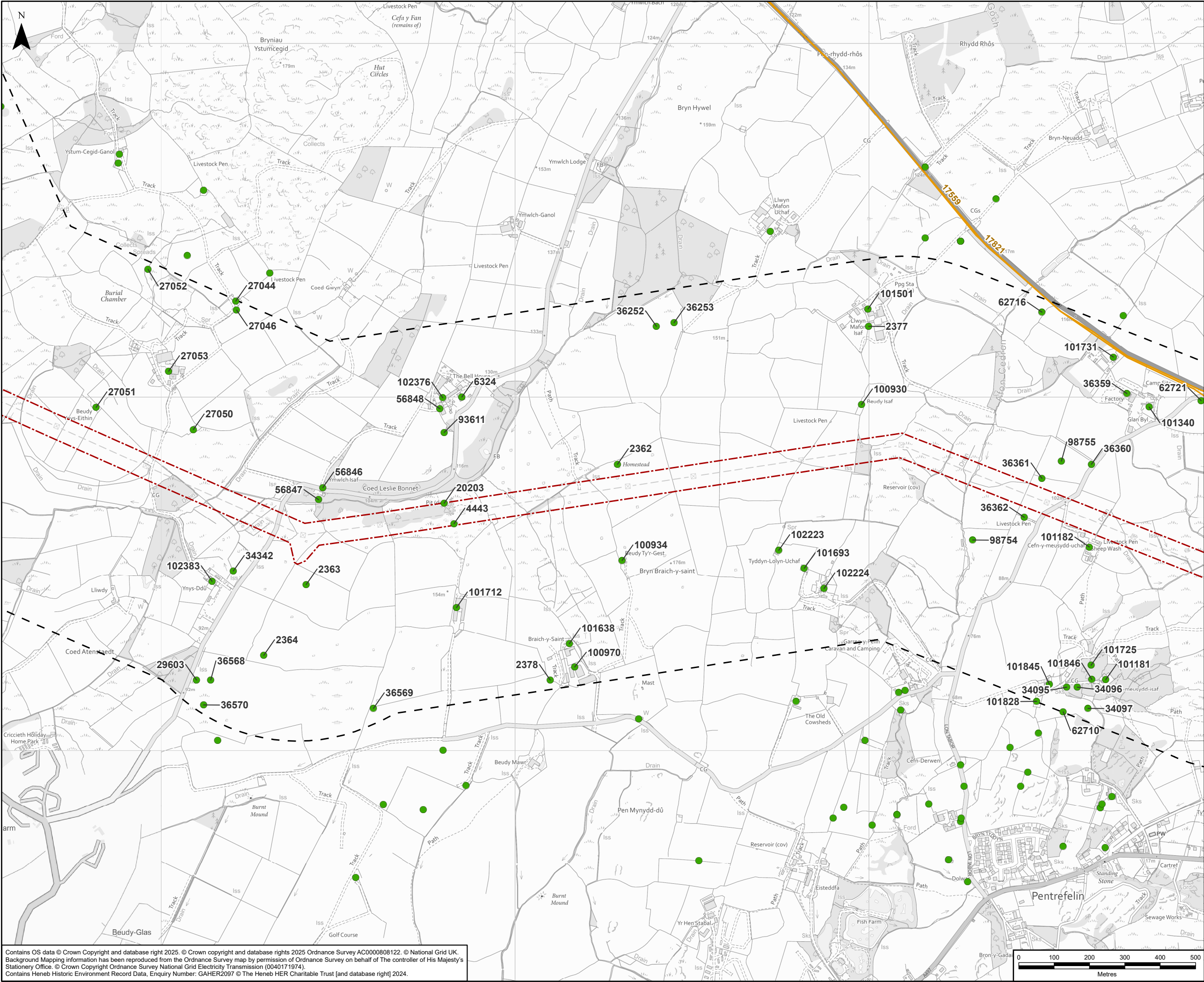


- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Non-Designated Historic Asset - Incorrect Location¹
 - Non-Designated Historic Asset - Corrected Location
 - Roman Road (Indicative Alignment)

NOTES					
1: The location of non-designated historic assets 62169 and 62172 are incorrectly shown in the HER data. Asset 62169 is sited to the east, as shown on the figure. Asset 62172 is the farm track to the east of Bryn-'Refail-Isaf, as shown on the figure.					
A	27/08/2025	Environmental Statement	AB	EC	AM
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.2 NON-DESIGNATED HISTORIC ASSETS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 10 OF 16	Rev: A	

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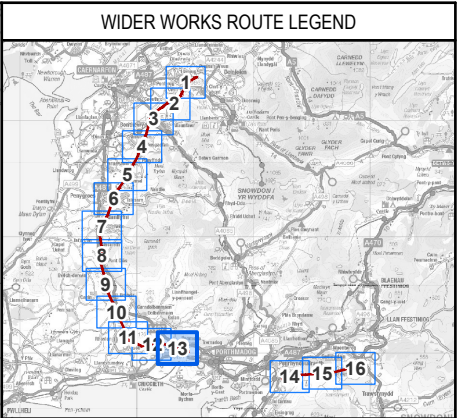
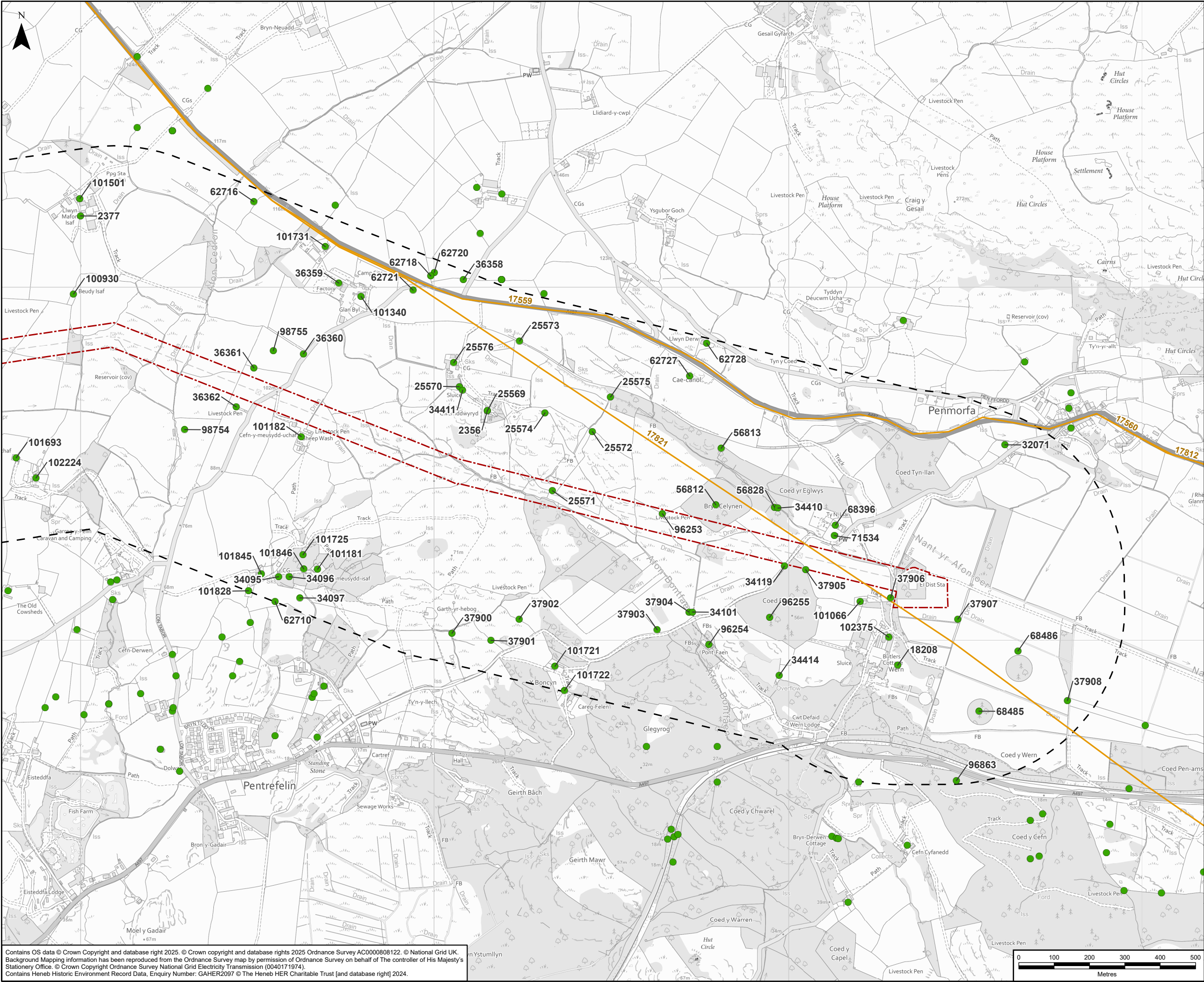


- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Roman Road (Indicative Alignment)

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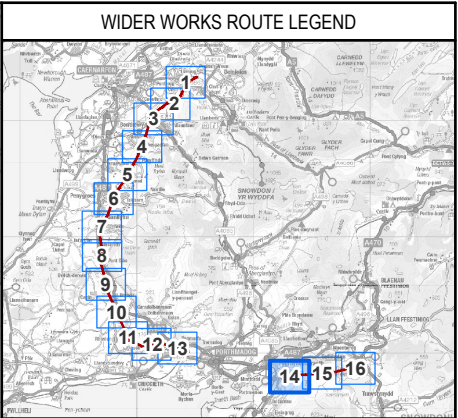
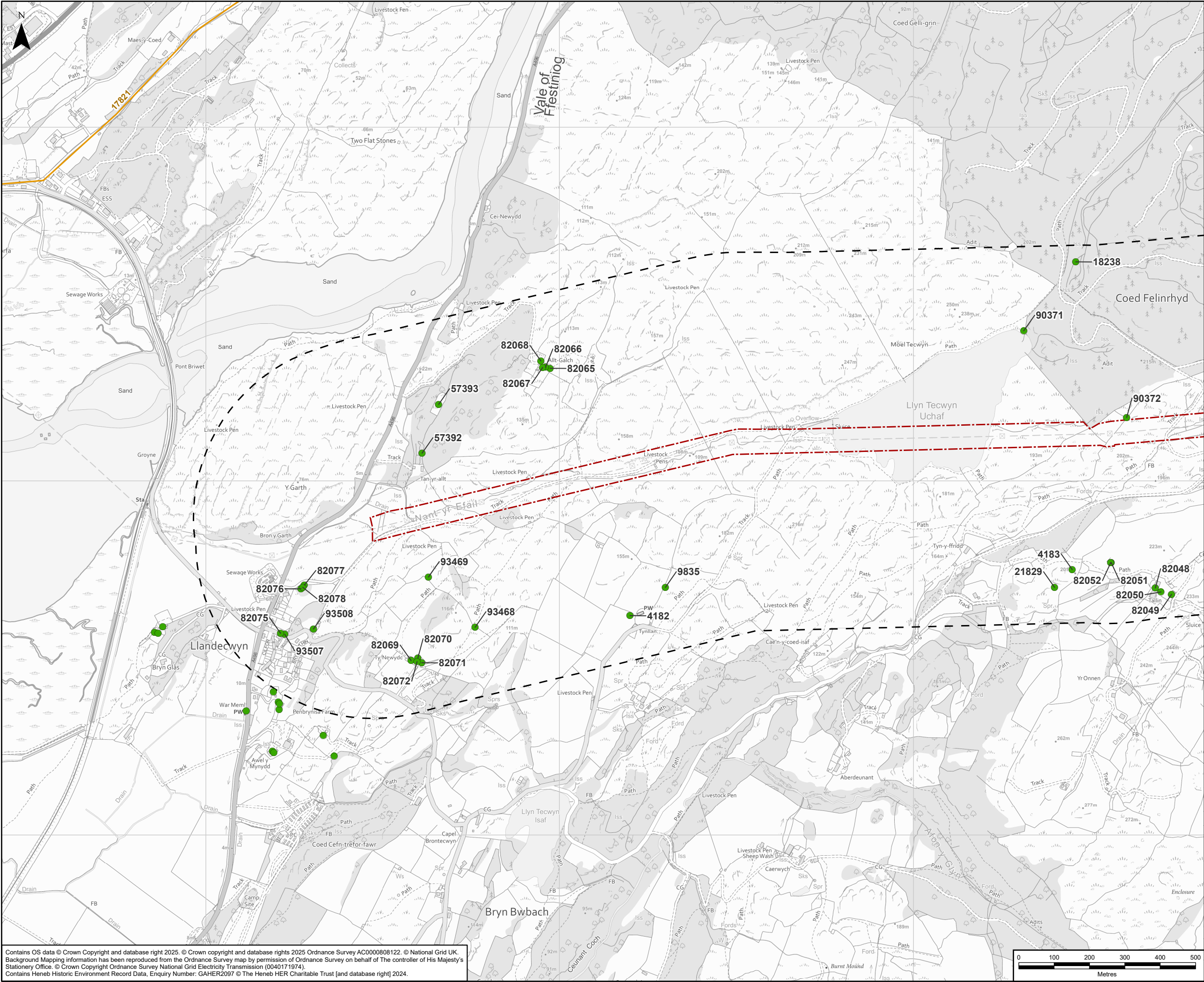
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Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.2 NON-DESIGNATED HISTORIC ASSETS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 12 OF 16	Rev: A	



- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Roman Road (Indicative Alignment)

A	27/08/2025	Environmental Statement	AB	EC	AM
Rev	Date	Description	GIS	Chk	App
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Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
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Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
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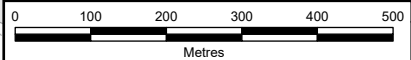
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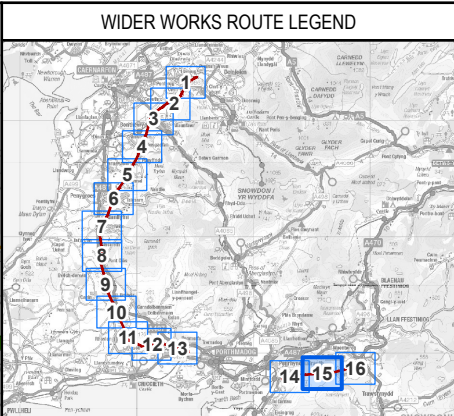
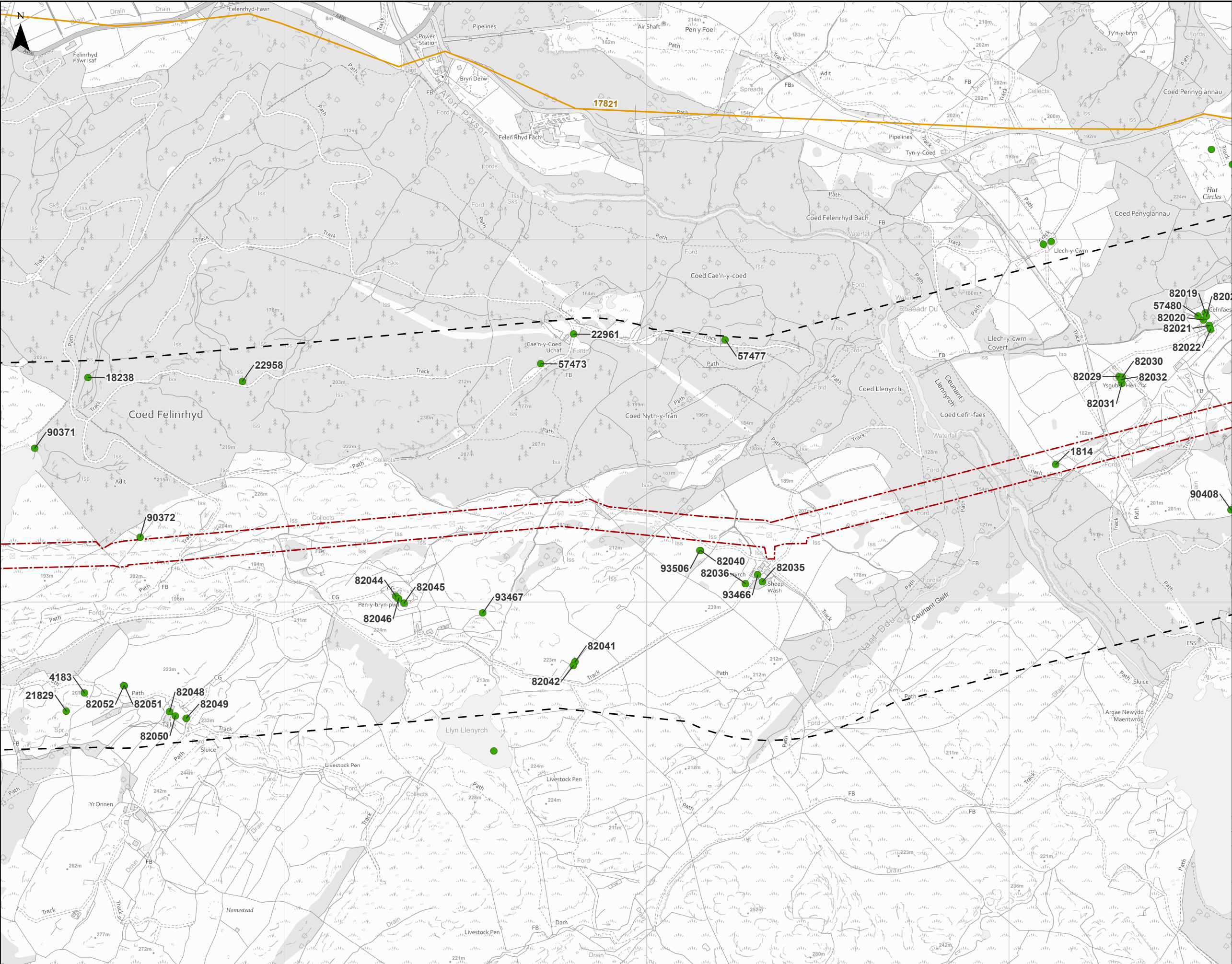


- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
 - Non-Designated Historic Asset
 - Roman Road (Indicative Alignment)

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Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.2 NON-DESIGNATED HISTORIC ASSETS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
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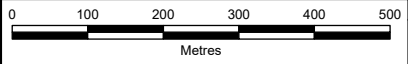


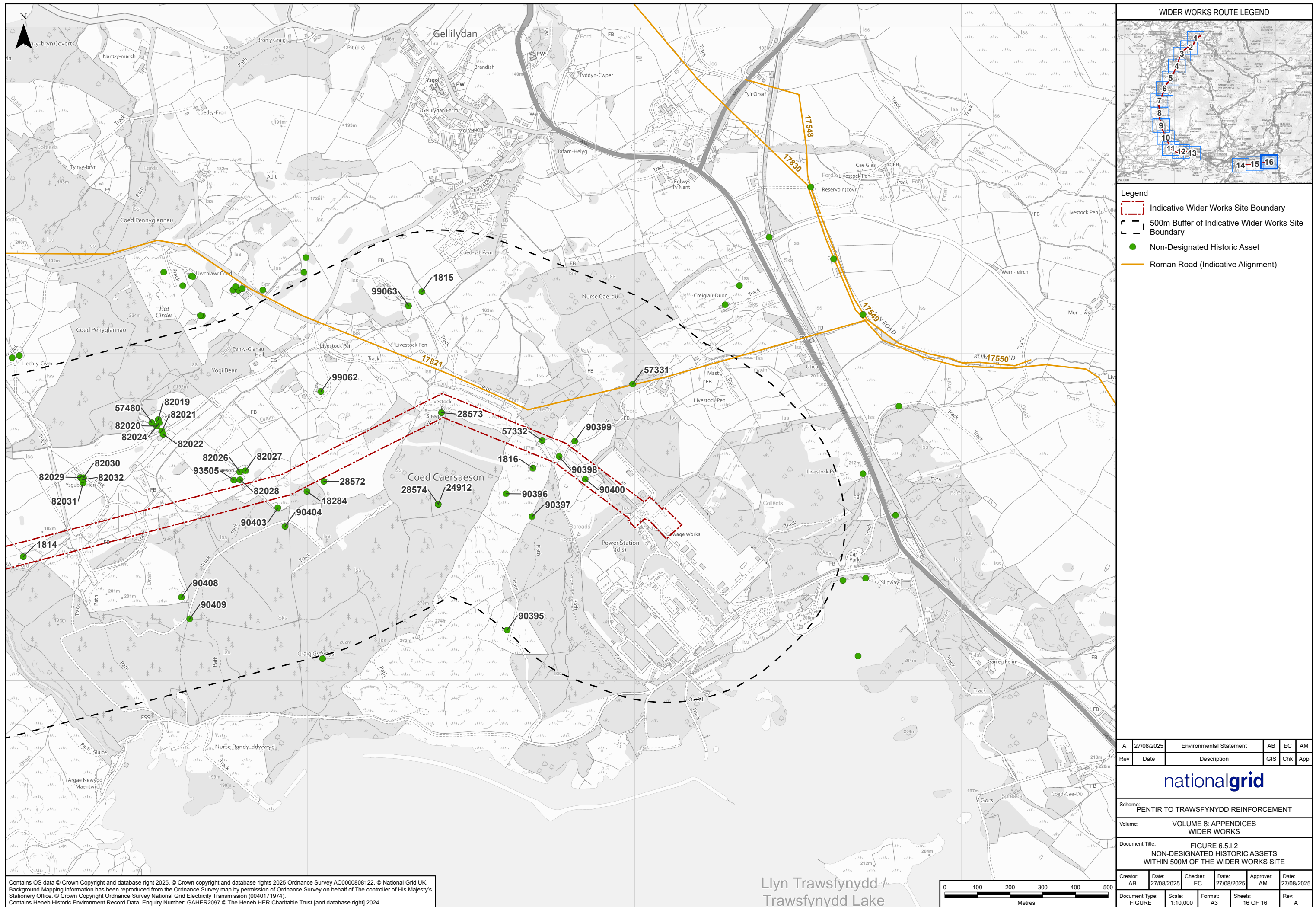
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 - 500m Buffer of Indicative Wider Works Site Boundary
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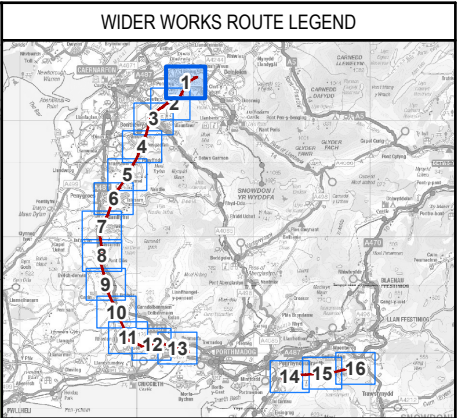
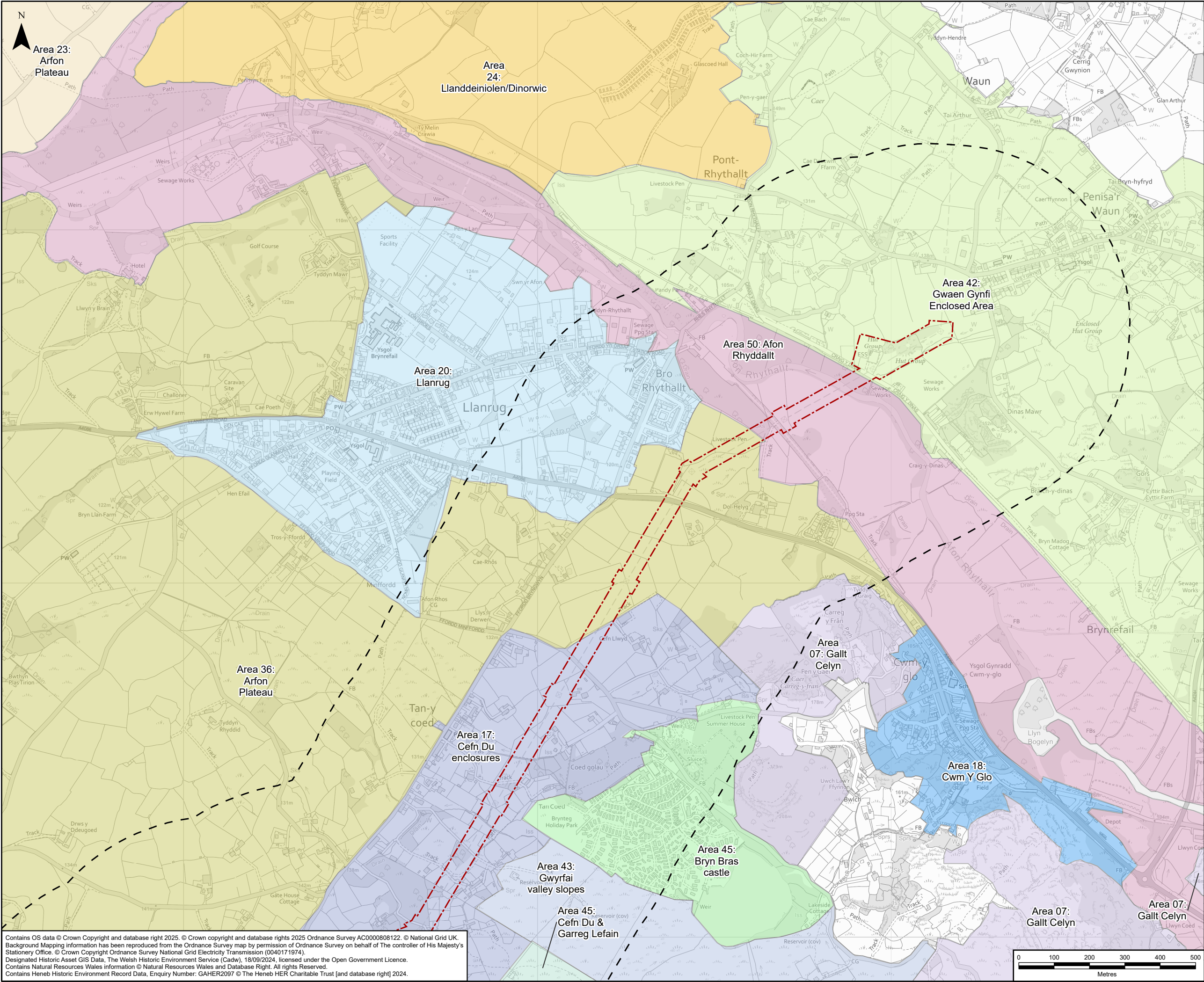
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Creator: AB	Date: 27/08/2025	Checker: EC	Date: 27/08/2025	Approver: AM	Date: 27/08/2025
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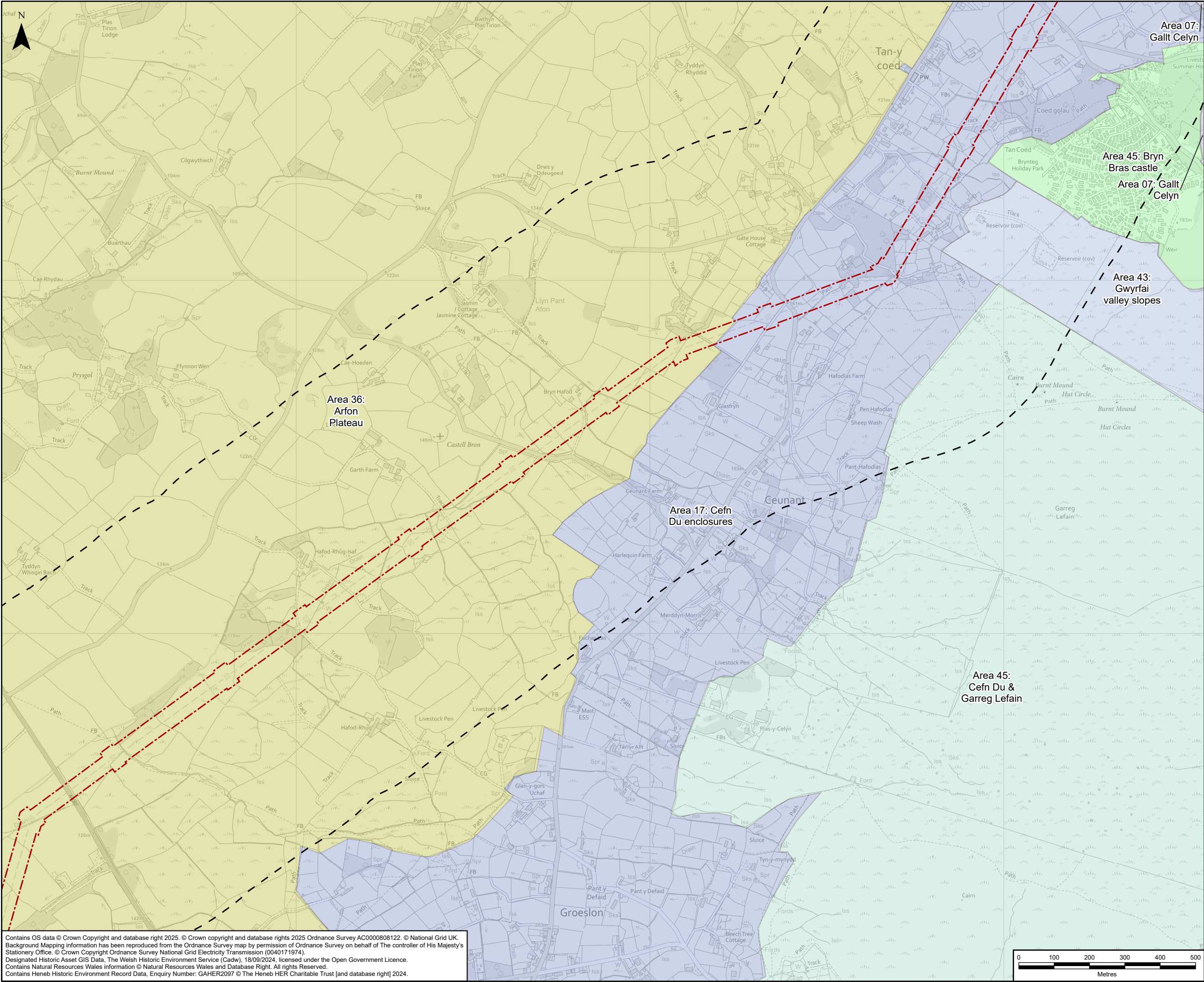




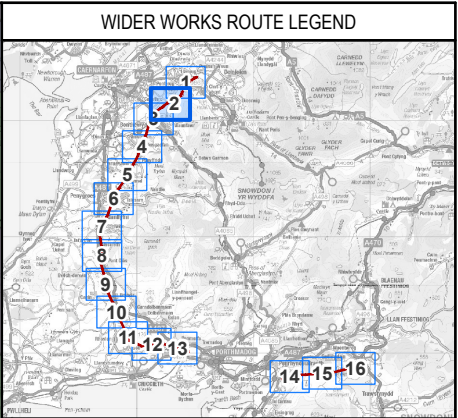
- Legend**
- Indicative Wider Works Site Boundary
 - 500m Buffer of Indicative Wider Works Site Boundary
- Heneb Historic Landscape Character (HLC)¹**
- Area 07: Gallt Celyn
 - Area 17: Cefn Du enclosures
 - Area 18: Cwm Y Glo
 - Area 20: Llanrug
