



Llywodraeth Cymru
Welsh Government



A55(T) Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement

ENVIRONMENTAL STATEMENT VOLUME 2: TECHNICAL APPENDIX A CULTURAL HERITAGE



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust






This Technical Appendix contains the following documents, which support Chapter 5.2 (Cultural Heritage) of the Environmental Statement:

- A55(T) Abergwyngregyn to Tai'r Meibion Desk-based Assessment report (Gwynedd Archaeological Trust, 2016)
- A55(T) Abergwyngregyn to Tai'r Meibion Pre-Commencement Archaeological Evaluation report (Gwynedd Archaeological Trust, 2016)
- A55(T) Abergwyngregyn to Tai'r Meibion ASIDOHL report (Gwynedd Archaeological Trust, 2016)

A55(T) ABERGWYNGREGYN TO TAI'R MEIBION IMPROVEMENT

DESK BASED ASSESSMENT REPORT

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A55(T) Abergwyngregyn to Tai'r Meibion Improvement

Desk Based Assessment Report

Project No. G2424

Report No. 1258

Prepared for: Ymgynghoriaeth Gwynedd Consultancy (YGC)

August 2016

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Contents

Non-technical Summary	7
1 Introduction.....	8
1.1 Standards and Guidance.....	8
1.2 Scope of the A55(T) Tai'r Meibion to Abergwyngregyn Improvement Scheme..	8
2 Legislation and Planning Policy	11
2.1 Planning Policy Context.....	11
2.1.1 Legislative Context.....	11
2.1.2 National Planning Policy Framework.....	11
2.1.3 Local Planning Policy	12
3 Methodology	15
3.1 Desk Based Assessment and Field Survey of 300m Study Area.....	15
3.2 Assessment of Impact on setting of Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings within 2km of the proposed scheme	18
3.2.1 The Definition of Setting	18
3.2.2 Evaluating the Impact on Setting.....	19
4 Archaeological and Historic Background	21
4.1 Introduction	21
4.2 Topographic description	21
4.3 The Archaeological Background.....	21
4.3.1 Prehistoric and Roman (up to 400 AD)	21
4.3.2 Medieval (400 AD – 1485 AD).....	22
4.3.3 Post-medieval and later (1485 AD to the present day)	23
4.4 Conclusions	24
5 Desk Based Assessment and Field Survey of 300m Study Area	25
5.1 Baseline Description and Evaluation of Assets within the 300m Study Area ...	25
5.1.1 Heritage Assets of High Value	25
5.1.2 Heritage Assets of Medium Value	26
5.1.3 Heritage Assets of Low Value	29
5.1.4 Heritage Assets of Negligible Value.....	32
5.1.5 Heritage Assets of Unknown Value.....	32
5.1.6 Potential for Unknown Archaeological Remains	37
5.2 Magnitude of Impacts for Assets within the 300m Study Area	38
5.2.1 Archaeological Remains.....	38
5.2.2 Historic Buildings	39
5.2.3 Historic Landscapes	40
5.3 Summary of Possible Further Archaeological Work	41
5.4 Summary of Significance of Effects and Mitigation for Assets within the 300m Study Area.....	43
5.4.1 Archaeological Remains.....	43
5.4.2 Historic Buildings	47
5.4.3 Historic Landscapes	48
6 Impact on setting of Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings within 2km of the proposed scheme	49
6.1 Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings within 2km of the proposed scheme	49
6.1.1 Registered Historic Parks and Gardens	49

6.1.2	<i>Scheduled Monuments</i>	49
6.1.3	<i>Listed Buildings</i>	49
6.2	Results of Viewshed Analyses and Further Assessment of Impact on Setting	50
6.2.1	<i>Registered Historic Parks and Gardens</i>	50
6.2.2	<i>Scheduled Monuments</i>	51
6.2.3	<i>Listed Buildings</i>	54
6.3	Mitigation	62
7	Summary	64
8	References	65
	Appendix I – Archive Metadata	68
	Appendix II – Gazetteer of Assets within 300m Study Area	77

List of Tables

- Table 1.0: Criteria to assess the value of archaeological remains
- Table 2.0: Criteria to assess the value of historic buildings
- Table 3.0: Criteria to assess the value of historic landscape types
- Table 4.0: Cultural Heritage assets identified within the 300m study area
- Table 5.0: Factors in the Assessment of Magnitude of Impacts: Archaeological Remains
- Table 6.0: Factors in the Assessment of Magnitude of Impacts: Historic Buildings
- Table 7.0: Factors in the Assessment of Magnitude of Impacts: Historic Landscapes
- Table 8.0: Significance of Effects Matrix
- Table 9.0: Summary of Mitigation and Assessment of Significance of Effects: Archaeological Remains
- Table 10.0: Summary of Mitigation and Assessment of Significance of Effects: Historic Buildings
- Table 11.0: Summary of Mitigation and Assessment of Significance of Effects: Historic Landscapes
- Table 12.0: Registered Historic Parks and Gardens within the 2km study area and impact on setting
- Table 13.0: Scheduled Monuments within the 2km study area and impact on setting
- Table 14.0: Listed Buildings within the 2km study area and impact on setting
- Table 15.0: Proposed mitigation for assets in the 2km study area whose setting is impacted by the scheme

List of Figures

- Figure 1: Scheme extent and location
- Figure 2: Map of HLCAs
- Figure 3: Extent of the 300m study area and index to 1:5,000 Heritage Asset maps
- Figure 4: Heritage Assets within 300m study area map 1 of 4
- Figure 5: Heritage Assets within 300m study area map 2 of 4
- Figure 6: Heritage Assets within 300m study area map 3 of 4
- Figure 7: Heritage Assets within 300m study area map 4 of 4
- Figure 8: Registered Historic Parks and Gardens, Scheduled Monuments and Significant Views within 2km of the scheme
- Figure 9: Listed Buildings outside of 300m study area but within 2km of the scheme

List of Plates

Plate 01: Photo of Asset No 01, No's 1 & 2 Tan-y-Lon. View from the north.

Plate 02: Photo of Asset No 02, Turnpike House. View from the NNE.

Plate 03: Photo of Asset No 03, No's 7 & 8 Tan-y-Lon. View from the ENE.

Plate 04: Photo of Asset No 04, No's 9 & 10 Tan-y-Lon. View from the ENE.

Plate 05: Photo of Asset No 05 & 06, Shelter shed/ pigsties and farm buildings at Ty'n-yr-Hendre. View from the northeast.

Plate 06: Photo of Asset No 08, Ty'n-y-Hendre farm, Abergwyngregyn. View from the west.

Plate 07: Photo of Asset No 09, Lynchet, Ty'n-y-Hendre. View from the northwest.

Plate 08: Photo of Asset No 10, Site of cairn, Ty'n-yr-Hendre. View from the WSW.

Plate 09: Photo of Asset No 13 & 14, No's 1 & 2 Tan-yr-Allt cottages. View from the northwest.

Plate 10: Photo of Asset No 15 & 16, No's 3 & 4 Tan-yr-Allt cottages. View from the northwest.

Plate 11: Photo of Asset No 17, Culverts, north of Tan-yr-Allt cottages. View from the northwest.

Plate 12: Photo of Asset No 18 & 49, Hedgerow and possible Roman road east of Tan-yr-Allt cottages. View from the southeast.

Plate 13: Photo of Asset No 19, Revetment walls, north of Tai'r Meibion. View from the ENE.

Plate 14: Photo of Asset No 20, Gilfach Baptist Chapel, Llanllechid. View from the ENE.

Plate 15: Photo of Asset No 21, Tai'r Meibion. View from the southeast.

Plate 16: Photo of Asset No 22, Farm buildings at Tai'r Meibion. View from the northeast.

Plate 17: Photo of Asset No 23, Tai'r Meibion garden, Abergwyngregyn. View from the NNE.

Plate 18: Photo of Asset No 24, Enclosed fields, south and east of Tai'r Meibion. View from the ESE.

Plate 19: Photo of Asset No 25, Field boundaries, east of Tai'r Meibion. View from the WSW.

Plate 20: Photo of Asset No 26, Slate gate piers, south of Wig. View from the NNE.

Plate 21: Photo of Asset No 27, y-Wig medieval township. View from the east.

Plate 22: Photo of Asset No 29 & 33, Wig farm and garden, Abergwyngregyn. View from the SSW.

Plate 23: Photo of Asset No 31, Field boundaries, east of Wig. View from the ENE.

Plate 24: Photo of Asset No 32, Location of tumulus, Bryn Meddyg, Aber. View from the SSW.

Plate 25: Photo of Asset No 35, Site of Wig Bach (demolished), Abergwyngregyn. View from the SSE.

Plate 26: Photo of Asset No 36, Cottages, Bryn Meddyg, Abergwyngregyn. View from the west.

Plate 27: Photo of Asset No 37, Quarry, Bryn Meddyg. View from the NNE.

Plate 28: Photo of Asset No 38, Coed Bryn Meddyg relict field system. View from the ENE.

Plate 29: Photo of Asset No 39, The Old School, Aber. View from the SSE.

Plate 30: Photo of Asset No 40, Mill pond, southwest of St Bodfan's Church. View from the WNW.

Plate 31: Photo of Asset No 41, Abergwyngregyn Parish Church. View from the WNW.

Plate 32: Photo of Asset No 42, Tan-y-Fynwent, Abergwyngregyn. View from the northeast.

Plate 33: Photo of Asset No 44, The Old Rectory, Abergwyngregyn. View from the NNE.

Plate 34: Photo of Asset No 46, Aber Falls Hotel, Abergwyngregyn. View from the NNW.

Plate 35: Photo of Asset No 47, Crymlyn Cottage. View from the NNE.

Plate 36: Photo of Asset No 48, Cottage adjoining Crymlyn Cottage. View from the NNE.

Plate 37: Photo of Asset No 50, Site of original Abergwyngregyn Church. View from the NNW.

Plate 38: Scheme location from Penrhyn Park GD 40. View from the W.

Plate 39: View towards NE end of scheme location from the top of Aber Castle Mound (Pen-y-Mwd) CN007. View from the E.

Plate 40: View over entire scheme location from Maes y Gaer Camp (Hillfort) CN038. View from the ENE.

Plate 41: View towards NE end of scheme location from Medieval Homestead 400m SE of Maes y Gaer CN137. View from the ESE.

Plate 42: View towards NE end of scheme location from W corner of Enclosure & Associated Structures at Pen-y-Bryn CN218. View from the ENE.

Plate 43: View towards SW end of scheme location from Settlement Above Ffridd Ddu CN243. View from the ESE.

Plate 44: View towards SW end of scheme location from ground to the W of Hut Circle Settlement NW of Tan-y-Marian CN252. View from the SW.

Plate 45: View towards SW end of scheme location from Cairn to N of Cras CN344. View from the ESE.

Plate 46: View towards NE end of scheme location from Pen-y-bryn LB3651. View from the E.

Plate 47: Scheme location from Penrhyn Castle LB3659. View from the W.

Plate 48: View towards NE end of scheme location from trackway to the W (rear) of Ddol Cottages LB22904 and LB22913. View from the ESE.

Plate 49: View towards NE end of scheme location from footpath to the SW (rear) of Ty'n Ffridd LB81043. View from the ESE.

Non-technical Summary

Gwynedd Archaeological Trust (GAT) was commissioned by Ymgynghoriaeth Gwynedd Consultancy (YGC) to undertake a cultural heritage assessment of the proposed A55(T) road upgrade to identify heritage assets within a 300m study area and to assess their value. The A55(T) road upgrade extends for 2.2km between Junctions 12 (NGR SH62977173) and 13 (NGR SH65067263).

This report has compiled a gazetteer of assets sourced within the 300m study area via desk based research, subdivided into archaeological remains, historic buildings, and historic landscapes with a detailed summary. The report identified a total of 51 heritage assets within the 300m study area. The value of the Cultural Heritage assets across the three sub-topics ranges from Unknown to High, the majority of which have Medium or Low value.

No assets within the 300m study area are of sufficient value to require any changes to the general alignment of the scheme. The principal mitigation measures are the recording of archaeological remains at an appropriate level in advance of destruction; planting using locally common species; and avoidance of outlying sites by access and ancillary works.

A further study has been conducted to assess the impact of the scheme on Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings that are located outside of the 300m study area but within 2km of the proposed scheme. This report identified 1 Historic Park and Garden, 12 Scheduled Monuments and 49 Listed Buildings within the 2km study area. The scheme will have a Neutral impact on the setting of 51 of these assets and a Very Slight Negative impact on the setting of 11. Mitigation in these 11 cases consists of the replacement or reinstatement of any existing trees or hedgerows which are affected by the works.

1 Introduction

The Welsh Government has proposed an improvement to the A55(T) along a 2.2km stretch of road between Junctions 12 (NGR SH62977173) and 13 (NGR SH65067263) (Fig. 1).

YGC has commissioned Gwynedd Archaeological Trust (GAT) to undertake a heritage desk-based assessment to identify the baseline heritage assets within 300m of the A55(T) road upgrade and assess their value in accordance with guidance provided by the Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3 Part 2 'Cultural Heritage' (HA 208/07).

In addition to the identification and assessment of the heritage assets discussed above, YGC also commissioned GAT to assess the impact of the proposed scheme on the settings of Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings outside of the 300m study area but within 2km of the road improvement scheme, following discussion with Cadw. This further assessment has been conducted in accordance with the draft guidance set out in *Consultation on proposals for secondary legislation to support the Historic Environment (Wales) Act 2016 and various best practice guidance documents: Annex 6: Draft Setting of Historic Assets in Wales* (Welsh Government 2016).

Gwynedd Archaeological Planning Service (GAPS) is the curatorial body responsible for monitoring archaeological works undertaken as part of development within the region, representing and providing archaeological advice to the local planning authority.

1.1 Standards and Guidance

All work was planned, managed and undertaken in accordance with the following standards and guidance:

- Cadw, 2011. *Conservation Principles for the sustainable management of the historic environment in Wales*;
- Highways Agency *et al*, 2007, *Design Manual for Roads and Bridges* HA208/07 Volume 11, Section 3, Part II;
- Chartered Institute for Archaeologists, 2014, *Code of Conduct*;
- Chartered Institute for Archaeologists, 2014, *Standard and Guidance for historic desk-based assessment*;
- Welsh Government, 2016, *Consultation on proposals for secondary legislation to support the Historic Environment (Wales) Act 2016 and various best practice guidance documents: Annex 6: Draft Setting of Historic Assets in Wales*
- Welsh Office, 1996, Circular 61/96 – *Planning and the Historic Environment: Historic Buildings and Conservation Areas*;
- Welsh Office, 1996, Circular 60/96 - *Planning and Historic Environment: Archaeology*.

1.2 Scope of the A55(T) Tai'r Meibion to Abergwyngregyn Improvement Scheme

The Welsh Government: Transport proposes an improvement to the A55 trunk road between Tai'r Meibion and Abergwyngregyn, in the County of Gwynedd, northwest Wales. This

consists of the upgrading of a 2.2km (1.3 mile) section of the A55(T). The existing horizontal alignment would essentially be retained and a 1m wide hard strip would be added to each side of both the two lane carriageways. The vertical alignment would be improved to current standards and in general the existing pavement would be overlain with new bituminous construction.

Verges

The northern verge would be 2.5m wide and grassed. The southern verge would also be 2.5m wide but would consist of a 1.7m wide bituminous hard shoulder with a filter drain alongside. The verge width would vary to provide the required visibility splays at the junction to Y Glyn Farm and the Bryn Meddyg properties.

New roads, pathway, and access track

A new, 3m wide, 2.6km (1.6 mile) section of Class 3 road/ Non-Motorised User Route (NMU) would run parallel with, and to the north of, the northern verge from the Abergwynnregyn Interchange, adjacent to Pentre Aber Farm (formerly College Farm), westwards to just east of Wig Farm. This road will also connect Wig Crossing Cottages and Wig Farm, and continue westwards to terminate at the Tal-y-Bont Interchange.

A new, 3m wide, 250m stretch of link road would run parallel with, and to the south of, the southern verge from Bryn Meddyg to the existing access road.

A 850m section of footway will run between the Tan-yr-Allt cottages and the Tan-y-Lon bus stop. The footway will be 1.5m wide, except where it crosses the Tan-y-Lon overpass where it will reduce to 0.9m due to restricted area for construction. The footpath will be built within the existing grass verge of the road.

A new 3.5m wide, 500m stretch of field access track (hard standing) would run northeast from Henffordd Road towards Coed Wern-porchell before turning east to run along the southern edge of the wood, cross over the Afon Wig and link up with the existing Wig Farm subway access track.

Road widening

At the southwestern end of the site, the Unclassified Roman Road (Henffordd Road) would be widened on its northern side from just west of Crymyln, up to the western Tai'r Meibion farm entrance, approximately 810m, in order to accommodate agricultural vehicles. The new width would be 3.5m with a 1.5m wide footway.

Kerbs and drainage

Both carriageways would have standard crossfall to the nearside edge to discharge surface water into a drainage channel alongside. Kerbs would only be provided at the junction on the westbound carriageway, cattle underpasses, and locations where there was a footway.

The surface water would be collected in a new drainage system and discharged into existing watercourses as at present. Eight watercourses cross under the A55(T) via existing culverts and these would be extended to accommodate the carriageway requirements. New outfalls would be constructed to replace the existing at the eastern end of the scheme. An

attenuation pond approximately 640m² in area is to be provided on the northern side of the carriageway, to the east of Wig Farm.

New junctions and improved safety

For safety reasons all the existing private accesses, field accesses, and gaps in the central reservation would be permanently closed. There would be no junction on the eastbound carriageway and access to properties on the northern side would be from the Tal-y-Bont Interchange to the west via the new NMU/ Private Means of Access (PMA) adjacent to the A55(T). Access to properties on the southern side would be via a single westbound junction to Y Glyn Farm with a link road to the Bryn Meddyg properties.

Right turns would not be permitted from the westbound junction. Drivers wishing to travel towards Conwy would have to turn left onto the dual carriageway and then use the Tal-y-Bont Interchange. Access to these properties on journeys from Bangor would have to be via the Abergwyngregyn Interchange.

Subways

The existing cattle underpasses at Tai'r Meibion and Wig Farms would be extended to accommodate for the widened carriageway and to meet current standards.

2 Legislation and Planning Policy

2.1 Planning Policy Context

2.1.1 Legislative Context

The European Union Council Directive 2011/92/EU, amended by Directive 2014/52/EU, requires the preparation of an Environmental Impact Assessment (EIA) for certain types of projects likely to have significant effects on the environment. This helps to ensure that the predicted effects and the scope for reducing them are properly understood by the relevant authorities, statutory consultees and general public. The Highways (Environmental Impact Assessment) Regulations, 2007 (SI No. 1062) interpret these Directives. Under these Regulations, a highway scheme such as a motorway widening or new bypass may require an Environmental Impact Assessment (EIA). In accordance with the Schedules to the Regulations and Directive it has been determined that an EIA is required for this highway scheme.

The *Hedgerow Regulations* (Section 97, The Environment Act, 1997) protects hedgerows over 20 metres in length and older than 30 years which are considered to be historically, ecologically or visually important and which meet another hedgerow at each end. Stone walls without associated hedgerows are excluded from the regulations.

2.1.2 National Planning Policy Framework

National planning policy guidance in Wales is provided in the form of *Planning Policy Wales: Edition 7* (PPW) (WAG, July 2014) which Local Authorities are required to have regard to protection of the historic environment in decision-making and in the preparation of their plans and strategies. PPW is supplemented in relation to the historic environment by Technical Advice Notes (TANS) and two circulars: Circular 60/96 and Circular 61/96.

In Wales planning policy guidance concerning archaeological remains is established in *Circular 60/96 Planning and the Historic Environment: Archaeology* (Welsh Office, 1996a). This guidance establishes that where nationally important archaeological remains, whether scheduled or not, are affected by a proposed development, there should be a presumption in favour of their preservation *in situ*. Remains of regional or local importance may also be worthy of preservation *in situ* or alternatively preservation by record.

Planning policy guidance concerning the built heritage in Wales planning framework in Wales is provided in *Circular 61/96 Planning and the Historic Environment: Historic Buildings and Conservation Areas* (Welsh Office, 1996b). This guidance establishes that it is an objective of central government policy to secure the preservation of listed buildings and any features of special architectural or historic interest, which they might possess. Conservation Areas are protected as areas of 'special architectural or historic interest', which it is the duty of the local authority to preserve or enhance. This guidance also covers the treatment of historic landscapes, parks and gardens within the planning system.

LANDMAP (Landscape Assessment and Decision-Making Process) is the methodology promoted and supported by Countryside Council for Wales (CCW) and Welsh Unitary Authorities for assessing the diversity of landscapes within Wales. It identifies and explains their most important characteristics and qualities - whether they are ordinary, but locally important landscapes, or nationally recognised spectacular landscapes. Carried out at a

Unitary Authority level, information is recorded about an area's geological, ecological, visual, cultural and historic character. The combination of these layers of information makes it possible to assess the richness or complexity of landscapes at a national and local level.

LANDMAP draws attention to the most important elements of the landscape and helps decision-makers to make informed judgements. These, in turn, strengthen Wales's diverse landscape heritage. It provides a consistent framework for collecting landscape information, primarily for landscape planners. Through studying information about an area's landscape, decision makers can understand what makes it distinctive, helping identify a sense of place

2.1.3 Local Planning Policy

The Gwynedd Unitary Development Plan 2001-2016 Policy CH25 – New Roads and Road Improvements states:

Proposals for improvements to existing roads and for new sections of roads will be approved provided there is sufficient justification for the development on economic and public safety grounds and that there will be no unacceptable environmental effects. Developers must prove that other options have been considered and that the scheme with the least environmental impact has been chosen that all the following criteria can be met:

- *that the improvement/ new road scheme reflects the road's status in the defined road hierarchy;*
- *that the design reduces the danger of accidents for road users;*
- *that the design incorporates measures that encourages journeys by public transport and reflects the needs of cyclists and pedestrians;*
- *that the scheme is acceptable in terms of its impact on the community;*
- *that the scale and design of the proposed development is suitable for the location;*
- *that every practical effort is made to ensure that the development will not cause significant harm to the landscape, the coast, biodiversity, or historic areas/ features,. Particularly within or near designated areas;*
- *that appropriate measures are included to reduce the risk of injury or death as a result of collision between vehicles and wildlife;*
- *that the development will not cause significant harm to the amenities of neighbouring residents or sensitive uses;*
- *that the proposal incorporates adequate measures to mitigate the effects of the scheme.*

In addition - Paragraph 5.3.16 states '*It is important to ensure that the necessary changes/ improvements to the highway network seek to reduce the environmental effect of the scheme, especially within sensitive areas such as the Area of Outstanding Natural Beauty, nature conservation sites of international, national and local importance, Landscape Conservation Areas, conservation areas and sites which help reduce the number of animals killed or wounded on the roads'*

The Gwynedd Unitary Development Plan 2001-2016 is due to be replaced by the Gwynedd and Anglesey Joint Local Development Plan (LDP) and a draft version of this plan has been created (2015). This Deposit Plan sets out Gwynedd Council and the Isle of Anglesey County Council's proposed planning policy up to 2026. Policy TRA1 Transport Network Developments deals with improvements to existing infrastructure and states:

Improvements to the existing transport network will be granted provided they conform to the following criteria:

- *The choice of route and/or site minimises the impact on the built and natural environment, landscapes and property; and*
- *Permanent land-take is kept to the minimum that is consistent with good design and high quality landscaping; and*
- *In the case of cycle ways, park and ride schemes, roads and roadside service areas, the scheme will help to improve road safety; and*
- *In the case of new roads a full range of practicable solutions to the transport problem has been considered and road enhancement provides the optimum solution; and*
- *In the case of roadside service areas, the scheme must adjoin the strategic road network, focus primarily on serving the needs of motorists, not impede the movement of strategic traffic and in line with Strategic Policy PS12 not undermine retail provision in the Sub-Regional Centre, Urban and Local Service Centres or Villages.*

Policy AT1: Conservation Areas, World Heritage Sites and Registered Historic Landscapes, Parks and Gardens states:

Proposals within or affecting the setting and/ or significant views into and out of Conservation Areas, World Heritage Sites and Registered Historic Landscapes, Parks and Gardens shown on the Constraints Map must, where appropriate, have regard to:

- *Adopted Conservation Area Character Appraisals, Conservation Area Plans and Delivery Strategies.*
- *World Heritage Site Management Plans.*
- *The Register of Landscape, Parks and Gardens of Special Historic Interest in Wales.*
- *Other detailed assessments adopted by the Local Planning Authority.*
- *Development proposals should be supported by a Heritage Impact Assessment, where appropriate.*

Policy AT4: Protection of Non-Designated Archaeological Sites states:

Proposals which may affect sites that are of potential national archaeological importance or are of acknowledged local heritage importance including sites of industrial archaeology that are not scheduled will:

- *Be assessed in terms of the intrinsic importance of the 'site' and the potential extent of harm.*
- *Require, where appropriate, either an archaeological assessments and/ or field evaluation by an archaeological body or a professionally qualified archaeologist in order to determine the archaeological impact of the proposed development before the Planning Authority determines the application.*
- *A proposal which affects locally important archaeological remains will only be granted if the need for the development overrides the significance of the archaeological remains.*
- *Where proposals are acceptable, a site a site a condition will be attached to the permission stating that no development should take place until an agreed programme of archaeological work has taken place.*

3 Methodology

3.1 Desk Based Assessment and Field Survey of 300m Study Area

A 300m study area was defined along an 2.2km section of the A55(T) that is proposed for upgrading based on the guidance provided by HA208/07 (Fig. 3). The start of the project is from just after Junction 13 (NGR SH62977173) in the west to Junction 12 (NGR SH65067263) in the east.

This part of the desk based assessment work has been carried out in accordance with the methodology within DMRB Volume 11, Section 3, Part 2 Cultural Heritage (revised August 2007) as described below. Under the guidance provided by HA 208/07, cultural heritage is divided into three sub-topics:

- Archaeological Remains – the material remains of human activity from the earliest periods of human evolution to the present. These may be buried traces of human activities, sites visible above ground, or moveable artefacts. Archaeological Remains can encompass the remains of buildings, structures, earthworks and landscapes; human, animal or plant remains, or other organic material produced by or affected by human activities, and their settings (HA 208/07, Annex 5, para 5.1.1);
- Historic Buildings – ‘architectural or designed or other structures with a significant historical value’. These may include structures that have no aesthetic appeal or structures not usually thought of as ‘buildings’, such as milestones or bridges (HA 208/07, para 2.5); and
- Historic Landscape – the current landscape, whose character is the result of the action and interaction of natural and/or human factors (HA/208/07) Annex 7, para 7.1.2). The evidence of past human activities is a significant part of the Historic Landscape and may derive both from archaeological remains and historic buildings within it.

For the purposes of the desk-based assessment, the following sources were consulted:

- The regional Historic Environment Register (HER), located at the Gwynedd Archaeological Trust; this included an examination of the core HER, and secondary information held within the record which includes reports, pre-Ordnance Survey and historic Ordnance Survey mapping (including the 1:2500 County Series maps).
- The National Monuments Record of Wales (Plas Crug, Aberystwyth), which was checked for sites additional to the HER.
- The inventories of the Royal Commission on Ancient and Historical Monuments for Wales, and works held within the regional libraries and the University of Wales Bangor library were examined.
- Indices to relevant journals, including county history and archaeological society journals and national society journals such as *Archaeologia Cambrensis* were checked.
- Information about Listed Buildings and Scheduled Ancient Monuments was obtained from Cadw: Welsh Historic Monuments;

- The Central Register of Aerial Photography for Wales (Aerial Photographs Unit, Welsh Government, Crown Offices, Cathays Park, Cardiff), was checked for pre-afforestation RAF aerial photographs.

The field survey was carried out in good weather on 1st April and 22nd October 2008, as well as on 22nd June 2015. The aim of this stage of work was to:

- verify the results of the desk-based assessment;
- identify any further archaeological sites which may exist as above ground features;
- and to photograph and record the present condition of all sites noted.

For all three cultural heritage sub-topics, in accordance with the *Design Manual for Roads and Bridges* (HA208/07), an assessment of the value of each heritage receptor (or asset) within the study area was undertaken on a six-point scale of Very High, High, Medium, Low, Negligible and Unknown (Tables 1.0, 2.0 and 3.0).

The assessment of value was based on professional judgement informed by the guidance provided in DMRB (HA208/07).

Table 1.0 Criteria to assess the value of archaeological remains

Value	Criteria
Very High	<ul style="list-style-type: none"> • World Heritage Sites (including nominated sites). • Assets of acknowledged international importance. • Assets that can contribute significantly to acknowledged international research objectives.
High	<ul style="list-style-type: none"> • Scheduled Monuments (including proposed sites). • Undesignated assets of schedulable quality and importance. • Assets that can contribute significantly to acknowledged national research objectives.
Medium	<ul style="list-style-type: none"> • Designated or undesignated assets that contribute to regional research objectives.
Low	<ul style="list-style-type: none"> • Designated and undesignated assets of local importance. • Assets compromised by poor preservation and/or poor survival of contextual associations. • Assets of limited value, but with potential to contribute to local research objectives
Negligible	<ul style="list-style-type: none"> • Assets with very little or no surviving archaeological interest.
Unknown	<ul style="list-style-type: none"> • The sensitivity of the site has not been ascertained.

Table 2.0 Criteria to assess the value of historic buildings

Value	Criteria
Very High	<ul style="list-style-type: none"> Structures inscribed as of universal importance as World Heritage Sites. Other buildings of recognised international importance.
High	<ul style="list-style-type: none"> Scheduled Monuments with standing remains. Grade I and Grade II* Listed Buildings. Other listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade. Conservation Areas containing very important buildings. Undesignated structures of clear national importance.
Medium	<ul style="list-style-type: none"> Grade II Listed Buildings. Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations. Conservation Areas containing buildings that contribute significantly to its historic character. Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).
Low	<ul style="list-style-type: none"> 'Locally Listed' buildings. Historic (unlisted) buildings of modest quality in their fabric or historical association. Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).
Negligible	<ul style="list-style-type: none"> Buildings of no architectural or historical note; buildings of an intrusive character.
Unknown	<ul style="list-style-type: none"> Buildings with some hidden (i.e. inaccessible) potential for historic significance.

Table 3.0 Criteria to assess the value of historic landscape types

Value	Criteria
Very High	<ul style="list-style-type: none"> World Heritage Sites inscribed for their historic landscape qualities. Historic landscapes of international value, whether designated or not. Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).
High	<ul style="list-style-type: none"> Designated historic landscapes of outstanding interest. Undesignated landscapes of outstanding interest. Undesignated landscapes of high quality and importance, and of demonstrable national value. Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).
Medium	<ul style="list-style-type: none"> Designated special historic landscapes. Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value. Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	<ul style="list-style-type: none"> Robust undesignated historic landscapes. Historic landscapes with importance to local interest groups. Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	<ul style="list-style-type: none"> Landscapes with little or no significant historical interest.

3.2 Assessment of Impact on setting of Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings within 2km of the proposed scheme

3.2.1 The Definition of Setting

The following definition of setting is taken from Consultation on proposals for secondary legislation to support the Historic Environment (Wales) Act 2016 and various best practice guidance documents Annex 6: Draft Setting of Historic Assets (Welsh Government 2016)

- Setting is the surroundings in which a historic asset is understood, experienced and appreciated, embracing present and past relationships to the surrounding landscape. It often extends beyond the property boundary or ‘curtilage’ and into the surrounding landscape or townscape. Although many historic assets are visible and their settings are obvious, those that are buried also have a setting.
- The setting of a historic asset can include physical elements of its surroundings. These may be boundary walls, adjacent fields or functional and physical relationships with other historic assets or natural features. For example, the setting of a listed farmhouse might be its physical agricultural surroundings. Equally, the setting of a scheduled industrial steam engine house might be its associated industrial landscape of quarries, tramways, or waste heaps.
- The setting of a historic asset can also include less tangible elements. These may include function, sensory perceptions or historical, artistic, literary and scenic associations. Although views to and from a historic asset are often the most obvious factor, other sensory elements can also have an impact on setting — for example, the noise from a road set in a cutting or the sounds and smells of a new industrial process in an existing building. Such elements can be more subjective and more difficult to assess than physical factors, but both make up the setting of a historic asset and contribute to its significance.
- The setting of a historic asset is not fixed and can change through time as the asset and its surroundings evolve. These changes may have a negative impact on the significance of an asset; for example, the loss of the surrounding physical elements that allow an asset to be understood, or the introduction of an adjacent new development that has a major visual impact. But changes can also have a positive impact that may enhance the setting, such as the removal of traffic from part of a historic town, or the opening up of views, or the return of a sense of enclosure to sites where it has been lost.

3.2.2 Evaluating the Impact on Setting

An evaluation of the impact of the proposed scheme on identified assets will be assessed according to the following criteria taken from Consultation on proposals for secondary legislation to support the Historic Environment (Wales) Act 2016 and various best practice guidance documents Annex 6: Draft Setting of Historic Assets (Welsh Government 2016).

- The visual impact of the proposed change or development relative to the scale of the historic asset and its setting;
- The visual impact of the proposed change or development relative to the location of the historic asset
- Whether the proposed change or development would dominate the historic asset or detract from our ability to understand and appreciate it, including for example its functional or physical relationship with the surrounding landscape and associated structures;
- The lifespan of the proposed change or development;
- The extent of tree cover, whether it is deciduous or coniferous, and its likely longevity;
- The presence, extent, character and scale of the existing built environment within the surroundings of the historic asset and how the proposed change or development compares with this ;
- The cumulative effect of the proposed change or development —sometimes relatively small changes, or a series of small changes, can have a major impact on our ability to understand, appreciate and experience a historic asset;
- The capability of a landscape setting to absorb change or new development without the erosion of its key characteristics;
- The impact of the proposed change or development on non-visual factors of the setting, such as sense of remoteness, evocation of the historical past, sense of place, cultural identity or spiritual responses; and
- The impact of non-visual elements of the proposed change or development, such as the removal or addition of noises and smells.

The scope and scale of the proposed scheme as an improvement to an existing trunk road has determined the aspects of impact on setting of historic assets that will be considered. In this instance, it is not expected that the scheme will result in an increase in the amount of traffic and hence noise levels, when compared to the existing road. Nor will the improvement scheme dominate or detract from our ability to understand an historic asset when compared to the impact on this aspect of setting resulting from the existing road. The effects on the surroundings of assets between 300m and 2km away from the proposed scheme are likely to be confined to the visual impact of the scheme how it affects our ability to understand, appreciate and experience a historic asset.

To this end, the assessment of the impact on setting of all Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings lying within 2km of the proposed scheme was conducted as a 3 phase process.

Phase 1

The first stage of the assessment involves identifying all Registered Parks and Gardens, Scheduled Monuments and Listed Buildings lying within 2km of the proposed scheme, but outside of the 300m study area. Information about Registered Historic Parks and Gardens, Listed Buildings and Scheduled Ancient Monuments was obtained from Cadw: Welsh Historic Monuments Digital GIS datasets held by Gwynedd HER. The sites identified to be included were agreed with Cadw.

Phase 2

Using Ordnance Survey Land-form Profile data obtained from Edina Digimap (OS Land-Form Profile [NTF geospatial data], 2009), a digital terrain model (DTM) of the scheme location and surrounding area at a resolution of 2m was constructed using the Vertical Mapper 3.5 plugin within MapInfo 11 GIS. Viewsheds over the scheme footprint for an observer height of 1.8m were calculated from the locations of all identified Historic Parks and Gardens, Scheduled Monuments and Listed Buildings that lie beyond the 300m and within the 2km, study areas in order to identify assets whose settings were likely to be affected by the visual impact of the scheme.

The DTM does not model above ground surface features such as buildings, trees, hedges etc. and so viewsheds can return a positive result even when in practice, structures or vegetation may obscure the view of a target from the assessed location. Viewshed analysis using a DTM may still however be regarded as useful in determining the potential range of visibility of the scheme.

The viewsheds enable the identification of historic assets within the 2km study area with potential views over the scheme. Following this, it was possible to identify the impact of the proposals on the setting of the historic assets with views over the scheme.

Phase 3

The visual impact of the scheme on the settings of the Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings identified during viewshed analyses as having views over the scheme, was further assessed by a combination of field visits, reference to aerial photography and where coverage allowed, analysis of Google Street View. Field visits were carried out on 02/08/2016. A sample of sites with negative results were also tested by field visit to assess the reliability of the viewsheds.

In accordance with guidance in Consultation on proposals for secondary legislation to support the Historic Environment (Wales) Act 2016 and various best practice guidance documents Annex 6: Draft Setting of Historic Assets, the impact of the development on the setting of the historic asset was then assessed as positive, neutral or negative. Positive or negative impacts are also described as severe, moderate, slight and very slight. As stated in the guidance, depending on the level of impact, especially if it is severe or moderate, mitigation measures to reduce the negative impact of the proposals will also be considered (Welsh Government 2016, 9).

4 Archaeological and Historic Background

4.1 Introduction

This section provides an overview of the topographic and historic background to the area of the proposed A55(T) road upgrade and is relevant to all three assessment sub-topics. Archive material consulted during the desktop study provided some dating evidence for known sites, and maps of successive dates made it possible to understand how the landscape had developed. Ordnance Survey map coverage of the area was good. The tithe maps (1839 and 1848) provided some additional information although the fields are not noted in detail, rather as blocks of land ownership. The location of sites described in the text are shown on Figure 3.

4.2 Topographic description

The topography of the area consists of three distinct zones, the coastal plain, the uplands to the south, and the Aber valley. The Aber valley is a deep and steep sided narrow valley with waterfalls and with glacial origins, as shown by the truncated stream valleys that enter it. The river has also worn down into the valley creating a small gorge through the glacial debris on the valley floor. At the mouth of the valley, close to the Aber Falls hotel at 25m OD, the river enters onto a narrow coastal plain. This is gently sloping, formed of the outwash delta of glacial materials from the mountains around. At its north edge it consists of fine sediments only a few metres above maximum high tide and is eroding into the sea.

The land use within the A55 corridor is predominantly pastoral, and the fields consist almost entirely of improved pasture within a fertile coastal strip. The proposed access route from Tan-yr-Allt to Wig crosses some smaller fields at the interface between the coastal strip and the uplands to the south.

4.3 The Archaeological Background

4.3.1 Prehistoric and Roman (up to 400 AD)

Evidence of prehistoric activity within the coastal strip is provided mainly by stray finds from the fields. A Bronze Age axe was found at Wig Farm (PRN 6811), while a Bronze Age stone axe hammer from College Farm, Abergwyngregyn (PRN 4071), and a Bronze Age burial urn at Pen-y-Bryn, immediately to the east of Abergwyngregyn (PRN 4079), have also been found. Systematic study of the Aber valley, immediately to the southeast of the study area has produced many prehistoric and later remains (GAT 2001), whilst east of Abergwyngregyn a 'burnt mound' has been located (GAT 1994). There is significant evidence for prehistoric activity in the uplands with several cairns of Bronze Age type on the hill-tops and ridges as well as remains of settlements and fields. The remains of potentially prehistoric and / or medieval fields, Coed Bryn Meddyg Relict Field System (RCAHMW NPRN 408179) lie within the study area in fields to the south of the A55 carriageway between Bryn Meddyg and the Old School, Abergwyngregyn.

During the Roman period a major road between *Segontium* (Caernarfon) and *Canovium* (Caerhun) in the Conwy valley ran very close to the study area (GAT PRN 17,568; RCAHMW NPRN 405340). The course of this road is known to the east of Abergwyngregyn at Madryn Farm, where a Roman milestone has been discovered (PRN 638). The exact line

of the road within the study area cannot be clearly identified, although based on the location of known milestones it probably ran to the south of the study area (GAT 2005, 6-8). A Roman coin has been recovered from Abergwyngregyn parish (PRN 4073), while a possible Roman fortlet has been identified at Tal-y-Bont, 2km west of the study area (PRNs 2454 and 2465).

4.3.2 Medieval (400 AD – 1485 AD)

In the early medieval period the centralised control of Roman administration broke down into territorial divisions known as *cantrefi* (hundreds), which were subdivided into *commotes*. Abergwyngregyn was the commotal centre of Arllechwedd Uchaf and one of the seats of the Princes of Gwynedd, and thus important as a regional centre of power. The court, or *llys*, may have been located at or near the site of the motte (PRN 370), or closer to the present Pen-y bryn, on the east side of Abergwyngregyn (Johnstone 2000). The earliest settlement at Aber is probably indicated by the site of St. Bodfan's church on a rise in ground to the west of the village. The original church was demolished and rebuilt but it lies within a sub-circular enclosure or *llan*. Such features usually indicate an early medieval foundation, and the earliest ecclesiastical settlement would have developed around the church.

It was control of the crossing point at the junction of the coastal road and another taking the upland route through the valleys that was the key to Aber's importance and the reason why a small castle on a mound or motte was built there, possibly during a campaign by the Norman Earl of Chester during an unsuccessful attempt to subjugate Gwynedd between 1081-1090. Later, when Gruffudd ap Cynan reasserted the independence of Gwynedd and established administrative control he made Aber the *llys* or court of the commote of Arllechwedd Uchaf. The hall that was built there became one of the favourite residences of the princes of Gwynedd. The valley was a sheltered place and its position facing the priory at Penmon may also have made it attractive. The earliest antiquarian description was by Leland in the 1530's who stated 'The moode in the parish of Aber otherwise Llan Boduan, wher Tussog Lluelin uab Gerwerd Trundoon had a castle or palace on a hill by the church, whereof yet parte stondith'. Excavations in 1993 revealed the foundations of a hall close to the castle mound of Ty'n y Mwd, associated with pottery of the 13th-15th century, a ring-brooch of 13th-14th century style and a coin dating to 1335-43 (Johnstone 1994, 1995, 1997, and 2000; Longley 1997).

The hall of the *llys* lay close to the motte and within a curvilinear enclosure believed to be the bailey or castle yard. The village grew up around the west side of this bailey enclosure. In the late 13th century 24 families were recorded as living there (Lewis 1912, 175). Elements of the Coed Bryn Meddyg Relict Field System (RCAHMW NPRN 408179), located to the SW of the current village, may be related to the once thriving medieval settlement at Aber.

After the death of Llywelyn the Manor of Aber passed through various hands and although still maintained for some time the hall eventually fell into decay. However, the village continued and in 1339 was granted the right to hold a weekly market and a fair three times a year (*ibid*). It seems to have flourished because of its position on the crossroads at the junction of the valley and coastal road and the route from the coastal road across the Lavan Sands for the ferry across to Anglesey, which was the chief route across the Straits until the opening of Telford's bridge in 1826. This route was also a droving route, which took the valley road over the hills and may have therefore been associated with the Aber fairs.

Aber is also of significance owing to it having been at the focus of the traditional routes from Anglesey across the Lafan Sands, the mainland to the west and the Conwy valley across the hills to the east.

There was also a medieval settlement at Wig (PRN 681) which is referred to in medieval extents and grants. It was a bond township of two *gafaelion*. The medieval township may have contained more than one settlement, but it is likely that at least one of these lay on or near the present Wig, which lies 100m north of the proposed improvements. An area of earthworks survives at Wig Farm which could be medieval in date and if this is the case could form part of a documented medieval settlement of regional importance.

4.3.3 Post-medieval and later (1485 AD to the present day)

During the post-medieval period there appears to have been dispersed settlement along the fertile coastal strip east of Abergwyngregyn. The survival of estate maps and plans for this area is extremely limited (Johnstone 1995, 16). A 1693 survey of the sea coast of England [including Wales] shows roads crossing the Lavan Sands, with no detail of the fields in the coastal strip (Collins 1693). A plan of the *New Road of Penmaenmawr* dated to 1769 (UCNWB Penrhyn 198) showing the proposed new turnpike route between Conwy and Bangor, shows a pattern of irregular small fields on the coastal strip, although it does not show any detail or the location of any structures with the exception of the old bridge at Aber. A survey of the glebe land at Aber parish dated to 1776 shows four irregular shaped fields, three of which appear to have been under cultivation and one pasture on the coastal strip immediately north of Aber on the west side of the river (Gwynedd Archives XPE/56/106), and also indicated that the surrounding land was the property of the Baron Hill estate. The earliest reasonably detailed depiction of the wider area is provided by the John Evans map of 1797, which shows buildings scattered across the coastal strip by Abergwyngregyn. The more accurate 1 inch OS depiction, completed by 1823, shows a scatter of buildings on either side of the main road and linked to it by a series of smaller roads or tracks. In 1839 the Bangor to Conwy road was improved in Abergwyngregyn with a new road and bridge built north of the village itself, effectively bypassing it (UCNWB Baron Hill MSS 6895). The Llanllechid tithe map of 1839 and the Abergwyngregyn tithe map of 1848 (Gwynedd Archives) only shows the boundaries between different land blocks, rather than the individual fields themselves. A railway plan of c.1840 shows that the area was divided into numerous small fields of irregular size and shape, which could date back to early times.

The principal 19th century landowners in the study area were the Bulkeley and Pennant families, the former having gained control of the manor in 1689, who at some time between 1848 and 1896 reorganised the coastal strip into a landscape of rectilinear fields. This resulted in the loss of many of the small roads and buildings shown on earlier maps. This field pattern has survived with only limited alteration until the present day. The Bulkeley family remained the main proprietors of the manor until 1863 when they sold off their Caernarfonshire lands and Abergwyngregyn holdings to the Penrhyn estate in whose holding it remained until into the 20th century (Evans 2003).

Improvements were carried out at Wig Farm and Wig Bach cottages in the early years of the 20th century (UCNWB Baron Hill MSS 6608, Penrhyn MSS 14), and Wig Bach cottage was demolished in 2011.

4.4 Conclusions

The assessment area and that surrounding it is rich in archaeological remains from the prehistoric through to the post-medieval period. The majority of the sites are located around the village of Abergwyngregyn. The whole area under assessment is likely to be the site of early settlement, with a particular emphasis on cooking activity close to the water courses. This usually takes the form of mounds of fire cracked rocks. The presence of the Roman road between Caernarfon and Caerhun is of great significance and means that there is significant potential for finding Roman remains. There is significant evidence for medieval settlement at Abergwyngregyn and Y Wig, within the study area.

5 Desk Based Assessment and Field Survey of 300m Study Area

5.1 Baseline Description and Evaluation of Assets within the 300m Study Area

A summary of the baseline information including an assessment of value is provided below.

From the sources listed above (Section 3) a total of 51 cultural heritage assets consisting of 24 historic buildings, 23 archaeological remains, three Historic Landscape Character Areas, and a Historic Landscape Field System have been identified within the study area (Fig. 3). These comprise:

- *Six heritage assets of High value;*
- *Eighteen heritage assets of Medium value;*
- *Eighteen heritage assets of Low value;*
- *Six heritage asset of Negligible value;*
- *Three heritage assets of Unknown value.*

These heritage assets are summarised in Table 4.0 below and the locations of the archaeological remains, historic buildings and historic landscapes identified are shown on Figures 3-7.

5.1.1 Heritage Assets of High Value

A total of six heritage assets have been assessed to be of High value.

Asset Number 05 (Plate 05): Within the cobbled farmyard at Ty'n-yr-Hendre there is a shelter shed/ pigsties (NGR SH6226671138) which is a Grade II* listed building. The shelter/ pigsties have lost the slates and rafters of their lean-to roof, but are otherwise complete. They consist of four pens facing the entrance to the farmyard, with doors to the interior of the sites divided by stone cross walls. There is a boarded door in the north end wall of the lean-to section, and there are slate and brick feeding troughs within the pens.

Asset Number 06 (Plate 05): The farmhouse at Ty'n-yr-Hendre is also a Grade II* listed building (NGR SH6244171142). The farmhouse was built about 1860 by the Penrhyn Estate as the farmhouse for the model farm at Ty'n-yr-Hendre. The fact that, even for a model farm, the farmhouse is unusually distant from the farm buildings and of more than average architectural distinction, reflects the farm's role as the estate's specialist horse farm and that the farmhouse was occupied by an estate official rather than by a tenant farmer.

The farm buildings consist of a long six-bay rectangular-plan open-fronted shelter shed aligned very roughly east-west with lean-to pigsties attached to east end. Roughly coursed rubble stone; wide hipped slate roof. Six segmental-headed openings in each long wall of shelter shed, divided to centre by wider pier with stone cross wall separating the stone-walled enclosures in front. These have stone-on-edge coping and each individual yard is entered through gates with shallow pyramidal-capped square piers (Listed building description).

Asset Number 24: The roads and fields to the south and east of Tai'r Meibion (NGR SH63417162) show evidence of estate management, primarily by the Baron Hill and Penrhyn estates, and smaller irregularly shaped fields with distinctive estate fences, and the survival of wooden gates. There is also evidence of estate plantations and trees and the area forms a distinctive estate landscape.

Asset Number 34: The development lies within the Lowland Coastal Area Around Wig Historic Landscape Character Area (HLCA 31) (Fig. 2). This area is made up of low lying coastal plain. This plain also forms part of Areas 28 and 30 on the Register of Landscapes of Outstanding Historic Interest (Cadw 1998). The land use within the study area is predominantly pastoral and the fields consist almost entirely of improved pasture. The fields show considerable evidence of 19th century improvement and the buildings of construction in estate styles.

Asset Number 45: The development lies adjacent to the Abergwyngregyn Historic Landscape Character Area (HLCA 34) (Fig. 2). Abergwyngregyn is a village at the seaward end of an enclosed valley associated with one of the medieval princes' *llysoedd* and its manor. Most of the present dwellings are no earlier than the 19th century, and were constructed either by the Bulkeley estate or by their successors, the Penrhyn estate. The *mwd* dominates the village, both visually and historically.

The Aber valley is a deep and steep sided narrow valley with glacial origins, at the mouth of which the river enters onto a narrow coastal plain. Abergwyngregyn was the crossing point at the junction of the coastal road and another taking the upland route through the valleys, which was the key to its importance. In the late 11th century Gruffudd ap Cynan made Aber the *llys* or court of the commote of Arllechwedd Uchaf. The valley was a sheltered place and its position facing Penmon priory across the Lavan sands may also have made it attractive.

Asset Number 51: The development also lies partially within the Enclosed Hill Slopes Below Moel Wnion Historic Landscape Character Area (HLCA 39) (Fig. 2). This area comprises the north-facing coastal steep slopes between low-lying improved coastal flats (HLCA 31) and unenclosed mountain/ uplands (HLCA 36). It extends for several miles either side of Aber. It has a fairly consistent character, with large enclosures reflecting post-medieval re-organisation, but most importantly still retains a whole series of relict prehistoric and medieval archaeology, including hut group and long hut settlements surrounded by a complex of lynchets, field banks and ridge and furrow, towards the top of the area where the ground is less steep. Twentieth century conifer plantations as well as woodland are visually prominent.

This area contains smaller fields in undulating countryside at the southern edge of the coastal plain before it meets the uplands to the south. The roads and fields show evidence of estate management, primarily by the Baron Hill and Penrhyn estates, and smaller irregularly shaped fields with distinctive estate fences, and the survival of wooden gates. There is also evidence of estate plantations and trees, forming a distinctive estate landscape.

5.1.2 Heritage Assets of Medium Value

A total of 18 heritage assets have been assessed to be of Medium value. These assets consist of 14 Grade II Listed Buildings, the site of a medieval church, the archaeological remains of two roads and a relict prehistoric and / or medieval field system.

Asset Number 01 (Plate 01): Nos 1 and 2 Tan-y-Lon, Penrhyn Estate cottages, Grade II Listed Building (NGR SH6179571052). Post-medieval cottages. These are located on the south side of the road a little to the west of the other buildings at Tan-y-Lon. Modern timber fencing at the front of the gardens on the roadside, and slate fencing to the side boundaries.

Asset Number 02 (Plate 02): Turnpike House, Grade II Listed Building (NGR SH6191871093). This post-medieval house is located on the road in Tan-y-Lon at the junction between the old Bangor to Conwy road, and the road which runs roughly parallel with it, between Tan-y-Lon and Eglwys St. Cross.

Asset Number 03 (Plate 03): Nos 7 and 8 Tan-y-Lon, Penrhyn estate cottages, Grade II Listed Buildings (NGR SH6194371138). These are located on the northwest side of the road at Tan-y-Lon. Post-medieval cottages with rubblestone wall to front and with slate-on-edge coping and iron pedestrian gates. Likely to have been constructed c.1850. Built as part of the small planned settlement of Tan-Y-Lon for workers on one of the nearby Penrhyn Estate farms or perhaps the park itself.

Asset Number 08 (Plate 06): Ty'n-y-Hendre Farm (NGR SH6236671082). The farmhouse and shelter shed/ pigsties are Grade II* listed (Asset Numbers 05 and 06), while the remaining buildings which make up the entire farm are Grade II listed (Asset Number 08). The farm was built about 1860 by the Penrhyn Estate as a model farm at Ty'n-yr-Hendre. The fact that, even for a model farm, the farmhouse is unusually distant from the farm buildings and of more than average architectural distinction, reflects the farm's role as the estate's specialist horse farm and that the farmhouse was occupied by an estate official rather than by a tenant farmer.

Asset Number 12: Tai'r Meibion, Roman Road segments (part of RR67c Caerhun-Caernarfon route) (NGR SH6279071210). Intermittent parchmarks and possible earthworks betray a 1.5km section of Roman road, running northeast to southwest between SH63417169 and SH62187077. Part of the route between Caerhun and Caernarfon (NPRN 302976).

Asset Number 13 (Plate 09): No 1 Tan-yr-Allt, post-medieval cottage, Grade II Listed Building (NGR SH 6275171482). One of four rubble built cottages that were constructed for farm labourers on the nearby Penrhyn Estate farms. The cottages are likely to have been constructed c1850. As such they are typical of Edward Douglas-Pennant's considerable efforts to improve the estate, to which he had succeeded in 1840. They are unaltered examples of the simple 'vernacular revival' style favoured by the Penrhyn estate.

Asset Number 14 (Plate 09): No 2 Tan-yr-Allt, post-medieval cottage, Grade II Listed Building (NGR SH6275971490). One of four rubble built cottages that were constructed for farm labourers on the nearby Penrhyn Estate farms. The cottages are likely to have been constructed c1850. As such they are typical of Edward Douglas-Pennant's considerable efforts to improve the estate, to which he had succeeded in 1840. They are unaltered examples of the simple 'vernacular revival' style favoured by the Penrhyn estate.

Asset Number 15 (Plate 10): No 3 Tan-yr-Allt, post-medieval cottage, Grade II Listed Building (NGR SH6277771507). One of four rubble built cottages that were constructed for farm labourers on the nearby Penrhyn Estate farms. The cottages are likely to have been constructed c1850. As such they are typical of Edward Douglas-Pennant's considerable efforts to improve the estate, to which he had succeeded in 1840. They are unaltered examples of the simple 'vernacular revival' style favoured by the Penrhyn estate.

Asset Number 16 (Plate 10): No 4 Tan-yr-Allt, post-medieval cottage, Grade II Listed Building (NGR SH6278571515). One of four rubble built cottages that were constructed for farm labourers on the nearby Penrhyn Estate farms. The cottages are likely to have been constructed c1850. As such they are typical of Edward Douglas-Pennant's considerable efforts to improve the estate, to which he had succeeded in 1840. They are unaltered examples of the simple 'vernacular revival' style favoured by the Penrhyn estate.

Asset Number 21 (Plate 15): Tai'r Maibion, post-medieval farmhouse, Grade II Listed Building (NGR SH6312271752). Located approximately 450m northeast of Tan-yr-Allt cottages on the south side of the A55 at the point where it is joined by the old Bangor to Conwy road. Built in the 1890s as the farmhouse of the Penrhyn Estate farm at Tai'r-meibion, one of the last such farms to be built by the estate in the area and coinciding with a period of national agricultural depression. Two-storey farmhouse with slightly projecting gabled range to left at front, continuing to rear, and another gabled range at right-angles to rear of main range, all in the characteristic mild Gothic style much used by the Penrhyn Estate for its buildings in the later 19th century. Irregularly coursed rubble stone to sides and rear, snecked to front; chamfered plinth and slate roofs.

Asset Number 22 (Plate 16): Farm buildings at Tai'r Meibion, Grade II Listed Buildings (NGR SH6313271694). Situated on gently rising ground immediately behind the farmhouse at Tai'r Meibion. Consisting of a large grain silo in the southeastern corner of the yard with a large agricultural shed covering much of the western part of the yard. Further late 20th century farm buildings located to the south of the yard.

Asset Number 29 (Plate 22): Wig Farm, Abergwyngregyn, Grade II Listed Building (NGR SH6360172119). Although the site is probably of earlier origin and there may in fact be some fabric in the present building relating to a previous house, as suggested by the more roughly coursed masonry on its northern side), the farmhouse is essentially a typical large Penrhyn Estate farmhouse of c1860. Its large size, distance from its contemporary farm buildings shows classic evidence of an improved farm. Two-storey farmhouse comprising long rectangular block, aligned roughly east-west in two distinct sections, the eastern the main range and higher than the western (service) range, the whole built in the mild Gothic style much used by the Penrhyn Estate for its buildings in the later 19th century. Regularly coursed rubble stone to front with more roughly coursed stonework to rear.

Asset Number 38 (Plate 28): Coed Bryn Meddyg relict field system (NGR SH6479072400). Vestigial earthworks remain of a system of terraced fields to the west and south west of Aber village, surviving on the low-lying coastal plain at around 40m above OD. The fields may have originated in prehistory, or be related to the once thriving medieval settlement at Aber.

Asset Number 44 (Plate 33): The Old Rectory, Abergwyngregyn, Grade II Listed Building (NGR SH6542672619). Dates from the early 17th century, although it was substantially extended and modelled in the Gothic style by the Penrhyn Estate around 1840. It is set back from the road in extensive lawned grounds with driveway, directly east of St. Bodfan's Church (Asset Number 41), and consists of a two-storey stone building.

Asset Number 47 (Plate 35): Crymlyn Cottage, post medieval cottage, Grade II Listed Building (NGR SH6384871482). Located on the western side of the narrow upland road from Llanllechid near its junction with the minor road from Gilfach to Aber. The cottage is situated directly on the roadside.

Asset Number 48 (Plate 36): Cottage adjoining Crymlyn Cottage, post medieval cottage, Grade II Listed Building (NGR SH6384271498). Located directly on the roadside, adjoin the northern end of Crymlyn Cottage.

Asset Number 49 (Plate 12): Road East of Tan-yr-Allt Cottages, heading towards Crymlyn (NGR SH6291071620). This trackway appears to be an old route from Aber towards the Lavan sands, and consists of a single trackway with drystone walling, with some slate fencing, in the Penrhyn style and hedging. Cartographic evidence suggests that it predates the other east-west communications in the area, such as the 1769 Conwy to Bangor turnpike.

Asset Number 50 (Plate 37): Abergwyngregyn Church (site of) (NGR SH6531072680). The site of a medieval church, listed in the Norwich taxation of 1254, which was demolished in 1878 when a new church was built, fortunately south of the original church. The interest of the site is enhanced by the former presence of the adjacent llys, motte and associated bond village.

The churchyard is irregular in form with a curved stone-walled boundary from the north around to the east with a substantial 3-4m drop to the house and gardens of Tan-y-Fynwent on the northeastern side. A linear wall bounds the road on the western side. The churchyard was extended on the south side in 1878. The former linear southern boundary is now marked by a very low bank and a line of yew trees. The original churchyard was used for burial until recently and the northern wall was exposed during the improvement of the A55(T) in 1994. The main entrance to the churchyard was originally on the north with an entrance to the rectory on the eastern side. At present the main entrance is at the end of the road leading to the northern end of the churchyard extension. The area of the churchyard was given as 1 acre and 21 poles in a terrier of 1899.

The medieval church at Aber, when described in 1776 prior to the construction of the western tower in 1811, consisted of a nave and chancel with a south chapel at the east end and a south porch. Some of the windows were noted as being of the late 15th or early 16th century but it is unknown whether these were inserted or contemporary with the building of the church. Lewis described this building as "an ancient and spacious structure with a good square tower" and consisting of "a nave and chancel of equal length, the latter lighted with a series of low windows, differing in style and probably inserted at various times." The church with its additional tower of 1811 was demolished in 1878 when a new church was erected to the south in an extension of the churchyard. At present the location of the medieval church can only be traced as a raised area within the heavily overgrown original churchyard, although its location can be fixed from an outline ground plan of the medieval church made in 1878 to accompany the consecration documents for the new church.

5.1.3 Heritage Assets of Low Value

A total of 18 heritage assets have been assessed to be of Low value.

Asset Number 04 (Plate 04): Nos 9 and 10 Tan-y-Lon, post medieval cottages (NGR SH61968071169). Two Penrhyn Estate cottages, dating to the post-medieval period.

Asset Number 07: Possible road and quarry pits, Ty'n-y-Hendre (NGR SH6229071120). An alignment of hedgerows and parchmarks that could be quarry pits at Ty'n-y-Hendre and Tai'r

Meibion. There is no sign of a surviving agger but the parchmarks correspond to hollows. These could be quarry pits but could also be features unrelated to the Roman Road. The line through the fields by Ty'n-y-Hendre is not entirely convincing because the lie of the land is quite uneven and cuttings or terracing would have been necessary. Several hundred years of intensive agriculture could however have removed all signs of the road.

Asset Number 09 (Plate 07): Lynchet, Ty'n-y-Hendre (NGR SH6240070960). An earthwork and a parchmark form a linear alignment from Ty'n-y-Hendre to Capel Gilfach. Examination on the ground showed the earthwork to the southeast of Ty'n-y-Hendre to be a pronounced roughly linear scarp curving sharply to the southwest at the northeast. This appears to be lynchet, probably part of the extensive multiperiod field systems that run from the uplands down to the coastal plain in this area. A parchmark beyond this is not visible as an earthwork and could either be a road or a gas pipeline. The parchmark appears to cross the road near Ty'n-y-Hendre just below the line of the lynchet and crosses the road near Capel Gilfach, so the pipeline is the most likely interpretation.

Asset Number 18 (Plate 12): Hedgerow, Abergwyngregyn (NGR SH6291071620). The criteria for importance as defined by the Hedgerow Regulations (1997) mean that a hedgerow must be a historic boundary or be a direct part of an important archaeological monument, building or field system. Only one boundary is defined as falling within the regulations, namely that bounding the minor road towards Crymlyn. This falls into the Hedgerow Regulations by meeting the criterion of an integral part of a field system pre-dating the Enclosure Acts (Hedgerow Regulations, Part II, Section 5a). This boundary may well be medieval in origin, but has evidence of alteration over time, and comprises a mixture of hedgerow and drystone walling, some of it affected by 19th century estate management.

Asset Number 19 (Plate 13): Revetment Walls, North of Tai'r Meibion (NGR SH6292071790). Occasional lengths of dry-stone revetment walls run along the break of slope 20-30m from the edge of the A55(T). The land drops steeply to the river beyond this point. The aerial photographs of 1946-7 demonstrate that this was a former boundary between open ground to the northeast of the road and woodland in the valley bottom.

Asset Number 20 (Plate 14): Gilfach Baptist Chapel, Llanllechid (NGR SH6308671507). Built in 1814, rebuilt in 1860, and modified in 1878 and 1904. The present chapel, dated to 1860, is built in the Gothic style of the long-wall entry type. By 1996 the chapel had been converted for residential use.

Asset Number 23 (Plate 17): Tai'r Meibion Garden, Abergwyngregyn (NGR SH6311671751). This post-medieval garden is depicted on the 2nd edition OS 25" map of Caernarvonshire VII, sheet 10 (1900). The main element shown on the map is a kitchen garden.

Asset Number 25 (Plate 19): Field boundaries, East of Tai'r Meibion (NGR SH6357071630). The proposed trackway connecting Tai'r Meibion with Wig farm cuts through some improved fields showing evidence of 19th century Penrhyn estate activity, with field boundaries fencing and a plantation to the north.

Asset Number 26 (Plate 20): Slate Gate Piers, South of Wig (NGR SH6373071790). Penrhyn estate gateway.

Asset Number 31 (Plate 23): Field boundaries, East of Wig (NGR SH6418072280). The boundaries of the 19th century improved fields.

Asset Number 33 (Plate 22): Wig Garden, Abergwyngregyn (NGR SH6361672123). This garden is depicted on the 2nd edition OS 25" map of Caernarvonshire VII, sheet 10 (1900). Its main elements on that map include woodland, a kitchen garden, carriage drive, and a reservoir.

Asset Number 36 (Plate 26): Bryn Meddyg Cottages, Abergwyngregyn (NGR SH6458772390). A pair of early 19th century cottages, consisting of three bays, now converted into a single dwelling.

Asset Number 37 (Plate 27): Quarry, Bryn Meddyg (NGR SH6462172406). A pit and short section of tunnel have been identified as the remains of a small quarry immediately opposite Bryn Meddyg Farmhouse on the north side of the A55(T). They are clearly of post-medieval date, but little else is known about them.

Asset Number 39 (Plate 29): The Old School, Aber (NGR SH6511972609). The former school at Aber dates from the early 19th century and has been extensively altered. It is now a residential dwelling.

Asset Number 40 (Plate 30): Mill pond southwest of St. Bodfan's Church (NGR SH6518472585). Present but not labelled on the 1st edition map, labelled 'Mill Pond' on the 2nd and 3rd edition maps. Still in water. Roughly rectangular in shape. Stream runs into the pond from the southwest. The 2nd edition map has a sluice in the northern corner of the pond, presumably where water exited the pond. No obvious mill nearby.

Asset Number 41 (Plate 31): Abergwyngregyn Parish Church (NGR SH6532572632). The current parish church of Abergwyngregyn is dedicated to St. Bodfan and is located in the diocese of Bangor. It was built in 1878, to the south of the original medieval church which was listed in the Norwich taxation of 1254.

The churchyard is irregular in form with a curved stone wall to the north and east, and a straight wall to the west. It was extended to the south in 1878 and the former boundary is marked by a low bank and a line of yew trees. Although the main entrance is currently to the northern end of this southern extension, the original entrance was on the northern side of the old churchyard, with an entrance to the rectory on the east.

The medieval church, as described in 1776, comprised a nave and chancel with a south chapel at the east end, and a south porch. Some windows were noted as being of late 15th or early 16th century, but it is unclear whether these are contemporary with the building of the church or were later insertions. A western tower was added to the church in 1811, prior to the demolition of 1878.

The modern church was built in the southern extension to the churchyard to a design by Pugin, Ashlin and Pugin. The location of the medieval church has been identified by an outline plan made to accompany the consecration documents for the modern church, and a raised area is visible in the churchyard.

A number of fittings from the medieval church were moved to the modern church including the mid 17th century communion table and post-reformation font, as well as a number of 18th century memorials.

Asset Number 42 (Plate 32): Tan-y-Fynwent; College Farmhouse; Llys Onnen; The Bull's Head (NGR SH6535872687). The house now known as Llysonnen, which stands between the church and the old main road, has a history which might not be guessed from its present

name and its modern seclusion. In the two hundred years from 1700, it developed from a modest dwelling associated in some way with the church into a prosperous coaching inn, into a farm, and eventually back to a dwelling. In the course of these transformations, it changed names three times, with a further change to 'Llysonnen' to come in the 20th century. Tan-y-Fynwent is a large two storey dwelling with a gabled porch and slate roof. It appears on the 1st edition OS 25" map,

Asset Number 46 (Plate 34): Aber Falls Hotel, Abergwyngregyn (NGR SH6556272749). Aber Falls Hotel, built in the 1930s.

5.1.4 Heritage Assets of Negligible Value

Six heritage assets have been assessed to be of Negligible value.

Asset Number 10 (Plate 08): Site of Cairn, Ty'n-yr-Hendre (NGR SH6247071000). An antiquarian reference to a cairn and possibly bronze artefacts. The location is fairly precise but the cairn no longer exists so the finds were probably made during its clearance. The finds themselves are now lost.

Asset Number 11: Findspot – Metal detecting finds (coins) (NGR SH6230071300). Three coins found by metal detecting club from Stockport. Finds include one Mary Queen of Scots coin, one Elizabeth II groat and one possible Roman bronze coin.

Asset Number 17 (Plate 11): Culverts, north of Tan-yr-Allt Cottages (NGR SH6275071640). A number of culverted streams run under the A55 within the area.

Asset Number 28: Findspot – Bronze Celt, Wig Farm (NGR SH6350072100). A bronze celt, much corroded, was found close to Wig Farm.

Asset Number 35 (Plate 25): Wig Bach, Abergwyngregyn (site of) (NGR SH6397272179). A much altered rubble built estate cottage of the late 19th century. Demolished in 2011.

Asset Number 43: Findspot – Axe Hammer, College Farm, Aber (NGR SH6536072670). Axe hammer from College Farm, Aber, classified as Neolithic or Bronze Age. Found in 1946 and now on display in Bangor Museum.

5.1.5 Heritage Assets of Unknown Value

A total of three heritage assets have been assessed to be of Unknown value.

Asset Number 27 (Plate 21): y-Wig medieval Township (NGR SH6350072000). There was a medieval settlement at Wig which is referred to in medieval extents and grants, and was a bond township of two *gafaelion*. The medieval township may have contained more than one settlement, but it is likely that at least one of these lay on or near the present Wig farmhouse. A small paddock to the south of wig farm contains possible linear earthworks that may be part of the medieval settlement.

Asset Number 30: Part of Roman Road, Segontium - Canovium (NGR SH6414071860). A linear feature has been identified at this location which may be the remains of the Roman Road from Segontium to Canovium.

Asset Number 32 (Plate 24): Tumulus, Bryn Meddyg, Aber (NGR SH6460072200). A low mound has been identified as a possible Bronze Age Barrow. Circular crop mark seen on aerial photographs. Probably too large to be funerary and ritual. Possibly a natural feature or an Iron Age/ Romano-British settlement Enclosure.

Table 4.0 – Cultural Heritage assets identified within the 300m study area

Asset Number	Asset Name	HER/other reference	Designation	Value
Asset No 1	No's 1 & 2 Tan-y-Lon	NMR: 409169 CADW: 2293	Listed Building Grade II	Medium
Asset No 2	Turnpike House	CADW: 22937	Listed Building Grade II	Medium
Asset No 3	No's 7 & 8 Tan-y-Lon	NMR: 306313 CADW: 22934	Listed Building Grade II	Medium
Asset No 4	No's 9 & 10 Tan-y-Lon	NMR: 409170	None	Low
Asset No 5	Shelter Shed/ Pigsties at Ty'n-yr-Hendre	HER: 30287 CADW: 22972	Listed Building Grade II*	High
Asset No 6	Farm buildings at Ty'n-yr-Hendre	HER: 30287 NMR: 403409 CADW: 22971	Listed Building Grade II*	High
Asset No 7	Road and quarry pits, possible, Ty'n-y-Hendre	HER: 37195	None	Low
Asset No 8	Ty'n-y-Hendre Farm, Abergwyngregyn	HER: 30287 CADW: 22970	Listed Building Grade II	Medium
Asset No 9	Lynchets, Ty'n-y-Hendre	HER: 37196	None	Low
Asset No 10	Cairn, Site of, Ty'n-yr-Hendre	HER: 2344	None	Negligible
Asset No 11	Metal Detecting Finds (Coins), E of Tal-y-Bont	HER: 5789	None	Negligible
Asset No 12	Tai'r Meibion, Roman Road segments (part of RR67c Caerhun-Caernarfon route)	NMR: 405340	None	Medium
Asset No 13	No 1 Tan-yr-Allt cottages	HER: 30285 NMR: 409168 CADW: 22935	Listed Building Grade II	Medium
Asset No 14	No 2 Tan-yr-Allt cottages	HER: 30285 CADW: 22976	Listed Building Grade II	Medium

Asset No 15	No 3 Tan-yr-Allt cottages	HER: 30285 CADW: 22936	Listed Building Grade II	Medium
Asset No 16	No 4 Tan-yr-Allt cottages	HER: 30285 CADW: 22977	Listed Building Grade II	Medium
Asset No 17	Culverts, N of Tan-yr-Allt cottages	HER: 30280	None	Negligible
Asset No 18	Hedgerow, Abergwyngregyn	HER: 30288	None	Low
Asset No 19	Revetment Walls, N of Tai'r Meibion	HER: 30276	None	Low
Asset No 20	Gilfach Baptist Chapel, Llanllechid	NMR: 6744	None	Low
Asset No 21	Tai'r Meibion	HER: 30282 CADW: 22968	Listed Building Grade II	Medium
Asset No 22	Farm buildings at Tai'r Meibion	CADW: 22969	Listed Building Grade II	Medium
Asset No 23	Tai'r Meibion garden, Abergwyngregyn	NMR: 86479	None	Low
Asset No 24	Enclosed fields, S and E of Tai'r Meibion	HER: 30289	None	High
Asset No 25	Field boundaries, E of Tai'r Meibion	HER: 30278	None	Low
Asset No 26	Slate gate piers, S of Wig	HER: 30279	None	Low
Asset No 27	y-Wig medieval township	HER: 6811	None	Unknown
Asset No 28	Findspot – Bronze Celt, Wig Farm	HER: 2322	None	Negligible
Asset No 29	Wig Farm, Abergwyngregyn	HER: 30283 CADW: 22909	Listed Building Grade II	Medium
Asset No 30	Part of Roman Road, Segontium – Canovium	HER: 17568	None	Unknown
Asset No 31	Field boundaries, E of Wig	HER: 30281	None	Low

Asset No 32	Tumulus, Bryn Meddyg, Aber	HER: 2321	None	Unknown
Asset No 33	Wig garden, Abergwyngregyn	NMR: 86513	None	Low
Asset No 34	Lowland coastal area around Wig – Landscape	HER: 15857	None	High
Asset No 35	Site of Wig Bach, Abergwyngregyn	HER: 30284	None	Negligible
Asset No 36	Cottages, Bryn Meddyg, Abergwyngregyn	HER: 30286	None	Low
Asset No 37	Quarry, Bryn Meddyg	HER: 20831	None	Low
Asset No 38	Coed Bryn Meddyg relict field system	NMR: 408179	None	Medium
Asset No 39	The Old School, Aber	NMR: 411152	None	Low
Asset No 40	Mill pond, SW of St Bodfan's Church	HER: 34621	None	Low
Asset No 41	Abergwyngregyn Parish Church	HER: 6900 NMR: 43704	None	Low
Asset No 42	Tan-y-Fynwent; College Farmhouse; Llys Onnen; The Bull's Head	HER: 19151 NMR: 419587	None	Low
Asset No 43	Findspot – Axe Hammer, College Farm, Aber	HER: 4071	None	Negligible
Asset No 44	The Old Rectory, Abergwyngregyn	HER: 11458 NMR: 16824 CADW: 3654	Listed Building Grade II	Medium
Asset No 45	Abergwyngregyn – Landscape	HER: 15859	None	High
Asset No 46	Aber Falls Hotel, Abergwyngregyn	HER: 34848	None	Low

Asset No 47	Crymlyn Cottage	CADW: 22938	Listed Building Grade II	Medium
Asset No 48	Cottage adjoining Crymlyn Cottage	CADW: 22939	Listed Building Grade II	Medium
Asset No 49	Road E of Tan-yr-Allt cottages to Crymlyn	HER: 30277	None	Medium
Asset No 50	Abergwyngregyn Church (site of)	HER: 1628; 6900	None	Medium
Asset No 51	Enclosed Hill Slopes Below Moel Wnion	HER: 15832	None	High

5.1.6 Potential for Unknown Archaeological Remains

While a variety of sources, that include but are not limited to the Historic Environment Record (HER) and the NMR (National Monuments Record) have been consulted as part of the desk-based survey and a walk-over survey was conducted there is still the potential for the discovery of unknown archaeological remains. In particular, due to their ephemeral and random nature, prehistoric features and sites could survive beneath the topsoil, in particular in locations adjacent to sources of water, such as burnt mound spreads.

5.2 Magnitude of Impacts for Assets within the 300m Study Area

For all three cultural heritage sub-topics, in accordance with the *Design Manual for Roads and Bridges* (HA208/07), an assessment of the magnitude of impact or change of each heritage receptor (or asset) was undertaken on a five-point scale of Major, Moderate, Minor, Negligible, and No Change (Tables 5.0, 6.0 and 7.0).

The assessment of the magnitude of impact or change was based on professional judgement informed by the guidance provided in DMRB (HA208/07).

5.2.1 Archaeological Remains

Archaeological remains were discovered at 23 sites within, or close to, the proposed improvement. The majority of the sites lie outside the Proposed Improvement and will not be affected. Two sites (27 and 30) are of unknown archaeological value and require further assessment before the magnitude of impact can be defined. These sites are both of potentially High archaeological value and could be interpreted as the remains of the medieval township of Wig, and the Segontium-Canovium Roman Road.

Two sites; the Tai'r Meibion Roman Road segments (Asset Number 12), and the hedgerow bounding the minor road towards Crymlyn (Asset Number 18); will both be heavily impacted upon by the development and therefore are classed as Major Impacts. A further two sites, the Road E of Tan yr Allt Cottages to Crymlyn (Roman Road) (Asset Number 49) and the Field Boundaries (Asset Number 25) may also be heavily impacted, and as such are classed as Up to Major Impact.

The development will have a Moderate Physical Impact on the culverts (Asset Number 17), and also a Moderate Impact on the setting of the garden at Wig Farm (Asset Number 33). The impact of the development on the Coed Bryn Meddyg relict field system (Asset Number 38), the revetment walls (Asset Number 19), field boundary (Asset Number 31), and quarry (Asset Number 37) will all be Minor. There will also be a Negligible Impact on the setting of the garden at Tai'r Meibion (Asset Number 23) by the development.

The value of an archaeological asset refers to both the physical remains and information inherent in the site. If a site is excavated in advance of destruction the physical remains will be destroyed but the information will have been retained. This is termed "Preservation of Archaeological Remains by Record" in Planning and the Historic Environment: Archaeology (Welsh Office Circular 60/96). It should be noted that even though this is seen as a valid mitigatory measure, preservation *in situ* is the preferred option.

Table 5.0 - Factors in the Assessment of Magnitude of Impacts: Archaeological Remains

Major	Change to most or all key archaeological materials, such that the resource is totally altered. Comprehensive changes to setting.
Moderate	Changes to many key archaeological materials, such that the resource is clearly modified. Considerable changes to setting that affect the character of the asset
Minor	Changes to key archaeological materials, such that the asset is slightly altered. Slight changes to setting
Negligible	Very minor changes to archaeological materials, or setting
No Change	No change

5.2.2 Historic Buildings

Twenty-four historic buildings or structures were identified. Of these 16 are listed buildings and two of these are Listed Grade II* (Asset Numbers 5 and 6). The majority of these buildings will not be affected by the development. However, there will be a Moderate Impact on the setting of Wig Farm (Asset Number 29), Negligible Impact on the setting of Tai'r Meibion (Asset Numbers 21 and 22), the cottages at Bryn Meddyg, Ty'n-y-Hendre, and Tan-yr-Allt Cottages (Asset Numbers 13, 14, 15, and 16) due to the modern character of the new roads and footpath.

Table 6.0 - Factors in the Assessment of Magnitude of Impacts: Historic Buildings

Major	Change to key historic building elements, such that the resource is totally altered. Comprehensive changes to the setting.
Moderate	Change to many key historic building elements, such that the resource is significantly modified. Changes to the setting of an historic building, such that it is significantly modified.
Minor	Change to key historic building elements, such that the asset is slightly different. Change to setting of an historic building, such that it is noticeably changed.
Negligible	Slight changes to historic buildings elements or setting that hardly affect it
No change	No change to fabric or setting.

5.2.3 Historic Landscapes

The area around the proposed improvement can be seen as two discrete historic character units containing former estate farms, industrial remains and a rail and road transport corridor, along a fertile strip of coastal land (Asset Number 34), and an area of interface between the fertile coastal strip and the uplands (Asset Number 24). The development will have a Moderate Impact on the landscape east of Tai'r Meibion (Asset Number 24), and a Negligible Impact within the coastal plain (Asset Number 34).

Table 7.0 - Factors in the Assessment of Magnitude of Impacts: Historic Landscapes

Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.
Moderate	Changes to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.
Minor	Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in limited changes to historic landscape character.
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.
No change	No change to elements, parcels or components; no visual or audible changes; no changes arising from in amenity or community factors.

5.3 Summary of Possible Further Archaeological Work

The alignment of the Proposed Improvement avoids as far as possible sites of archaeological interest. Where a site is affected, mitigation measures would be required in accordance with the guidelines in DMRB, Volume 11, Section 3, Part 2, HA 208/07, Chapter 4.

The following are the basic categories of archaeological mitigation measures which will be used. Additional details may be added in regard to the setting of archaeological sites. The detailed recording, basic recording and watching brief options fulfil the “preservation by record” option described in Welsh Office Circular 60/96.

- **None** - No impact, so no requirement for mitigation measures.
- **Detailed recording** - Detailed recording requires a photographic record, surveying and the production of a measured drawing prior to the commencement of the works on site. Archaeological excavation works may also be required, depending upon the particular feature and the extent and effect of the impact.
- This may entail full excavation and recording where a known site will be destroyed or partially destroyed by the scheme. Some built sites would require dismantling by hand, to provide a detailed record of the method of construction and in the case of a listed structure, the salvage of materials for re-use and re-building.
- For wider areas of high archaeological potential there are three main options:
 - **Geophysical Survey:** This can be used, where appropriate, as an initial non-intrusive assessment technique allowing areas of archaeological activity to be recognised. Magnetometer survey is the preferred first option in most cases, because it allows large areas to be surveyed quickly and can detect a wide range of archaeological features. Resistivity may be used as a secondary option. It should be noted that not all archaeological features can be detected using geophysical survey and absence of positive results does not prove that there is no archaeology present. Geophysical survey should be followed by one of the following options.
 - **Trial Trenching:** This can be adopted as a staged mitigation process involving assessment and then wider excavation where necessary. A series of trenches would be excavated within a designated area in order to provide a sample of the buried archaeology. A minimum of 5% area coverage is usually specified. The results from geophysical survey can be used to allow accurate positioning of a proportion of the trenches over specific archaeological features. All archaeological features uncovered during the process would be assessed. Significant features would then be excavated and fully recorded.
 - **Strip map and sample:** This technique involves the examination of machine-stripped surfaces to identify archaeological remains. The process of machine stripping would be supervised by an archaeologist. Once stripping has been undertaken, areas of archaeological potential would be identified and cleaned by hand. Sample areas would be cleaned by hand in apparently negative areas to act as a control. Where complex archaeological deposits are identified during stripping, these would be identified at an early stage in order

to formulate a defined area of work. This technique relies upon the recognition of features by plan, and excavation of features would be kept to a level required to assess the nature and importance of the remains. This would be followed by full excavation where appropriate.