 - Area 23: Arfon Plateau
 - Area 24: Llanddeiniolen/Dinorwic
 - Area 36: Arfon Plateau
 - Area 42: Gwaen Gynfi Enclosed Area
 - Area 43: Gwyrfaï valley slopes
 - Area 45: Bryn Bras castle
 - Area 45: Cefn Du & Garreg Lefain
 - Area 50: Afon Rhyddallt

NOTES					
1: There is no Heneb Historic Landscape Character data available for some sections of the Indicative Wider works site boundary.					
A	21/08/2025	Environmental Statement	LP	JL	AM
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.3 HISTORIC LANDSCAPE CHARACTER AREAS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: LP	Date: 21/08/2025	Checker: JL	Date: 21/08/2025	Approver: AM	Date: 21/08/2025
Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 1 OF 16	Rev: A	

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Legend

- Indicative Wider Works Site Boundary
- 500m Buffer of Indicative Wider Works Site Boundary

Heneb Historic Landscape Character (HLC)¹

- Area 07: Gallt Celyn
- Area 17: Cefn Du enclosures
- Area 36: Arfon Plateau
- Area 43: Gwyrfaï valley slopes
- Area 45: Bryn Bras castle
- Area 45: Cefn Du & Garreg Lefain

NOTES

1: There is no Heneb Historic Landscape Character data available for some sections of the Indicative Wider works site boundary.

A	21/08/2025	Environmental Statement	LP	JL	AM
Rev	Date	Description	GIS	Chk	App

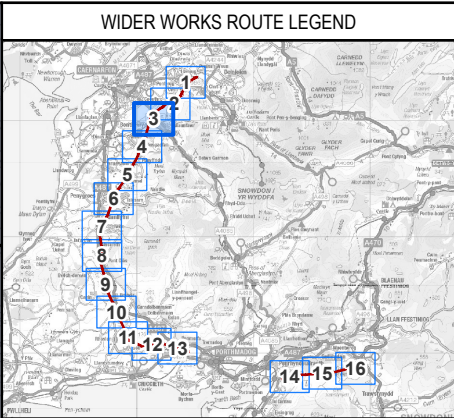
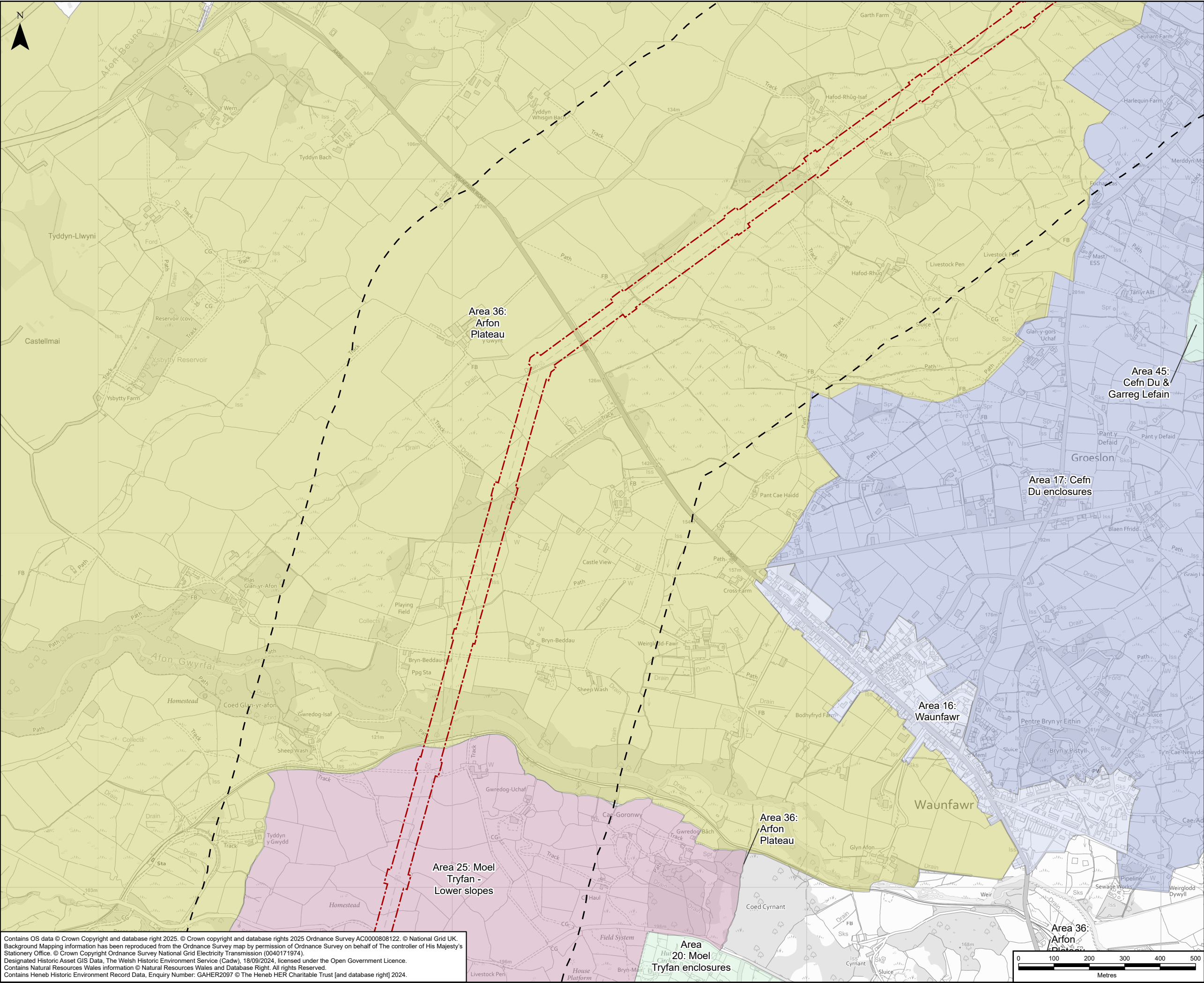
nationalgrid

Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT

Volume: VOLUME 8: APPENDICES WIDER WORKS

Document Title: FIGURE 6.5.1.3 HISTORIC LANDSCAPE CHARACTER AREAS WITHIN 500M OF THE WIDER WORKS SITE

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Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 2 OF 16	Rev: A	



Legend

Indicative Wider Works Site Boundary

500m Buffer of Indicative Wider Works Site Boundary

Heneb Historic Landscape Character (HLC)¹

Area 16: Waunfawr

Area 17: Cefn Du enclosures

Area 20: Moel Tryfan enclosures

Area 25: Moel Tryfan - Lower slopes

Area 36: Arfon Plateau

Area 45: Cefn Du & Garreg Lefain

NOTES

1: There is no Heneb Historic Landscape Character data available for some sections of the Indicative Wider works site boundary.