- **Basic recording** - Recording by photograph and description requires a photographic record and written description prior to the commencement of works on site. A measured survey may be required in certain cases.
- **Watching brief** - Observation of particular identified features or areas during works in their vicinity. This may be supplemented by detailed or basic recording of exposed layers, structures or sections.
- **Avoidance** - Features which may be affected directly by the scheme, or by the construction of the scheme, should be avoided.
- **Reinstatement and/ or relocation** – The feature should be reinstated with archaeological advice and supervision.

5.4 Summary of Significance of Effects and Mitigation for Assets within the 300m Study Area

The significance of the effect of the proposed improvement is considered in terms of the magnitude of the impact arising from the proposed improvement in relation to the value or sensitivity of the receptor. This is determined using the matrix shown in Table 8.0.

Table 8.0 – Significance of Effects Matrix

Archaeological Importance	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	High	Neutral	Slight	Moderate or Slight	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Moderate or Slight
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight
		No Change	Negligible	Minor	Moderate	Major
Magnitude of impact						

5.4.1 Archaeological Remains

Archaeological remains were discovered at 23 sites within, or close to, the proposed improvement. The majority of the sites lie outside the Proposed Improvement and will not be affected.

Eleven archaeological assets will, or may be, directly physically impacted by the scheme. The impact on a further two archaeological assets is limited to effects on setting.

Two sites (Asset Numbers 27 and 30) within the scheme footprint are of unknown archaeological value and therefore required further assessment before definite mitigation could be recommended. These sites are of potentially High archaeological value and could be interpreted as the remains of the medieval township of y-Wig and the Segontium-Canovium Roman Road. A possible Tumulus or Iron Age/ Roman settlement enclosure near Bryn Meddyg (Asset Number 32) is also of unknown archaeological value, but is outside the footprint of the proposals and has therefore not been assessed further.

It is recommended that trial trenching is undertaken at these two sites (Asset Numbers 27 and 30), prior to any other work on site. The results of this trenching will potentially

determine their value help to determining any further mitigation required on them so as to reduce the impact of the scheme on them.

Only one affected field boundary is defined as falling within the Hedgerow Regulations (1997), namely that bounding the minor road towards Crymlyn (Asset Number 18). This falls into the Hedgerow Regulations by meeting the criterion of an integral part of a field system pre-dating the Enclosure Acts (Hedgerow Regulations, Part II, Section 5a). This boundary may well be medieval in origin, but has evidence of alteration over time, and comprises a mixture of hedgerow and drystone walling, some of it affected by 19th century estate management. The local authority have confirmed that the proposals do not fall within the requirements of the Hedgerow Regulations as they are to be consented under other legislation as a trunk road improvement. However, archaeological mitigation would include detailed recording, and re-instating the original boundary on its new alignment wherever possible.

The remaining eight sites that will, or may be, directly physically affected consist of the Tai'r Meibion Roman Road segments (part of RR67c Caerhun-Caernarfon route) (Asset Number 12), the Coed Bryn Meddyg relict field system (Asset Number 38) and the Road E of Tan yr Allt Cottages to Crymlyn (Roman Road) (Asset Number 49), all assessed as Medium value; the culverts (Asset Number 17), Revetment walls (Asset Number 19), Field boundaries (Asset Numbers 25 and 31) and a Quarry (Asset Number 37), all identified as Low value. Mitigation will involve watching briefs or recording in advance of destruction ensuring preservation by record as appropriate.

The settings of two archaeological assets will be affected. There will be a slight adverse significance of effect on the setting of the garden at Tai'r Meibion (Asset Number 23) and the garden at Wig Farm (Asset Number 33) due to the modern character of the new road and the new footpath between Tan-yr-Allt and Tan-y-Lon. This can be partially mitigated by sympathetic planting with locally common species.

In respect of the potential for unknown archaeology, some areas are steeply embanked and have significant areas of made ground, with a very low potential for the discovery of archaeological remains. Others areas are relatively level and have a higher potential. An intermittent watching brief is therefore recommended during initial topsoil stripping of these areas. Any newly discovered archaeological remains should be recorded to an appropriate level in advance of destruction.

Table 9.0 – Summary of Mitigation and Assessment of Significance of Effects: Archaeological Remains

Asset No and Name	Value	Impact	Significance of effect prior to mitigation	Proposed Mitigation	Impact with mitigation	Significance of effect with mitigation
12. Tai'r Meibion Roman Road segments (part of RR67c Caerhun-Caernarfon route)	Medium	Major	Large adverse	Watching Brief	Major	Large adverse
17. Culverts	Negligible	Moderate	Slight adverse	Basic Recording	Negligible	Slight adverse
18. Hedgerow	Low	Major	Moderate adverse	Detailed Recording and re-instatement	Moderate	Moderate adverse
19. Revetment Walls	Low	Minor	Slight adverse	Basic Recording	Negligible	Neutral
23. Tai'r Meibion Garden	Low	Negligible	Slight adverse	Sympathetic landscaping and reinstatement	Negligible	Slight adverse
25. Field Boundaries	Low	Up to major	Moderate adverse	Basic Recording	Up to major	Slight adverse
27. Y-Wig medieval Township	Unknown	Unknown	Unknown	Watching Brief	Unknown	Unknown
30. Part of Roman Road, Segontium to Canovium	Unknown	Unknown	Unknown	Watching Brief	Unknown	Unknown
31. Field Boundaries	Low	Minor	Slight Adverse	Basic Recording	Negligible	Slight adverse
33. Wig Garden	Low	Moderate	Slight adverse	Basic recording; Sympathetic landscaping and reinstatement	Minor	Slight adverse
37. Quarry, Bryn Meddyg	Low	Minor	Slight adverse	Basic Recording	Negligible	Neutral

38. Coed Bryn Meddyg relict field system	Medium	Minor	Slight adverse	Watching Brief	Minor	Slight adverse
49. Road E of Tan yr Allt Cottages to Crymyln (Roman Road)	Medium	Up to major	Up to large Adverse	Watching Brief	Up to major	Up to large adverse
Unknown Sites	Unknown	Up to major	Unknown	Watching Brief	Up to major	Unknown

5.4.2 Historic Buildings

Twenty-four historic buildings or structures were identified. Of these 16 are listed buildings and two of these are Listed Grade II* (Asset Numbers 5 and 6). The majority of these buildings will not be affected by the development. However, there will be a moderate adverse significance of effect on the setting of Wig Farm (Asset Number 29), and a slight adverse significance of effect on the setting of Tai'r Meibion (Asset Numbers 21 and 22 and the cottages at Bryn Meddyg, Ty'n-y-Hendre, and Tan-yr-Allt (Asset Numbers 6, 13, 14, 15, 16 and 36) due to the modern character of the new roads and footway. This can be partially mitigated by the use of sympathetic planting with locally common species.

Table 10.0 – Summary of Mitigation and Assessment of Significance of Effects: Historic Buildings

Asset No and Name	Value	Impact	Significance of effect prior to mitigation	Proposed Mitigation	Impact with mitigation	Significance of effect with mitigation
6. Farm buildings at Ty'n-y-Hendre	High	Negligible	Slight adverse	Sympathetic Landscaping	Negligible	Slight adverse
13. No 1 Tan-yr-Allt	Medium	Negligible	Slight adverse	Sympathetic Landscaping	Negligible	Slight adverse
14. No 2 Tan-yr-Allt	Medium	Negligible	Slight adverse	Sympathetic Landscaping	Negligible	Slight adverse
15. No 3 Tan-yr-Allt	Medium	Negligible	Slight adverse	Sympathetic Landscaping	Negligible	Slight adverse
16. No 4 Tan-yr-Allt	Medium	Negligible	Slight adverse	Sympathetic Landscaping	Negligible	Slight adverse
21. Tai'r Meibion	Medium	Negligible	Slight adverse	Sympathetic landscaping and reinstatement	Negligible	Slight adverse
22. Farm buildings at Tai'r Meibion	Medium	Negligible	Slight adverse	Sympathetic landscaping and reinstatement	Negligible	Slight adverse
29. Wig Farm	Medium	Moderate	Moderate adverse	Basic recording; Sympathetic landscaping and reinstatement	Minor	Slight adverse
36. Cottages Bryn Meddyg	Low	Negligible	Slight adverse	Sympathetic Landscaping	Negligible	Neutral

5.4.3 Historic Landscapes

The area around the proposed improvement can be seen as two discrete historic character units containing former estate farms, industrial remains and a rail and road transport corridor, along a fertile strip of coastal land (Asset Number 34), and an area of interface between the fertile coastal strip and the uplands (Asset Number 24). There will be a slight adverse effect within the coastal plain, and moderate adverse effect on the landscape east of Tai'r Meibion. Mitigation would consist of sympathetic design and planting which would slightly lessen the adverse significance of effect, particularly by maintaining Penrhyn and Baron Hill estate building styles.

Table 11.0 – Summary of Mitigation and Assessment of Significance of Effects: Historic Landscapes

Asset No and Name	Value	Impact	Significance of effect prior to mitigation	Proposed Mitigation	Impact with mitigation	Significance of effect with mitigation
24. Enclosed fields, S and E of Tai'r Meibion	High	Moderate	Moderate adverse	Sympathetic Landscaping and Maintenance of Historic Features	Minor	Moderate/Slight adverse
34. Lowland coastal area around Wig	High	Negligible	Slight adverse	Sympathetic Landscaping	Negligible	Slight adverse

6 Impact on setting of Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings within 2km of the proposed scheme

6.1 Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings within 2km of the proposed scheme

6.1.1 Registered Historic Parks and Gardens

One Registered Historic Park and Garden, Penrhyn Park GD40, is located within the 2km study area, 2km to the W of the SW end of the scheme (Figure 8; Table 12.0).

6.1.2 Scheduled Monuments

Twelve Ancient Monuments were identified outside of the 300m study area but within 2km of the scheme footprint (Figure 8). A full list is shown in Table 13.0. They include eight prehistoric settlement and funerary sites, three medieval settlement sites and a Post-medieval/ Modern bridge. Two are located in the village of Abergwyngregyn; the majority are located on the hill slopes to the S of the NW end of the scheme. Two further sites are located on rising ground to the SW end of the scheme

6.1.3 Listed Buildings

A total of 49 Listed Buildings were identified outside of the 300m study area but within 2km of the scheme footprint (Figure 9). A full list is shown in Table 14.0. One of these is Grade I Listed: LB3659 Penrhyn Castle. Six are Grade II* Listed: LB3651 Pen-y-bryn, LB3656 Gatehouse/Barn at Pen-y-bryn, LB3657 Church of St Tegai, LB22931 Bridge at the mouth of the Afon Ogwen, LB23366 Wyatt Memorial at the Church of St Tegai and LB23456 Bridge at the mouth of the Afon Ogwen. The other 42 Listed Buildings are Grade II Listed.

The Listed Buildings tend to be situated on the low lying coastal plain with clusters within the settlements at Llandygai, and Tal-y-bont to the W and Abergwyngregyn to the NE. Another cluster of sites is located on rising ground around Marianwinllan, to the SW of the scheme.

6.2 Results of Viewshed Analyses and Further Assessment of Impact on Setting

6.2.1 Registered Historic Parks and Gardens

GD40 Penrhyn Park

The results of the viewshed analysis showed that GD40 Penrhyn Park potentially has views over the entire scheme from various elevated locations within its boundaries. This was confirmed by site visit. It lies 1.7km from the NW end of the scheme (Plate 38). Despite views over the scheme, the presence of trees and vegetation most of which will be unaffected by the scheme, the scope and scale of the proposed improvements to the existing trunk road, and the distance of the Park from the scheme means that the scheme will have a Very Slight Negative impact on the setting of Penrhyn Park.

Table 12.0: Registered Historic Parks and Gardens within the 2km study area and impact on setting

Registered Historic Park and Garden Number	Name	NGR	Views of Scheme	Impact on Setting
GD40	Penrhyn Park	SH6020071918	YES	Very Slight Negative

6.2.2 Scheduled Monuments

The results of viewshed analyses showed that 5 of the 12 scheduled monuments within the 2km study area have no views of the scheme from within their scheduled areas. The impact of the scheme on the setting of these monuments was therefore assessed to be Neutral (Table 13.0).

Elements of the scheme are potentially visible from the remaining 7 Scheduled Monuments. They are listed below, together with the findings of the further assessments carried out to determine the scale of the visual impact of the scheme on their setting (Table 13.0).

The scheme will have a Neutral impact on the setting of 3 Scheduled Monuments with potential views over the scheme: CN007 and CN218 in the village of Abergwyngregyn, and CN252 to the SW of the scheme. The scheme will have a Very Slight Negative impact on the setting of four monuments on the higher ground to the south of the scheme CN038, CN137, CN243 and CN344.

CN007 Aber Castle Mound (Pen-y-Mwd)

The motte at Abergwyngregyn is situated in fields of pasture in the centre of the village, on the E side of the road to Aber Falls. It lies 400m to the ESE of the NE end of the scheme. A viewshed calculated from a position on the top of the motte suggests that a short, 100m length of the NE end of the proposed scheme is potentially visible from the monument. In practice, the view is obscured by trees (Plate 39) and vegetation unaffected by the scheme. The impact of the scheme on the setting of Aber Castle Mound (Pen-y-mwd) is considered to be Neutral.

CN038 Maes y Gaer Camp (Hillfort)

Maes y Gaer Camp is located within gorse and scrub on high ground to E of the village of Abergwyngregyn. It sits at the top of the heavily wooded slopes of Allt y Bont, around 1km to the ESE of the NE extent of the scheme. The hillfort commands extensive views to the W and overlooks the coastal plain on which the current A55 and the proposed improvement scheme is located. The entire length of the scheme is visible from its location (Plate 40). In light of the scale and scope of the scheme as an improvement to the existing A55 trunk road, the impact on the setting of the Hillfort is assessed to be Very Slight Negative.

CN137 Medieval Homestead 400m SE of Maes y Gaer

The Medieval Homestead to the SE of Maes y Gaer is located in an elevated position in pasture fields to the SE of the village of Abergwyngregyn, around 1.5km to the SE of the NE end of the scheme. The views of the scheme are restricted by Cae'r Mynydd to the W and Allt y Bont to the NW, however a 700m section of the NE end of the scheme on the coastal plain below is just visible from elevated positions within the scheduled area (Plate 41). In light of the scale and scope of the scheme as an improvement to the existing A55 trunk road, the impact on the setting of the Medieval Homestead to the SE of Maes y Gaer is assessed to be Very Slight Negative.

CN218 Enclosure & Associated Structures at Pen-y-Bryn

The Enclosure & Associated Structures at Pen-y-Bryn are located on rising ground above the A55 on the NE side of the Afon Aber to the E of the village of Abergwyngregyn. The part of the scheduled area that potentially has views over the scheme is part of the tree and shrub fringed grassed gardens of Pen-y-Bryn LB3651. Viewshed analysis suggested that the extreme NE end of the scheme, approximately 500m away to the W, is potentially visible from the NW corner of the scheduled area. In practice, the view is obscured by trees and shrubs not affected by the scheme though the tips of some streetlights are just visible (Plate 42). The impact of the scheme on the setting of the Enclosure & Associated Structures at Pen-y-bryn is considered to be Neutral.

CN243 Settlement above Ffridd Ddu

The Settlement above Ffridd Ddu is located on higher ground on the unenclosed N slopes of Moel Wnion. It overlooks the SW end of the proposed scheme, including the proposed improvement to 'Roman Road' 1.4km to the WNW (Plate 43). The impact of the scheme on the setting of the Settlement above Ffridd Ddu is considered to be Very Slight Negative.

CN252 Hut Circle Settlement NW of Tan-y-Marian

The Hut Circle Settlement NW of Tan-y-Marian is located in woodland on rising ground 400m S of the existing A55 Carriageway. Viewshed analysis indicated that it overlooks a 40m long stretch of the extreme SW end of the proposed scheme, 1.2km to the NW. In practice the view from the scheduled area is obscured by trees and vegetation unaffected by the scheme (Plate 44). The impact of the scheme on the setting of Hut Circle Settlement NW of Tan-y-Marian is considered to be Neutral.

CN344 Cras, cairn to N of

The cairn to the N of Cras is located on higher ground on the unenclosed N slopes of Moel Wnion. It overlooks the SW end of the proposed scheme, including the proposed improvement to 'Roman Road' 1.9km to the WNW (Plate 45). The impact of the scheme on the setting of cairn to the N of Cras is considered to be Very Slight Negative

Table 13.0: Scheduled Monuments within the 2km study area and impact on setting

Cadw SM Number	Name	NGR	Site Type	Views of Scheme	Impact on Setting
CN007	Aber Castle Mound (Pen-y-Mwd)	SH6567372647	Medieval motte	YES	Neutral
CN038	Maes y Gaer Camp (Hillfort)	SH6635872509	Prehistoric hillfort	YES	Very Slight Negative
CN056	Rhiw Coch Camp	SH6168769305	Prehistoric enclosed hut circle	NO	Neutral
CN061	Bont-Newydd	SH6626272007	Post-Medieval /Modern bridge	NO	Neutral
CN137	Medieval Homestead 400m SE of Maes y Gaer	SH6667972276	Medieval rectangular hut settlement	YES	Very Slight Negative
CN218	Enclosure & Associated Structures at Pen-y-Bryn	SH6581272776	Medieval Enclosure	YES	Neutral
CN243	Settlement Above Ffridd Ddu	SH6511471322	Prehistoric hut circle settlement	YES	Very Slight Negative
CN245	Hut Circle Settlement on Caer Mynydd	SH6571771394	Prehistoric hut circle settlement	NO	Neutral
CN252	Hut Circle Settlement NW of Tan-y-Marian	SH6139770149	Prehistoric hut circle settlement	YES	Neutral
CN344	Cras, cairn to N of	SH6537871230	Prehistoric round cairn	YES	Very Slight Negative
CN345	Cras, ring cairn to N of	SH6543271255	Prehistoric ring cairn	NO	Neutral
CN346	Cras cairn	SH6538870894	Prehistoric round cairn	NO	Neutral

6.2.3 Listed Buildings

The results of the viewshed analysis indicate that 24 of the 49 Listed Buildings have no views over the scheme. Therefore the impact of the scheme on their setting is assessed as Neutral (Table 14.0) and no further assessment was carried out.

Elements of the scheme are potentially visible from the remaining 25 Listed Buildings. They are listed below, together with the findings of the further assessments carried out to determine the scale of the visual impact of the scheme on their setting (Table 14.0).

The scheme will have a Neutral impact on the setting of 19 Listed Buildings with potential views over the scheme. The scheme will have a Very Slight Negative impact on the setting of 6 Listed Buildings with views over the scheme: LB3659, LB3671, LB3672, LB22940, LB22965 and LB22966.

LB3651 Pen-y-bryn

The house at Pen-y-bryn is located on rising ground above the A55 on the NE side of the Afon Aber to the E of the village of Abergwyngregyn. It is situated within tree-fringed grassed gardens. The viewshed analysis suggested that the extreme NE end of the scheme, approximately 600m away to the W, is potentially visible from the house. In practice, the view is obscured by trees and shrubs which will be unaffected by the scheme though the tips of some streetlights are visible (Plate 46). The impact of the scheme on the setting of Pen-y-bryn is considered to be Neutral.

LB3652 Pen-y-bryn Cottage

Pen-y-bryn cottage is located immediately to the NE of Pen-y-bryn house again, situated within tree-fringed grassed gardens. The viewshed analysis suggested that the extreme NE end of the scheme, approximately 600m away to the W, is potentially visible from the house. In practice, the view is obscured by trees and shrubs unaffected by the scheme (Plate 46). The impact of the scheme on the setting of Pen-y-bryn Cottage is considered to be Neutral.

LB3656 Gatehouse/Barn at Pen-y-bryn

The Gatehouse/Barn at Pen-y-bryn is located immediately to the NE of Pen-y-bryn house from which it is separated by a stone wall/hedge. The viewshed analysis suggested that the extreme NE end of the scheme, approximately 600m away to the W is potentially visible from the house. In practice, the view is obscured by trees unaffected by the scheme. The impact of the scheme on the setting of the Gatehouse/Barn at Pen-y-bryn is considered to be Neutral.

LB3657 Church of St Tegai

Located at the NE end of the village of Llandygai, just to the W of the Afon Ogwen. The viewshed suggests that it potentially has views over almost the entire length of the scheme, the nearest part of which lies 2km to the E. In practice the low elevation of the Church of St Tegai means the view is obscured by woodland and hedgerows unaffected by the scheme and the impact of the scheme on the setting of the Church of St Tegai is considered to be Neutral.

LB3659 Penrhyn Castle

Penrhyn Castle is set in the landscaped grounds of Penrhyn Park in an elevated position surrounded by open lawns and some trees at the end of a long winding drive from Grand Lodge; it dominates the surrounding countryside. The viewshed analysis indicates that the entire scheme, the nearest part of which lies 2km to the SSW, is visible from the Castle (Plate 47). A Significant View has been designated to the vista looking ENE from Penrhyn Castle across the coastal plain and the Lavan Sands towards Penmaen Mawr and the Great Orme (Figure 8). The Castle is the Listed Building with the most extensive views over the scheme due to its elevated position. However, the presence of trees and vegetation, the scope and scale of the proposed improvements to the existing trunk road, and the distance of the Castle from the scheme means that the scheme will have a Very Slight Negative impact on the significant view from the castle or its setting.

LB3671 Plas Hwfa

Plas Hwfa is situated in an undulating pasture field landscape, 50m to the S of the existing A55 carriageway, approximately 750m to the SW of the SW extent of the scheme. A 1.3km long section of the road improvement, beginning 1.2km to the NE of Plas Hwfa, will be potentially visible from the house according to the viewshed analysis. The scale of the proposed improvements and the distance of the house from the visible parts of the scheme mean that the impact of the scheme on the setting of Plas Hwfa is Very Slight Negative.

LB3672 Tal-y-bont-uchaf and attached farmbuildings

Tal-y-bont-uchaf and attached farmbuildings are situated in an undulating pasture field landscape, 70m to the N of the existing A55 carriageway, approximately 930m to the SW of the SW extent of the scheme. Sporadic sections of the road improvement, beginning 1.4km to the NE of Tal-y-bont-uchaf, will be potentially visible from the farmhouse according to the viewshed analysis. The scope and scale of the scheme as proposed improvements to an existing road and the distance of the house from the visible parts of the scheme mean that its impact on the setting of Tal-y-bont-uchaf and attached farmbuildings will be Very Slight Negative.

LB22904 Ddol Cottages

Ddol Cottages are situated on the main village street running through Abergwyngregyn towards Aber falls. A small, 100m long section, of the extreme NE end of the scheme is indicated as being potentially visible some 400m to the NW from viewpoints to the rear of the building. In practice the view is obscured by trees and hedgerows unaffected by the scheme (Plate 48). The impact of the scheme on the setting of Ddol Cottages is considered to be Neutral.

LB22905 Tyn-y-buarth

Tyn-y-buarth is situated on the main village street running through Abergwyngregyn towards Aber falls. A small, 100m long section, of the extreme NE end of the scheme is indicated as being potentially visible some 400m to the NW from viewpoints to the rear of the building. In practice the view is obscured by trees and hedgerows unaffected by the scheme (Plate 48). The impact of the scheme on the setting of Tyn-y-buarth is considered to be Neutral.

LB22906 Bryn Hyfryd

Bryn Hyfryd is situated on the main village street running through Abergwynnregyn towards Aber falls. A small, 100m long section, of the extreme NE end of the scheme is indicated as being potentially visible some 450m to the NW from viewpoints to the rear of the building. In practice the view is obscured by trees and hedgerows unaffected by the scheme (Plate 48). The impact of the scheme on the setting of Bryn Hyfryd is considered to be Neutral.

LB22913 Ddol Cottages

Ddol Cottages are situated on the main village street running through Abergwynnregyn towards Aber falls. A small, 100m long section, of the extreme NE end of the scheme is indicated as being potentially visible some 400m to the NW from viewpoints to the rear of the building. In practice the view is obscured by trees and hedgerows unaffected by the scheme (Plate 48). The impact of the scheme on the setting of Ddol Cottages is considered to be Neutral.

LB22914 Bro Dawel

Bro Dawel is situated on the main village street running through Abergwynnregyn towards Aber falls. A small, 100m long section, of the extreme NE end of the scheme is indicated as being potentially visible some 450m to the NW from viewpoints to the rear of the building. In practice the view is obscured by trees and hedgerows unaffected by the scheme (Plate 48). The impact of the scheme on the setting of Bro Dawel is considered to be Neutral.

LB22915 Fron

Fron is situated on the main village street running through Abergwynnregyn towards Aber falls. A small, 100m long section, of the extreme NE end of the scheme is indicated as being potentially visible some 400m to the NW from viewpoints to the rear of the building. In practice the view is obscured by trees and hedgerows unaffected by the scheme (Plate 48). The impact of the scheme on the setting of Fron is considered to be Neutral.

LB22931 Bridge at the mouth of the Afon Ogwen

Located in Penrhyn Park, the bridge is situated at the mouth of the Afon Ogwen where it flows into the sea approximately 120m east of Capel Ogwen. The nearest part of the scheme lies approximately 1.4km to the SE, and the viewshed analysis suggests that much of the scheme is potentially visible from the bridge. The low lying elevation of the bridge means that views to the scheme are obscured by woodland, trees and hedgerows unaffected by the scheme. The impact of the scheme on the setting of Bridge at the mouth of the Afon Ogwen is considered to be Neutral. Also listed as LB23456.

LB22940 U-shaped Range of Farmbuildings at Tal-y-bont-uchaf

The U-shaped Range of Farmbuildings at Tal-y-bont-uchaf are situated in an undulating pasture field landscape, 70m to the N of the existing A55 carriageway, approximately 930m to the SW of the SW extent of the scheme. Sporadic sections of the road improvement, beginning 1.4km to the NE of Tal-y-bont-uchaf, will be potentially visible from the farmbuildings according to the viewshed analysis. The scale of the proposed improvements and the distance of the house from the visible parts of the scheme mean that the impact on its setting will be Very Slight Negative.

LB22951 Eglwys St Cross

Eglwys St Cross is located in a churchyard in farmland on the coastal plain to the E of Tal-y-bont. It is set in the north-east corner of roughly square-shaped churchyard with several yew trees and low rubblestone walls. The nearest part of the scheme lies approximately 1.2km to the ENE, and the viewshed analysis suggests that much of the scheme is visible from the Cross. The low lying elevation of the Cross means that views to the scheme are obscured by woodland, trees and hedgerows unaffected by the scheme. The impact of the scheme on the setting of Eglwys St Cross is considered to be Neutral.

LB22955 Estate Kennels

The Estate Kennels are situated in the far north-east corner of Penrhyn Park near Capel Ogwen on a drive-way approximately 150m east of the Bridge at the mouth of the Afon Ogwen LB22931/23456. The nearest part of the scheme lies approximately 1.2km to the SE, and the viewshed analysis suggests that much of the scheme is visible from the Estate Kennels. The low lying elevation of the Estate Kennels means that views to the scheme are obscured by woodland, trees and hedgerows unaffected by the scheme. The impact of the scheme on the setting of the Estate Kennels is considered to be Neutral.

LB22957 Penrhyn Park boundary wall

The Penrhyn Park boundary wall encloses the historic parkland of Penrhyn Castle to form Penrhyn Park. Viewshed Analyses performed at various points along its length suggests that much of the scheme is visible to the E of the wall; the closest potentially visible part of the scheme is 1.1km away. In practice views to the scheme are obscured by woodland, trees and hedgerows unaffected by the scheme. The impact of the scheme on the setting of Penrhyn Park boundary wall is considered to be Neutral.

LB22965 Glan-y-mor-isaf

Glan-y-mor-isaf is situated close to the coast in low-lying pasture fields near the end of a track running eastwards from the road running from the former old Bangor-Conwy road past Aber-Ogwen to join the shore east of the mouth of the Afon Ogwen. Viewshed analysis suggests that Glan-y-mor-isaf potentially has views over much of the scheme length, the nearest potentially visible part of which lies at the SW end of the scheme approximately 1km to the S. The low lying elevation of the Glan-y-mor-isaf means that views to the scheme are largely obscured by woodland, trees and hedgerows unaffected by the scheme. This together with the scope of the scheme as predominately an existing road improvement means that the impact of the scheme on the setting of Glan-y-mor-isaf is considered to be Very Slight Negative.

LB22966 Farmbuildings at Glan-y-mor-isaf

The farmbuildings at Glan-y-mor-isaf are situated to the E of the main farmhouse LB22965. Viewshed analysis suggests that the farmbuildings potentially have views over much of the scheme length, the nearest potentially visible part of which lies at the SW end of the scheme approximately 1km to the S. The low lying elevation of the Farmbuildings at Glan-y-mor-isaf means that views to the scheme are largely obscured by woodland, trees and hedgerows. This together with the scope of the scheme as predominately an existing road improvement means that the impact of the scheme on the setting of the Farmbuildings at Glan-y-mor-isaf is considered to be Very Slight Negative.

LB22967 Pigsties at Glan-y-mor-isaf

The Pigsties at Glan-y-mor-isaf are situated immediately to the N of the main farmhouse LB22965. Viewshed analysis suggests that the Pigsties potentially have views over much of the scheme length, the nearest potentially visible part of which lies at the SW end of the scheme approximately 1km to the S. In practice, most of the views are obstructed by the main farmhouse LB22965 and Farmbuildings LB22966. The low lying elevation of the Pigsties means that remaining views to the scheme are largely obscured by woodland, trees and hedgerows. These factors, together with the scope of the scheme as predominately an existing road improvement means that the impact of the scheme on the setting of the Pigsties at Glan-y-mor-isaf is considered to be Neutral.

LB23366 The Wyatt Memorial at the Church of St Tegai

The Wyatt Memorial is located in the tree lined churchyard directly to the south of the chancel of the Church of St Tegai LB3657. The viewshed suggests that it potentially has views over almost the entire length of the scheme, the nearest part of which lies 2km to the E. In practice views in the direction of the scheme are obscured by trees unaffected by the scheme and the impact of the scheme on the setting of the Wyatt Memorial is considered to be Neutral.

LB23456 Bridge at the mouth of the Afon Ogwen

Located in Penrhyn Park, the bridge is situated at the mouth of the Afon Ogwen where it flows into the sea approximately 120m east of Capel Ogwen. The nearest part of the scheme lies approximately 1.4km to the SE, and the viewshed analysis suggests that much of the scheme is visible from the bridge. The low lying elevation of the bridge means that views to the scheme are obscured by woodland, trees and hedgerows unaffected by the scheme. The impact of the scheme on the setting of Bridge at the mouth of the Afon Ogwen is considered to be Neutral. Also Listed as LB22931.

LB23463 The Old School House

The Old School House is situated directly to the N of LB3657 the Church of St Tegai with the wall to Penrhyn Park to the north. The viewshed suggests that it potentially has views over almost the entire length of the scheme, the nearest part of which lies 2km to the E. In practice views in the direction of the scheme are obscured by trees unaffected by the scheme and the impact of the scheme on the setting of the Old School House is considered to be Neutral.

LB81043 Ty'n Ffridd

Ty'n Ffridd is located at the southern edge of the village of Abergwyngregyn. It sits on the W side of the road leading toward Aber falls, in a rough stone-walled enclosure. A small, 100m long section, of the extreme NE of the scheme is indicated as being potentially visible some 560m to the NW from viewpoints to the rear of the building. The enclosed ground is heavily overgrown with shrubs and semi-mature trees which obscure the view. Views from the adjacent footpath on higher ground to the SW show that the NE end of the scheme is obscured by trees unaffected by the scheme (Plate 49). The impact of the scheme on the setting of Ty'n Ffridd is considered to be Neutral.

Table 14.0: Listed Buildings within the 2km study area and impact on setting

Cadw Listed Building Number	Listing Grade	Name	NGR	Views of Scheme	Impact on Setting
3651	II*	Pen-y-bryn	SH6582472739	YES	Neutral
3652	II	Pen-y-bryn Cottage	SH6583772752	YES	Neutral
3655	II	Bont Newydd	SH6626272008	NO	Neutral
3656	II*	Gatehouse/Barn at Pen-y-bryn	SH6584172795	YES	Neutral
3657	II*	Church of St Tegai	SH6007670987	YES	Neutral
3659	I	Penrhyn Castle	SH6026671918	YES	Very Slight Negative
3671	II	Plas Hwfa	SH6157470657	YES	Very Slight Negative
3672	II	Tal-y-bont-uchaf and attached farmbuildings	SH6130070672	YES	Very Slight Negative
22904	II	Ddol Cottages	SH6562772601	YES	Neutral
22905	II	Tyn-y-buarth	SH6564572581	YES	Neutral
22906	II	Bryn Hyfryd	SH6566772576	YES	Neutral
22907	II	Tan-y-dderwen	SH6561372670	NO	Neutral
22908	II	Tan-y-bryn	SH6561272648	NO	Neutral
22910	II	Gatehouse range including stabling, cowhouses and walls enclosing yard to south at Madryn Farm	SH6645873546	NO	Neutral
22911	II	Tan-y-dderwen	SH6561172664	NO	Neutral
22912	II	Bron Derw	SH6561672643	NO	Neutral
22913	II	Ddol Cottages	SH6563472595	YES	Neutral
22914	II	Bro Dawel	SH6567672570	YES	Neutral
22915	II	Fron	SH6565472580	YES	Neutral
22916	II	Stable range in yard at Madryn Farm	SH6644073520	NO	Neutral

Cadw Listed Building Number	Listing Grade	Name	NGR	Views of Scheme	Impact on Setting
22917	II	Cart shelter, barn, granary and smithy at Madryn Farm	SH6646873498	NO	Neutral
22925	II	Tal-y-bont Lodge	SH6033770879	NO	Neutral
22926	II	Tan-y-marian	SH6158770052	NO	Neutral
22928	II	Plas-uchaf	SH6208969897	NO	Neutral
22929	II	Pont Tal-y-bont (partly in Llandygai community)	SH6022570890	NO	Neutral
22931	II*	Bridge at the mouth of the Afon Ogwen (partly in Llandygai community)	SH6107072139	YES	Neutral
22940	II	U-shaped Range of Farmbuildings at Tal-y-bont-uchaf	SH6132870666	YES	Very Slight Negative
22946	II	Tyddyn-isaf & Tyddyn-isaf bach	SH6140769626	NO	Neutral
22947	II	Capel Bethlehem	SH6046470508	NO	Neutral
22948	II	Cart Shelter and Pigsties at Plas-uchaf	SH6209569913	NO	Neutral
22949	II	L-shaped Cowhouse Range at Plas-uchaf	SH6210769903	NO	Neutral
22950	II	Small Cowhouse Range at Plas-uchaf	SH6212369909	NO	Neutral
22951	II	Eglwys St Cross	SH6086770804	YES	Neutral
22952	II	Pen-y-bryn	SH6141469791	NO	Neutral
22955	II	Estate Kennels	SH6121272109	YES	Neutral
22956	II	Railway Viaduct (partly in Llandygai community)	SH6027270696	NO	Neutral
22957	II	Penrhyn Park boundary wall (partly in Llandygai community)	SH6103471779	YES	Neutral

Cadw Listed Building Number	Listing Grade	Name	NGR	Views of Scheme	Impact on Setting
22965	II	Glan-y-mor-isaf	SH6195972324	YES	Very Slight Negative
22966	II	Farm buildings at Glan-y-mor-isaf	SH6198472344	YES	Very Slight Negative
22967	II	Pigsties at Glan-y-mor-isaf	SH6194872349	YES	Neutral
23366	II*	Wyatt Memorial at the Church of St Tegai	SH6008470977	YES	Neutral
23381	II	Railway Viaduct (partly in Llanllechid community)	SH6016670674	NO	Neutral
23393	II	Horse Drinking Trough and Fountain	SH6016170887	NO	Neutral
23402	II	Pont Tal-y-bont (partly in Llanllechid community)	SH6018870887	NO	Neutral
23430	II	Former Sawmill Manager's House	SH6013570748	NO	Neutral
23431	II	No.1 Tre-felin Cottages	SH6010270734	NO	Neutral
23456	II*	Bridge at the mouth of the Afon Ogwen (partly in Llanllechid community)	SH6105672141	YES	Neutral
23463	II	The Old School House	SH6005271018	YES	Neutral
81043	II	Ty'n Ffridd	SH6577072470	YES	Neutral

6.3 Mitigation

The study identified 11 assets within the 2km study area whose setting will be negatively impacted by the scheme. They consist of 1 Registered Historic Park or Garden (GD40), 4 Scheduled Monuments (CN038, CN137, CN243 and CN344) and 6 Listed Buildings (LB3659, LB3671, LB3672, LB22940, LB22965 and LB22966). In all cases, the impact of the scheme on the setting of these assets is considered to be Very Slight Negative (Table 15.0).

In all cases this impact will result from the potentially increased visibility of the scheme from these assets in comparison with their current views over the existing A55 trunk road. This will be caused by the loss of trees and hedgerows affected by the scheme.

In all cases, a programme of replacement and or re-instatement of any affected trees and hedgerows is therefore recommended to mitigate against the Very Slight Negative impact on setting. It is considered that implementation of these mitigation measures will result in an overall Neutral impact on setting for all affected assets once the replacement landscaping establishes in the medium to long term (Table 15.0).

Table 15:0: Proposed mitigation for assets in the 2km study area whose setting is impacted by the scheme

Asset	Name	Impact on Setting	Proposed Mitigation	Impact on Setting after Mitigation
RHPG GD40	Penrhyn Park	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
SM CN038	Maes y Gaer Camp (Hillfort)	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
SM CN137	Medieval Homestead 400m SE of Maes y Gaer	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
SM CN243	Settlement Above Ffridd Ddu	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
SM CN344	Cras, cairn to N of	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
LB 3659	Penrhyn Castle	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
LB 3671	Plas Hwfa	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
LB 3672	Tal-y-bont- uchaf and attached farmbuildings	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
LB 22940	U-shaped Range of Farmbuildings at Tal-y-bont- uchaf	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
LB 22965	Glan-y-mor-isaf	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral
LB 22966	Farm buildings at Glan-y-mor- isaf	Very Slight Negative	Replacement/ Reinstatement of affected trees and hedgerows	Neutral

7 Summary

This report details the results of desk-based and walk-over surveys undertaken for a 2.2km section of the A55(T) proposed for upgrading. The report, which is based on guidance in DMRB Volume 11, Section 3, Part II (HA208/07), identified 51 heritage assets within a study area within 300m of the scheme footprint. The majority of these 51 heritage assets were of Medium or Low value although there were six assets of High value.

The report has given a summary of the value of cultural assets, proposed mitigation measures and the significance of impacts with and without mitigation for all three sub-topics. The value of Cultural Heritage assets within the 300m study area across the three sub-topics ranges from Negligible to High with no assets identified as Very High and most with Medium or Low value. Two sites that could be affected by ancillary works require further assessment and could have a value ranging from Low to High, and there is a possibility that further assets will be discovered during groundworks although the potential for the discovery of High or Very High value archaeological remains must be seen as low.

No assets within the 300m study area are of sufficient value to require any changes to the general alignment of the scheme. The principal mitigation measures are the recording of archaeological remains at an appropriate level in advance of destruction; planting using locally common species; and avoidance of outlying sites by access and ancillary works.

This report also details the results of a study to assess the impact of the scheme on the setting of Registered Historic Parks and Gardens, Scheduled Monuments and Listed Buildings that are located outside of the 300m study area but within 2km of the proposed scheme. This report identified 1 Historic Park and Garden, 12 Scheduled Monuments and 49 Listed Buildings within the 2km study area. The scheme will have a Neutral impact on the setting of 51 of these assets and a Very Slight Negative impact on the setting of 11. Mitigation in these 11 cases consists of the replacement or reinstatement of any existing trees or hedgerows which are affected by the works.