A	21/08/2025	Environmental Statement	LP	JL	AM
Rev	Date	Description	GIS	Chk	App

nationalgrid

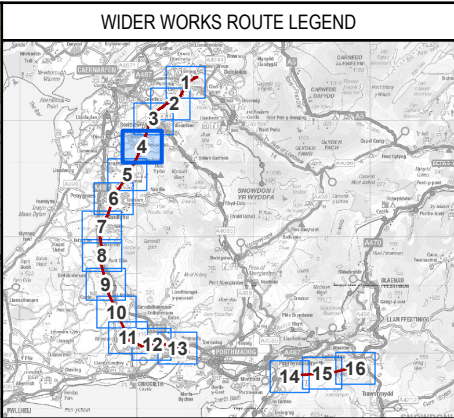
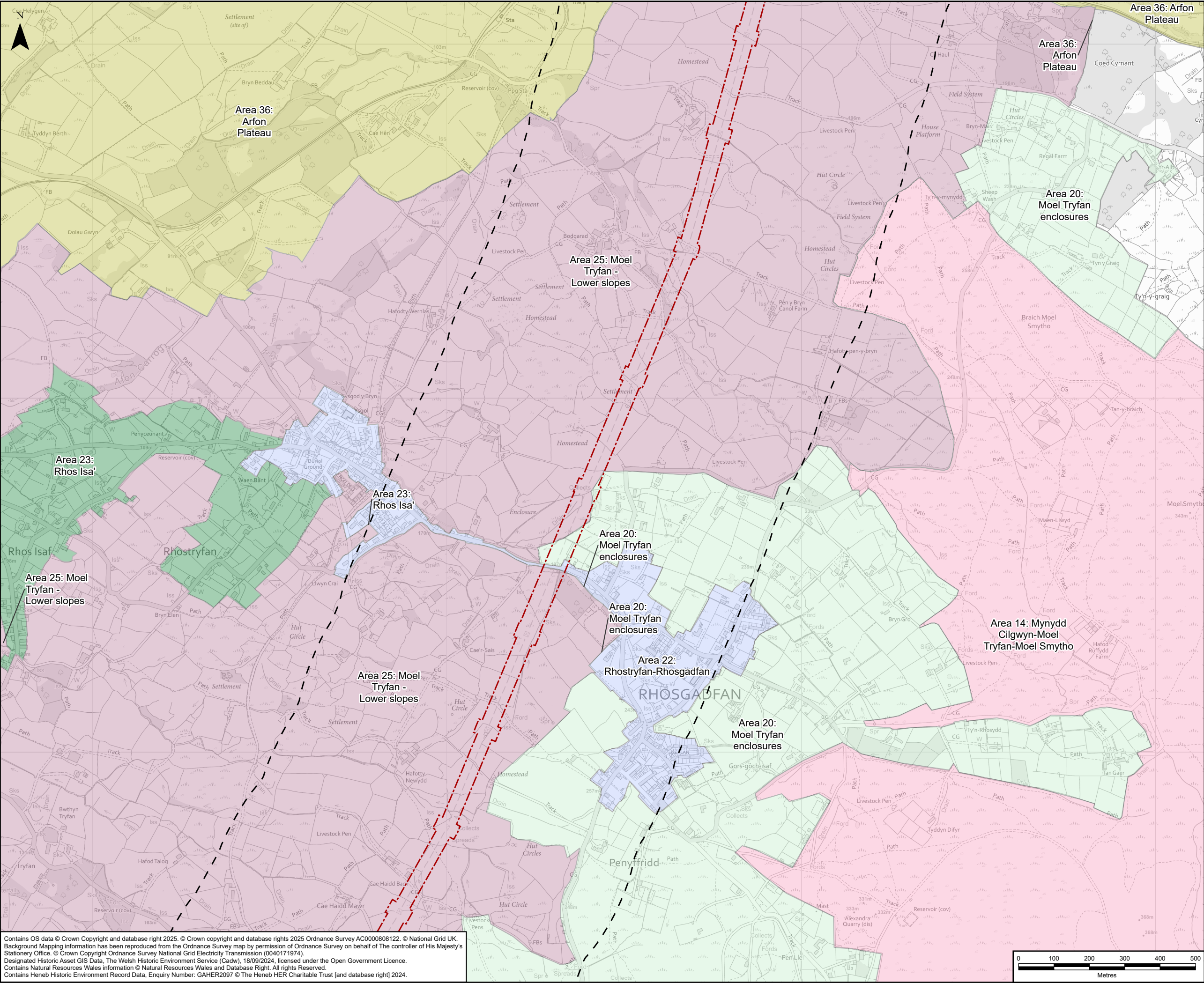
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Volume: VOLUME 8: APPENDICES WIDER WORKS

Document Title: FIGURE 6.5.1.3 HISTORIC LANDSCAPE CHARACTER AREAS WITHIN 500M OF THE WIDER WORKS SITE

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Legend

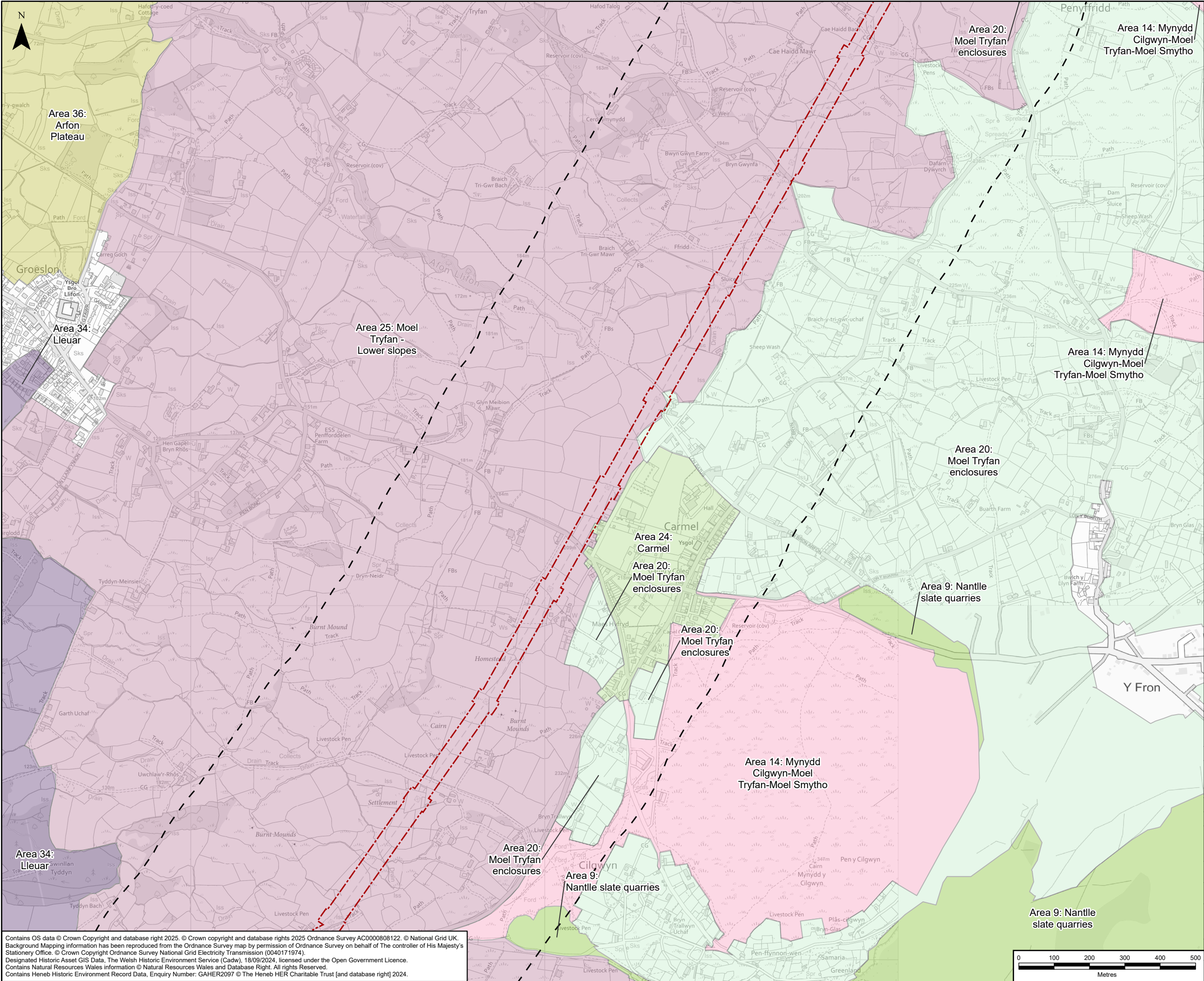
- Indicative Wider Works Site Boundary
- 500m Buffer of Indicative Wider Works Site Boundary

Heneb Historic Landscape Character (HLC)¹

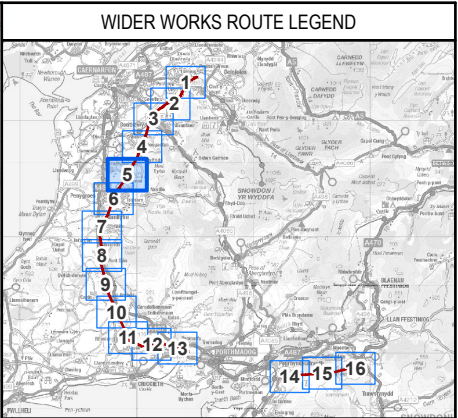
- Area 14: Mynydd Cilgwyn-Moel Tryfan-Moel Smytho
- Area 20: Moel Tryfan enclosures
- Area 22: Rhostryfan-Rhosgadfan
- Area 23: Rhos Isa'
- Area 25: Moel Tryfan - Lower slopes
- Area 36: Arfon Plateau

NOTES					
1: There is no Heneb Historic Landscape Character data available for some sections of the Indicative Wider works site boundary.					
A	21/08/2025	Environmental Statement	LP	JL	AM
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.3 HISTORIC LANDSCAPE CHARACTER AREAS WITHIN 500M OF THE WIDER WORKS SITE					
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Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 4 OF 16	Rev: A	