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Plan of the New Road of Penmaenmawr 1769. University of Bangor Archives Penrhyn 198

UB BH 6608 *Wig Bach* University of Bangor Archives, Baron Hill

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Ordnance Survey 1st edition 25 inch map 1889. Caernarvon NW Sheets VII.10-11

Ordnance Survey 2nd edition 25 inch map 1901. Caernarfon NW Sheet VII.10-11

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Aerial Photographs

Sortie: 106G/UK/1235 Date: 10/03/1946 Frames: 4001 and 4002

Sortie: CPE/UK/1939 Date: 20/01/1947 Frames: 4043 and 4044

Appendix I – Archive Metadata

File reference	Description	View from	Date
G2424_2015_001.jpg	Asset # 01 No's 1 & 2 Tan-y-Lon.	N	22.06.2015
G2424_2015_002.jpg	Asset # 01 No's 1 & 2 Tan-y-Lon.	N	22.06.2015
G2424_2015_003.jpg	Asset # 01 No's 1 & 2 Tan-y-Lon.	N	22.06.2015
G2424_2015_004.jpg	Asset # 02 Turnpike House	W	22.06.2015
G2424_2015_005.jpg	Asset # 02 Turnpike House	NNE	22.06.2015
G2424_2015_006.jpg	Asset # 02 Turnpike House	NNE	22.06.2015
G2424_2015_007.jpg	Asset # 03 No's 7 & 8 Tan-y-Lon	SW	22.06.2015
G2424_2015_008.jpg	Asset # 03 No's 7 & 8 Tan-y-Lon	SE	22.06.2015
G2424_2015_009.jpg	Asset # 04 No's 9 & 10 Tan-y-Lon	SW	22.06.2015
G2424_2015_010.jpg	Asset # 04 No's 9 & 10 Tan-y-Lon	SE	22.06.2015
G2424_2015_011.jpg	View of proposed new road, N side of A55 at Tal-y-bont	W	22.06.2015
G2424_2015_012.jpg	Asset # 17 Culverts, north of Tan-yr-Allt cottages	NW	22.06.2015
G2424_2015_013.jpg	Asset # 17 Culverts, north of Tan-yr-Allt cottages	NW	22.06.2015
G2424_2015_014.jpg	Asset # 29 Wig farm	SE	22.06.2015
G2424_2015_015.jpg	Asset # 29 & 33 Wig farm and garden, Abergwynnregyn	S	22.06.2015
G2424_2015_016.jpg	Asset # 27 y-Wig medieval township	ENE	22.06.2015
G2424_2015_017.jpg	Asset # 27 y-Wig medieval township	ENE	22.06.2015
G2424_2015_018.jpg	Asset # 27 y-Wig medieval township	E	22.06.2015

File reference	Description	View from	Date
G2424_2015_019.jpg	Asset # 19 Revetment walls, north of Tai'r Meibion	ENE	22.06.2015
G2424_2015_020.jpg	View of proposed new road, N side of A55 from Wig Farm	ENE	22.06.2015
G2424_2015_021.jpg	View of proposed new road, N side of A55 from Wig Farm	WSW	22.06.2015
G2424_2015_022.jpg	Asset # 35 Location of Wig-Bach - demolished	SE	22.06.2015
G2424_2015_023.jpg	Asset # 35 Location of Wig-Bach - demolished	SE	22.06.2015
G2424_2015_024.jpg	Asset # 46 Aber Falls Hotel, Abergwyngregyn	NNW	22.06.2015
G2424_2015_025.jpg	Asset # 44 The Old Rectory, Abergwyngregyn	NNE	22.06.2015
G2424_2015_026.jpg	Asset # 44 The Old Rectory, Abergwyngregyn	NNE	22.06.2015
G2424_2015_027.jpg	Asset # 41 Abergwyngregyn Parish Church	W	22.06.2015
G2424_2015_028.jpg	Asset # 41 & 50 Site of original Abergwyngregyn Church	NNW	22.06.2015
G2424_2015_029.jpg	Asset # 42 Tan-y-Fynwent, Abergwyngregyn	NE	22.06.2015
G2424_2015_030.jpg	Asset # 42 Tan-y-Fynwent, Abergwyngregyn	NE	22.06.2015
G2424_2015_031.jpg	Asset # 40 Mill pond, southwest of St Bodfan's Church	WNW	22.06.2015
G2424_2015_032.jpg	Asset # 40 Mill pond, southwest of St Bodfan's Church	N	22.06.2015

File reference	Description	View from	Date
G2424_2015_033.jpg	Asset # 40 Mill pond, southwest of St Bodfan's Church	N	22.06.2015
G2424_2015_034.jpg	Asset # 39 The Old School, Aber	SSE	22.06.2015
G2424_2015_035.jpg	Asset # 38 Coed Bryn Meddyg relict field system	ENE	22.06.2015
G2424_2015_036.jpg	Asset # 32 Location of tumulus - not visible	S	22.06.2015
G2424_2015_037.jpg	Asset # 32? Shallow depression	NW	22.06.2015
G2424_2015_038.jpg	Asset # 31 Field boundaries, east of Wig	SE	22.06.2015
G2424_2015_039.jpg	View of proposed new road, S side of A55 from Bryn-meddyg	ENE	22.06.2015
G2424_2015_040.jpg	Asset # 37 Quarry - overgrown	SSE	22.06.2015
G2424_2015_041.jpg	Asset # 37 Quarry - overgrown	SSE	22.06.2015
G2424_2015_042.jpg	Asset # 37 Quarry - overgrown	NNW	22.06.2015
G2424_2015_043.jpg	Asset # 37 Quarry - overgrown	NNW	22.06.2015
G2424_2015_044.jpg	Asset # 37 Quarry - overgrown	NNW	22.06.2015
G2424_2015_045.jpg	Asset # 36 Cottages, Bryn Meddyg, Abergwyngregyn	NE	22.06.2015
G2424_2015_046.jpg	Asset # 36 Cottages, Bryn Meddyg, Abergwyngregyn	NE	22.06.2015
G2424_2015_047.jpg	Asset # 36 Cottages, Bryn Meddyg, Abergwyngregyn	ENE	22.06.2015
G2424_2015_048.jpg	Asset # 36 Cottages, Bryn Meddyg, Abergwyngregyn	W	22.06.2015
G2424_2015_049.jpg	Asset # 36 Cottages, Bryn Meddyg, Abergwyngregyn	W	22.06.2015

File reference	Description	View from	Date
G2424_2015_050.jpg	View of proposed new road, S side of A55 from Bryn-meddyg	ENE	22.06.2015
G2424_2015_051.jpg	Asset # 26 Slate gate piers, south of Wig	ESE	22.06.2015
G2424_2015_052.jpg	Asset # 26 Slate gate piers, south of Wig	NNE	22.06.2015
G2424_2015_053.jpg	View of proposed new track, S side of A55 near Crymlyn Farm	NNE	22.06.2015
G2424_2015_054.jpg	View of proposed new track, S side of A55 near Crymlyn Farm	SSW	22.06.2015
G2424_2015_055.jpg	View of proposed new track, S side of A55 near Crymlyn Farm	SSW	22.06.2015
G2424_2015_056.jpg	Asset # 48 Cottage adjoining Crymlyn Cottage	N	22.06.2015
G2424_2015_057.jpg	Asset # 47 Crymlyn Cottage	N	22.06.2015
G2424_2015_058.jpg	Asset # 18 & 49 Hedgerow and possible Roman road east of Tan-yr-Allt cottages	E	22.06.2015
G2424_2015_059.jpg	Asset # 24 Location of tumulus, Bryn Meddyg, Aber	ESE	22.06.2015
G2424_2015_060.jpg	Asset # 24 Location of tumulus, Bryn Meddyg, Aber	ESE	22.06.2015
G2424_2015_061.jpg	Asset # 18 & 49 Hedgerow and possible Roman road east of Tan-yr-Allt cottages	E	22.06.2015
G2424_2015_062.jpg	Asset # 18 & 49 Hedgerow and possible Roman road east of Tan-yr-Allt cottages	E	22.06.2015

File reference	Description	View from	Date
G2424_2015_063.jpg	Asset # 18 & 49 Hedgerow and possible Roman road east of Tan-yr-Allt cottages	E	22.06.2015
G2424_2015_064.jpg	Asset # 24 Enclosed fields, south and east of Tai'r Meibion	SW	22.06.2015
G2424_2015_065.jpg	Asset # 24 Enclosed fields, south and east of Tai'r Meibion	SW	22.06.2015
G2424_2015_066.jpg	Asset # 25 Field boundaries, east of Tai'r Meibion	WSW	22.06.2015
G2424_2015_067.jpg	Asset # 25 Field boundaries, east of Tai'r Meibion	WSW	22.06.2015
G2424_2015_068.jpg	Asset # 25 Field boundaries, east of Tai'r Meibion	WSW	22.06.2015
G2424_2015_069.jpg	Asset # 18 & 49 Hedgerow and possible Roman road east of Tan-yr-Allt cottages	SE	22.06.2015
G2424_2015_070.jpg	Asset # 18 & 49 Hedgerow and possible Roman road east of Tan-yr-Allt cottages	NW	22.06.2015
G2424_2015_071.jpg	Asset # 20 Gilfach Baptist Chapel, Llanllechid	NW	22.06.2015
G2424_2015_072.jpg	Asset # 21 Tai'r Meibion	NW	22.06.2015
G2424_2015_073.jpg	Asset # 21 Tai'r Meibion	SE	22.06.2015
G2424_2015_074.jpg	Asset # 23 Tai'r Meibion garden	NNE	22.06.2015
G2424_2015_075.jpg	Asset # 22 Farm buildings at Tai'r Meibion	NNW	22.06.2015
G2424_2015_076.jpg	Asset # 22 Farm buildings at Tai'r Meibion	NW	22.06.2015
G2424_2015_077.jpg	Asset # 22 Farm buildings at Tai'r Meibion	N	22.06.2015

File reference	Description	View from	Date
G2424_2015_078.jpg	Asset # 22 Farm buildings at Tai'r Meibion	NNE	22.06.2015
G2424_2015_079.jpg	Asset # 22 Farm buildings at Tai'r Meibion	N	22.06.2015
G2424_2015_080.jpg	Asset # 18 & 49 Hedgerow and possible Roman road east of Tan-yr-Allt cottages	WSW	22.06.2015
G2424_2015_081.jpg	Asset # 16 & 15 No's 3 & 4 Tan-yr-Allt cottages	NW	22.06.2015
G2424_2015_082.jpg	Asset # 14 & 13 No's 1 & 2 Tan-yr-Allt cottages	NW	22.06.2015
G2424_2015_083.jpg	Asset # 06 farm buildings at Ty'n-yr-Hendre	NE	22.06.2015
G2424_2015_084.jpg	Asset # 05 & 06 Shelter shed/pigsties and farm buildings at Ty'n-yr-Hendre	NNE	22.06.2015
G2424_2015_085.jpg	Asset # 05 & 06 Shelter shed/pigsties and farm buildings at Ty'n-yr-Hendre	NE	22.06.2015
G2424_2015_086.jpg	Asset # 05 & 06 Shelter shed/pigsties and farm buildings at Ty'n-yr-Hendre	ENE	22.06.2015
G2424_2015_087.jpg	Asset # 06 farm buildings at Ty'n-yr-Hendre	S	22.06.2015
G2424_2015_088.jpg	Asset # 08 Ty'n-y-Hendre farm, Abergwyngregyn	WSW	22.06.2015
G2424_2015_089.jpg	Asset # 09 Lynchet, Ty'n-y-Hendre	NW	22.06.2015
G2424_2015_090.jpg	Asset # 08 Ty'n-y-Hendre farm, Abergwyngregyn	W	22.06.2015
G2424_2015_091.jpg	Asset # 10 - location of, not visible	SW	22.06.2015

File reference	Description	View from	Date
G2424_2015_092.jpg	View of proposed footpath, S of A55	SW	22.06.2015
G2424_2015_093.jpg	View of proposed footpath, S of A55	SW	22.06.2015
G2424_SMs_Site_Visits_2016_001.jpg	Scheme location from Penrhyn Castle and garden LB3659, GD40	W	02.08.2016
G2424_SMs_Site_Visits_2016_002.jpg	Scheme location from Penrhyn Castle and garden LB3659, GD40	W	02.08.2016
G2424_SMs_Site_Visits_2016_003.jpg	Scheme location from Penrhyn Castle and garden LB3659, GD40	W	02.08.2016
G2424_SMs_Site_Visits_2016_004.jpg	Scheme location from Penrhyn Castle and garden LB3659, GD40	W	02.08.2016
G2424_SMs_Site_Visits_2016_005.jpg	Scheme location from Penrhyn Castle and garden LB3659, GD40	W	02.08.2016
G2424_SMs_Site_Visits_2016_006.jpg	View towards SW end of scheme location from ground to the W of Hut Circle Settlement NW of Tan-y-Marian CN252	SW	02.08.2016
G2424_SMs_Site_Visits_2016_007.jpg	View towards SW end of scheme location from ground to the W of Hut Circle Settlement NW of Tan-y-Marian CN252	SW	02.08.2016
G2424_SMs_Site_Visits_2016_008.jpg	View towards SW end of scheme location from ground to the W of Hut Circle Settlement NW of Tan-y-Marian CN252	SW	02.08.2016
G2424_SMs_Site_Visits_2016_009.jpg	View towards NE end of scheme location from Pen-y-bryn LB3651	E	02.08.2016
G2424_SMs_Site_Visits_2016_010.jpg	View towards NE end of scheme location from W corner of Enclosure & Associated Structures at Pen-y-Bryn CN218	ENE	02.08.2016

File reference	Description	View from	Date
G2424_SMs_Site_Visits_2016_011.jpg	View towards NE end of scheme location from the top of from Aber Castle Mound (Pen-y-Mwd) CN007	E	02.08.2016
G2424_SMs_Site_Visits_2016_012.jpg	View towards NE end of scheme location from trackway to the W (rear) of Ddol Cottages LB22904 and LB22913	ESE	02.08.2016
G2424_SMs_Site_Visits_2016_013.jpg	View towards NE end of scheme location from footpath to the SW (rear) of Ty'n Ffridd LB81043	ESE	02.08.2016
G2424_SMs_Site_Visits_2016_014.jpg	View towards NE end of scheme location from footpath on higher ground to the SW (rear) of Ty'n Ffridd LB81043	SE	02.08.2016
G2424_SMs_Site_Visits_2016_015.jpg	View towards SW end of scheme location from Cairn to N of Cras CN344	ESE	02.08.2016
G2424_SMs_Site_Visits_2016_016.jpg	View towards SW end of scheme location from Cairn to N of Cras CN344	ESE	02.08.2016
G2424_SMs_Site_Visits_2016_017.jpg	View towards SW end of scheme location from Settlement Above Ffridd Ddu CN243	ESE	02.08.2016
G2424_SMs_Site_Visits_2016_018.jpg	View towards NE end of scheme location from Medieval Homestead 400m SE of Maes y Gaer CN137	ESE	02.08.2016
G2424_SMs_Site_Visits_2016_019.jpg	View over entire scheme location from Maes y Gaer Camp (Hillfort) CN038	ENE	02.08.2016
G2424_SMs_Site_Visits_2016_020.jpg	View over entire scheme location from Maes y Gaer Camp (Hillfort) CN038	ENE	02.08.2016

Appendix II – Gazetteer of Assets within 300m Study Area

Asset Number	1
Asset Name	Nos 1 & 2 Tan-y-lon
NGR	SH 61795 71052
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	
NMR Reference	409169
CADW Reference	22933
Value	Medium
Period	Post-medieval
Description	CADW: Located on the south side of the road a little to the west of the other buildings at Tan-y-lon; modern timber fencing to front gardens on roadside and slate fencing to side boundaries. NMR: Penrhyn estate cottages
References	

Asset Number	2
Asset Name	Turnpike House
NGR	SH 61918 71093
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	
NMR Reference	
CADW Reference	22937
Value	Medium
Period	Post-medieval
Description	CADW: Located right on road in Tan-y-lon at junction between the old Bangor to Conwy road and the road which runs roughly parallel with it between Tan-y-lon and Eglwys St Cross.
References	

Asset Number	3
Asset Name	Nos 7 & 8 Tan-y-lon
NGR	SH 61943 71138
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	
NMR Reference	306313
CADW Reference	22934
Value	Medium
Period	Post-medieval
Description	<p>CADW: Located on the north-west side of the road at Tan-y-lon; rubblestone wall to front with slate-on-edge coping and iron pedestrian gates.</p> <p>NMR: Cottages, likely to have been constructed c1850. Built as part of the small planned settlement of Tan-y-lon for workers on one of the nearby Penrhyn Estate farms or perhaps the park itself.</p>
References	

Asset Number	4
Asset Name	Nos 9 & 10 Tan-y-lon
NGR	SH 61980 71169
Type	Historic Building
Designation	None
HER Reference	
NMR Reference	409170
CADW Reference	
Value	Low
Period	Post-medieval
Description	NMR: Penrhyn estate cottages
References	

Asset Number	5
Asset Name	Shelter Shed/Pigsties at Ty'n-yr-hendre
NGR	SH 62266 71138
Type	Historic Building
Designation	Listed Building Grade II*
HER Reference	30287
NMR Reference	
CADW Reference	22972
Value	High
Period	Post-medieval
Description	<p>HER: Pigsties have lost slates and rafters of lean-to roof but are otherwise complete. 4 pens facing entrance to farmyard with doors to interior of sties divided by stone cross walls; slate and brick feeding troughs to pens; boarded door in north end wall of lean-to element. (Evans 2008)</p> <p>CADW: Located in the middle of the cobbled farmyard at Ty'n-yr-hendre.</p>
References	Evans, R. , 2008a , A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	6
Asset Name	Farmbuildings at Ty'n-yr-hendre
NGR	SH 62241 71142
Type	Historic Building
Designation	Listed Building Grade II*
HER Reference	30287
NMR Reference	403409
CADW Reference	22971
Value	High
Period	Post-medieval
Description	<p>HER: Farm buildings are grade II* listed. Long 6-bay rectangular-plan open-fronted shelter shed aligned very roughly east-west with lean-to pigsties attached to east end. Roughly coursed rubble stone; wide hipped slate roof. 6 segmental-headed openings in each long wall of shelter shed, divided to centre by wider pier with stone cross wall separating the stone-walled enclosures in front. These have stone-on-edge coping and each individual yard is entered through gates with shallow pyramidal-capped square piers.</p> <p>CADW: Situated around 4 sides of an excellently preserved cobbled yard below and to the north-west of the former farmhouse at Ty'n-yr-hendre.</p> <p>NMR: Built c1860 by the Penrhyn Estate as the farmbuildings of the model farm at Ty'n-yr-hendre. Although including cowhouses, pigsties and a barn amongst its buildings, Ty'n-yr-hendre primarily operated as the estate's specialist horse farm, some of which were used on adjoining farms, rather than exclusively at Ty'n-yr-hendre. Substantial part of south range, principally on upper floor has been converted to domestic accommodation and parts of other buildings were being converted to workshop and related uses.</p> <p>Model farmbuildings arranged around 4 sides of a square, cobbled, yard with free-standing double-sided open-fronted shelter shed in centre facing onto its own smaller walled enclosures. Constructed of roughly coursed rubblestone with lintels or voussoirs to majority of openings; hipped slate roofs of varying heights, some with ridge ventilators. The entrance is through a break on the east side. There is stabling in all ranges, except for a 5-bay cart shelter to south of entrance in east range, barn in south-west corner, granary above stabling in 2-storey part of south range, and cow housing on west side.</p> <p>Externally the are walls largely unbroken: east range has only one window, west range has 2 windows to barn, north range has 3 windows and a door; south range has door to left and a pit with cast-iron grinding wheel towards centre (above which the roof has a C20 rooflight) with 3 windows immediately to its right and an eaves window to single-storey section.</p> <p>Internally the southern section of east range (to right of entrance) is 5-bay cart shelter with tooled voussoirs to wide segmental-arched openings. This is attached to single-storey section of south range, which has 2 ventilator windows alternating with boarded doors. there is a wider segmental-headed opening (new glazed screen and door) on right, the upper floor of long 2-storey section has 3 evenly spaced segmental-headed eaves windows; ground floor has doors and windows all with voussoirs to slightly cambered heads. The right door is wider than the others, the windows all originally ventilator windows, some remaining as such.</p> <p>Barn in west range has segmental-headed doorway on left, with 4 narrow ventilation slits to right. The remainder of this range is occupied by a cowhouse with alternating ventilator windows and doors.</p> <p>The stables occupy the whole of the north range and that part of the east range north</p>

	<p>of the entrance. The openings are more widely spaced to western end of north range for loose boxes, closer together with alternating doors and windows to remainder for stables. They are mainly C19 originals but some replacements. 3 brick ridge stacks at eastern end of north range.</p> <p>All single-storey buildings around yard have A-frame trusses; king-post roof in 4 bays to barn; slate troughs, hay racks, cobbled and slate floors throughout; late C20 milking parlour installed in west range.</p>
References	<p>Evans, R. , 2008a , A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment</p>

Asset Number	7
Asset Name	Road and Quarry Pits, Possible, Ty'n y Hendre
NGR	SH 62290 71120
Type	Archaeological Remains
Designation	None
HER Reference	37195
NMR Reference	
CADW Reference	
Value	Low
Period	Roman
Description	HER: An alignment of hedgerows and parchmarks that could be quarry pits at Ty'n y Hendre and Tai'r Meibion. There is no sign of a surviving agger but the parchmarks correspond to hollows. These could be quarry pits but could also be features unrelated to the Roman road. The line through the fields by Ty'n y Hendre is not entirely convincing because the lie of the land is quite uneven and cuttings or terracing would have been necessary. Several hundred years of intensive agriculture could however have removed all signs of the road. This length would merit further aerial monitoring but remains unproven. (Driver & Hopewell 2009)
References	Driver, T. & Hopewell, D. , 2009 , Roman Military Sites 2008: The Roman Road Between Segontium and Aber

Asset Number	8
Asset Name	Ty'n y Hendre Farm, Abergwyngregyn
NGR	SH 62366 71082
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	30287
NMR Reference	
CADW Reference	22970
Value	Medium
Period	Post-medieval
Description	<p>HER: The farmhouse was built about 1860 by the Penrhyn Estate as the farmhouse for the model farm at Ty'n-yr-hendre. The fact that, even for a model farm, the farmhouse is unusually distant from the farm buildings and of more than average architectural distinction reflects the farm's role as the estate's specialist horse farm and that the farmhouse was occupied by an estate official rather than by a tenant farmer.</p> <p>CADW: Located off east side of minor road climbing south-eastwards off the A 55 towards Bronydd Isaf; the former farmhouse is situated on rising ground approximately 70m from the nearest part of the farmbuildings and is served by a separate driveway.</p>
References	Evans, R. , 2008a , A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	9
Asset Name	Lynchet, Ty'n y Hendre
NGR	SH 62400 70960
Type	Archaeological Remains
Designation	None
HER Reference	37196
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	<p>HER: An earthwork and a parchmark form a linear alignment from Tyâ€™n Hendre to Capel Gilfach. Examination on the ground showed the earthwork to the south-east of Tyâ€™n-y-hendre to be a pronounced roughly linear scarp curving sharply to the south-west at the north-east. This appears to be a lynchet, probably part of the extensive multiperiod field systems that run from the uplands down to the coastal plain in this area. A parchmark beyond this is not visible as an earthwork and could either be a road or a gas pipeline. The pipeline appears to cross the road near Tyâ€™n-y-hendre just below the line of the lynchet and crosses the road near Capel Gilfach so the pipeline is the most likely interpretation. (Driver & Hopewell 2009)</p>
References	Driver, T. & Hopewell, D. , 2009 , Roman Military Sites 2008: The Roman Road Between Segontium and Aber

Asset Number	10
Asset Name	Cairn, Site of, Ty'n-yr-hendre
NGR	SH 62470 71000
Type	Archaeological Remains
Designation	None
HER Reference	2344
NMR Reference	
CADW Reference	
Value	Negligible
Period	Prehistoric
Description	<p>HER: 'Brass Utensils' found at Cae-Gwilym-Ddu, in a cist in a cairn. Present whereabouts unknown. <1></p> <p>There is no evidence of a cairn or cist in the field. Nothing is known locally regarding the cairn or the 'utensils'. <2></p> <p>The 1889 1st edition 25inch OS map marks 'Cae Gwilym Du' in antique script at the SW corner of the field, presumably the location of the cairn. There is no physical evidence for a cairn remaining and the find were probably made during the clearance of the cairn. (Kenney & Williams, 2013)</p> <p>An antiquarian reference to a cairn and possibly bronze artefacts. The location is fairly precise but the cairn no longer exists so the finds were probably made during its clearance. The finds themselves are now lost. (Smith, 2002)</p>
References	<p>Kenney, J. & Williams, J. Ll. W. , 2013 , Prehistoric Sites in Llanllechid and Llandygai in Northern Gwynedd - A Contribution Using Antiquarian and Place Name Studies , Archaeology in Wales : Vol. 52 : p. 101-112</p> <p>Smith, G. , 2002 , Survey of Prehistoric Funerary and Ritual Monuments in Wales: West Conwy and North Gwynedd (© GAT)</p> <p>Royal Commission on Ancient and Historic Monuments , 1956 , Caernarvonshire , <1></p> <p>Ordnance Survey , 1969 , SH67SW 13 , <2></p>

Asset Number	11
Asset Name	Metal Detecting Finds (Coins), E Tal-y-bont
NGR	SH 62300 71300
Type	Archaeological Remains
Designation	None
HER Reference	5789
NMR Reference	
CADW Reference	
Value	Negligible
Period	Post-medieval
Description	<p>HER: 3 coins found by metal detecting club from Stockport, info passed on to GAT via Archie. Finds include 1 Mary Queen of Scots coin, 1 Elizabeth II groat and one possible Roman bronze coin. <1></p>
References	

Asset Number	12
Asset Name	Tai'r-meibion, Roman Road segments (part of RR67c Caerhun-Caernarfon route)
NGR	SH 62790 71210
Type	Archaeological Remains
Designation	None
HER Reference	
NMR Reference	405340
CADW Reference	
Value	Medium
Period	Roman
Description	NMR: Intermittent parchmarks and possible earthworks betray a 1.5km section of Roman road, running north-east to south-west between SH63417169 and SH62187077. Part of route between Caerhun and Caernarfon (NPRN 302976). First recorded in the course of aerial reconnaissance, 25th July 2006.
References	

Asset Number	13
Asset Name	No 1 Tan-yr-allt Cottages
NGR	SH 62751 71482
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	30285
NMR Reference	409168
CADW Reference	22935
Value	Medium
Period	Post-medieval
Description	HER: One of Four rubble built cottages that were constructed for farm labourers on the nearby Penrhyn Estate farms. The cottages are likely to have been constructed c1850. As such they are typical of Edward Douglas-Pennant's considerable efforts to improve the estate, to which he had succeeded in 1840. They are unaltered examples of the simple vernacular revival style favoured by the Penrhyn estate. (Evans 2008) CADW: Located on the south-east side of the former Bangor-Conwy road (now superseded by the A 55 running parallel to the north-west) between Tan-y-lon and Tai'r-meibion; remains of low rubblestone wall to front with individual cottages separated by hedge. NMR: Penrhyn estate cottage
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	14
Asset Name	No 2 Tan-yr-allt Cottages
NGR	SH 62759 71490
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	30285
NMR Reference	
CADW Reference	22976
Value	Medium
Period	Post-medieval
Description	<p>HER: One of Four rubble built cottages that were constructed for farm labourers on the nearby Penrhyn Estate farms. The cottages are likely to have been constructed c1850. As such they are typical of Edward Douglas-Pennant's considerable efforts to improve the estate, to which he had succeeded in 1840. They are unaltered examples of the simple vernacular revival style favoured by the Penrhyn estate. (Evans 2008)</p> <p>CADW: Located on the south-east side of the former Bangor-Conwy road (now superseded by the A 55 running parallel to the north-west) between Tan-y-lon and Tai'r-meibion; remains of low rubblestone wall to front with individual cottages separated by hedge.</p>
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	15
Asset Name	No 3 Tan-yr-allt Cottages
NGR	SH 62777 71507
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	30285
NMR Reference	
CADW Reference	22936
Value	Medium
Period	Post-medieval
Description	<p>HER: One of Four rubble built cottages that were constructed for farm labourers on the nearby Penrhyn Estate farms. The cottages are likely to have been constructed c1850. As such they are typical of Edward Douglas-Pennant's considerable efforts to improve the estate, to which he had succeeded in 1840. They are unaltered examples of the simple vernacular revival style favoured by the Penrhyn estate. (Evans 2008)</p> <p>CADW: Located on the south-east side of the former Bangor-Conwy road (now superseded by the A 55 running parallel to the north-west) between Tan-y-lon and Tai'r-meibion; low rubblestone wall to front with individual cottages separated by hedge.</p>
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	16
Asset Name	No 4 Tan-yr-allt Cottages
NGR	SH 62785 71515
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	30285
NMR Reference	
CADW Reference	22977
Value	Medium
Period	Post-medieval
Description	<p>HER: One of Four rubble built cottages that were constructed for farm labourers on the nearby Penrhyn Estate farms. The cottages are likely to have been constructed c1850. As such they are typical of Edward Douglas-Pennant's considerable efforts to improve the estate, to which he had succeeded in 1840. They are unaltered examples of the simple vernacular revival style favoured by the Penrhyn estate. (Evans 2008)</p> <p>CADW: Located on the south-east side of the former Bangor-Conwy road (now superseded by the A 55 running parallel to the north-west) between Tan-y-lon and Tai'r-meibion; low rubblestone wall to front with individual cottages separated by hedge.</p>
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	17
Asset Name	Culverts, N of Tan yr Allt Cottages
NGR	SH 62750 71640
Type	Archaeological Remains
Designation	None
HER Reference	30280
NMR Reference	
CADW Reference	
Value	Negligible
Period	Unknown
Description	HER: A number of culverted streams run under the A55 within the study area. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	18
Asset Name	Hedgerow, Abergwyngregyn
NGR	SH 62910 71620
Type	Archaeological Remains
Designation	None
HER Reference	30288
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	HER: Only one boundary is defined as falling within the regulations, namely that bounding the minor road towards Crymlyn (Site 8). This falls into the Hedgerow Regulations by meeting the criterion of an integral part of a field system pre-dating the Enclosure Acts (Hedgerow Regulations, Part II, Section 5a). This boundary may well be medieval in origin, but has evidence of alteration over time, and comprises a mixture of hedgerow and drystone walling, some of it affected by 19th century estate management. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	19
Asset Name	Revetment Walls, N of Tai'r Meibion
NGR	SH 62920 71790
Type	Archaeological Remains
Designation	None
HER Reference	30276
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	HER: Occasional lengths of dry-stone revetment walls run along the break of slope 20 to 30m from the edge of the A55. The land drops steeply to the river beyond this point. The aerial photographs of 1946-7 demonstrate that this was a former boundary between open ground to the north-east of the road and woodland in the valley bottom. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	20
Asset Name	Gilfach Baptist Chapel, Llanllechid
NGR	SH 63086 71507
Type	Historic Building
Designation	None
HER Reference	
NMR Reference	6744
CADW Reference	
Value	Low
Period	Post-medieval
Description	NMR: Gilfach Baptist Chapel was built in 1814, rebuilt in 1860 and modified in 1878 and 1904. The present chapel, dated 1860, is built in the Gothic style of the long-wall entry type. By 1996 the chapel had been converted for residential use. RCAHMW, September 2009
References	

Asset Number	21
Asset Name	Tai'r-meibion
NGR	SH 63122 71752
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	30282
NMR Reference	
CADW Reference	22968
Value	Medium
Period	Post-medieval
Description	HER: Built in the 1890s as the farmhouse of the Penrhyn Estate farm at Tai'r-meibion, one of the last such farms to be built by the estate in the area and coinciding with a period of national agricultural depression. 2-storey farmhouse with slightly projecting gabled range to left at front, continuing to rear, and another gabled range at right-angles to rear of main range, all in the characteristic mild Gothic style much used by the Penrhyn Estate for its buildings in the later C19. Irregularly coursed rubble stone to sides and rear, snecked to front; chamfered plinth and slate roofs. (Evans 2008) CADW: Located approximately 450m north-east of Tan-yr-allt Cottages on the south side of the A 55 at the point where it is joined by the old Bangor to Conwy road; garden to west.
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	22
Asset Name	Farm Buildings at Tai'r-meibion
NGR	SH 63132 71694
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	
NMR Reference	
CADW Reference	22969
Value	Medium
Period	Post-medieval
Description	CADW: Situated on gently rising ground immediately behind the farmhouse at Tai'r-meibion; large grain silo in south-eastern corner of yard with large agricultural shed covering much of western part of yard; further late C20 farmbuildings to south of yard.
References	

Asset Number	23
Asset Name	Tai'r-meibion garden, Abergwyngregyn
NGR	SH 63116 71751
Type	Archaeological Remains
Designation	None
HER Reference	
NMR Reference	86479
CADW Reference	
Value	Low
Period	Post-medieval
Description	NMR: This garden is depicted on the Second Edition Ordnance Survey 25-inch map of Caernarvonshire VII, sheet 10 (1900). The main element shown on that map is a kitchen garden. C.H. Nicholas, RCAHMW, 10th August 2006.
References	

Asset Number	24
Asset Name	Enclosed Fields S and E of Tai'r Meibion
NGR	SH 63410 71620
Type	Historic Landscape
Designation	None
HER Reference	30289
NMR Reference	
CADW Reference	
Value	High
Period	Post-medieval
Description	HER: The proposed farm access route between Tan yr Allt and Wig crosses smaller fields in undulating countryside at southern edge of the coastal plain before it meets the uplands to the south. The roads and fields show evidence of estate management, primarily by the Baron Hill and Penrhyn estates, and smaller irregularly shaped fields with distinctive estate fences, and the survival of wooden gates. There is also evidence of estate plantations and trees. This area forms a distinctive estate landscape. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	25
Asset Name	Field Boundaries, E of Tai'r Meibion
NGR	SH 63570 71630
Type	Archaeological Remains
Designation	None
HER Reference	30278
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	HER: The proposed trackway connecting Tai'r Meibion with Wig farm cuts through some improved fields showing evidence of 19th century Penrhyn estate activity, with field boundaries fencing and a plantation to the north. The slightly modified route (October 2008) runs closer to the Penrhyn fencing running northwest-southeast from site 8, which survives in good condition (Figs. 12 and 13). (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	26
Asset Name	Slate Gate Piers, S of Wig
NGR	SH 63730 71790
Type	Historic Building
Designation	None
HER Reference	30279
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	HER: The proposed trackway connecting Tair Meibion with Wig Farm may impact upon this Penrhyn estate gateway.
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	27
Asset Name	Y Wig Medieval Township
NGR	SH 63500 72000
Type	Archaeological Remains
Designation	None
HER Reference	6811
NMR Reference	
CADW Reference	
Value	Unknown
Period	Medieval
Description	HER: There was a medieval settlement at Wig which is referred to in medieval extents and grants, and was a bond township of two gafaelion. The medieval township may have contained more than one settlement, but it is likely that at least one of these lay on or near the present Wig farmhouse, which lies 100m north of the Proposed Improvement. A small paddock to the south of Wig farm contains possible linear earthworks that may be part of the medieval settlement.
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment Johnstone, N. , 1997 , Townships File

Asset Number	28
Asset Name	Bronze Celt - Findspot, Wig Farm
NGR	SH 63500 72100
Type	Archaeological Remains
Designation	None
HER Reference	2322
NMR Reference	
CADW Reference	
Value	Negligible
Period	Bronze Age
Description	HER: A bronze celt, much corroded, was found close to Wig farm.
References	Waddington, K. , 2010 , Early Celtic Societies in North Wales Waddington, K. , 2013 , The Settlements of Northwest Wales: From the Late Bronze Age to the Early Medieval Period 1964 , Archaeologia Cambrensis Ordnance Survey , 1968 , SH67SW 14

Asset Number	29
Asset Name	Wig Farm, Abergwyngregyn
NGR	SH 63601 72119
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	30283
NMR Reference	
CADW Reference	22909
Value	Medium
Period	Post-medieval
Description	HER: Although the site is probably of earlier origin and there may in fact be some fabric in the present building relating to a previous house, as suggested by the more roughly coursed masonry on its northern side), the farmhouse is essentially a typical large Penrhyn Estate farmhouse of c1860. Its large size, distance from its contemporary farm buildings shows classic evidence of an improved farm. 2-storey farmhouse comprising long rectangular block, aligned roughly east-west in 2 distinct sections, the eastern the main range and higher than the western (service) range, the whole built in the mild Gothic style much used by the Penrhyn Estate for its buildings in the later C19. Regularly coursed rubble stone to front with more roughly coursed stonework to rear. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	30
Asset Name	Part of Roman Road, Segontium - Canovium
NGR	SH 64140 71860
Type	Archaeological Remains
Designation	None
HER Reference	17568
NMR Reference	
CADW Reference	
Value	Unknown
Period	Roman
Description	<p>HER: A linear feature has been identified at this location which may be the remains of the Roman Road from Segontium to Canovium. (Evans 2008)</p> <p>Runs parallel to the coast...not followed by the present main road...course a little farther up the hillside and probably marked by hedgerow lines...runs between modern road and old lane higher up the hill especially to the W of Tyn yr Hendre. Short stretch of lane at maes y Groes. <5></p> <p>No actual remains of the Roman road between Maes y Groes and Abergwyngregyn. Predicted route. <4></p>
References	<p>Evans, R. , 2008a , A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment</p> <p>Hopewell, D. , 2004 , Roman Roads in North-west Wales , <1></p> <p>Hemp, W. J. , 1923 , Y Cymmrodor , <4></p> <p>Hopewell, D. , 2005 , Roman Roads in North-west Wales , <3></p> <p>Margary, I. D. , 1957 , Roman Roads in Britain , <5></p>

Asset Number	31
Asset Name	Field Boundaries, E of Wig
NGR	SH 64180 72280
Type	Archaeological Remains
Designation	None
HER Reference	30281
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	HER: The boundaries of the 19th century improved fields to the north of the assessment area may be slightly affected where they lie close to the road. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	32
Asset Name	Tumulus, Bryn Meddyg, Aber
NGR	SH 64600 72200
Type	Archaeological Remains
Designation	None
HER Reference	2321
NMR Reference	
CADW Reference	
Value	Unknown
Period	Prehistoric
Description	<p>HER: Antiquarian reference to a tumulus 0.4km from Aber, N of the coach road. <1></p> <p>A tumulus lies near the old Coach Road 1.2km SW of Aber in a formerly wooded area on Wig-Bach Farm. <2></p> <p>Cropmark, possible site of barrow. <3></p> <p>No evidence of tumulus in the vicinity or trace of any ground disturbance. <4></p> <p>Possible oval earthwork with axes of approximately 200m and 140m. <5></p> <p>The ground formation is apparently natural, consisting of an oval area bounded by scarp slope on all but its SE side. <6></p> <p>A low mound has been identified as a possible Bronze Age Barrow. (Evans 2008)</p> <p>Circular crop mark seen on Aps. Too large to be funerary and ritual. Possibly a natural feature or just possibly an (IA/RB) settlement enclosure. (Smith, 2002)</p>
References	<p>Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwynnregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment</p> <p>Smith, G. , 2002, Survey of Prehistoric Funerary and Ritual Monuments in Wales: West Conwy and North Gwynedd</p> <p>Jones, H. L. , 1846 , Archaeologia Cambrensis , <1></p> <p>Jones, H. L. , 1855 , Archaeologia Cambrensis , <2></p> <p>Ordnance Survey , 1969 , SH67SW 10 , <3></p> <p>Ordnance Survey , 1969 , SH67SW 10 , <4></p> <p>Ordnance Survey , 1969 , SH67SW 11 , <5></p> <p>Ordnance Survey , 1969 , SH67SW 11 , <6></p>

Asset Number	33
Asset Name	Wig garden, Abergwynnregyn
NGR	SH 63616 72123
Type	Archaeological Remains
Designation	None
HER Reference	
NMR Reference	86513
CADW Reference	
Value	Low
Period	Post-medieval
Description	NMR: This garden is depicted on the Second Edition Ordnance Survey 25-inch map of Caernarvonshire VII, sheet 10 (1900). Its main elements on that map include woodland, kitchen garden, carriage drive and reservoir. C.H. Nicholas, RCAHMW, 10th August 2006.
References	

Asset Number	34
Asset Name	Lowland Coastal Area Around Wig - Landscape
NGR	SH 63500 72100
Type	Historic Landscape
Designation	None
HER Reference	15857
NMR Reference	
CADW Reference	
Value	High
Period	Multi-period
Description	<p>HER: Lowland coastal area around Wig</p> <p>Historic background: this area was formerly part of the Penrhyn, Madryn, Gorddinog and Bulkeley estates. The area around Henfaes farm in Aber was part of the manor of Aber, which is thought to derive from the maerdref associated with the llys at Aber. The whole coastal area was radically altered with the coming of the railway and the main road in the 19th century, and bears little evidence of former organisation.</p> <p>Key historic landscape characteristics: large, regular enclosures, substantial farms, road and rail links</p> <p>A lowland area abutting the Menai Straits dominated by large estate farmhouses and divided up into large regular enclosures. The main arterial road and rail links between north-west Wales and the north of England dominate the landscape, and are largely responsible for its current appearance.</p> <p>Conservation priorities and management: preservation of open character; encouragement to use of traditional building materials and to adaptation in a manner that reflects the appropriate estate style. <1></p> <p>This consists of essentially the same area as Historic Landscape Character area 31 (Thompson 2000), and consists of low lying coastal plain. This plain also forms part of Areas 28 and 30 on the Register of Landscapes of Outstanding Historic Interest (Cadw 1998). The land use within the study area is predominantly pastoral and the fields consist almost entirely of improved pasture. The fields show considerable evidence of 19th century improvement and the buildings of construction in estate styles. (Evans 2008a)</p> <p>19th Century Improved Field Systems in a regular rectangular pattern, with associated dispersed</p> <p>farmhouses built by the Penrhyn and Baron Hill estates in their house style. The functional change to the transport routes within the Character Area is minimal. The development will not alter significantly the historic character of the area. There will be some disruption to routes from farms to and through their associated field systems. Most lanes and roads will be retained so the magnitude of this impact will be slight. (Evans 2008b)</p>
References	<p>Evans, R. , 2008a, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment</p> <p>Evans, R. , 2008b, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, ASIDOHL</p> <p>Gwyn, D. & Thompson, D., 2000 , Historic Landscape Characterisation: Ardal Arfon , <1></p>

Asset Number	35
Asset Name	Wig Bach, Abergwyngregyn (site of)
NGR	SH 63972 72179
Type	Archaeological Remains
Designation	None
HER Reference	30284
NMR Reference	
CADW Reference	
Value	Negligible
Period	Post-medieval
Description	<p>HER: A much altered rubble built estate cottage of the late 19th century. (Evans 2008)</p> <p>Wig Bach cottage is a well preserved example of nineteenth century estate workers cottages. The external elevations of the building have changed little since their construction, with the only alterations having probably occurred circa 1920 after the production of the architect's plan prior to alteration.</p> <p>The Wig Bach cottages would appear to have been built shortly after the Penrhyn Estate took over the area between 1868 and 1870, when they first appear as new properties in the Penrhyn estate rentals, in the tenancy of Humphrey Ellis and R. Morris (UCNWB Penrhyn MSS 2877- 2878). The cottages are typical of the building style used by Penrhyn Estate for their farms and outbuildings. They are shown as constructed on a Penrhyn Estate map of 1871-2 (UCNWB Penrhyn MSS 2221). Improvements were also carried out Wig Bach cottages in the early years of the 20th century (Penrhyn MSS 14). (Cooke 2011)</p>
References	<p>Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment</p> <p>Cooke, R. , 2011, Wig Bach Cottage, Abergwyngregyn</p>

Asset Number	36
Asset Name	Cottages, Bryn Meddyg, Abergwyngregyn
NGR	SH 64587 72390
Type	Historic Building
Designation	None
HER Reference	30286
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	HER: No's 1 & 2 Bryn Meddyg. A pair of early 19th century cottages, consisting of three bays, now converted into a single dwelling. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	37
Asset Name	Quarry, Bryn Meddyg
NGR	SH 64621 72406
Type	Archaeological Remains
Designation	None
HER Reference	20831
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	HER: A pit and short section of tunnel have been identified as the remains of a small quarry immediately opposite Bryn Meddyg Farmhouse on the north side of the A55. They are clearly of post-medieval date, but little else is known about them. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment

Asset Number	38
Old Asset Number	0
Asset Name	Coed Bryn Meddyg relict field sytem
NGR	SH 64790 72400
Type	Archaeological Remains
Designation	None
HER Reference	
NMR Reference	408179
CADW Reference	
Value	Medium
Period	Prehistoric; Medieval
Description	NMR: Vestigial earthworks remain of system of terraced fields to the west and south-west of Aber village, surviving on the low-lying coastal plain at around 40m above O.D. The earthwork traces were recorded during Royal Commission aerial photography in very low November light in 2005 (image refs: AP_2005_2872 & 2874-5). The fields may have originated in prehistory, or be related to the once thriving medieval settlement at Aber. T. Driver, RCAHWW, 4th September 2008.
References	

Asset Number	39
Asset Name	The Old School, Aber
NGR	SH 65119 72609
Type	Historic Building
Designation	None
HER Reference	
NMR Reference	411152
CADW Reference	
Value	Low
Period	Post-medieval
Description	NMR: The former school at Aber dates from the early nineteenth-century, it has been extensively altered and is now a dwelling. RCAHMW 2010
References	

Asset Number	40
Asset Name	Mill Pond SW of St Bodfan's Church
NGR	SH 65184 72585
Type	Archaeological Remains
Designation	None
HER Reference	34621
NMR Reference	
CADW Reference	
Value	Low
Period	Post-medieval
Description	<p>DBA: Present but not labelled on 1st edition map, labelled 'Mill Pond' on 2nd and 3rd edition maps and 'Pond' on maps and aerial Mastermap. Obscured by trees on Seamless AP. Unclear which is the mill building.</p> <p>Visit date:25/03/20. The pond was not accessible but visible from the road through a fence/hedge. Still in water. Roughly rectangular in shape. Stream runs into the pond from the SW. The 2nd edition map has a sluice in the N corner of the pond, presumably where water exited the pond, but this was not visible/apparent from the road.</p> <p>No obvious mill nearby - the closest buildings are an old school, church, 2 houses not on the 2nd edition map and Pen-bryn-rhodres (now kennels and farm buildings) on far side of A55. Needs further investigation to find any associated features. It would also be useful to get access to the mill pond itself for closer examination.</p>
References	Evans, R. and Burnett, A., 2012. Medieval and Post-medieval Mills Scheduling Enhancement 2011-12, Part 1: Report and Gazetteer, GAT Report No 1042

Asset Number	41
Asset Name	Abergwyngregyn Parish Church
NGR	SH 65325 72632
Type	Historic Building
Designation	None
HER Reference	6900
NMR Reference	43704
CADW Reference	
Value	Low
Period	Medieval; Post-medieval
Description	<p>HER: Summary :</p> <p>The current parish church of Abergwyngregyn is dedicated to St. Bodfan and is located in the diocese of Bangor. It was built in 1878, to the south of the original medieval church which was listed in the Norwich taxation of 1254.</p> <p>The churchyard is irregular in form with a curved stone wall to the north and east, and a straight wall to the west. It was extended to the south in 1878 and the former boundary is marked by a low bank and a line of yew trees. Although the main entrance is currently to the northern end of this southern extension, the original entrance was on the northern side of the old churchyard, with an entrance to the rectory on the east.</p> <p>The medieval church, as described in 1776, comprised a nave and chancel with a south chapel at the east end, and a south porch. Some windows were noted as being of late 15th- or early 16th-century, but it is unclear whether these are contemporary with the building of the church or were later insertions. A western tower was added to the church in 1811, prior to the demolition of 1878.</p> <p>The modern church was built in the southern extension to the churchyard to a design by Pugin, Ashlin and Pugin. The location of the medieval church has been identified by an outline plan made to accompany the consecration documents for the modern church, and a raised area is visible in the churchyard.</p> <p>A number of fittings from the medieval church were moved to the modern church including the mid 17th-century communion table and post-reformation font, as well as a number of 18th-century memorials.</p> <p>Description :</p> <p>The site of a medieval church, listed in the Norwich taxation of 1254 (Lunt 1926, 190), which was demolished in 1878 when a new church was built, fortunately south of the original church. The interest of the site is enhanced by the former presence of the adjacent llys, motte and associated bond village.</p> <p>The churchyard is irregular in form with a curved stone-walled boundary from the north around to the east with a substantial 3-4 m drop to the house and gardens of Tan y Fynwent on the north-eastern side. A linear wall bounds the road on the western side. The churchyard was extended on the south side in 1878 (NLW B/C/1). The former linear southern boundary is now marked by a very low bank and a line of yew trees. The original churchyard was used for burial until recently and the northern wall was exposed during the improvement of the A55 in 1994. The main entrance to the churchyard was originally on the north with an entrance to the rectory on the eastern side. At present the main entrance is at the end of the road leading to the northern end of the churchyard extension. The area of the churchyard was given as 1 acre and 21 poles in a terrier of 1899 (NLW B/TI/1).</p> <p>The medieval church at Aber, when described in 1776 prior to the construction of the western tower in 1811, consisted of a nave and chancel with a south chapel at the east end and a south porch (GAS/X/PE/1/56). Some of the windows were noted as being of the late 15th or early 16th century but it is unknown whether these were inserted or contemporary with the building of the church. Lewis described this building as "an ancient and spacious structure with a good square tower" and consisting of "a nave</p>

	<p>and chancel of equal length, the latter lighted with a series of low windows, differing in style and probably inserted at various times." (Lewis S 1833, ABE). The church with its additional tower of 1811 (Hughes and North 1924, 2) was demolished in 1878 when a new church was erected to the south in an extension of the churchyard. At present the location of the medieval church can only be traced as a raised area within the heavily overgrown original churchyard, although its location can be fixed from an outline ground plan of the medieval church made in 1878 to accompany the consecration documents for the new church (NLW B/C/1).</p> <p>The present church at Aber was built in an extension to the south of the original churchyard in 1878 (NLW B/C/1) to a design by Pugin, Ashlin and Pugin (Clarke 1961, 27).</p> <p>A number of fittings from the earlier church are now to be found in the present church, particularly the Communion Table of mid 17th century date and font of Post-reformation date, as well as a number of 18th century memorials (RCAHMS 1956, 2).</p> <p>NMR: entirely rebuilt 1878. Stone church in Gothic style. The earlier church lay to the north, within the churchyard.</p>
References	<p>Davidson, A. & Ward, M. , 1998 , The Historic Churches Project , <8></p> <p>Hughes, H. & North, H. , 1924 , The Old Churches of Snowdonia , <1></p> <p>Royal Commission on Ancient and Historic Monuments , 1956 , Caernarvonshire Vol I : East , <2></p> <p>Glynne, S. R. , 1900 , Archaeologia Cambrensis Vol Xvii , <3></p> <p>Snowdonia National Park Society , 1984 , Hughes & North - the Old Churches of Snowdonia , <4></p> <p>Clarke, M. L. , 1961 , Transactions of Caernarvonshire Historical Society Vol 22 , <5></p> <p>Lunt, W. E. , 1926 , The Valuation of Norwich 1254 , <6></p> <p>Lewis S , 1833 , Topographical Dictionary of Wales , <7></p>

Asset Number	42
Asset Name	Tan-y-fynwent; College Farmhouse; Llys Onnen; The Bull's Head
NGR	SH 65358 72687
Type	Historic Building
Designation	None
HER Reference	19151
NMR Reference	419587
CADW Reference	
Value	Low
Period	Post-medieval
Description	<p>HER: The house now known as Llyssonnen, which stands between the church and the old main road, has a history which might not be guessed from its present name and its modern seclusion. In the two hundred years from 1700, it developed from a modest dwelling associated in some way with the church into a prosperous coaching inn, into a farm, and eventually back to a dwelling. In the course of these transformations, it changed names three times – with a further change to 'Llyssonnen' to come in the twentieth century. <1></p> <p>NMR: Tan-y-Fynwent is a large two storey dwelling with a gabled porch and slate roof. It appears on the first edition Ordnance Survey 25" map, CA VII. 11, of 1889.</p>
References	Strange, W. , 2004, Transactions Of The Caernarvonshire Historical Society, <1>

Asset Number	43
Asset Name	Axe Hammer, Findspot, College Farm, Aber
NGR	SH 65360 72670
Type	Archaeological Remains
Designation	None
HER Reference	4071
NMR Reference	
CADW Reference	
Value	Negligible
Period	Prehistoric
Description	<p>HER: Axe hammer from College Farm, Aber, classified as Neolithic or Bronze Age. Now in Bangor Museum. <1></p> <p>Found in 1946 and now on display in Bangor Museum (Acc 29/51). Mr. Edwards the farm manager from 1928-68 knows nothing of the find. <2></p>
References	<p>Evans, P. , 2003, Abergwyngregyn-Llanfairfechan Pipeline , <3></p> <p>Royal Commission on Ancient and Historic Monuments , 1956, Caernarvonshire Vol. 1 , <1></p> <p>Ordnance Survey , 1969 , SH67SE 61 , <2></p>

Asset Number	44
Asset Name	The Old Rectory, Abergwyngregyn
NGR	SH 65426 72619
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	11458
NMR Reference	16824
CADW Reference	3654
Value	Medium
Period	Post-medieval
Description	<p>HER: 17th Century. 2 storey. Stone. Early 19th Century "Gothic" North and West fronts. Interior. Window seats in thick walls. Beams. 6 panel doors. "Gothic" stairs.</p> <p>CADW: Set back from the road in extensive lawned grounds with driveway directly east of St Bodfan's Church.</p> <p>NMR: The Old Rectory at Aber dates from the early seventeenth-century, it was substantially extended and remodelled in the Gothic style by the Penrhyn Estate around 1840. RCAHMW 2010</p>
References	<p>Evans, P. , 2003, Abergwyngregyn-Llanfairfechan Pipeline , <2></p> <p>Royal Commission on Ancient and Historic Monuments, Rc Buildings Records, <1></p>

Asset Number	45
Asset Name	Abergwyngregyn - Landscape
NGR	SH 65500 72600
Type	Historic Landscape
Designation	None
HER Reference	15859
NMR Reference	
CADW Reference	
Value	High
Period	Multi-period
Description	<p>HER:Abergwyngregyn.</p> <p>Historic background: a village at the seaward end of an enclosed valley associated with one of the medieval princes' llysoedd and its manor. Most of the present dwellings are no earlier than the nineteenth century, and were constructed either by the Bulkeley estate or by their successors, the Penrhyn estate. The mwd dominates the village, both visually and historically.</p> <p>Key historic landscape characteristics: medieval motte, estate village</p> <p>The distinctive form of cottage architecture, vernacular in inspiration but showing the influence of the polite, is apparent here, dating from when the village was in the ownership first of the Bulkeley and then of the Penrhyn estates.</p> <p>Conservation priorities and management: preservation of the motte and the open area around it, which is of immense archaeological importance, and in general of the character of an estate village. <1></p> <p>The Aber valley is a deep and steep sided narrow valley with glacial origins, at the mouth of which the river enters onto a narrow coastal plain. Abergwyngregyn was the crossing point at the junction of the coastal road and another taking the upland route through the valleys, which was the key to its importance. In the late 11th century Gruffudd ap Cynan made Aber the llys or court of the commote of Arllechwedd Uchaf. The valley was a sheltered place and its position facing Penmon priory across the Lavan sands may also have made it attractive. (Evans 2008b)</p>
References	<p>Evans, R. , 2008b, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, ASIDOHL</p> <p>Gwyn, D. & Thompson, D. , 2000 , Historic Landscape Characterisation: Ardal Arfon , <1></p>

Asset Number	46
Asset Name	Aber Falls Hotel, Abergwyngregyn
NGR	SH 65562 72749
Type	Historic Building
Designation	None
HER Reference	34848
NMR Reference	
CADW Reference	
Value	Low
Period	Modern
Description	HER: Aber Falls Hotel, built in the 1930s. (Smith 2008)
References	Smith, G. , 2008 , Aber Falls Hotel Abergwyngregyn

Asset Number	47
Asset Name	Crymlyn Cottage
NGR	SH 63848 71482
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	
NMR Reference	
CADW Reference	22938
Value	Medium
Period	Post-medieval
Description	CADW: Located on the western side of the narrow upland road from Llanllechid near its junction with the minor road from Gilfach to Aber; the cottage is situated directly on the roadside.
References	

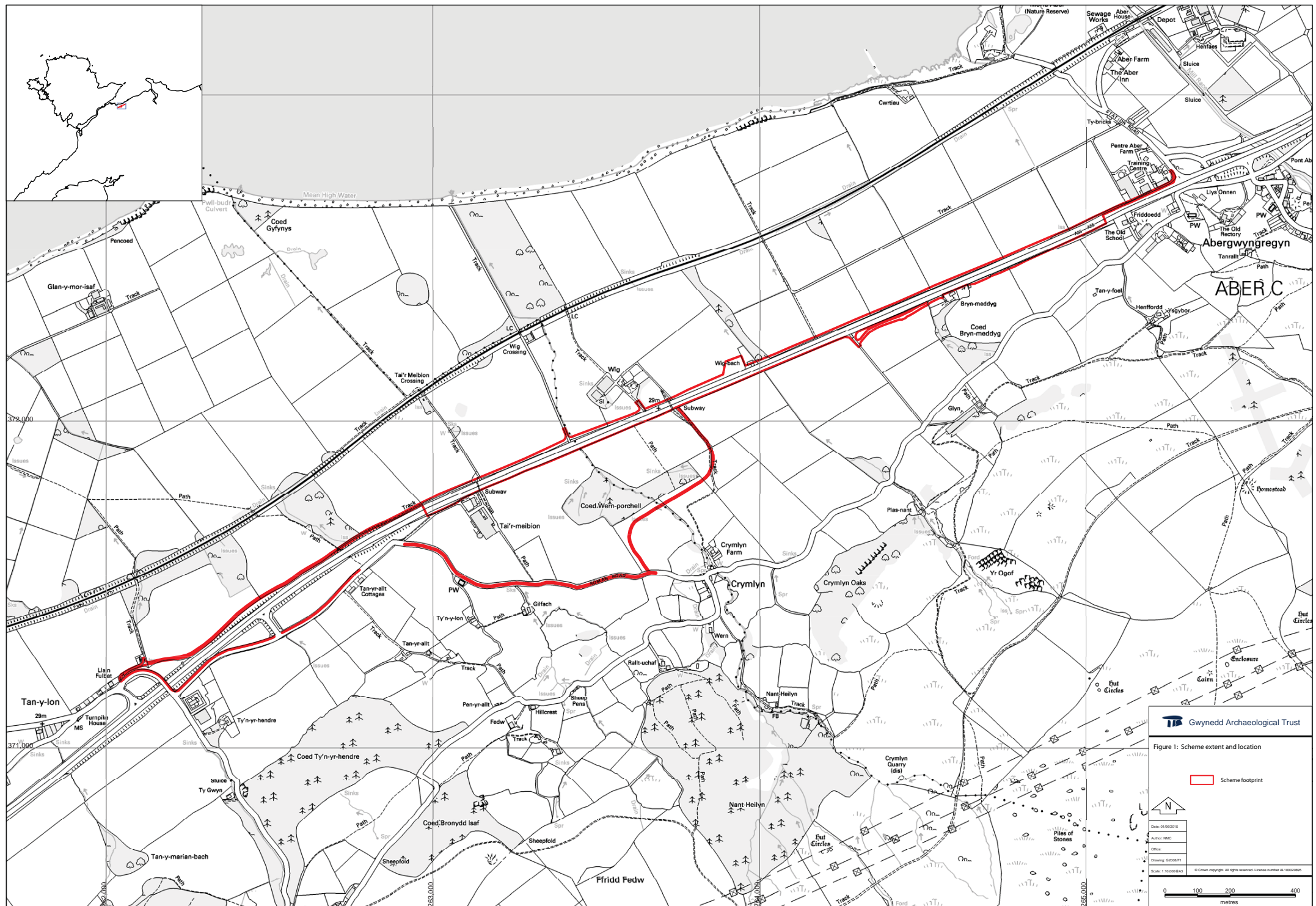
Asset Number	48
Asset Name	Cottage adjoining Crymlyn Cottage
NGR	SH 63842 71498
Type	Historic Building
Designation	Listed Building Grade II
HER Reference	
NMR Reference	
CADW Reference	22939
Value	Medium
Period	Post-medieval
Description	CADW: Located directly on roadside adjoining north end of Crymlyn Cottage.
References	

Asset Number	49
Asset Name	Road E of Tan yr Allt Cottages to Crymlyn
NGR	SH 62910 71620
Type	Archaeological Remains
Designation	None
HER Reference	30277
NMR Reference	
CADW Reference	
Value	Medium
Period	Post-medieval
Description	HER: SH6291 7162 to SH6321 7150. This trackway appears to be an old route from Aber towards the Lavan sands, and consists of a single trackway with drystone walling, with some slate fencing, in the Penrhyn style and hedging (Fig. 11). Cartographic evidence suggests that it pre-dates the other east-west communications in the area, such as the 1769 Conwy to Bangor turnpike. (Evans 2008)
References	Evans, R. , 2008, A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, Cultural Heritage Assessment.

Asset Number	50
Asset Name	Church, Abergwyngregyn (site of)
NGR	SH 65310 72680
Type	Archaeological Remains
Designation	None
HER Reference	1628; 6900
NMR Reference	
CADW Reference	
Value	Medium
Period	Early Medieval; Medieval
Description	<p>HER: PRN 1628: "Old church taken down in 1878" see FI file 1628. <1></p> <p>PRN 6900: The medieval church, as described in 1776, comprised a nave and chancel with a south chapel at the east end, and a south porch. Some windows were noted as being of late 15th- or early 16th-century, but it is unclear whether these are contemporary with the building of the church or were later insertions. A western tower was added to the church in 1811, prior to the demolition of 1878.</p> <p>The location of the medieval church has been identified by an outline plan made to accompany the consecration documents for the modern church, and a raised area is visible in the churchyard.</p> <p>A number of fittings from the medieval church were moved to the modern church including the mid 17th-century communion table and post-reformation font, as well as a number of 18th-century memorials.</p> <p>The site of a medieval church, listed in the Norwich taxation of 1254 (Lunt 1926, 190), which was demolished in 1878 when a new church was built, fortunately south of the original church. The interest of the site is enhanced by the former presence of the adjacent llys, motte and associated bond village.</p> <p>The churchyard is irregular in form with a curved stone-walled boundary from the north around to the east with a substantial 3-4 m drop to the house and gardens of Tan y Fynwent on the north-eastern side. A linear wall bounds the road on the western side. The churchyard was extended on the south side in 1878 (NLW B/C/1). The former linear southern boundary is now marked by a very low bank and a line of yew trees. The original churchyard was used for burial until recently and the northern wall was exposed during the improvement of the A55 in 1994. The main entrance to the churchyard was originally on the north with an entrance to the rectory on the eastern side. At present the main entrance is at the end of the road leading to the northern end of the churchyard extension. The area of the churchyard was given as 1 acre and 21 poles in a terrier of 1899 (NLW B/TI/1).</p> <p>The medieval church at Aber, when described in 1776 prior to the construction of the western tower in 1811, consisted of a nave and chancel with a south chapel at the east end and a south porch (GAS/X/PE/1/56). Some of the windows were noted as being of the late 15th or early 16th century but it is unknown whether these were inserted or contemporary with the building of the church. Lewis described this building as "an ancient and spacious structure with a good square tower" and consisting of "a nave and chancel of equal length, the latter lighted with a series of low windows, differing in style and probably inserted at various times." (Lewis S 1833, ABE). The church with its additional tower of 1811 (Hughes and North 1924, 2) was demolished in 1878 when a new church was erected to the south in an extension of the churchyard. At present the location of the medieval church can only be traced as a raised area within the heavily overgrown original churchyard, although its location can be fixed from an outline ground plan of the medieval church made in 1878 to accompany the consecration documents for the new church (NLW B/C/1).</p>
References	<p>Waddington, K. , 2010 , Early Celtic Societies in North Wales</p> <p>Waddington, K. , 2013 , The Settlements of Northwest Wales: From the Late Bronze</p>

	<p>Age to the Early Medieval Period</p> <p>Evans, P. , 2003 , Abergwyngregyn-Llanfairfechan Pipeline , <3></p> <p>Royal Commission on Ancient and Historic Monuments , 19? , SH67SE , <1></p> <p>Hughes, H. & North, H. , 1927 , The Old Churches of Snowdonia , <2></p>
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Asset Number	51
Asset Name	Enclosed Hill Slopes Below Moel Wnion
NGR	SH 65600 72000
Type	Historic Landscape
Designation	None
HER Reference	15832
NMR Reference	
CADW Reference	
Value	High
Period	Post-medieval
Description	<p>HER: Enclosed Hill Slopes Below Moel Wnion</p> <p>Historic background: This area comprises the north-facing coastal steep slopes between low-lying improved coastal flats (HLCA 31) and unenclosed mountain/ uplands (HLCA 36). It extends for several miles either side of Aber. It has a fairly consistent character, with large enclosures reflecting post-medieval re-organisation, but most importantly still retains a whole series of relict prehistoric and medieval archaeology, including hut group and long hut settlements surrounded by a complex of lynchets, field banks and ridge and furrow, towards the top of the area where the ground is less steep. Twentieth century conifer plantations as well as woodland are visually prominent woods and forestry add to the picture.</p> <p>Key historic landscape characteristics: Relict archaeology (prehistoric and medieval settlement and fields), woods. An important area containing remains of earlier land divisions and settlement which has immense potential for reconstructing for past landscapes.</p> <p>Conservation priorities and management: The conservation priorities must be the relict archaeology: some mapping of aerial photographs has taken place, but detailed field survey is needed. <1></p> <p>This area contains smaller fields in undulating countryside at the southern edge of the coastal plain before it meets the uplands to the south. The roads and fields show evidence of estate management, primarily by the Baron Hill and Penrhyn estates, and smaller irregularly shaped fields with distinctive estate fences, and the survival of wooden gates. There is also evidence of estate plantations and trees, forming a distinctive estate landscape. (Evans 2008)</p>
References	<p>Evans, R. , 2008 , A55 Chester to Bangor Trunk Road: Abergwyngregyn to Tai'r Meibion Improvement, ASIDOHL</p> <p>Gwyn, D. & Thompson, D. , 2000 , Historic Landscape Characterisation: Ardal Arfon , <1></p>



Gwynedd Archaeological Trust

Figure 1: Scheme extent and location

Scheme footprint

Legend

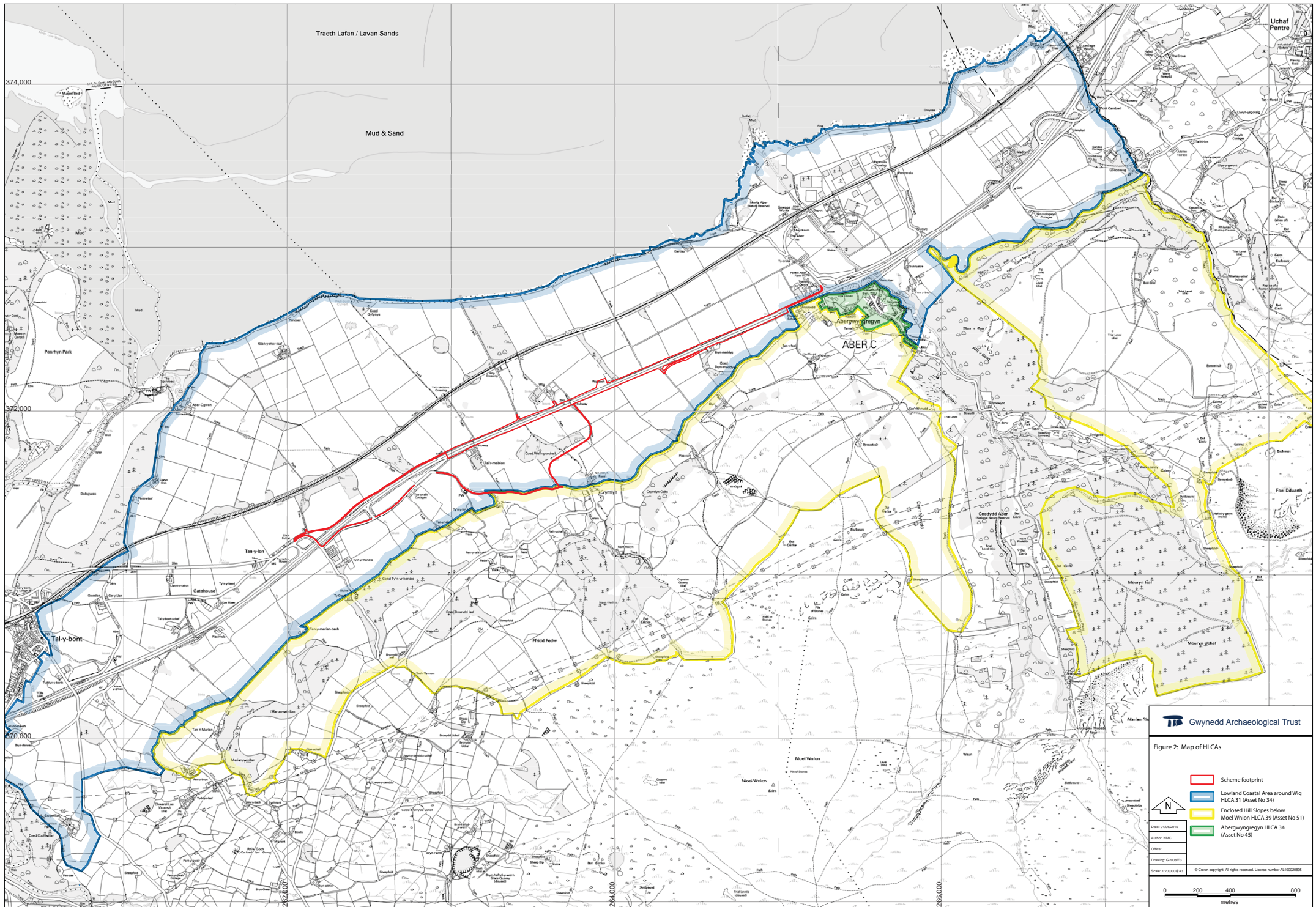
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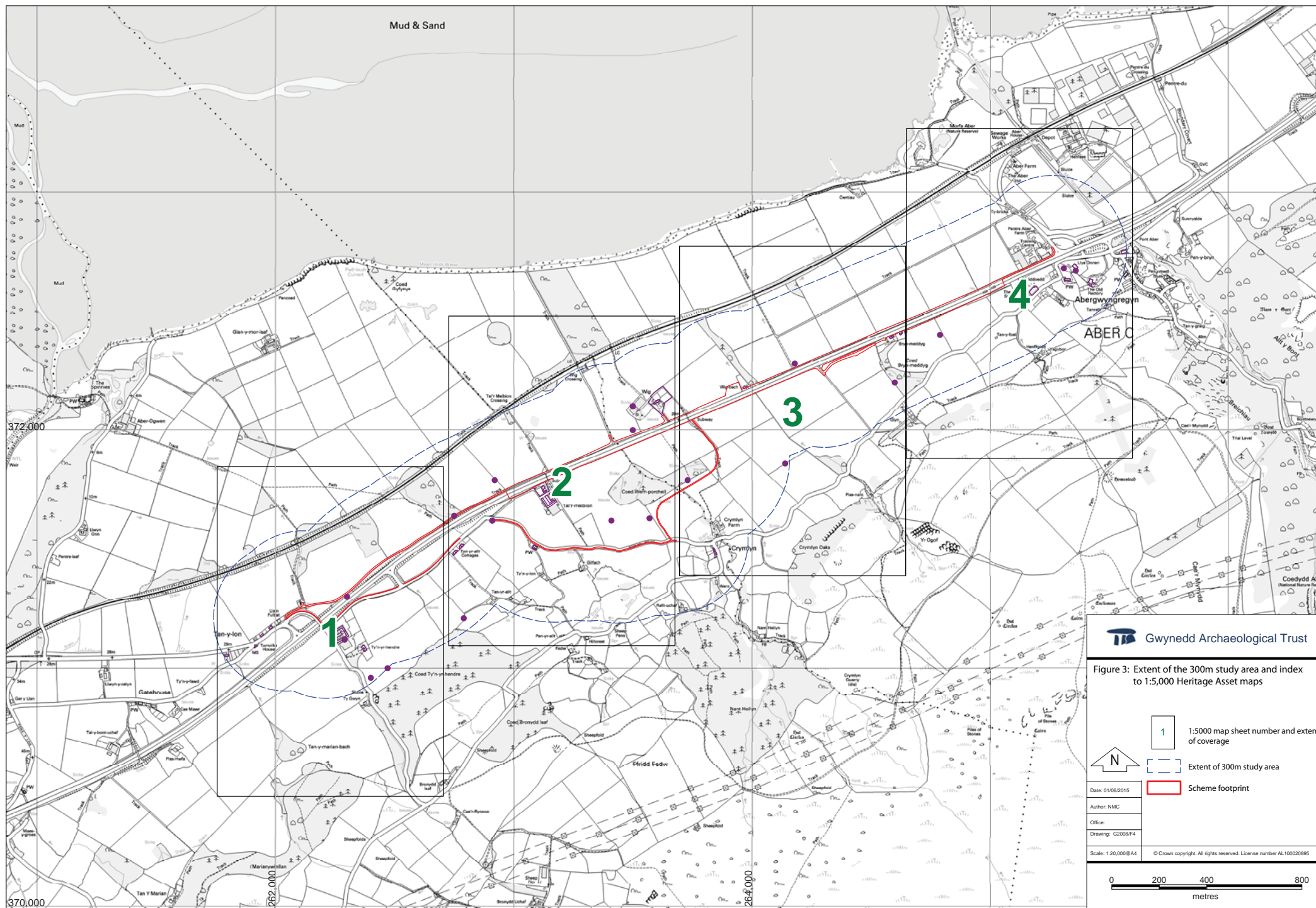
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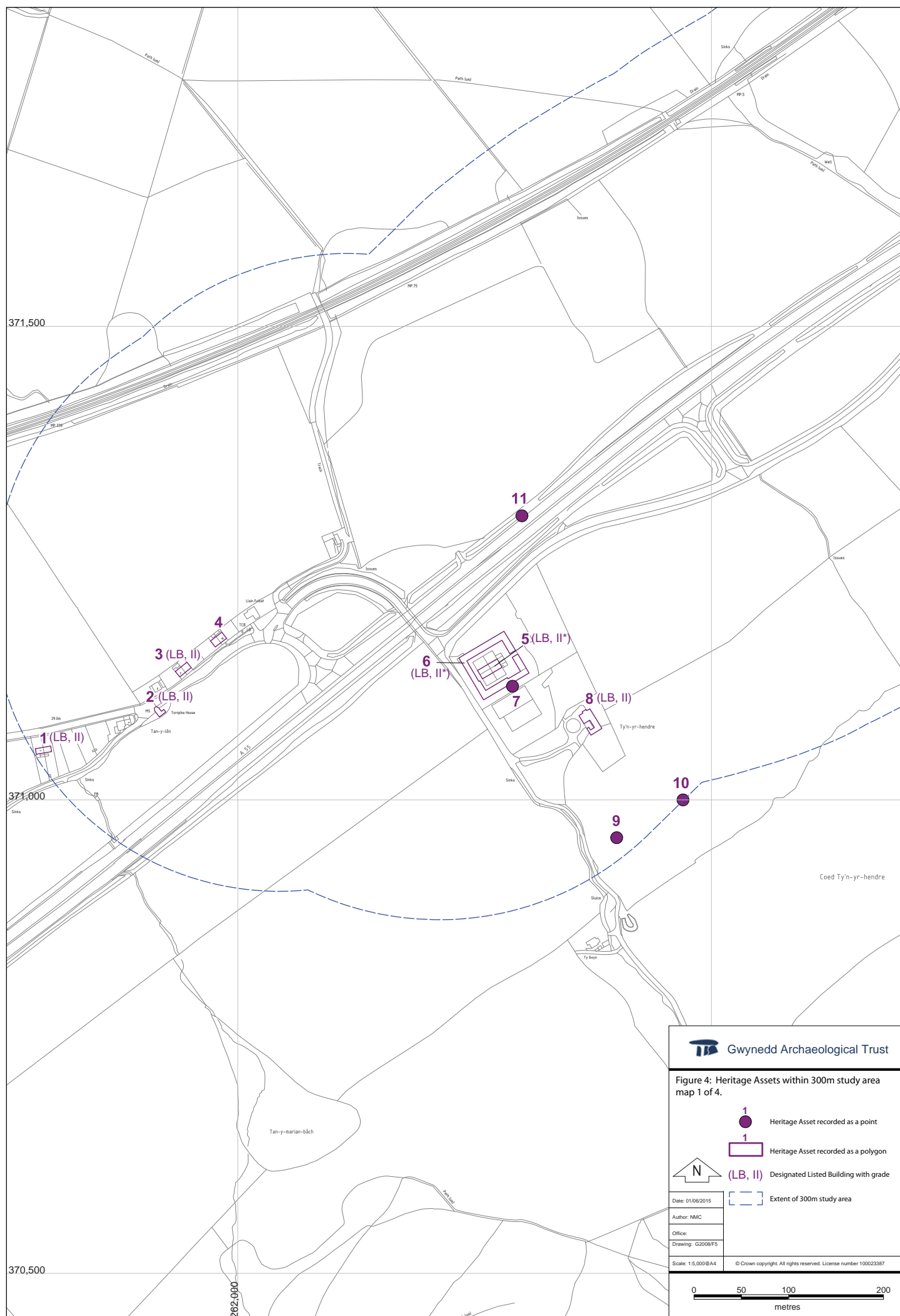
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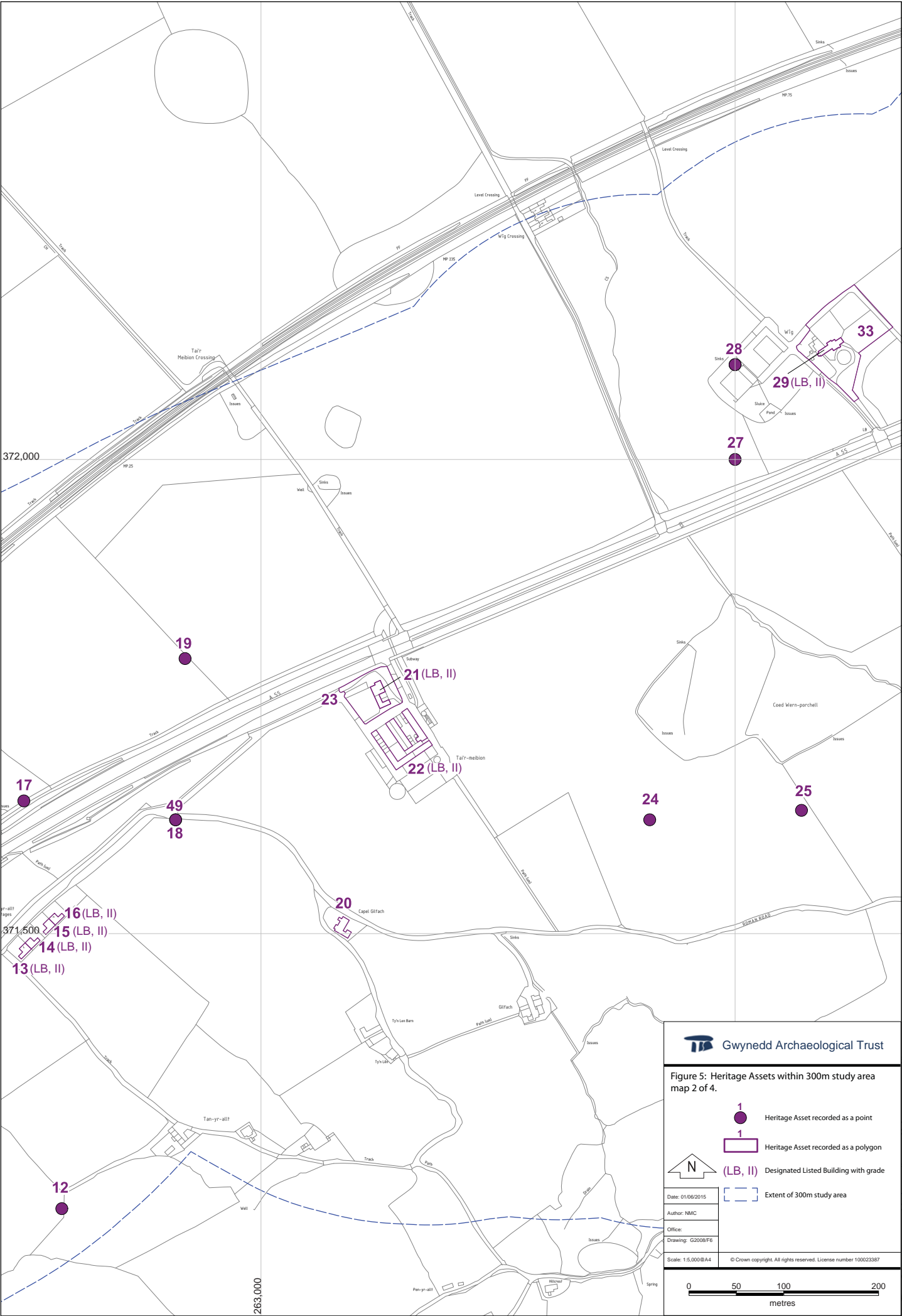
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 Office:
 Drawing: 02/08/15
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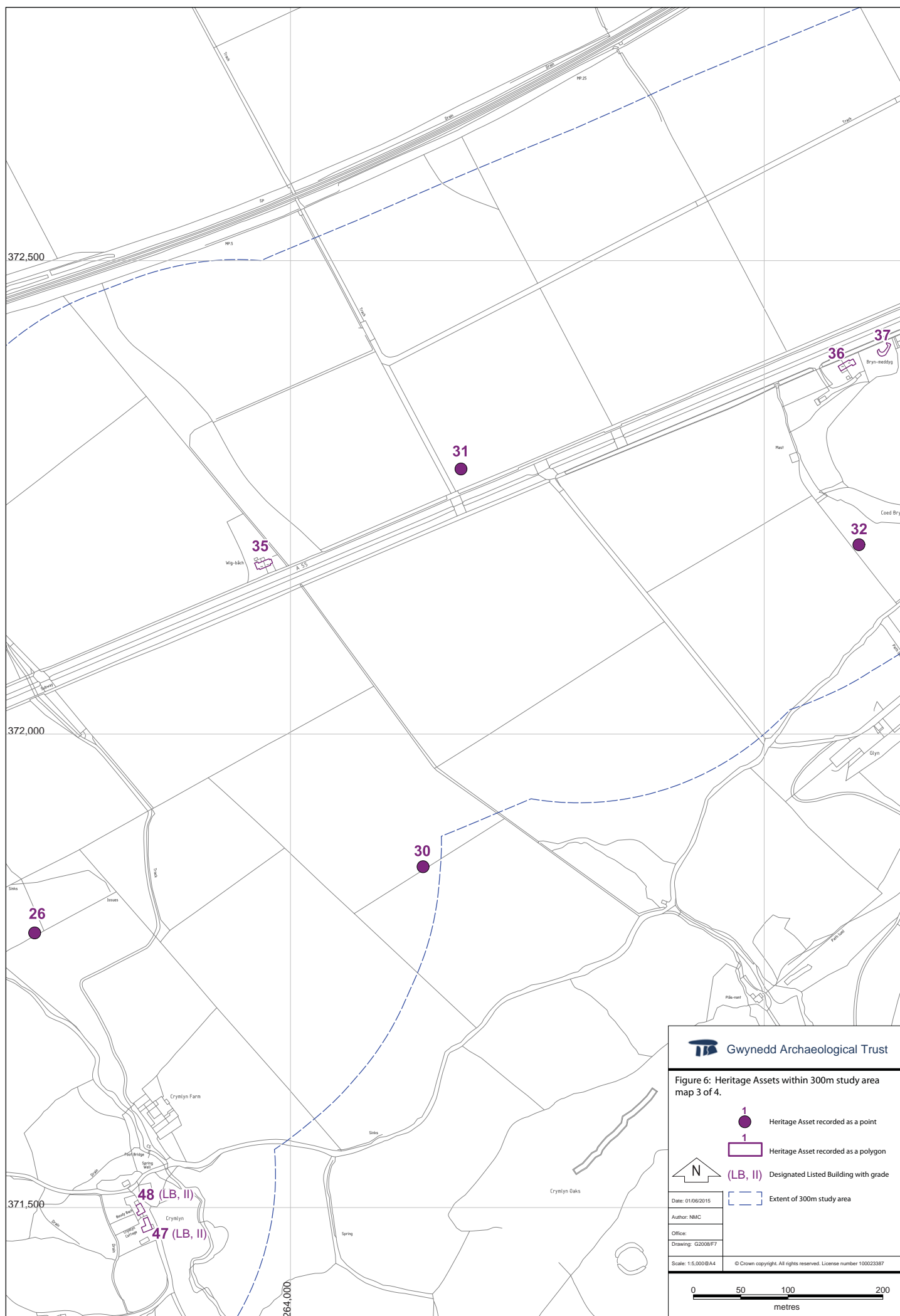
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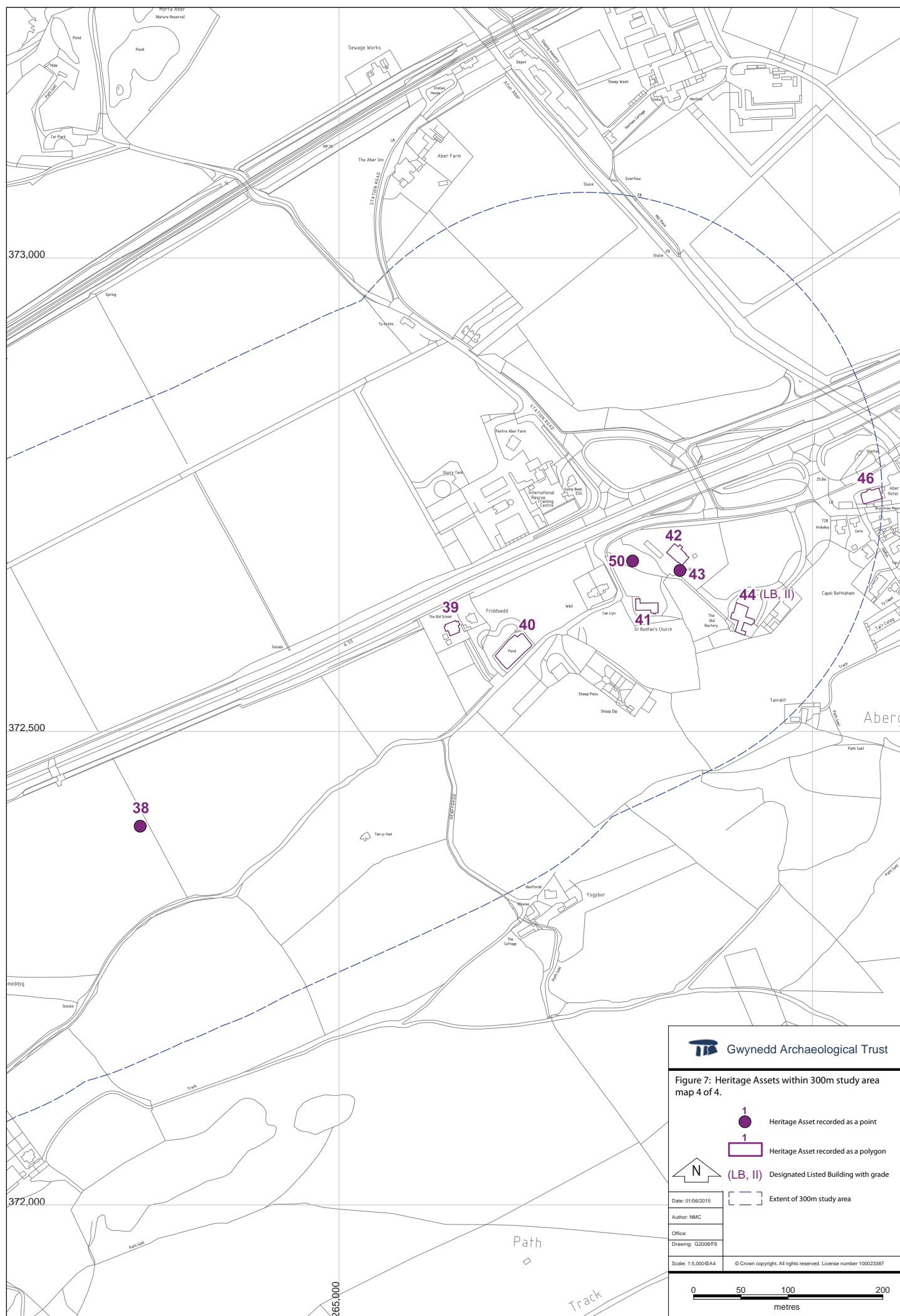