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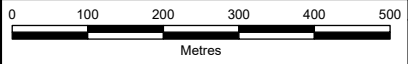
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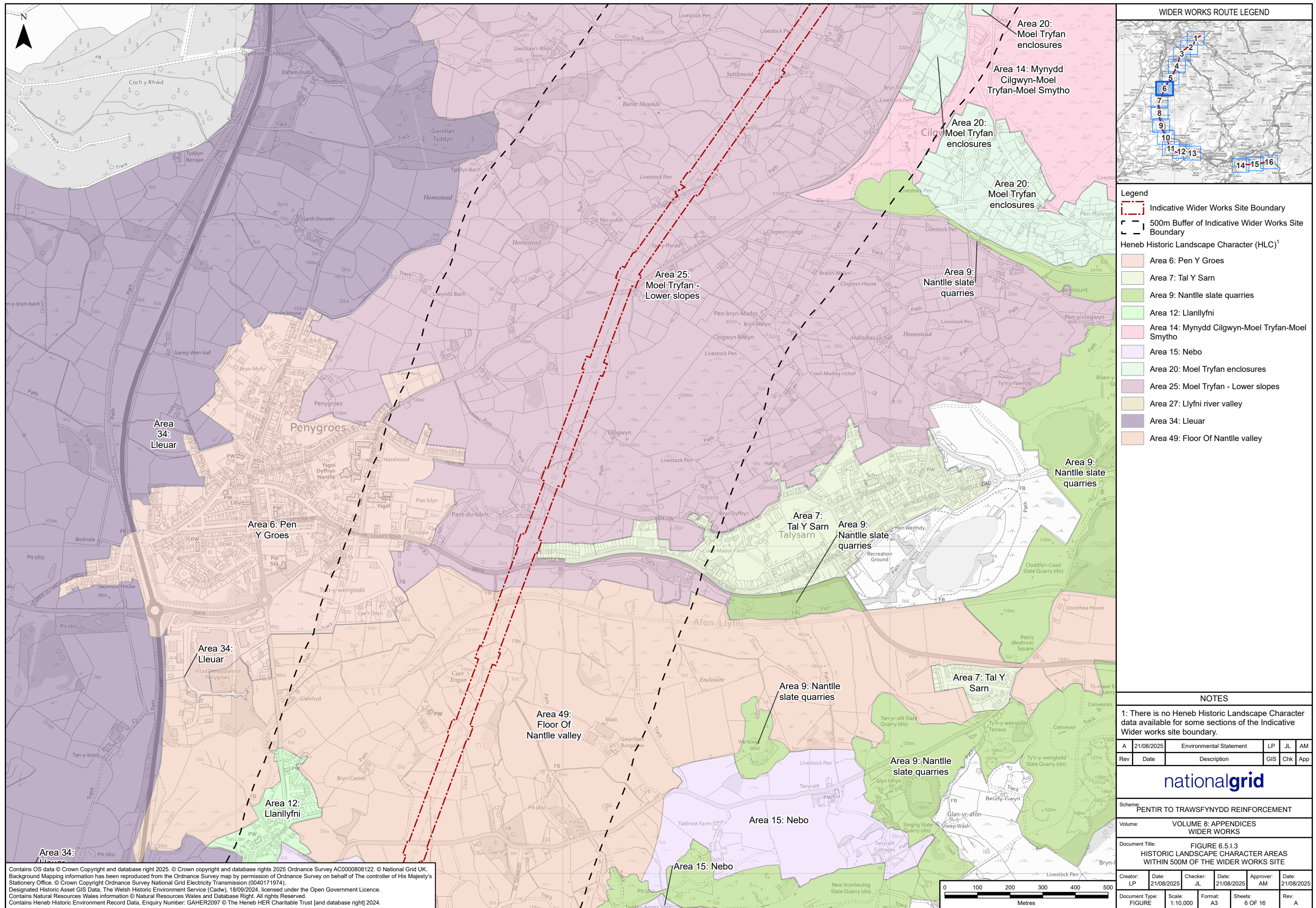
- Indicative Wider Works Site Boundary
- 500m Buffer of Indicative Wider Works Site Boundary

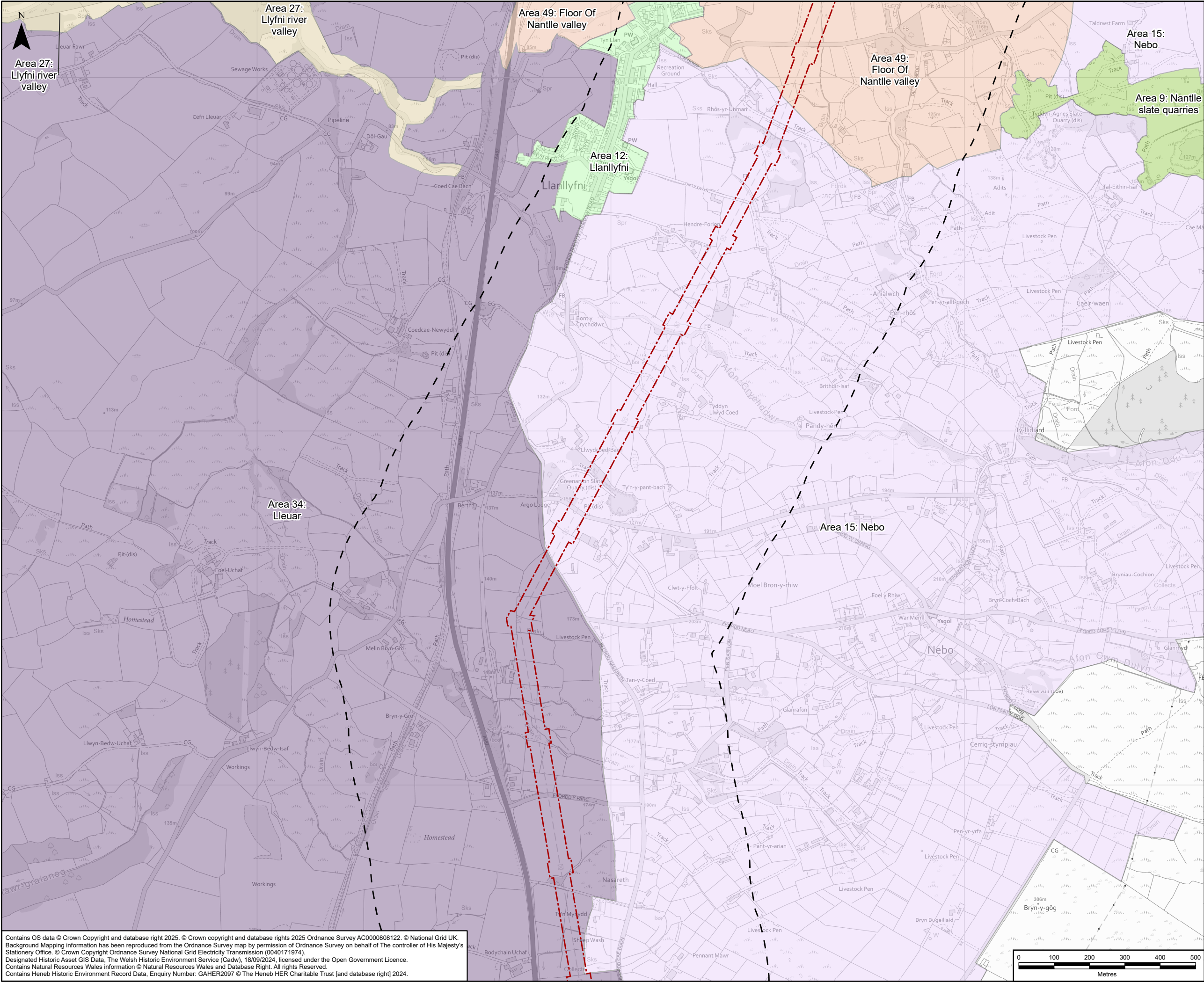
Heneb Historic Landscape Character (HLC)¹

- Area 9: Nantlle slate quarries
- Area 14: Mynydd Cilgwyn-Moel Tryfan-Moel Smytho
- Area 20: Moel Tryfan enclosures
- Area 24: Carmel
- Area 25: Moel Tryfan - Lower slopes
- Area 34: Lleuar
- Area 36: Arfon Plateau

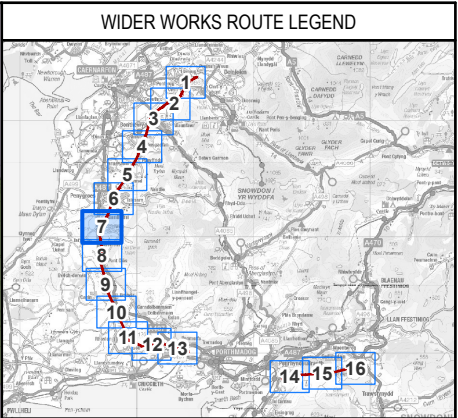
NOTES					
1: There is no Heneb Historic Landscape Character data available for some sections of the Indicative Wider works site boundary.					
A	21/08/2025	Environmental Statement	LP	JL	AM
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT					
Volume: VOLUME 8: APPENDICES WIDER WORKS					
Document Title: FIGURE 6.5.1.3 HISTORIC LANDSCAPE CHARACTER AREAS WITHIN 500M OF THE WIDER WORKS SITE					
Creator: LP	Date: 21/08/2025	Checker: JL	Date: 21/08/2025	Approver: AM	Date: 21/08/2025
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Legend

- Indicative Wider Works Site Boundary
- 500m Buffer of Indicative Wider Works Site Boundary

Heneb Historic Landscape Character (HLC)¹

- Area 9: Nantlle slate quarries
- Area 12: Llanllyfni
- Area 15: Nebo
- Area 27: Llyfni river valley
- Area 34: Lleuar
- Area 49: Floor Of Nantlle valley

NOTES

1: There is no Heneb Historic Landscape Character data available for some sections of the Indicative Wider works site boundary.

A	21/08/2025	Environmental Statement	LP	JL	AM
Rev	Date	Description	GIS	Chk	App

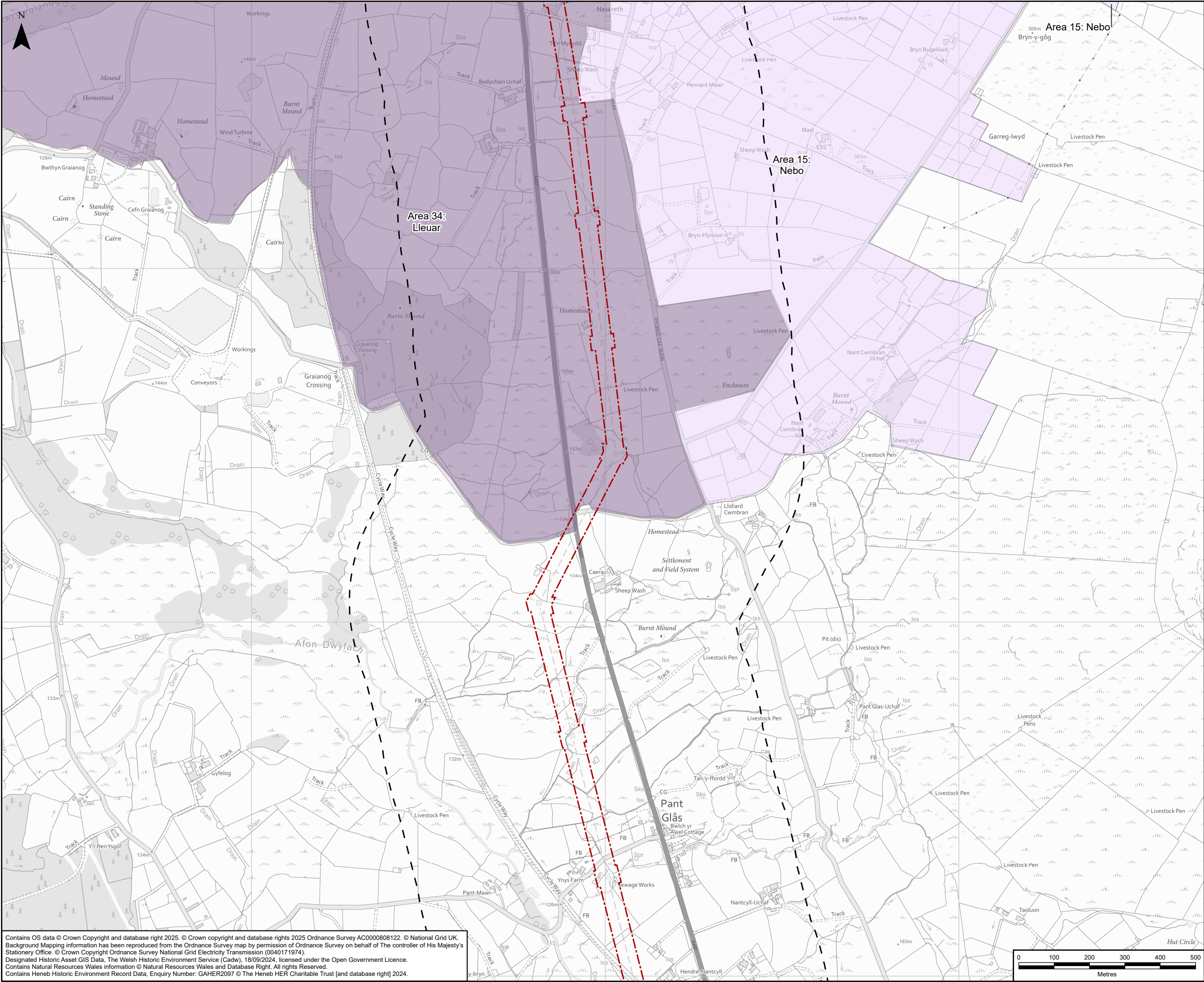
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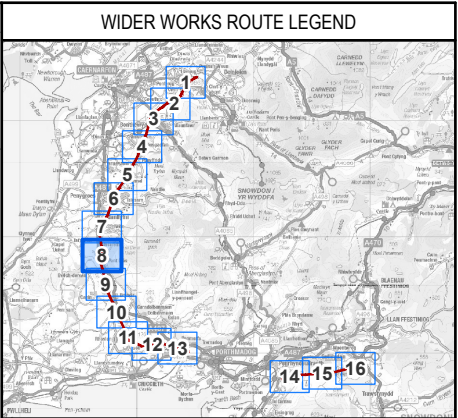
Volume: VOLUME 8: APPENDICES WIDER WORKS

Document Title: FIGURE 6.5.1.3 HISTORIC LANDSCAPE CHARACTER AREAS WITHIN 500M OF THE WIDER WORKS SITE

Creator: LP	Date: 21/08/2025	Checker: JL	Date: 21/08/2025	Approver: AM	Date: 21/08/2025
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Legend

- Indicative Wider Works Site Boundary
- 500m Buffer of Indicative Wider Works Site Boundary

Heneb Historic Landscape Character (HLC)¹

- Area 15: Nebo
- Area 34: Lleuar

NOTES

1: There is no Heneb Historic Landscape Character data available for some sections of the Indicative Wider works site boundary.

A	21/08/2025	Environmental Statement	LP	JL	AM
Rev	Date	Description	GIS	Chk	App

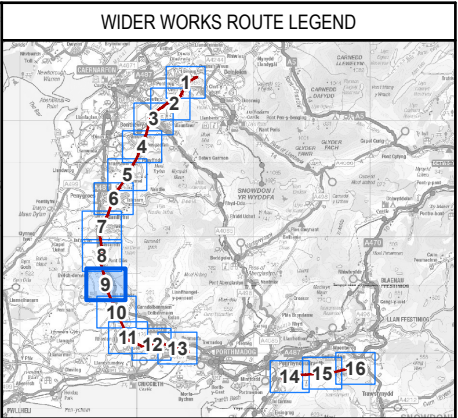
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Scheme: PENTIR TO TRAWSFYNYDD REINFORCEMENT

Volume: VOLUME 8: APPENDICES WIDER WORKS

Document Title: FIGURE 6.5.1.3 HISTORIC LANDSCAPE CHARACTER AREAS WITHIN 500M OF THE WIDER WORKS SITE

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Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 8 OF 16	Rev: A	



Legend

- Indicative Wider Works Site Boundary
- 500m Buffer of Indicative Wider Works Site Boundary

NOTES					
1: There is no Heneb Historic Landscape Character data available for some sections of the Indicative Wider works site boundary.					
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