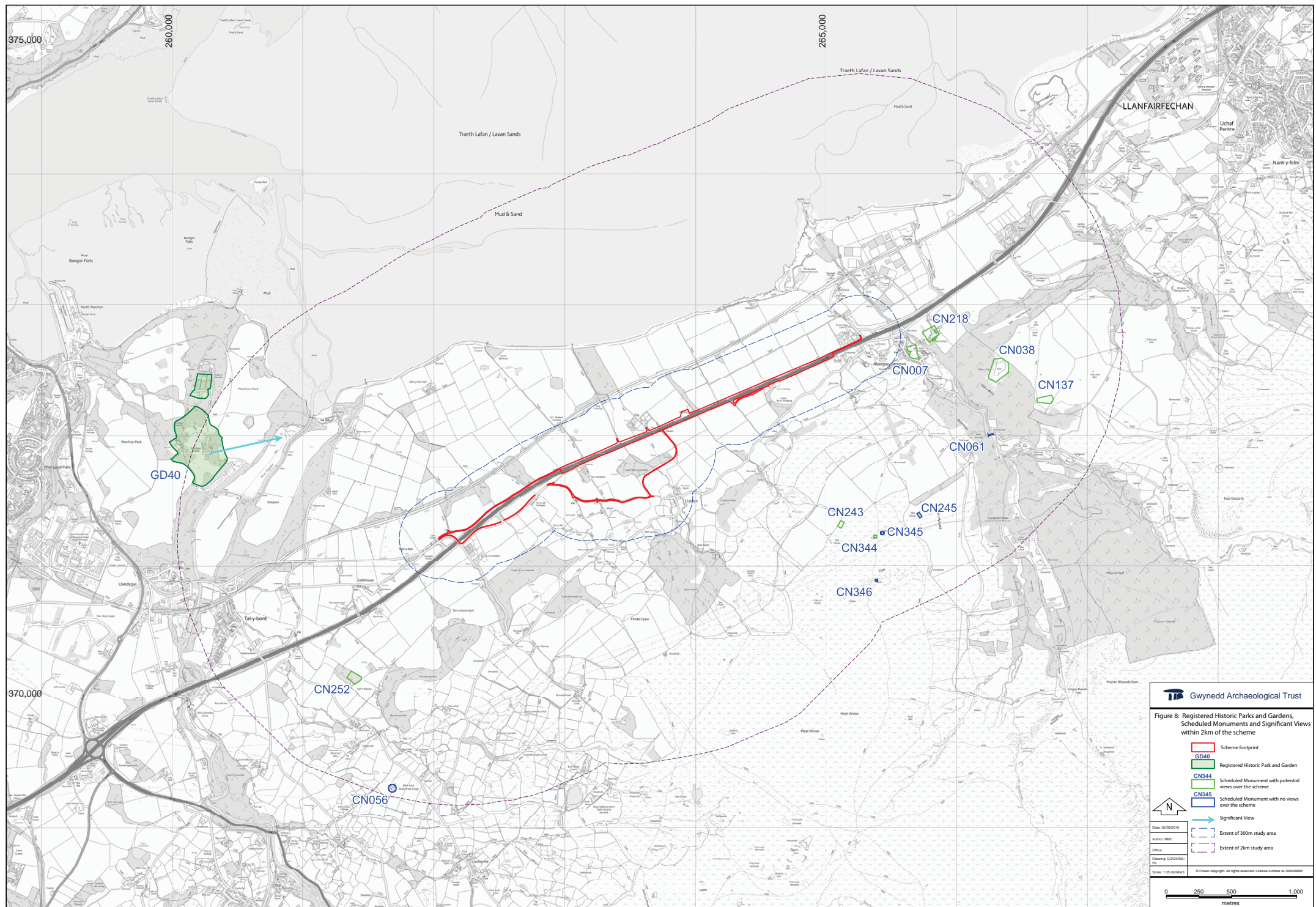


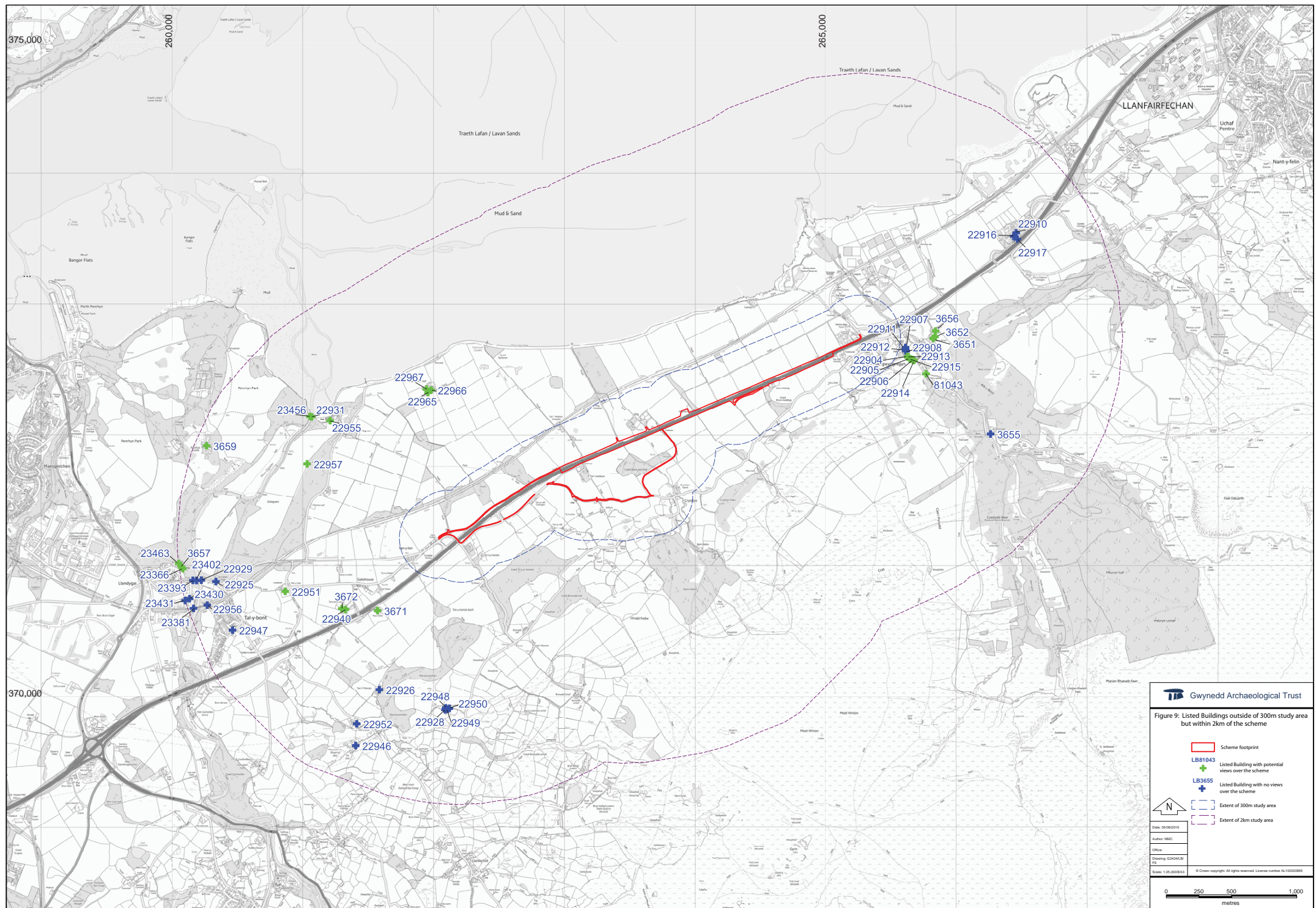












 Gwynedd Archaeological Trust

Figure 9: Listed Buildings outside of 300m study area but within 2km of the scheme

-  Scheme footprint
-  LB81043 Listed Building with potential views over the scheme
-  LB3655 Listed Building with no views over the scheme
-  Extent of 300m study area
-  Extent of 2km study area



Date: 05/09/2016
 Author: MMC
 Office:
 Drawing: G24343.01
 File:

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0 250 500 1,000
 metres



Plate 01: Photo of Asset No 01, Nos 1 & 2 Tan-y-Lon. View from the north.



Plate 02: Photo of Asset No 02, Turnpike House. View from the NNE.



Plate 03: Photo of Asset No 03, Nos 7 & 8 Tan-y-Lon. View from the ENE.



Plate 04: Photo of Asset No 04, Nos 9 & 10 Tan-y-Lon. View from the ENE.



Plate 05: Photo of Asset No 05 & 06, Shelter shed/ pigsties and farm buildings at Ty'n-yr-Hendre. View from the northeast.



Plate 06: Photo of Asset No 08, Ty'n-y-Hendre farm, Abergwyngregyn. View from the west.

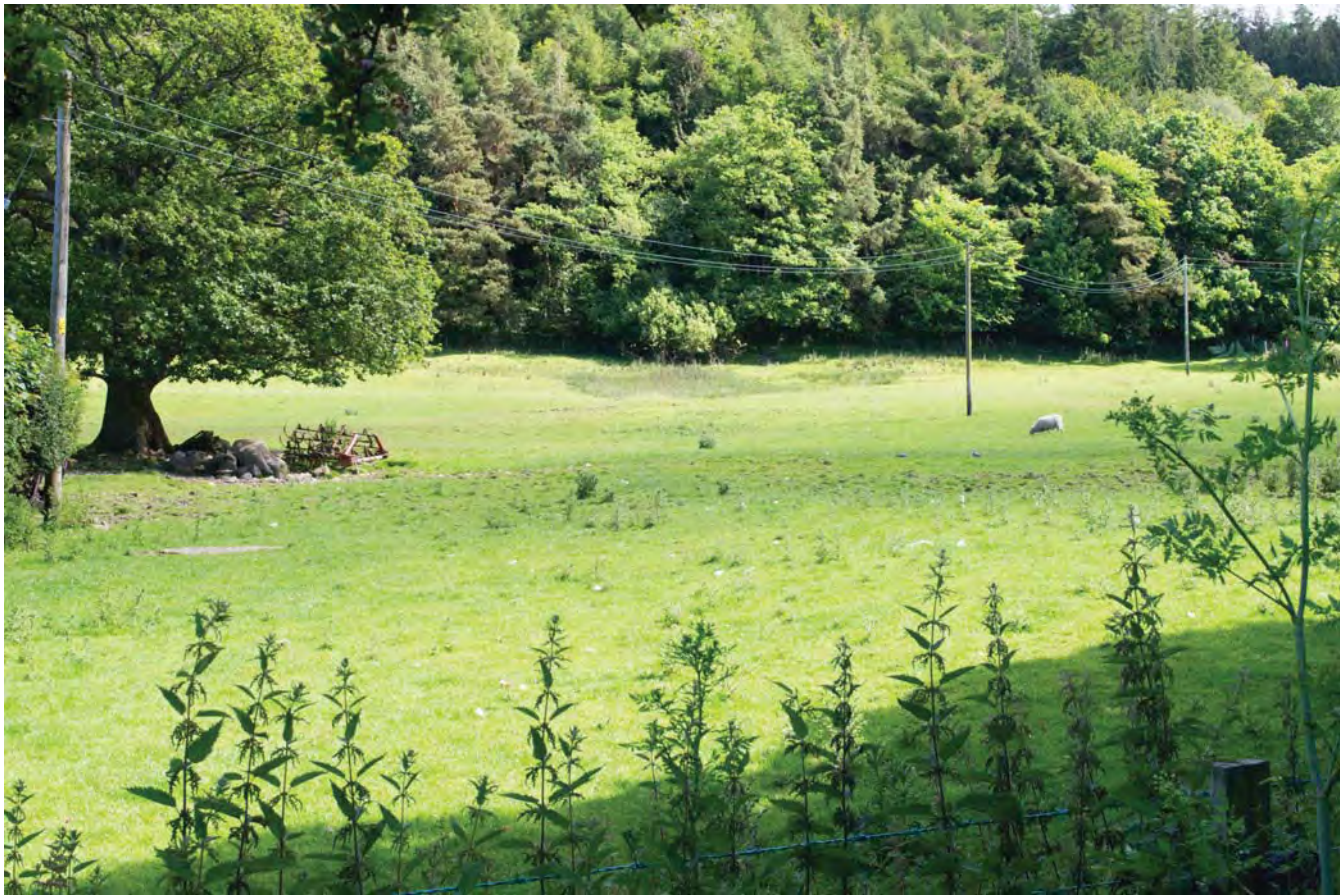


Plate 07: Photo of Asset No 09, Lynchet, Ty'n-y-Hendre. View from the northwest.



Plate 08: Photo of Asset No 10, Site of cairn, Ty'n-yr-Hendre. View from the WSW.



Plate 09: Photo of Asset No 13 & 14, Nos 1 & 2 Tan-yr-Alft cottages. View from the northwest.



Plate 10: Photo of Asset No 15 & 16, Nos 3 & 4 Tan-yr-Alft cottages. View from the northwest.



Plate 11: Photo of Asset No 17, Culverts, north of Tan-yr-Allt cottages. View from the northwest.



Plate 12: Photo of Asset No 18 & 49, Hedgerow and possible Roman road east of Tan-yr-Allt cottages. View from the southeast.



Plate 13: Photo of Asset No 19, Revetment walls, north of Tai'r Meibion. View from the ENE.



Plate 14: Photo of Asset No 20, Gilfach Baptist Chapel, Llanllechid. View from the ENE.



Plate 15: Photo of Asset No 21, Tai'r Meibion. View from the southeast.



Plate 16: Photo of Asset No 22, Farm buildings at Tai'r Meibion. View from the northeast.



Plate 17: Photo of Asset No 23, Tai'r Meibion garden, Abergwyngregyn. View from the NNE.



Plate 18: Photo of Asset No 24, Enclosed fields, south and east of Tai'r Meibion. View from the ESE.



Plate 19: Photo of Asset No 25, Field boundaries, east of Tai'r Meibion. View from the WSW.



Plate 20: Photo of Asset No 26, Slate gate piers, south of Wig. View from the NNE.



Plate 21: Photo of Asset No 27, y-Wig medieval township. View from the east.



Plate 22: Photo of Asset No 29 & 33, Wig farm and garden, Abergwynnregyn. View from the SSW.



Plate 23: Photo of Asset No 31, Field boundaries, east of Wig. View from the ENE.



Plate 24: Photo of Asset No 32, Location of tumulus, Bryn Meddyg, Aber. View from the SSW.



Plate 25: Photo of Asset No 35, Site of Wig Bach (demolished), Abergwyngregyn. View from the SSE.



Plate 26: Photo of Asset No 36, Cottages, Bryn Meddyg, Abergwyngregyn. View from the west.



Plate 27: Photo of Asset No 37, Quarry, Bryn Meddyg. View from the NNE.



Plate 28: Photo of Asset No 38, Coed Bryn Meddyg relict field system. View from the ENE.



Plate 29: Photo of Asset No 39, The Old School, Aber. View from the SSE.



Plate 30: Photo of Asset No 40, Mill pond, southwest of St Bodfan's Church. View from the WNW.



Plate 31: Photo of Asset No 41, Abergwynnregyn Parish Church. View from the WNW.



Plate 32: Photo of Asset No 42, Tan-y-Fynwent, Abergwynnregyn. View from the northeast.



Plate 33: Photo of Asset No 44, The Old Rectory, Abergwyngregyn. View from the NNE.



Plate 34: Photo of Asset No 46, Aber Falls Hotel, Abergwyngregyn. View from the NNW.



Plate 35: Photo of Asset No 47, Crymlyn Cottage. View from the NNE.



Plate 36: Photo of Asset No 48, Cottage adjoining Crymlyn Cottage. View from the NNE.



Plate 37: Photo of Asset No 50, Site of original Abergwyngregyn Church. View from the NNW.



Plate 38: Scheme location from Penrhyn Park GD40. View from the W.



Plate 39: View towards NE end of scheme location from the top of Aber Castle Mound (Pen-y-Mwd) CN007. View from the E.



Plate 40: View over entire scheme location from Maes y Gaer Camp (Hillfort) CN038. View from the ENE.



Plate 41: View towards NE end of scheme location from Medieval Homestead 400m SE of Maes y Gaer CN137. View from the ESE.



Plate 42: View towards NE end of scheme location from W corner of Enclosure & Associated Structures at Pen-y-Bryn CN218. View from the ENE.



Plate 43: View towards SW end of scheme location from Settlement Above Ffridd Ddu CN243. View from the ESE.



Plate 44: View towards SW end of scheme location from ground to the W of Hut Circle Settlement NW of Tan-y-Marian CN252. View from the SW.



Plate 45: View towards SW end of scheme location from Cairn to N of Cras CN344. View from the ESE.



Plate 46: View towards NE end of scheme location from Pen-y-bryn LB3651. View from the E.



Plate 47: Scheme location from Penrhyn Castle LB3659. View from the W.



Plate 48: View towards NE end of scheme location from trackway to the W (rear) of Ddol Cottages LB22904 and LB22913. View from the ESE.



Plate 49: View towards NE end of scheme location from footpath to the SW (rear) of Ty'n Ffridd LB81043. View from the ESE.



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A55(T) ABERGWYNGREGYN TO TAI'R MEIBION IMPROVEMENT

Pre-Commencement Archaeological Evaluation



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

A55(T) ABERGWYNGREGYN TO TAI'R MEIBION IMPROVEMENT

Pre-Commencement Archaeological Evaluation

Prosiect Rhif / Project No. G2424

Adroddiad Rhif / Report No.1323

Prepared for: YMGYNGHORIAETH GWYNEDD CONSULTANCY

June 2016

Written by: Neil McGuinness

***front cover image: View from culvert SW of Wig Farm, looking SE across field
towards Trenches 02 and 03 (archive image: G2424_PCTT_2016_028)**

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CONTENTS

SUMMARY.....	1
1 INTRODUCTION	2
2 BACKGROUND.....	4
3 SITE LOCATIONS	5
4 METHODOLOGY	6
5 RESULTS.....	7
5.1 Trench 01	7
5.2 Trench 02	8
5.3 Trench 03	9
5.4 Trench 04	10
6 DISCUSSION	11
7 CONCLUSION.....	13
8 ACKNOWLEDGEMENTS	14
9 BIBLIOGRAPHY	15
Appendix I: Project Design.....	16
Appendix II: Context Summary	17
Appendix III: Reproduction of Gwynedd Archaeological Trust photographic record metadata.....	21

Figures

Figure 01: Scheme extent and location and index to 1:1000 maps

Figure 02: Map 1, location of evaluation Trenches 01, 02 and 03

Figure 03: Map 2, location of evaluation Trench 04

Figure 04: Archaeological features in Trenches 02 and 04

Plates

Plate 01: Post-machining shot of Trench 01, viewed from the NE (scale: 2x1m; archive image: G2424_PCTT_2016_011).

Plate 02: NW facing baulk section of Trench 01, viewed from the NW (scale: 2x1m; archive image: G2424_PCTT_2016_012).

Plate 03: Trench 01 reinstated, viewed from the NE (archive image: G2424_PCTT_2016_026).

Plate 04: Post-machining shot of Trench 02, viewed from the SW (scale: 2x1m; archive image: G2424_PCTT_2016_006).

Plate 05: NW facing baulk section of Trench 02, viewed from the NW (scale: 2x1m; archive image: G2424_PCTT_2016_007).

Plate 06: View of ceramic drain pipe (0206) in Trench 02, viewed from the NNE (scale: 2x1m; archive image: G2424_PCTT_2016_009).

Plate 07: View of slate capped culvert (0205) and manhole cover in Trench 02, viewed from the NW (scale: 2x1m; archive image: G2424_PCTT_2016_008).

Plate 08: Probable continuation of slate culvert (recorded as 0205) at NW side of field, viewed from the SSE (archive image: G2424_PCTT_2016_027).

Plate 09: View from culvert SE across field towards manhole cover and Trenches 02 and 03, viewed from the NW (archive image: G2424_PCTT_2016_028).

Plate 10: Trench 02 reinstated, viewed from the NE (archive image: G2424_PCTT_2016_025).

Plate 11: Post-machining shot of Trench 03, viewed from the NE (scale: 2x1m; archive image: G2424_PCTT_2016_005).

Plate 12: NW facing baulk section of Trench 03 with field boundary in background, viewed from the NW (scale: 2x1m; archive image: G2424_PCTT_2016_004).

Plate 13: Trench 03 reinstated, viewed from the SW (archive image: G2424_PCTT_2016_024).

Plate 14: Trench 04 post-machining, viewed from the ESE (scale: 2x1m; archive image: G2424_PCTT_2016_033).

Plate 15: SSW facing baulk section Trench 04, viewed from the SSW (scale: 2x1 m; archive image: G2424_PCTT_2016_036).

Plate 16: Modern drain [0407] with ceramic pipe, viewed from the SW (scale: 1x1 m; archive image: G2424_PCTT_2016_035).

Plate 17: Earth and stone field boundary bank (0409) in Trench 04, viewed from the S (scale: 2x1 m; archive image: G2424_PCTT_2016_037).

Plate 18: Trench 04 reinstated, viewed from the E (archive image: G2424_PCTT_2016_042)

Approvals Table				
	Role	Printed Name	Signature	Date
Originated by	Document Author	NEIL MCGUINNESS	N. McGuinness	01/07/16
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Approved by	Principal Archaeologist	STUART REILLY	Stuart Reilly	01/07/16

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Rev No.	Summary of Changes	Ref Section	Purpose of Issue
01	Amendments to text to correct stated length of scheme and clarify aims and objectives. Correct typographical errors. Replace word 'natural' with 'natural drift geology'. Amend discussion and conclusion Amend Figure 01 to show location of Asset Number 30	Sec 1 Sec 5, Sec 6 Sec 5, Sec 6 Sec 6, Sec 7 Figure 01	Comments received from CRJ (YGC) (01/07/2016)

SUMMARY

This report sets out the results of a programme of archaeological trial trenching undertaken by Gwynedd Archaeological Trust at two sites within the scheme footprint of the proposed A55(T) road upgrade, on land to the south and south-west of Wig Farm, Abergwyngregyn, Gwynedd and land to the S of Tai'r Meibion, Llanllechid, Gwynedd. The work was carried out on behalf of Ymgynghoriaeth Gwynedd Consultancy in June 2016.

Four trial trenches were excavated with an 8 tonne mechanical excavator under archaeological supervision down to the natural drift geological levels, three at Wig Farm and one at Tai'r-meibion. The trenches at Wig Farm were located to identify the location, nature and degree of survival of features related to medieval settlement. The trench at Tai'r Meibion was placed to identify the exact location and degree of survival of the Canovium - Segontium Roman Road. Archaeological features were encountered within two of the trenches, Trench 02 at Wig Farm and Trench 04 at Tai'r-meibion. In addition to two modern drains Trench 02 revealed evidence for a slate culvert that appears to be part of a Post-medieval water management system associated with the water mill at Wig Farm. No evidence for medieval settlement was identified. Trench 04 at Tai'r Meibion revealed evidence for two modern drains and a stone and earth field boundary bank of unknown date. No evidence for the Roman Road was encountered.

1 INTRODUCTION

This report was commissioned by Ymgynghoriaeth Gwynedd Consultancy (YGC) and forms the report for the pre-commencement archaeological trial trenching evaluation carried out on land to the south and south-west of Wig Farm, Abergwyngregyn, Gwynedd (centred on NGR SH 6351071980) (Figure 02) and land to the south of Tai'r Meibion, Llanllechid, Gwynedd (centred on NGR SH6315771500) (Figure 03).

The evaluation is part of pre-commencement works in advance of the proposed A55(T) road upgrade. The A55(T) road upgrade extends for 2.2km between Junctions 12 (NGR SH62977173) and 13 (NGR SH65067263) (Figure 01). A Project Design was prepared (Appendix I) after consultation with Gwynedd Archaeological Planning Service (GAPS) which sets out the legislation framework in detail.

The Gwynedd Archaeological Trust (GAT) completed an Assessment of the Significance of the Impact of Development on Historic Landscape (ASIDOHL) report (McNichol 2015a: GAT Report 1257) and a heritage desk based assessment (McNichol, 2015b: GAT Report 1258) of the A55(T) road upgrade scheme in 2015. The desk based assessment report included recommendations for trial trenching, prior to any other work on site, at two sites of unknown, but potentially high, archaeological value that lie within the scheme footprint and may be directly affected by the road upgrade (McNichol 2015b, para. 7.1; Table 9) (Figure 01). These are the medieval Township at Wig (Asset Number 27; GAT PRN 6811) and the Canovium (Caerhun) - Segontium (Caernarfon) Roman Road (Asset Number 30; GAT PRN 17568).

After discussion with GAPS, it was decided that instead of Asset Number 30, another, potentially more easily locatable, stretch of the same Roman Road should be targeted, the Canovium - Segontium Roman Road to the south of Tai'r Meibion (Asset Number 12; RCAHMW NPRN 405340) (Figure 01).

As specified in the Project Design (Appendix I) the objectives of the pre commencement archaeological evaluation trenches are to:

- Establish the location, nature and level of preservation of any archaeological remains for Asset Numbers 12 (the Canovium - Segontium Roman Road) and 27 (the medieval Township at Wig)
- Enable an accurate assessment of the value of Asset Numbers 12 (the Canovium - Segontium Roman Road) and 27 (the medieval Township at Wig) according to DMRB criteria
- Develop an appropriate mitigation strategy for any archaeological remains encountered that will either reduce the impact of the proposed scheme on

them or, if justified, determine whether the scheme could be adjusted so as to preserve the remains in situ.

. This report has been prepared in accordance with:

- English Heritage, 1991. Management of Archaeological Projects (MAP2)
- Historic England, 2015. Management Of Research Projects in the Historic Environment (MORPHE)
- Chartered Institute for Archaeologists, 2014. Standards and guidance for archaeological field evaluation
- Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, documentation, conservation, and research of archaeological materials
- Chartered Institute for Archaeologists, 2014. Standards and guidance for the creation, compilation, transfer, and deposition of archaeological archives
- Royal Commission on Ancient and Historic Monuments of Wales, 2015. Guidelines for digital archives

2 BACKGROUND

During the Roman period a major road between Segontium (Caernarfon) and Canovium (Caerhun) in the Conwy valley ran very close to the study area (Asset Number 30, GAT PRN 17,568) (McNichol, 2015b). The route is described in the third century Antonine Itinerary (Hopewell 2013, 10). The course of the road is known to the east of Abergwyngregyn at Madryn Farm, where a Roman milestone has been discovered (GAT PRN 638). The midpoint of a 1.5km long segment of the Canovium - Segontium Roman Road is also recorded at SH6279071210 (Asset Number 12; RCAHMW NPRN 405340). No part of this route has been excavated by archaeologists, but parts are visible on both aerial photographs and lidar data. No obvious traces are visible within the scheme footprint. If encountered, the remains of an approximately 5m wide agger, a raised road surface made from layers of gravel stones and clay, with drainage ditches either side of it, might be expected (Hopewell 2013, 10).

A medieval settlement is known from documentary evidence to have existed at Wig (Asset Number 27; PRN 6811) (McNichol, 2015b). It is referred to in medieval extents and grants as a bond township of two *gafaelion*. The medieval township may have contained more than one settlement, but it is likely that at least one of these lay on or near the present Wig, which lies 100m north of the proposed improvements. An area of earthworks survives at Wig Farm which could be medieval in date and if this is the case could form part of a documented medieval settlement of regional importance.

3 SITE LOCATIONS

Both sites are located on improved grassland on the coastal plain between the Carneddau and the Menai Straits. The underlying geology of both sites is Llanvirn Rocks (mudstone, siltstone and sandstone) with overlying glacial sands and gravels at Wig Farm and glacial till at Tai'r Meibion (British Geological Survey).

The three trenches on land to the south and south-west of Wig Farm are located in two fields of improved grassland. They are aligned NE-SW and run parallel with, and to north of, the existing carriageway of the A55 (TR01 centered on SH 6345771959; TR02 centred on SH 6356672001; TR03 centred on SH 6360372015) (Figure 02).

The trench on land to the south of Tai'r Meibion, (TR04 centred on NGR SH6315771500) is located in a field of improved grassland and runs at a tangent to, and to the north of, the lane known as 'Roman Road' (Figure 03).

4 METHODOLOGY

All works were carried out in accordance with the Project Design for the works (Appendix I).

- The trenches' centrelines were located with a Trimble R6 GPS receiver (centimetre accuracy) and subsequently CAT scanned by a qualified and competent operative prior to their excavation.
- The trenches were excavated by an 8 tonne tracked mechanical excavator fitted with a 2m wide toothless ditching bucket under the direct supervision of an archaeologist.
- When encountered, potential archaeological features / contexts were manually cleaned and examined to determine the extent, function, date and relationship to adjacent features / contexts.
- A written record of the excavations was completed via GAT pro-formas.
- The excavated trench locations and all archaeological features were surveyed with the use of a Trimble R6 GPS receiver (centimetre accuracy) with the results recorded in Ordnance Survey of Great Britain National Grid co-ordinates.
- Forty three digital photographs were taken in RAW format using a digital SLR camera set to **maximum resolution** (Archive file refs G2424_PCTT_2016_001 - G2424_PCTT_2016_043). A complete table of metadata with details of each image, including descriptions and directions of shot was produced using Microsoft Access (Appendix III).
- The trenches were carefully backfilled, first with the excavated subsoil, then topsoil and then re-turfed with the mechanical excavator. After this was complete, the trenches were hand finished, re-seeded and rolled by professional contractors to ensure the best possible standard of reinstatement (Plate 03; Plate 10; Plate 13; Plate 18).
- The paper archive resulting from the fieldwork is stored at Gwynedd Archaeological Trust; the digital archive resulting from the fieldwork will be deposited with the RCAHMW in accordance with their guidelines.

5 RESULTS

Summarised descriptions of all archaeological contexts identified are included in Appendix II.

5.1 Trench 01

Trench 01 was located within a field of improved pasture, 200m to the SW of the farmhouse at Wig. It was orientated NE-SW, parallel to the hedge that forms the boundary of the field with the adjacent carriageway of the A55 to the S. Its excavated length was 19.50m and its width 1.90m. Its maximum excavated depth was 0.50m (Plate 01; Plate 02).

A 0.15m deep layer of topsoil **(0101)** was visible overlying an alluvial deposit of light brownish grey silty clay **(0102)**, on average 0.35m deep. This had been deposited over the natural drift geology **(0103)**, a wet, cohesive, light greyish orange, coarse and fine gravel / sand mixture with moderate small and medium sized sub-rounded and sub angular stones.

No archaeological features or finds were encountered in Trench 01.

5.2 Trench 02

Trench 02 was located in another improved pasture field adjacent to that containing Trench 01, and lay approximately 120m to the SSW of the farmhouse at Wig. It was again orientated NE-SW, parallel to a clawdd wall that forms the SE boundary of this field with the carriageway of the A55 to the S. Its excavated length was 19.50m and its width 1.90m. Its maximum excavated depth was 0.60m (Plate 04; Plate 05; Figure 04).

The topsoil **(0201)** in Trench 02 was 0.20m deep, and overlay a 0.35m deep layer of subsoil **(0202)**, a light brownish grey silty clay with occasional small sub-rounded and sub-angular stones. An alluvial deposit of soft, slightly blueish grey slightly sandy clay with very occasional small flecks of charcoal **(0211)** was encountered below the subsoil approximately 5.5m from the NE end of the trench. The natural drift geology was exposed below these deposits at a depth of 0.30- 0.55m. In the NE and middle part of the trench the natural drift geology was recorded as **(0203)**, a compact, light grey clay with occasional veins of cobbles and orange clay deposits. There was a change to the natural drift geology approximately 3m from the SW end of Trench 02 coinciding with the SW limit of the overlying alluvial clay **(0211)**. The natural drift geology here changed abruptly to a deposit of loose, coarse orange pebbles and gravel with very occasional lenses of clean, very fine, mid grey sand **(0204)**.

A modern circular cast iron manhole cover, set in a sub-circular concrete surround approximately 1.60 m in diameter, was located on the S side of the trench, set back approximately 0.40m from the baulk and 3.30m from its NE end (Plate 07).

At this NE end of the trench, the 0.50m wide straight linear cut of a modern land drain **[0210]** was visible cutting through the subsoil **(0202)**. It emerged from a presumed junction with the manhole to the SW and ran NE towards the farmhouse at Wig. The drain contained a modern orange ceramic pipe **(0206)** at a depth of approximately 0.30m below the current ground surface (Plate 06).

A 0.80m wide stone culvert **(0205)**, the visible portions of which were constructed from horizontally laid flat slabs of slate, also appeared to be associated with the manhole (Plate 07). It was constructed within cut **[0209]** and lay below the topsoil at a depth of 0.30m. It was located just to the south of drain **[0210]** and ran across the trench in a straight linear fashion from the manhole to the SSE in a NNW direction towards the millpond and building that houses the remains of the water wheel at Wig (Plate 08; Plate 09).

Another, presumably modern, 0.30m wide straight linear land drain cut **[0207]** was observed approximately 6.00m from the SW end of Trench 02. It was cut through the subsoil **(0202)** and ran NW-SE, perpendicular to the orientation of the trench. It was filled with **(0208)**, a light greyish brown clean clay.

5.3 Trench 03

Trench 03 was located in the same field as Trench 02 approximately 20m to the NE of the latter's NE end, 95m S of farmhouse at Wig. It was orientated NE-SW and again lay parallel to the clawdd wall that forms the SE boundary of the field. Its excavated length was 19.50m and its width 1.90m. Its maximum excavated depth was 0.40m (Plate 11).

A 0.20m deep layer of topsoil **(0301)** was visible above the subsoil **(0302)**, a 0.20m deep layer of light brown silty clay with occasional small stones. Natural drift geology **(0303)** was encountered at an average depth of 0.40m below the present ground surface and consisted of a compact, coarse, light greyish brown clayey gravel with frequent small sub-angular stones and occasional compact deposits of fine light grey clay (Plate12).

No archaeological features or finds were encountered in Trench 03.

5.4 Trench 04

Trench 04 was located in a field of improved pasture 140m to the S of Tai'r Meibion, on the opposite side of the A55 to Trenches 01-03. It was orientated WNW-ESE, tangential to the clawdd wall and hedge that forms the southern boundary of the field with the carriageway of 'Roman Road' to the S. Its excavated length was 19.82m and its width 2.03m. Its maximum excavated depth was 0.90m (Plate 14; Figure 04).

The topsoil **(0401)** in Trench 04 was 0.20m deep, and overlay a 0.35m deep layer of subsoil **(0402)**, a mid orangey brown silty clay with moderate to frequent small sub-rounded and sub-angular stones. The stones occurred in lenses across the length and width of the trench and appeared to be colluvial in origin having washed down the hillslope immediately to the S. A 0.35m deep alluvial deposit of soft, mid grey clay with moderate small to medium sized sub-angular stones **(0403)** was encountered below the subsoil at a depth of 0.55m. Natural drift geology **(0404)** lay below at 0.90m below the level of the current ground surface. It consisted of a soft light grey clay with very frequent small to medium sized sub-angular stones and cobbles (Plate 15).

The 0.30m wide straight linear cut of a presumably modern land drain **[0405]** ran from SE-NW across the central / E end of the trench. It was filled with **(0406)**, a mid brown silty clay with frequent small to medium sized sub-rounded stones.

Just to the W of this, in the central part of the trench, another straight linear land drain cut **[0407]** ran across the trench from NE-SW. It was 0.40m wide and the filled with well sorted small angular stones (2-3cm long) **(0408)** which were packed around a modern orange ceramic water pipe. The pipe lay 0.60 m below the level of the current ground surface (Plate 16).

To the W of this, approximately 3m from W end of the trench, a 0.85m wide, 0.62m deep, stone and earth bank **(0409)** was revealed (Plate 17). It was constructed on natural drift geology **(0404)** and predominately made up of closely packed angular, sub-angular and sub-rounded stones and cobbles averaging between 5-25cm long. Two very large boulders, 65 and 52cm long respectively were laid flat and flush with each other at the N end of the exposed bank. The stones were within a matrix of mid brown soft sandy silt. The bank was aligned NNE-SSW and spanned the width of the trench, though it was partially truncated by the machine at the SW corner of the exposed section. No archaeological finds were recovered from the bank. Fragments of broken modern drain pipe were recovered from the lower levels of the subsoil **(0402)** immediately to the W of the bank but no cut for a land drain was noted here.

6 DISCUSSION

Trenches 01, 02 and 03 were specifically located to attempt to establish the nature, level of preservation, and hence the value, of possible medieval settlement remains at Wig (**Asset Number 27**; GAT PRN 6811). Only one of these three trenches, Trench 02, contained any archaeological remains, none of which were related to medieval settlement.

The field drain **[0207]** at the SW end of Trench 02 appears to be modern and of little archaeological significance. Likewise the drain **[0210]** at the NE end of the trench.

The slate culvert (**0205**) appears to be part of a Post-medieval water management system. The collapsed remains of most likely the same culvert were identified 50m to the NW at the edge of the field, the water emerging from it and feeding into a disused mill pond (Plate 08). A leat from the mill pond still carries water NW to the location of the disused water wheel. The observation that the culvert is still actively carrying water means that, unless replaced there by a more recent pipe, it may also survive underneath the present carriageway of the A55 to the SE.

The slate culvert (**0205**) meets the DMRB criteria for a 'Low' value archaeological asset as it is '...of limited archaeological value, but with potential to contribute to local research objectives.' (DMRB, Volume 11, Section 3, Part 2, HA208/7, Annex 5, Table 5.1)

The manhole on the SE side of Trench 02 would appear to be a modern insertion into the culvert, primarily to facilitate the diversion of some of the water flowing through the culvert off to the NE towards the Wig farmhouse. The manhole would therefore appear to be contemporary with the modern ceramic pipe contained within drain cut **[0210]**.

As the Trenches 01, 02, 03 failed to locate any medieval settlement remains, **the location, nature, extent and level of preservation of features associated with Asset Number 27 remain unknown**. It is still possible that evidence for the settlement does survive elsewhere within the scheme footprint within the environs of Wig Farm.

Trench 04 was located establish the location and level of preservation of the Canovium – Segontium Roman Road (**Asset Number 12**; RCAHMW NPRN 405340). No evidence for the road was encountered within the trench.

The two field drains **[0405]** and **[0407]** in the trench are probably modern in origin, the gravel fill and visible ceramic pipe in **[0407]** suggests it is very recent.

The stone and earth bank (**0409**) represents a field boundary of unknown date. A stratigraphic relationship between the drain **[0407]** and the earth and stone bank

(0409) was not observed within the trench. No field boundary in this location could be positively identified on historic mapping, and it almost certainly predates the large scale re-organisation of local field boundaries that occurred during the 19th Century (McNicol, 2015b).

The bank **(0409)** meets the DRMB criteria for a 'Low' value asset as it is '...of limited archaeological value, but with potential to contribute to local research objectives.' (DMRB, Volume 11, Section 3, Part 2, HA208/7, Annex 5, Table 5.1)

The exact **location, nature, extent and level of preservation of Asset Number 12 remain unknown**. Trench 04 was positioned to cut the projected path of the Roman Road as suggested by two sets of grid co-ordinates recorded on the RCAHMW NMR record. It is entirely possible that the road does not run in an exact straight linear fashion between these two points. Despite the absence of evidence for a road surface and / or associated ditches within Trench 04, it is still possible that the Roman Road survives elsewhere within the scheme footprint in the area to the S of Tai'r Meibion.

7 CONCLUSION

In terms of the stated aims of the project, the programme of pre-commencement trial trenching has produced inconclusive results. It failed to identify evidence for medieval settlement remains associated with the Township at Wig (GAT PRN 6811), therefore the value of Asset Number 27 remains unknown. Similarly, the exact location and degree of survival of the Canovium – Segontium Roman Road SW of Tai'r Meibion (RCAHMW NPRN 405340), Asset Number 12, remains unknown. Evidence for both assets may still survive within the scheme footprint and be encountered during the course of the road improvement works.

The programme of pre-commencement trial trenching did however demonstrate the potential for previously unknown archaeological remains to be encountered during the course of the improvement works. Two previously unknown 'Low' value archaeological assets were identified. A slate built culvert, designated as Asset Number 52, part of the Post-medieval water management system at Wig Farm, and a stone and earth field boundary bank S of Tai'r Meibion, now designated as Asset Number 53.

8 ACKNOWLEDGEMENTS

The author would like to thank *Ymgynghoriaeth Gwynedd Consultancy* for commissioning the work, and Penrhyn Estates and their tenants, Mr E Williams at Wig Farm and Mr I Williams at Tai'r Meibion, for facilitating access to undertake the works. The work on site was carried out by the author Neil McGuinness and Stuart Reilly.

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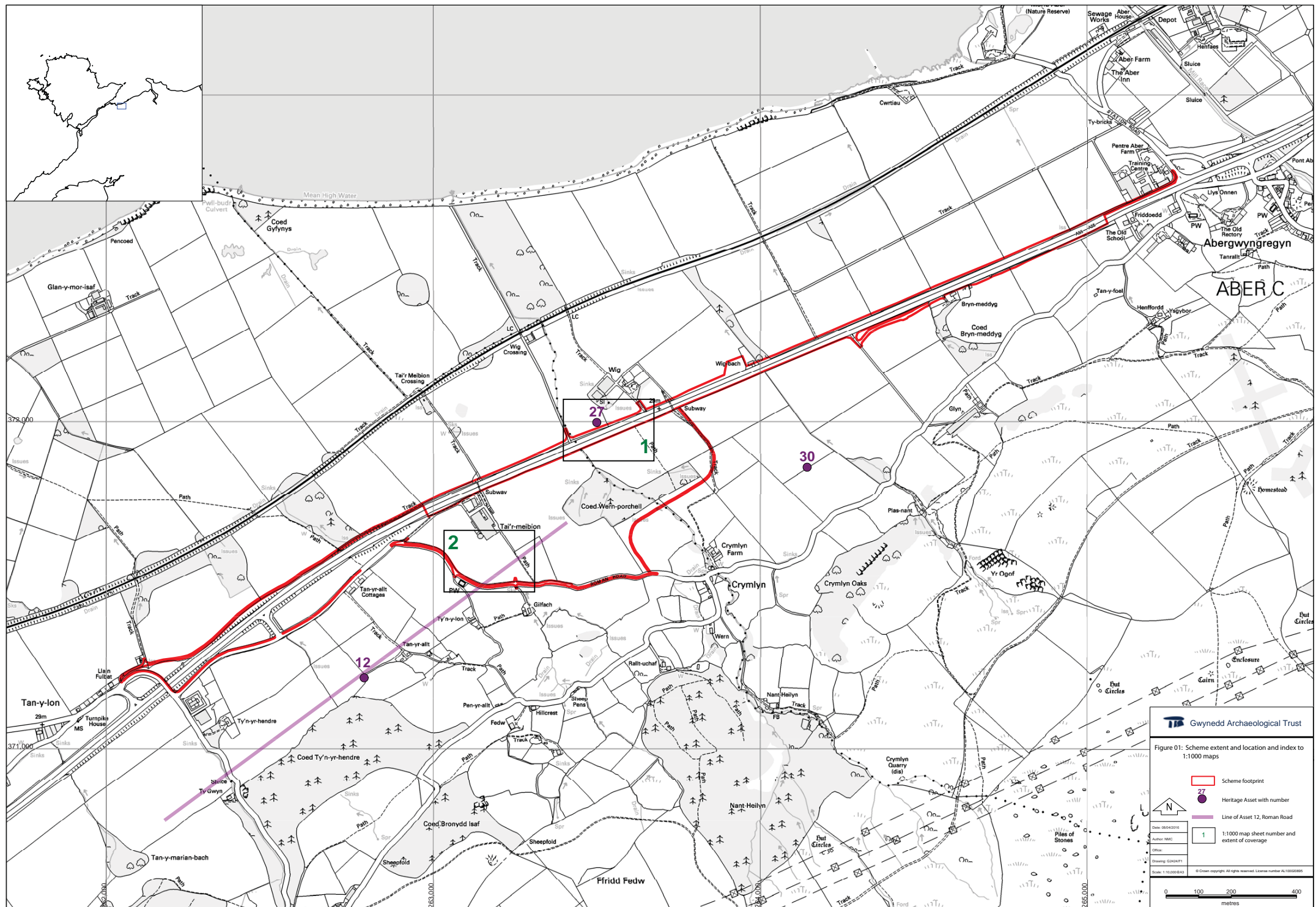
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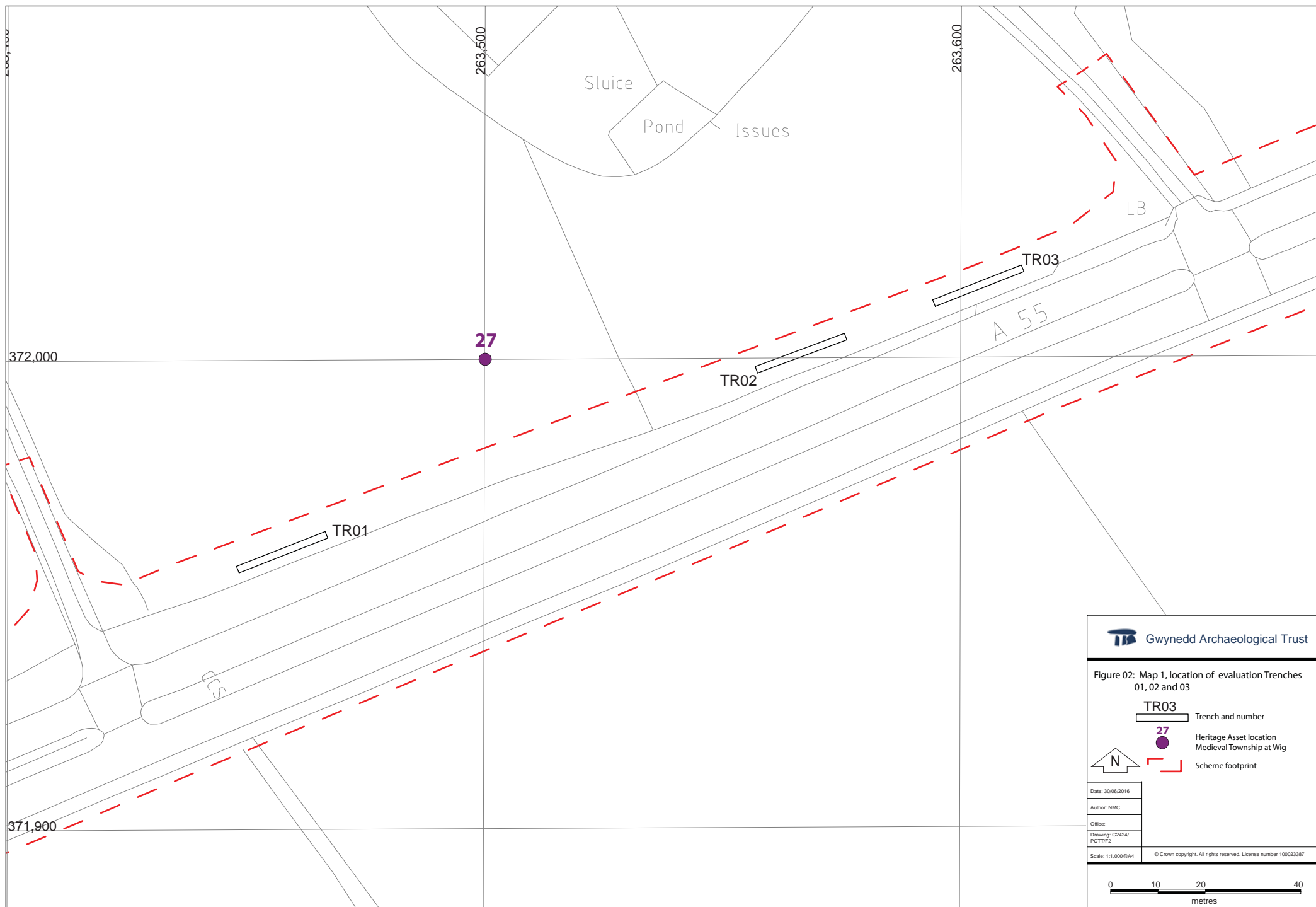
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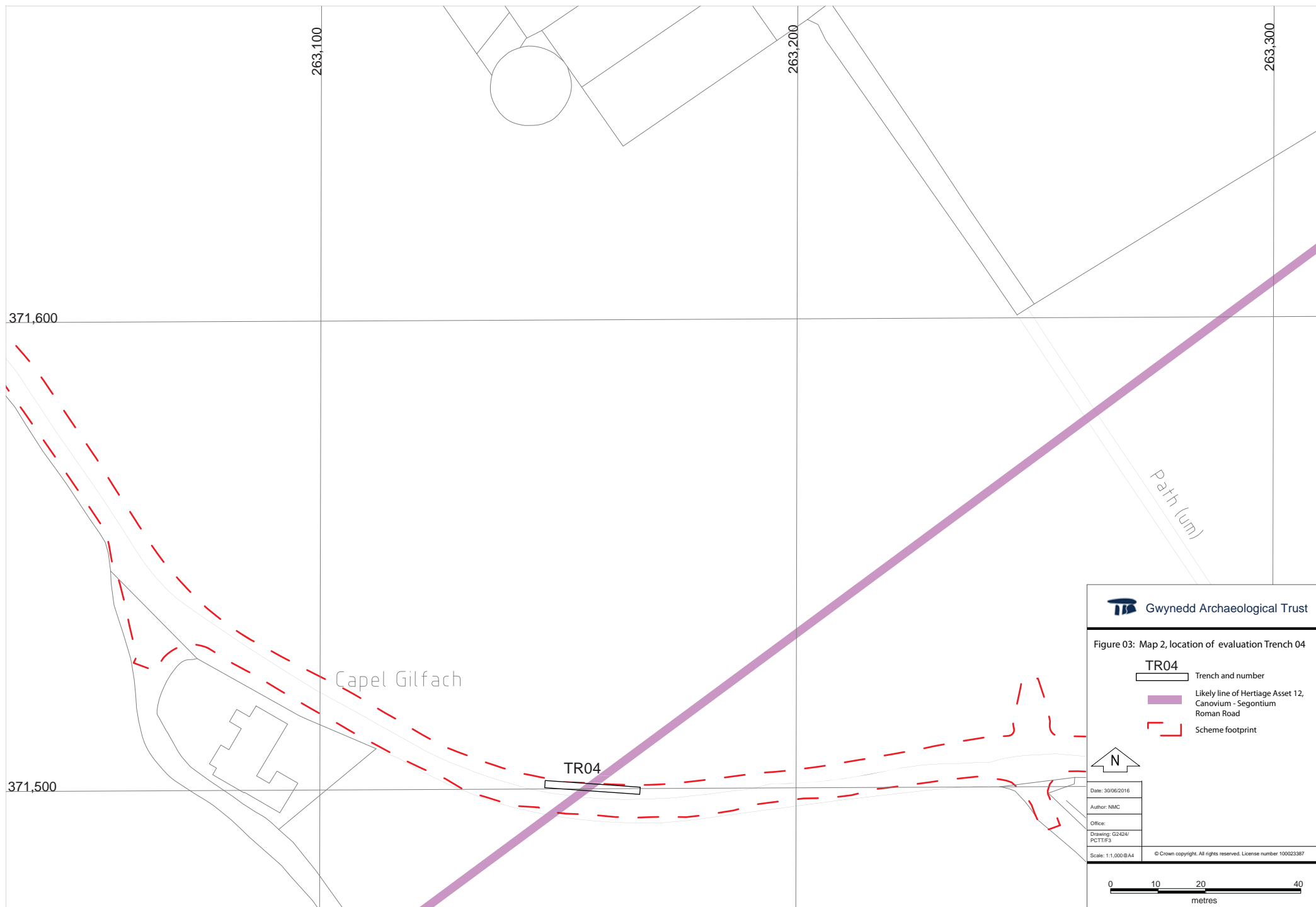
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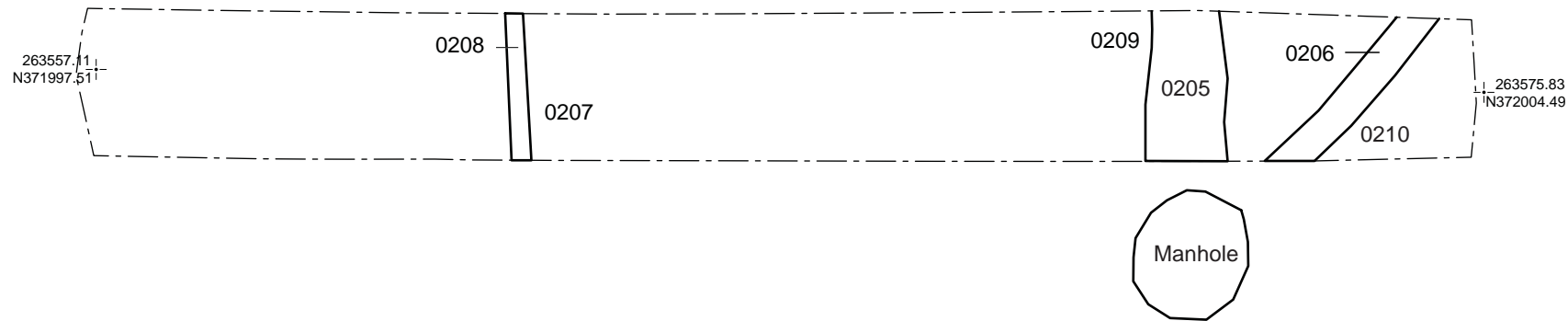
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N TR NC 02



N TR NC 04



 Gwynedd Archaeological Trust

Figure 04: Archaeological features in Trenches 02 and 04

Date: 30/06/2016

Author: NMC

Office:

Drawing: G2424/
PCTT/IF4

Scale: 1:100 @ A4

0 1 2
metres



Plate 01: Post-ex shot of Trench 01, viewed from the NE (scale: 2x1m; archive image: G2424_PCTT_2016_011).



Plate 02: NW facing baulk section of Trench 01, viewed from the NW (scale: 2x1m; archive image: G2424_PCTT_2016_012).



Plate 03: Trench 01 reinstated, viewed from the NE (archive image: G2424_PCTT_2016_026).



Plate 04: Post-machining shot of Trench 02, viewed from the SW (scale: 2x1m; archive image: G2424_PCTT_2016_006).



Plate 05: NW facing baulk section of Trench 02, viewed from the NW (scale: 2x1m; archive image: G2424_PCTT_2016_007).



Plate 06: View of ceramic drain pipe (0206) in Trench 02, viewed from the NNE (scale: 2x1m; archive image: G2424_PCTT_2016_009).

Plate 07: View of slate capped culvert (0205) and manhole cover in Trench 02, viewed from the NW (scale: 2x1m; archive image: G2424_PCTT_2016_008).



Plate 08: Probable continuation of slate culvert (recorded as 0205) at NW side of field, viewed from the SSE (archive image: G2424_PCTT_2016_027).



Plate 09: View from culvert SE across field towards manhole cover and Trenches 02 and 03, viewed from the NW (archive image: G2424_PCTT_2016_028).



Plate 10: Trench 02 reinstated, viewed from the NE (archive image: G2424_PCTT_2016_025).



Plate 11: Post-machining shot of Trench 03, viewed from the NE (scale: 2x1m; archive image: G2424_PCTT_2016_005).



Plate 12: NW facing baulk section of Trench 03 with field boundary in background, viewed from the NW (scale: 2x1m; archive image: G2424_PCTT_2016_004).



Plate 13: Trench 03 reinstated, viewed from the SW (archive image: G2424_PCTT_2016_024).

Plate 14: Trench 04 post-machining, viewed from the ESE (scale: 2x1m; archive image: G2424_PCTT_2016_033).





Plate 15: SSW facing baulk section Trench 04, viewed from the SSW (scale: 2x1m; archive image: G2424_PCTT_2016_036).

Plate 16: Modern drain [0407] with ceramic pipe, viewed from the SW (scale: 1x1m; archive image: G2424_PCTT_2016_035).





Plate 17: Earth and stone field boundary bank (0409) in Trench 04, viewed from the S (scale: 2x1m; archive image: G2424_PCTT_2016_037).



Plate 18: Trench 04 reinstated, viewed from the E (archive image: G2424_PCTT_2016_042).

APPENDIX I: PROJECT DESIGN

A55(T) ABERGWYNGREGYN TO TAI'R MEIBION
IMPROVEMENT

PROJECT SPECIFICATION FOR A PRE
COMMENCEMENT ARCHAEOLOGICAL
EVALUATION
(G2424)

Prepared for

Ymgynghoriaeth Gwynedd Consultancy

April 2016

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

PROJECT SPECIFICATION FOR A PRE COMMENCEMENT ARCHAEOLOGICAL EVALUATION (G2424)

Prepared for *Ymgynghoriaeth Gwynedd Consultancy*, April 2016.

CONTENTS

1	INTRODUCTION	5
2	PROJECT BACKGROUND	7
2.1	Archaeological Background	7
2.1.1	Prehistoric and Roman (up to 400 AD)	7
2.1.2	Medieval (400 AD – 1485 AD)	7
2.1.3	Post-medieval and later (1485 AD to the present day)	8
2.2	Gwynedd Archaeological Trust Assessment Report	10
3	METHODOLOGY	11
3.1	Table 1: trench centreline coordinates	12
3.2	Evaluation Methodology	13
3.3	Environmental Sampling (Ecofacts)	14
3.4	Human Remains	15
3.5	Small Finds	16
3.6	Monitoring Arrangements	17
3.7	Fieldwork Archiving	18
4	REPORT	19
5	DISSEMINATION AND ARCHIVING	20
5.1	Historic Environment Record	21
6	PERSONNEL	22
7	HEALTH AND SAFETY	23
8	INSURANCE	24
9	REFERENCES	25
	Figure 1: Scheme extent and location and index to 1:1000 maps	26
	Figure 2: Map 1, location of evaluation trenches TR01, TR02 and TR03	27
	Figure 3: Map 2, location of evaluation trench TR04	28
	Appendix I	29
	Reproduction of Gwynedd Archaeological Trust evaluation trench pro-forma (April 2016)	29
	Appendix II	32
	Reproduction of Gwynedd Archaeological Trust context record pro-forma (April 2016)	32
	Appendix III	35
	Reproduction of Gwynedd Archaeological Trust photographic metadata pro-forma (April 2016)	35

Approvals Table				
	Role	Printed Name	Signature	Date
Originated by	Document Author			
Reviewed by	Document Reviewer			
Approved by	Principal Archaeologist			

Revision History			
Rev No.	Summary of Changes	Ref Section	Purpose of Issue

All GAT staff should sign their copy to confirm the project specification is read and understood and retain a copy of the specification for the duration of their involvement with the project. On completion, the specification should be retained with the project archive:

Name

Signature

Date

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was asked by Ymgynghoriaeth Gwynedd Consultancy (YGC) to prepare a scheme of pre-commencement archaeological evaluation involving trial trenching on two potential archaeological sites, in advance of the proposed A55(T) road upgrade. The A55(T) road upgrade extends for 2.1km between Junctions 12 (NGR SH62977173) and 13 (NGR SH65067263) (Figure 1).

GAT has previously carried out an Assessment of the Significance of the Impact of Development On Historic Landscape Areas (ASIDOHL) for the scheme (McNichol, D. 2015a: GAT Report 1257) and a heritage desk based assessment (McNichol, 2015b: GAT Report 1258). The latter report included recommendations for trial trenching, prior to any other work on site, at two sites of unknown, but potentially high, archaeological value that may be directly affected by the scheme (McNichol 2015b, para. 7.1; Table 9). These are the medieval Township at Wig (Asset 27; GAT PRN 6811) and the Canovium (Caerhun) - Segontium (Caernarfon) Roman Road (Asset 30; GAT PRN 17568).

Following consultation with Gwynedd Archaeological Planning Services (GAPS), a recommendation has been implemented to not target Asset 30, but instead to target the part of the route of the same Canovium – Segontium Roman Road recorded as Asset 12 (RCAHMW NPRN 405340).

Three trenches (TR01, TR02 and TR03), each measuring 1.5x20m, are targeted on the medieval Township at Wig (Asset 27; GAT PRN 6811). They are centred on NGRs SH6345771959, SH6356672001 and SH6360372015, and are set within the A55 segment of the scheme footprint, parallel to the SW-NE field boundaries in two fields to the S and SW of Wig Farm, Abergwyngregyn (Figure 2).

The fourth trench, measuring 1.5x20m, is centered on SH6315771500 on the possible route of the Canovium – Segontium Roman Road (Asset 12; RCAHMW NPRN 405340). It is situated in a field to the S of Tai'r-meibion, and runs close to, and parallel with, the E-W field boundary within the scheme footprint at the 'Roman Road' widening segment (Figure 3).

The aim of the pre-commencement evaluation trial trenches are to determine the location, nature and level of survival of archaeological remains at each site in order to accurately assess their value. This will enable the development of an archaeological mitigation strategy that will reduce the impact of the scheme on them or if justified, determine whether the scheme could be adjusted so as to preserve the remains in situ.

This specification sets out the Gwynedd Archaeology Trust methodology for completing the archaeological evaluation. This specification must be approved by GAPS in advance of any work on site; all subsequent reporting must also be approved by GAPS.

The archaeological works will conform to the guidelines specified in the Chartered Institute for Archaeologists *Standard and Guidance for Archaeological Evaluation*

(Chartered Institute for Archaeologists, 2014). Gwynedd Archaeological Trust is a Chartered Institute for Archaeologists *Registered Archaeological Organisation*. The format of this design corresponds to the requirements of section 2.3 of MoRPHE (Historic England, 2015) and to MAP2 (English Heritage, 1991, *Management of Archaeological Projects*).

2 PROJECT BACKGROUND

The following sections are taken from GAT Report 1258, A55 (T) Abergwyngregyn to Tai'r Meibion Improvement Desk Based Assessment Report (McNichol 2015b).

2.1 Archaeological Background

2.1.1 Prehistoric and Roman (up to 400 AD)

Evidence of prehistoric activity within the coastal strip is provided mainly by stray finds from the fields. A Bronze Age axe was found at Wig Farm (GAT PRN 6811), while a Bronze Age stone axe hammer from College Farm, Abergwyngregyn (GAT PRN 4071), and a Bronze Age burial urn at Pen-y-Bryn, immediately to the east of Abergwyngregyn (GAT PRN 4079), have also been found. Systematic study of the Aber valley, immediately to the southeast of the study area has produced many prehistoric and later remains (GAT 2001), whilst east of Abergwyngregyn a 'burnt mound' has been located (GAT 1994). There is significant evidence for prehistoric activity in the uplands with several cairns of Bronze Age type on the hill-tops and ridges as well as remains of settlements and fields.

During the Roman period a major road between Segontium (Caernarfon) and Canovium (Caerhun) in the Conwy valley ran very close to the study area (GAT PRN 17,568). The course of this road is known to the east of Abergwyngregyn at Madryn Farm, where a Roman milestone has been discovered (GAT PRN 638). The exact line of the road within the study area cannot be clearly identified, although based on the location of known milestones it probably ran to the south of the study area (GAT 2005, 6-8). A Roman coin has been recovered from Abergwyngregyn parish (GAT PRN 4073), while a possible Roman fortlet has been identified at Tal-y-Bont, 2km west of the study area (GAT PRNs 2454 and 2465).

2.1.2 Medieval (400 AD – 1485 AD)

In the early medieval period the centralised control of Roman administration broke down into territorial divisions known as cantrefi (hundreds), which were subdivided into commotes. Abergwyngregyn was the commotal centre of Arllechwedd Uchaf and one of the seats of the Princes of Gwynedd, and thus important as a regional centre of power. The court, or llys, may have been located at or near the site of the motte (GAT PRN 370), or closer to the present Pen-y bryn, on the east side of Abergwyngregyn (Johnstone 2000). The earliest settlement at Aber is probably indicated by the site of St. Bodfan's church on a rise in ground to the west of the village. The original church was demolished and rebuilt but it lies within a sub-circular enclosure or llan. Such features usually indicate an early medieval foundation, and the earliest ecclesiastical settlement would have developed around the church.

It was control of the crossing point at the junction of the coastal road and another taking the upland route through the valleys that was the key to Aber's importance and the reason why a small castle on a mound or motte was built there, possibly during a campaign by the Norman Earl of Chester during an unsuccessful attempt to subjugate Gwynedd between 1081-1090. Later, when Gruffudd ap Cynan reasserted the independence of

Gwynedd and established administrative control he made Aber the llys or court of the commote of Arllechwedd Uchaf. The hall that was built there became one of the favourite residences of the princes of Gwynedd. The valley was a sheltered place and its position facing the priory at Penmon may also have made it attractive. The earliest antiquarian description was by Leland in the 1530's who stated 'The moode in the parish of Aber otherwise Llan Boduan, wher Tussog Lluelin uab Gerwerd Trundoon had a castle or palace on a hill by the church, whereof yet parte stondith'. Excavations in 1993 revealed the foundations of a hall close to the castle mound of Ty'n y Mwd, associated with pottery of the 13th-15th century, a ring-brooch of 13th-14th century style and a coin dating to 1335-43 (Johnstone 1994, 1995, 1997, and 2000; Longley 1997).

The hall of the llys lay close to the motte and within a curvilinear enclosure believed to be the bailey or castle yard. The village grew up around the west side of this bailey enclosure. In the late 13th century 24 families were recorded as living there (Lewis 1912, 175). After the death of Llywelyn the Manor of Aber passed through various hands and although still maintained for some time the hall eventually fell into decay. However, the village continued and in 1339 was granted the right to hold a weekly market and a fair three times a year (ibid). It seems to have flourished because of its position on the crossroads at the junction of the valley and coastal road and the route from the coastal road across the Lavan Sands for the ferry across to Anglesey, which was the chief route across the Straits until the opening of Telford's bridge in 1826. This route was also a droving route, which took the valley road over the hills and may have therefore been associated with the Aber fairs.

Aber is also of significance owing to it having been at the focus of the traditional routes from Anglesey across the Lavan Sands, the mainland to the west and the Conwy valley across the hills to the east.

There was also a medieval settlement at Wig (GAT PRN 6811) which is referred to in medieval extents and grants. It was a bond township of two gafaelion. The medieval township may have contained more than one settlement, but it is likely that at least one of these lay on or near the present Wig, which lies 100m north of the proposed improvements. An area of earthworks survives at Wig Farm which could be medieval in date and if this is the case could form part of a documented medieval settlement of regional importance.

2.1.3 Post-medieval and later (1485 AD to the present day)

During the post-medieval period there appears to have been dispersed settlement along the fertile coastal strip east of Abergwyngregyn. The survival of estate maps and plans for this area is extremely limited (Johnstone 1995, 16). A 1693 survey of the sea coast of England [including Wales] shows roads crossing the Lavan Sands, with no detail of the fields in the coastal strip (Collins 1693). A plan of the New Road of Penmaenmawr dated to 1769 (UCNWB Penrhyn 198) showing the proposed new turnpike route between Conwy and Bangor, shows a pattern of irregular small fields on the coastal strip, although it does not show any detail or the location of any structures with the exception of the old bridge at Aber. A survey of the glebe land at Aber parish dated to 1776 shows four irregular shaped fields, three of which appear to have been under cultivation and one

pasture on the coastal strip immediately north of Aber on the west side of the river (Gwynedd Archives XPE/56/106), and also indicated that the surrounding land was the property of the Baron Hill estate. The earliest reasonably detailed depiction of the wider area is provided by the John Evans map of 1797, which shows buildings scattered across the coastal strip by Abergwyngregyn. The more accurate 1 inch OS depiction, completed by 1823, shows a scatter of buildings on either side of the main road and linked to it by a series of smaller roads or tracks. In 1839 the Bangor to Conwy road was improved in Abergwyngregyn with a new road and bridge built north of the village itself, effectively bypassing it (UCNWB Baron Hill MSS 6895). The Llanllechid tithe map of 1839 and the Abergwyngregyn tithe map of 1848 (Gwynedd Archives) only shows the boundaries between different land blocks, rather than the individual fields themselves. A railway plan of c.1840 shows that the area was divided into numerous small fields of irregular size and shape, which could date back to early times.

The principal 19th century landowners in the study area were the Bulkeley and Pennant families, the former having gained control of the manor in 1689, who at some time between 1848 and 1896 reorganised the coastal strip into a landscape of rectilinear fields. This resulted in the loss of many of the small roads and buildings shown on earlier maps. This field pattern has survived with only limited alteration until the present day. The Bulkeley family remained the main proprietors of the manor until 1863 when they sold off their Caernarfonshire lands and Abergwyngregyn holdings to the Penrhyn estate in whose holding it remained until into the 20th century (Evans 2003).

Improvements were carried out at Wig Farm and Wig Bach cottages in the early years of the 20th century (UCNWB Baron Hill MSS 6608, Penrhyn MSS 14), and Wig Bach cottage was demolished in 2011.

2.2 Gwynedd Archaeological Trust Assessment Report

The Gwynedd Archaeological Trust completed a heritage desk based assessment of the scheme in 2015 (McNichol, 2015b: GAT Assessment Report 1258). The assessment was carried out according to the guidelines set out in the Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 2 Cultural Heritage (revised August 2007). The assessment identified the existence of 24 historic buildings (16 of which are listed structures) and 23 archaeological sites within 300m of the proposed scheme footprint.

The majority of the 23 archaeological sites identified lie outside the footprint of the proposed improvement scheme and will not be affected. 9 sites will be directly affected. Mitigation in the form of recording in advance of destruction, thus ensuring preservation by record is recommended for 7 of these. They are the segment of Roman Road running south-east of Tan-yr-Allt Cottages (Asset Number 12; RCAHMW NPRN 405340) and identified as high value; culverts (Asset Number 17; GAT PRN 30280); Revetment walls (Asset Number 19; GAT PRN 30276); Field boundaries (Asset Numbers 25 and 31; GAT PRNs 30278 and 30281); Gate Piers (Asset Number 26; GAT PRN 30279); and a Quarry (Asset Number 37; GAT PRN 20831), all identified as low value. Recommended mitigation in all cases will involve recording in advance of destruction ensuring preservation by record (McNichol, 2015b, para 7.1; Table 9).

Elements of two sites of unknown, but potentially high, archaeological value, may lie within the proposed improvement scheme footprint. These are the remains of the medieval township of Wig (Asset 27; GAT PRN 6811) and the Canovium - Segontium Roman Road (Asset 30; GAT PRN 17568). The report recommended that trial trenching is undertaken at these sites prior to any other work on site in order to develop an appropriate mitigation strategy for them (McNichol, 2015b, para 7.1).

Following on from discussion and feedback with GAPS after the submission of the report, a recommendation to target the Roman Road as indicated by the location of Asset 12 instead of Asset 30, has been implemented. It is hoped that targeting Asset 12 will increase the likelihood of identifying the location and degree of survival of elements of the Roman Road within the scheme footprint.

3 METHODOLOGY

The general location of the medieval township of Wig (Asset 27; GAT PRN 6811) is recorded at SH6350072000. The township is referred to in medieval extents and grants. The traces of linear features, possibly associated with the township have been identified in a paddock to the SW of Wig Farm. Unfortunately the concentration of underground services in that location precludes the placing of trenches there. Instead, three SW-NE orientated evaluation trenches (TR01 (centered on SH6345771959), TR02 (centered on SH6356672001) and TR03 (centered on SH6360372015)), will be located to the S and SW of Wig Farm (SH6360172119). They are intended to target the potential settlement and/or agricultural remains associated with the township within the proposed improvement scheme footprint. They lie within a narrow, 8m wide, SW-NE aligned corridor of temporary intake land that runs parallel to the section of the A55 designated for improvement (Figure 2).

The dimensions of TR01, TR02 and TR 03 are;

- Length: 20.0m; and
- Width: 1.5m;

The midpoint of a 1.5km long segment of the Caerhun-Caernarfon Roman Road (Asset 12; RCAHMW NPRN 405340) is recorded at SH6279071210. The Caerhun-Segontium route is described in the third century Antonine Itinerary (Hopewell 2013, 10). Parts of it are visible on both aerial photographs and lidar data, however no obvious traces are visible within the scheme footprint. No part of this route has been excavated by archaeologists. If encountered, the remains of an approximately 5m wide agger, a raised road surface made from layers of gravel stones and clay, with drainage ditches either side of it, might be expected (Hopewell 2013, 10). The fourth trench (TR04), orientated WNW-ESE, is located approximately 460m to the NW of the recorded location of Asset Number 12; RCAHMW NPRN 405340 (Figure 3).

TR04 (centered on SH6315771500) is located in a field to the S of Tai'r-meibion. It runs within the scheme footprint, close to and parallel with the E-W field boundary on the N side of the 'Roman Road'. It lies on land designated to be taken for widening in this part of proposed improvement scheme (Figure 3). It is hoped that TR04 will identify the potential presence and degree of survival of the Roman Road, both in this part of the field and underneath the current 'Roman Road' lane immediately to the S.

The dimensions of TR04 are;

- Length: 20.0m; and
- Width: 1.5m;

The OSGB co-ordinates of the centerlines of the four trenches are shown in Table 1

		CENTRELINE START (OSGB)	CENTRELINE END (OSGB)
TR01	E	263466.94	263448.34
	N	371962.77	371955.44
TR02	E	263575.83	263557.11
	N	372004.49	371997.51
TR03	E	263594.35	263612.97
	N	372011.55	372018.86
TR04	E	263167.23	263147.28
	N	371499.49	371501.02

3.1 Table 1: trench centreline coordinates

The trenches will be located using a survey grade GPS with <10cm accuracy (model: *Trimble GNSS/R6/5800*).

All trenches will be excavated using GAT procured plant fitted with a toothless bucket. Prior to excavation, the trench area will be CAT scanned by a qualified operative to identify the presence of buried services. The vertical limit of excavation of each of the four trenches will be defined as an archaeological or glacial horizon, whichever is encountered first.

The evaluation will be undertaken in April or May 2016, with a duration expected of 5 days on site. Subsequent to the fieldwork phase, in-house report writing and archiving is expected to take 5 days. The report is scheduled for delivery within 4 weeks of the completion of fieldwork. If diagnostic artefacts or ecofacts requiring specialist analysis are recovered, the report will be an interim rather than final report.

3.2 Evaluation Methodology

- The trenches and identified features/contexts will be recorded using GAT pro-formas (Appendix I, Appendix II).
- Photographic images will be taken using a digital SLR (Nikon D40) camera set to maximum resolution (3008 × 2000 6.1 effective megapixels) in RAW format and will be converted to TIFF and JPEG format for archiving using Adobe Photoshop; a photographic record will maintained on site using GAT pro-formas (Appendix III) and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process;
- Any subsurface remains will be recorded photographically, with detailed notations and a measured plan.
- All archaeological features/deposits encountered will be manually cleaned and examined to determine extent, function, date and relationship to adjacent features. If any other features, e.g., pits, postholes or ditches, are encountered, the following will strategy will apply: 50% sample of sub-circular features, 10% sample of linear features. If the remains of the Roman Road are encountered, the area will be thoroughly cleaned by hand to clearly define the agger and associated ditches. The ditches will be sampled with an intervention measuring 0.75m wide.
- All sections to be drawn at a minimum 1:10 scale. Sections will be drawn on GAT pro-forma permatrace.
- All plans to be at a minimum 1:20 scale. Plans will be drawn on GAT pro-forma permatrace.
- Should dateable artefacts and ecofacts be recovered, an interim report will be submitted summarising the results, along with an assessment of potential for analysis specification (in line with the MAP2 process).

3.3 Environmental Sampling (Ecofacts)

The evaluation trenches will target possible settlement and agricultural features and a Roman Road, if applicable, any deposits deemed suitable for dating will be taken from sealed contexts, with bulk samples from ditches and pit fills proposed as not less than 10 litres from each context. The sampling strategy will be undertaken in accordance with the principles set out in *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage, 2011). Recourse will be made to relevant specialists for palaeoenvironmental analysis and dating. Any required specialists will be consulted during the evaluation to advise GAT on a sampling strategy.

Note: if ecofacts are recovered during the evaluation an interim report that will be submitted in the first instance, along with an assessment of potential summary. The interim report will summarise the results of the fieldwork and the assessment of potential summary will discuss the scope and costs for analysing and assessing any ecofacts recovered from site, and for producing a final report and a publication document

3.4 Human Remains

The evaluation trenches will target possible settlement and agricultural features and a Roman Road and it is not currently expected that human remains will be encountered; however, if applicable, should any finds of human remains be encountered, they will be left *in-situ*, covered and protected, and both the coroner and the GAPS Archaeologist informed. If removal is necessary it will take place under appropriate regulations and with due regard for health and safety issues. In order to excavate human remains, a Ministry of Justice licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. This will be applied for should human remains need to be investigated or moved.

Note: if human remains are recovered during the evaluation an interim report that will be submitted in the first instance, along with an assessment of potential summary. The interim report will summarise the results of the fieldwork and the assessment of potential summary will discuss the scope and costs for analysing and assessing any human remains recovered from site, and for producing a final report and a publication document

3.5 Small Finds

Diagnostic artefacts will be treated according to guidelines issued by the UK Institute of Conservation (Leigh and Watkinson, 2001) in particular the advice provided within *First Aid for Finds* (Leigh and Watkinson, 1998) and Historic England. Pottery sherds of 19th and 20th century date will be examined on site and the context from which they were retrieved noted but the sherds will not be retained.

Note: if diagnostic artefacts are recovered during the evaluation an interim report that will be submitted in the first instance, along with an assessment of potential summary. The interim report will summarise the results of the fieldwork and the assessment of potential summary will discuss the scope and costs for analysing and assessing any artefacts recovered from site, and for producing a final report and a publication document

All finds are the property of the landowner; however, it is Trust policy to recommend that all finds are donated to an appropriate museum, in this case *Bangor Museum*. Access to finds must be granted to the Trust for a reasonable period to allow for analysis and for study and publication as necessary. Trust staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants used by the Trust, including National Museums and Galleries of Wales at Cardiff.

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown, on whose behalf the National Museums and Galleries of Wales acts as advisor on technical matters, and may be the recipient body for the objects.

The National Museums and Galleries of Wales will decide whether they or any other museum may wish to acquire the object. If no museum wishes to acquire the object, then the Secretary of State will be able to disclaim it. When this happens, the coroner will notify the occupier and landowner that he intends to return the object to the finder after 28 days unless he receives no objection. If the coroner receives an objection, the find will be retained until the dispute has been settled.

Note: GAT will contact the landowner for agreement regarding the transfer of any artefacts, initially to GAT and subsequently to the relevant museum (Bangor Museum). A GAT produced pro-forma will be issued to the landowner where they are given the option to donate the finds or to record that they want them returning to them once analysis and assessment has been completed. If artefacts are transferred to Bangor Museum, this must be in accordance with the Bangor Museum guidelines.

3.6 Monitoring Arrangements

The GAPS Archaeologist will need to be informed of the project start date and of the subsequent progress and findings. This will allow the GAPS Archaeologist time to arrange monitoring visits and attend site meetings (if required).

3.7 Fieldwork Archiving

Following the completion of the fieldwork, a programme of field work archiving will be completed based on following task list;

1. Pro-formas: all cross referenced and complete;
2. Photographic Metadata: completed in *Microsoft Access* and cross-referenced with all pro-formas;
3. Sections: all cross referenced and complete;
4. Plans: all cross referenced and complete;
5. Survey data: downloaded using a Computer Aided Design package imported into a GIS shapfile;
6. Artefacts (if relevant): quantified and identified; register completed;
7. Ecofacts (if relevant): quantified and register completed;
8. Context register (if relevant): quantified and register completed;

All data will be processed, final illustrations will be compiled and a report will be produced which will detail and synthesise the results. Location drawings and a sample of relevant photographs will be used to illustrate the reports.

4 REPORT

Following completion of the stages outlined above, a draft report will be produced within four weeks incorporating the following:

1. Non-technical summary
2. Introduction
3. Background
4. Methods and techniques, including details and location of project archive
5. Evaluation Results
6. Summary and conclusions
7. List of sources consulted.
8. Appendix I – approved project design

Illustrations will include plans of the location of the study area and archaeological sites. Historical maps, when appropriate and if copyright permissions allow, will be included. Photographs of relevant sites and of the study area where appropriate will be included. A draft copy of the report will be sent to the regional curatorial archaeologist (GAPS) and to the client for review. Once approved, a final report will be submitted.

Note: if diagnostic artefacts or ecofacts are recovered during the evaluation an interim report that will be submitted in the first instance, along with an assessment of potential summary. The interim report will summarise the results of the fieldwork and the assessment of potential summary will discuss the scope and costs for analysing and assessing any artefacts and ecofacts recovered from site, and for producing a final report and a publication document

5 DISSEMINATION AND ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. The archaeological evaluation outlined in this project specification will be completed in April / May 2016. A draft report or interim report (if relevant) will be submitted in May 2016; a final report will be submitted to the Historic Environment within six months of submitting the draft report (November 2016).

The following dissemination will apply:

1. A digital report will be provided to GAPS (draft report then final report).
2. A paper report plus a digital report will be provided to the regional Historic Environment Record, Gwynedd Archaeological Trust; this will be submitted within six months of report completion (final report only).
3. A digital report and archive (including photographic and drawn) data will be provided to Royal Commission on Ancient and Historic Monuments, Wales (final report only). Submission of digital information to the Royal Commission on the Ancient and Historical Monuments of Wales shall be undertaken in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. Digital information will include the photographic archive and associated metadata. Note: due to the current relocation of the RCAHMW premises, the RCAHMW Archive and Library Team Leader has requested that any new accessions are deferred until June 2016 (email correspondence: 01/03/2016).
4. A digital report(s) plus paper report(s) (if requested) will be provided to the client (draft report then final report).
5. Artefacts recovered from the site during the evaluation will be transferred in accordance with the protocols and guideline defined in [para. 3.5](#).
6. Dependent on the results of the evaluation a summary note or a specific article will be included in the Council for British Archaeology Wales publication *Archaeology in Wales*. This shall be agreed with GAPS, and client in advance of publication along with all publication content. GAPS involvement in the project will be acknowledged therein.

5.1 Historic Environment Record

In line with the regional Historic Environment Record (HER) requirements, the HER must be contacted at the onset of the project to ensure that any data arising is formatted in a manner suitable for accession to the HER. At the onset, the HER Enquiry Form provided by the HER, will be completed and submitted.

6 PERSONNEL

The project will be managed by John Roberts, Principal Archaeologist GAT Contracts Section and attended by two GAT Project Archaeologists. The project archaeologists will be responsible for completing the evaluation and all field management duties, e.g. liaison with GAPS and client. The project archaeologists will be responsible for completing all on site pro-formas (Appendix II) as well as and the fieldwork archive itemised in para. 3.9. The project archaeologist will also be responsible for submitting a draft final report (or interim report/assessment of potential document, if relevant) for project manager review and approval. The report will then be submitted as per the arrangements defined in para. 5.

7 HEALTH AND SAFETY

The GAT Project Archaeologists will be CSCS certified. Copies of the site specific risk assessment will be supplied to the client and site contractor prior to the start of fieldwork. Any risks and hazards will be indicated prior to the start of work via a submitted risk assessment. All staff will be issued with required personal safety equipment, including high visibility jacket, steel toe-capped boots and hard hat.

All plant and welfare will be supplied by GAT. Archaeological evaluation is CDM exempt and does not require HSE notification.

8 INSURANCE

Public Liability

Limit of Indemnity- £5,000,000 any one event in respect of Public Liability

INSURER Aviva Insurance Limited

POLICY TYPE Public Liability

POLICY NUMBER 24765101CHC/000405

EXPIRY DATE 22/06/2016

Employers Liability

Limit of Indemnity- £10,000,000 any one occurrence.

The cover has been issued on the insurers standard policy form and is subject to their usual terms and conditions. A copy of the policy wording is available on request.

INSURER Aviva Insurance Limited

POLICY TYPE Employers Liability

POLICY NUMBER 24765101CHC/000405

EXPIRY DATE 22/06/2016

Professional Indemnity

Limit of Indemnity- £5,000,000 in respect of each and every claim

INSURER Hiscox Insurance Company Limited

POLICY TYPE Professional Indemnity

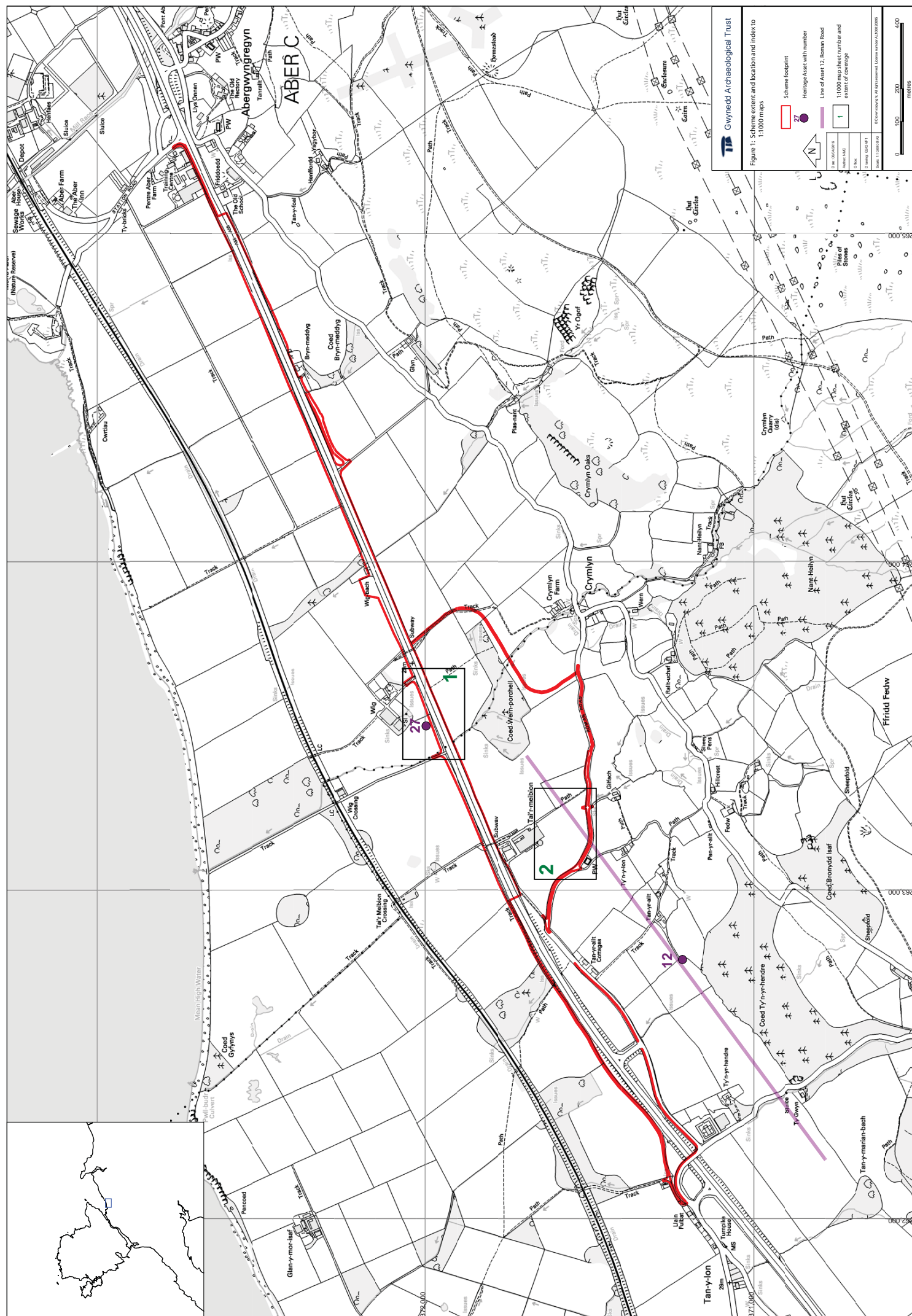
POLICY NUMBER

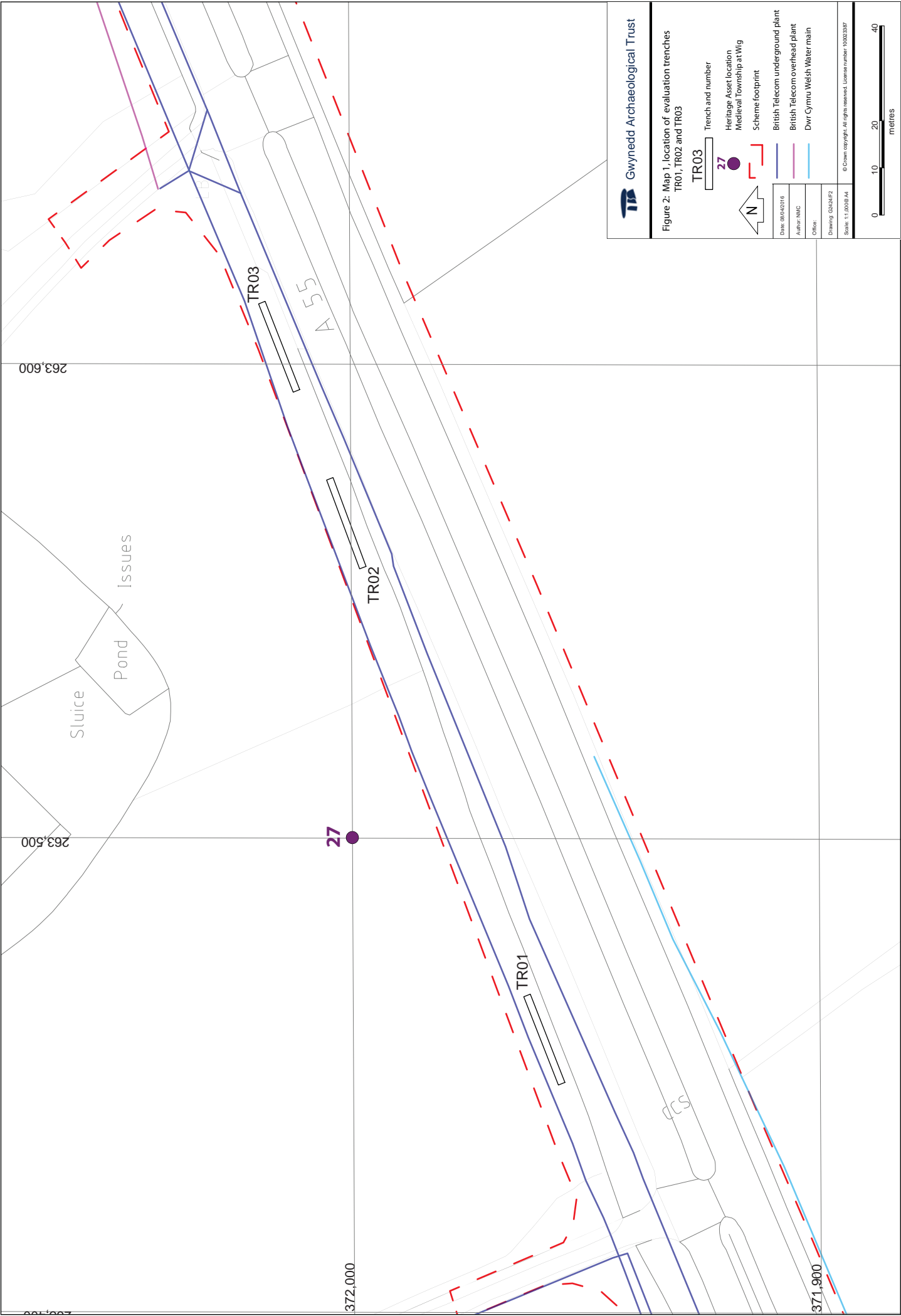
HU PI 9129989/1208

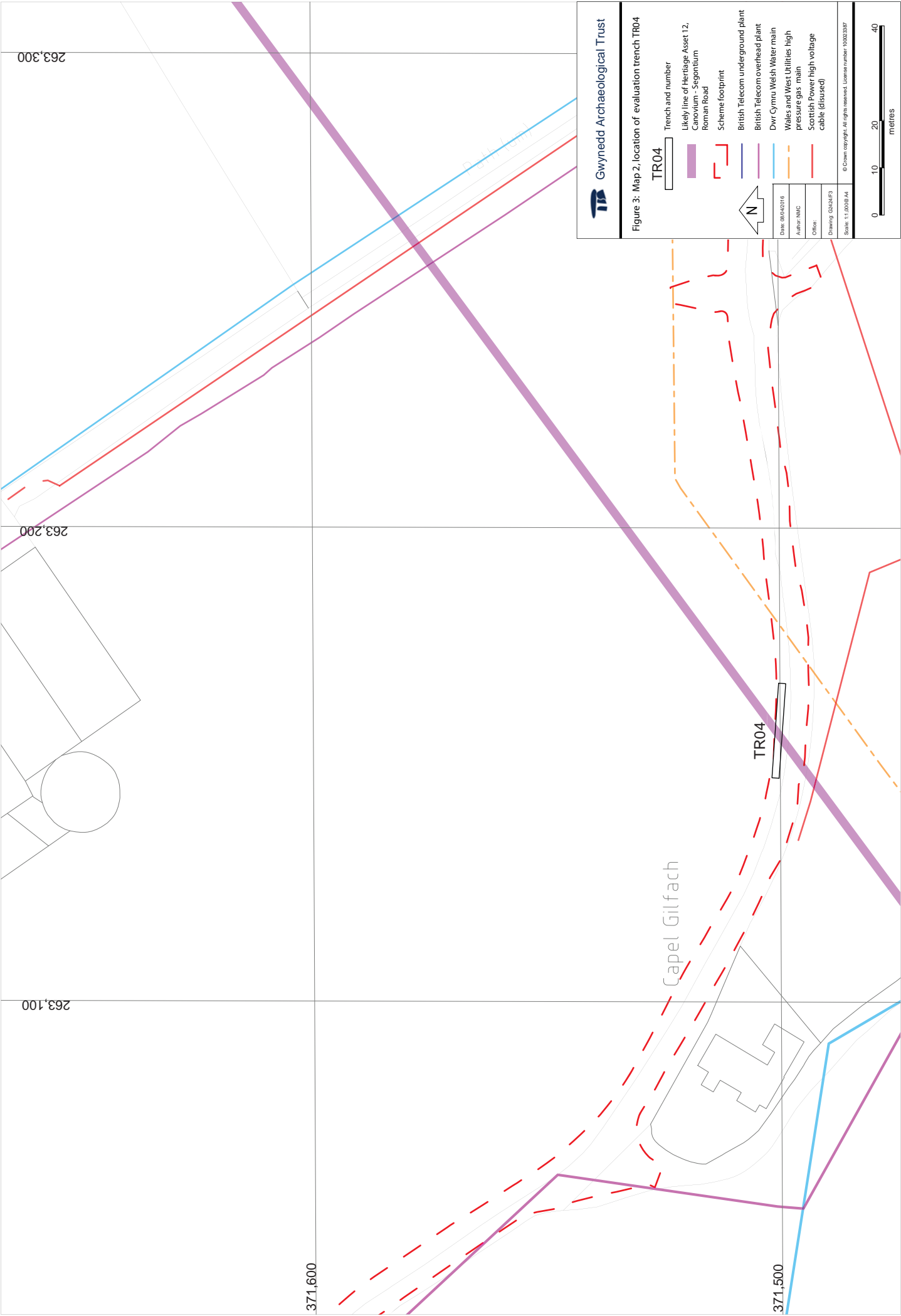
EXPIRY DATE 23/07/2016

9 REFERENCES

1. Chartered Institute for Archaeologists 2014 *Standards and Guidance for Archaeological Evaluation*.
2. English Heritage 1991 *Management of Archaeological Projects*.
3. English Heritage, 2011. *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*, 2nd Edition;
4. Evans, R. 2015. *Penrhyn Castle Renewable Heating Scheme Archaeological Assessment*. GAT Report 1286.
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6. Hopewell, D. 2013. *Roman Roads in North-west Wales*.
7. Leigh, D. and Watkinson, D. 1998. *First Aid for Finds: Practical Guide for Archaeologists*.
8. Leigh, D. and Watkinson, D. 2001. *UK Institute for Conservation: Excavated Artefacts and Conservation*.
9. McNichol, D. 2015a. *A55(T) Abergwyngregyn to Tai'r Meibion Improvement: ASIDOHL Report*. GAT Report 1257
10. McNichol D. 2015b. *Abergwyngregyn to Tai'r Meibion Improvement: Desk Based Assessment Report*. GAT Report 1258
11. Royal Commission on Ancient and Historic Monuments of Wales. 2015. *Guidelines for digital archives*







APPENDIX I

**Reproduction of Gwynedd Archaeological Trust evaluation trench pro-
forma (April 2016)**

TRENCH SHEET

Project Name and Number		Trench number	
-------------------------	--	---------------	--

Trench size		Plans	
Max. trench depth		Sections	
Orientation		Photos	
Date/Initials		Area/chainage	

List of layers and/or features in trench (continue on back of sheet if necessary)

Context No.	Depth below surface	Brief description

General summary

APPENDIX II

**Reproduction of Gwynedd Archaeological Trust context record pro-
forma (April 2016)**

GWYNEDD ARCHAEOLOGICAL TRUST

CONTEXT RECORD FORM

SITE CODE	GRID SQUARE	SITE SUB-DIV	CONTEXT NUMBER
CATEGORY/TYPE	PROVISIONAL DATE/PERIOD/PHASE		
LENGTH	BREADTH	DIAMETER	DEPTH/HEIGHT
DEPOSIT			CUT
1. Compaction			1. Shape in plan
2. Colour			2. Corners
3. Matrix Composition			3. Break of slope top
4. Inclusions			4. Sides
5. Clarity of Interface			5. Break of slope base
6. Other comments			6. Base
7. Methods & conditions			7. Orientation
			8. Truncated (if known)
			9. Other comments
			Draw sketches overleaf
FILLED BY	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>This <div></div> context</div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>		
FILL OF	Stratigraphic matrix		
PLANS		SECTIONS	
Sheet No.		Sheet No.	
Drawing No.		Drawing No.	
PHOTOGRAPHS - Film No./ Frame No.			
SAMPLE Nos.		FIND Nos.	
FEATURE No		GROUP No	CONSISTS OF
INTERPRETATION/DISCUSSION		SAME AS	
		CHECKED BY (initials/date)	INITIALS/DATE

SKETCH

DESCRIPTION/INTERPRETATION CONTINUED

APPENDIX III

**Reproduction of Gwynedd Archaeological Trust photographic
metadata pro-forma (April 2016)**



Digital Photographic Record

Include main context numbers for each shot, drawing numbers for sections and any other relevant numbers for cross referencing.

Delete any unwanted photos **immediately** from the camera.

Regularly upload photographs to computer.

[illegible]



Digital Photographic Record Project code and name:

Include main context numbers for each shot, drawing numbers for sections and any other relevant numbers for cross referencing.

Delete any unwanted photos **immediately** from the camera.

Regularly upload photographs to computer.

[illegible]

APPENDIX II: CONTEXT SUMMARY

Trench	Context Number	Depth below surface (m)	Description
TR01	0101	-	Topsoil: loose, fine light brown clayey loam, abundant fine wavy roots.
	0102	0.15	Natural alluvial clay deposit: fine, wet, cohesive light brownish gray silty clay.
	0103	0.50	Natural: wet, cohesive, light greyish orange coarse and fine gravel / sand with moderate small and medium sized sub-rounded and sub angular stones.
TR02	0201	-	Topsoil: soft, cohesive mid brown clayey loam with very occasional small sub-rounded and sub-angular stones.
	0202	0.20	Subsoil: soft, cohesive light brownish grey silty clay with occasional small sub-angular and sub-rounded stones.
	0203	0.55	Natural: cohesive, compact light grey clay with occasional veins of cobbles and orange clay deposits. Found across most of the trench. Bounded to the SW by (0204).
	0204	0.30	Natural: loose, coarse orange pebbles and gravel with very occasional lenses of very fine mid grey sand.
	0205	0.30	Slate capped culvert. Orientated NNW-SSE and located approximately 3.5 m from the NE end of the trench. Runs across the width of the trench from a modern manhole cover to the SSE, adjacent to the excavated area. Runs NNW from manhole cover towards the mill pond and water wheel at Wig Farm. Possibly earlier than the manhole cover, and may be a culvert to supply water to the mill pond. Not excavated.
	0206	0.30	Orange ceramic water pipe at NE end of trench. NE-SW orientated. Appears to run from the manhole to the SW off towards to the farmhouse at Wig. Approximately 0.20m in diameter. Not excavated.

Trench	Context Number	Depth below surface (m)	Description
TR02	0207	0.55	Parallel sided straight linear cut of a field drain. Runs NW-SE across the SW end of the trench. Visible portion is 1.9m long and 0.30m wide.
	0208	0.55	Fill of [0207]. Light greyish brown clean clay with no inclusions. Not excavated.
	0209	0.30	NNW-SSE aligned straight linear cut for culvert (0205). Not excavated.
	0210	0.30	NE-SW aligned straight linear cut for modern ceramic water pipe (0206). Appears to run from the manhole to the SW off towards to the farmhouse at Wig. Not excavated.
	0211	0.40	Alluvial deposit: soft, slightly blueish grey slightly sandy clay with very occasional small flecks of charcoal. Sits above natural boulder clay* (0203) but not over gravel natural (0204)
TR03	0301	-	Topsoil: soft, cohesive mid brown, clayey loam with occasional small sub-angular and sub-rounded stones.
	0302	0.20	Subsoil: soft, cohesive light brown silty clay with occasional small sub-angular and sub-rounded stones.
	0303	0.40	Natural: compact, coarse light greyish brown clayey gravel with frequent small sub-angular stones and occasional compact deposits of fine light grey clay.
TR04	0401	-	Topsoil: soft, cohesive mid brown loamy clay.
	0402	0.20	Subsoil: soft, cohesive mid orangey brown silty clay with moderate to frequent small stones and cobbles and occasional medium sized sub rounded stones.

Trench	Context Number	Depth below surface (m)	Description
TR04	0403	0.55	Alluvial deposit: soft, plastic, wet, fine mid grey clay with moderate small to medium sized sub-angular stones.
	0404	0.90	Natural: soft, cohesive light grey clay with very frequent small to medium sized cobbles and sub angular stones (boulder clay)*
	0405	0.80	Straight linear cut for NW-SE orientated field drain, 0.30m wide and 2.5m long. Not excavated.
	0406	0.80	Fill of field drain [0405]. Soft cohesive mid brown silty clay with frequent small-medium sub rounded stones. Not excavated.
	0407	0.50	Straight linear cut of NE-SW orientated modern field drain. Contains modern ceramic pipe. Not excavated.
	0408	0.50	Fill of [0407]. Well sorted small angular stones (2-3cm long) packed around an orange ceramic water pipe. Pipe lies 0.60 m below current ground surface. Not excavated.
	0409	0.30	Probable relict field boundary bank. NNE-SSW aligned stone and earth bank consisting of 70-80% closely packed sub-rounded, angular and sub-angular cobbles, on average between 9-25cm long. Two very large boulders laid flat and closely packed at N end, 65 and 52cm long. The stones have a subsoil like matrix consisting of a mid brown soft, sandy silt.

APPENDIX III: REPRODUCTION OF GWYNEDD ARCHAEOLOGICAL TRUST PHOTOGRAPHIC RECORD METADATA

File reference	Description	Contexts	View from	Scale (s)	Type	Date	Originating person	Originating organisation	Plate No.
G2424_PCTT_2016_001	Trench 03 under excavation		NE	1x1m	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_002	Pre-ex shot of location of Trench 02		NE	-	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_003	Post-machining shot of Trench 03		SW	2x1m	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_004	NW facing baulk section of Trench 03 with field boundary in background		NW	2x1m	Digital Photograph	20.06.2016	SR	GAT	Plate 12
G2424_PCTT_2016_005	Post-machining shot of Trench 03		NE	2x1m	Digital Photograph	20.06.2016	SR	GAT	Plate 11
G2424_PCTT_2016_006	Post-machining shot of Trench 02		SW	2x1m	Digital Photograph	20.06.2016	SR	GAT	Plate 04
G2424_PCTT_2016_007	NW facing baulk section of Trench 02	0201, 0202, 0203	NW	2x1m	Digital Photograph	20.06.2016	SR	GAT	Plate 05
G2424_PCTT_2016_008	View of slate capped culvert (0205) and manhole cover in Trench 02	0205, 0209	NW	2x1m	Digital Photograph	20.06.2016	SR	GAT	Plate 07
G2424_PCTT_2016_009	View of ceramic drain pipe (0206) in Trench 02	0206, 0210	NNE	2x1m	Digital Photograph	20.06.2016	SR	GAT	Plate 06

File reference	Description	Contexts	View from	Scale (s)	Type	Date	Originating person	Originating organisation	Plate No.
G2424_PCTT_2016_010	Post-machining shot of Trench 02		NE	2x1m	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_011	Post-machining shot of Trench 01		NE	2x1m	Digital Photograph	20.06.2016	SR	GAT	Plate 01
G2424_PCTT_2016_012	NW facing baulk section of Trench 01	0101, 0102, 0103	NW	2x1m	Digital Photograph	20.06.2016	SR	GAT	Plate 02
G2424_PCTT_2016_013	Post-machining shot of Trench 01		SW	2x1m	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_014	Trench 01 backfilled		SW	-	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_015	Close up of Trench 01 backfilled		SW	-	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_016	Trench 01 backfilled		NE	-	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_017	Tracks leading from Trench 01		SW	-	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_018	Trench 02 being backfilled		SW	-	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_019	Trench 03 backfilled		SW	-	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_020	Close up of Trench 03 backfilled		SW	-	Digital Photograph	20.06.2016	SR	GAT	
G2424_PCTT_2016_021	Trench 03 backfilled		NE	-	Digital Photograph	20.06.2016	SR	GAT	

File reference	Description	Contexts	View from	Scale (s)	Type	Date	Originating person	Originating organisation	Plate No.
G2424_PCTT_2016_022	Trench 02 backfilled		NE	-	Digital Photograph	21.06.2016	SR	GAT	
G2424_PCTT_2016_023	Trench 02 backfilled		SW	-	Digital Photograph	21.06.2016	SR	GAT	
G2424_PCTT_2016_024	Trench 03 reinstated		SW	-	Digital Photograph	22.06.2016	SR	GAT	Plate 13
G2424_PCTT_2016_025	Trench 02 reinstated		NE	-	Digital Photograph	22.06.2016	SR	GAT	Plate 10
G2424_PCTT_2016_026	Trench 01 reinstated		NE	-	Digital Photograph	22.06.2016	SR	GAT	Plate 03
G2424_PCTT_2016_027	Probable continuation of slate culvert (recorded as 0205) at NW side of field	0205	SSE	-	Digital Photograph	22.06.2016	SR	GAT	Plate 08
G2424_PCTT_2016_028	View from culvert SE across field towards manhole cover and Trenches 02 and 03	0205	NW	-	Digital Photograph	22.06.2016	SR	GAT	Plate 09
G2424_PCTT_2016_029	Mill pond which culvert flows into		E	-	Digital Photograph	22.06.2016	SR	GAT	
G2424_PCTT_2016_030	Close up of wall of mill pond		E	-	Digital Photograph	22.06.2016	SR	GAT	
G2424_PCTT_2016_031	Pre-ex shot of Trench 04		NE	-	Digital Photograph	23.06.2016	SR	GAT	

File reference	Description	Contexts	View from	Scale (s)	Type	Date	Originating person	Originating organisation	Plate No.
G2424_PCTT_2016_032	Turf being removed from Trench 04		ESE	-	Digital Photograph	23.06.2016	SR	GAT	
G2424_PCTT_2016_033	Trench 04 post-machining		ESE	2x1m	Digital Photograph	23.06.2016	NMC	GAT	Plate 14
G2424_PCTT_2016_034	Trench 04 post-machining		WNW	2x1m	Digital Photograph	23.06.2016	NMC	GAT	
G2424_PCTT_2016_035	Modern drain with ceramic pipe	0407, 0408	SW	1x1m	Digital Photograph	23.06.2016	NMC	GAT	Plate 16
G2424_PCTT_2016_036	SSW facing baulk section Trench 04	0401, 0402, 0403, 0404	SSW	2x1m	Digital Photograph	23.06.2016	NMC	GAT	Plate 15
G2424_PCTT_2016_037	Stone and earth field boundary bank (0409) in Trench 04	0409	S	2x1m	Digital Photograph	23.06.2016	SR	GAT	Plate 17
G2424_PCTT_2016_038	Stone and earth field boundary bank (0409) in Trench 04	0409	E	2x1m	Digital Photograph	23.06.2016	SR	GAT	
G2424_PCTT_2016_039	Remnants of field boundary bank in N facing baulk section of Trench 04	0409	N	1x1m	Digital Photograph	23.06.2016	SR	GAT	
G2424_PCTT_2016_040	View of field drain [0407] as it cuts field boundary bank (0409)	0407, 0408, 0409	NE	2x1m	Digital Photograph	23.06.2016	SR	GAT	

File reference	Description	Contexts	View from	Scale (s)	Type	Date	Originating person	Originating organisation	Plate No.
G2424_PCTT_2016_041	Trench 04 being backfilled and re-turfed		NE	-	Digital Photograph	23.06.2016	SR	GAT	
G2424_PCTT_2016_042	Trench 04 reinstated		E	-	Digital Photograph	24.06.2016	SR	GAT	Plate 18
G2424_PCTT_2016_043	Trench 04 reinstated		W	-	Digital Photograph	24.06.2016	SR	GAT	






Gwynedd Archaeological Trust
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A55(T) ABERGWYNGREGYN TO TAI'R MEIBION IMPROVEMENT

ASIDOHL REPORT

Approvals Table				
	Role	Printed Name	Signature	Date
Originated by	Document Author	Dave McNicol		23/06/15
Reviewed by	Document Reviewer	John Roberts		23/06/15
Approved by	Principal Archaeologist	John Roberts		23/06/15

Revision History			
Rev No.	Summary of Changes	Date	Purpose of Issue
2	Revisions requested by YGC	27/08/15	Review and Acceptance
3	Revisions requested by YGC	09/08/16	Review and Acceptance



A55(T) Abergwyngregyn to Tai'r Meibion Improvement

ASIDOHL Report

Project No. G2424

Report No. 1257

Prepared for: Ymgynghoriaeth Gwynedd Consultancy (YGC)

September 2015

Written by: Dave McNicol

Illustration by: Neil McGuinness

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CONTENTS

SUMMARY	3
A.1 INTRODUCTION	4
A.2 STATUTORY AND NON-STATUTORY DESIGNATIONS	4
A.3 SUMMARY OF THE IMPACTS OF THE PROPOSED DEVELOPMENT	6
A.4 ASIDOHL2 STAGE 1: CONTEXTUAL INFORMATION	7
A.5 ASIDOHL2 STAGE 2: ASSESSMENT OF DIRECT, PHYSICAL IMPACTS OF DEVELOPMENT	12
A.6 ASIDOHL2 STAGE 3: ASSESSMENT OF INDIRECT IMPACTS OF DEVELOPMENT	15
A.7 ASIDOHL2 STAGE 4: EVALUATION OF RELATIVE IMPORTANCE	21
A.8 ASIDOHL2 STAGE 5: ASSESSMENT OF OVERALL SIGNIFICANCE OF IMPACT OF DEVELOPMENT	36
A.9 BIBLIOGRAPHY	41
APPENDIX I: Assessment of Direct, Physical Impacts of Development (Stage 2): Scoring System and Calculations.....	42
APPENDIX II: Assessment of Indirect Impacts of Development (Stage 3): Scoring System and Calculations	45
APPENDIX III: Evaluation of Relative Importance (Stage 4): Scoring System and Calculations	48
APPENDIX IV: Assessment of Overall Significance of Impact: Scoring System and Calculations	54
APPENDIX V: Client Plan	55

List of Figures:

Figure 01: Scheme Extent and Location

Figure 02: Map of HLAs

Figure 03: Map of HLCAs

List of Plates:

Plate 01: View of proposed location of Non-Motorised User Route. Southwest section from Wig Farm. View from the northeast.

Plate 02: View of proposed location of Non-Motorised User Route. Northeast section from Wig Farm. View from the southwest.

Plate 03: View of proposed location of Non-Motorised User Route. Tal-y-Bont section. View from the west.

Plate 04: View of proposed location of link road from Bryn Meddyg. View from the ENE.

Plate 05: View of proposed location of footpath. View from the southwest.

Plate 06: View of Unclassified Roman Road (Henffordd Road). View from the northwest.

Plate 07: View of proposed location of field access track. View from the southwest.

Summary

Gwynedd Archaeological Trust has carried out an Assessment of the Significance of the Impact of Development On Historic Landscape Areas (ASIDOHL2) along a 2.2km stretch of the A55(T), between Tai'r Meibion and Abergwyngregyn, in advance of a proposed improvement to the A55 trunk road. The northeastern half the area lies within the North Arllechwedd (HLW (Gw) 12) Historic Landscape Area (HLA), while the southwestern half lies within the Dyffryn Ogwen (HLW (Gw) 10) HLA. The site also lies within the Lowland Coastal Area Around Wig (HLCA 31) and within the Enclosed Hill Slopes Below Moel Wnion (HLCA 39) as defined in the Historic Landscape Character Area (HLCA). The work was commissioned by Ymgynghoriaeth Gwynedd Consultancy (YGC).

The direct physical impacts, the indirect physical impacts and indirect non-physical impacts upon the North Arllechwedd and Dyffryn Ogwen HLAs, as well as upon the Lowland Coastal Area Around Wig and the Enclosed Hill Slopes Below Moel Wnion HLCA were assessed, as were the indirect physical and indirect non-physical impacts of the proposed development upon the Abergwyngregyn HLCA.

*The overall significance of impact (before mitigation) of the proposed development was found to be **moderate**. This means that there is a developmental impact on key elements of the Dyffryn Ogwen and North Arllechwedd Landscape Area of Outstanding Historic Interest with a result that there is some reduction in their overall value. However, the proposed development runs alongside the existing A55 road and is embanked in places and this lessens its impact on the landscape in this area. The visual impact can also somewhat reduced by replacing or reinstating any affected boundary features, trees or hedgerows. The use of tree or hedgerow species already in existence in the surrounding landscape will result in an overall reduction of the residual visual impact on the landscape once the replacement landscaping establishes in the medium to long term. The minimal use of lighting and signage will also reduce the scheme's impact on the surrounding landscape as much as possible.*

A.1 INTRODUCTION

Gwynedd Archaeological Trust has been asked by Ymgynghoriaeth Gwynedd Consultancy (YGC) to undertake an Assessment of the Significance of the Impact of Development On Historic Landscape Areas (ASIDOHL2) along a 2.2km stretch of the A55(T), between Tai'r Meibion and Abergwyngregyn (centred on NGR SH63917211) (Fig. 1). This is in advance of a proposed improvement to the A55 trunk road, and as a requirement of the Environmental Impact Assessment (EIA) which itself is a requirement of the European Union (see Section A.3 below).

A.2 STATUTORY AND NON-STATUTORY DESIGNATIONS

The proposed development lies:

- within the *Dyffryn Ogwen* Landscape of Outstanding Historic Interest (HLW (Gw) 10) identified on the *Register of Landscapes of Outstanding Historic Interest in Wales* (Cadw: Welsh Historic Monuments, 2001) (Fig. 2)
- within the *North Arllechwedd* Landscape of Outstanding Historic Interest (HLW (Gw) 12) identified on the *Register of Landscapes of Outstanding Historic Interest in Wales* (Cadw: Welsh Historic Monuments, 2001) (Fig. 2)
- within the discreet Historic Landscape Character Area (HLCA) of the *Lowland Coastal Area Around Wig* (HLCA 31) (Fig. 3)
- within the discreet Historic Landscape Character Area (HLCA) of the *Enclosed Hill Slopes Below Moel Wnion* (HLCA 39) (Fig. 3)
- 100m southwest and northwest of the discreet Historic Landscape Character Area (HLCA) of *Abergwyngregyn* (HLCA 34) (Fig. 3)

There are a number of listed buildings located both in and between Tan y Lon and Abergwyngregyn, with the closest consisting of:

- Ty'n-y-Hendre Farm Grade II* Listed Building (Cadw 22970 PRN 30287) 100m to the south
- Tan-yr-Allt Cottages Grade II Listed Building (Cadw 22936 PRN 30285) 70m to the south
- Tai'r Meibion House and Gardens Grade II Listed Building (PRN 30282) 50m to the south
- Wig Farm Grade II Listed Building (PRN 30283) 100m to the north
- St. Bodfan's Rectory Grade II Listed Building (Cadw 3654 PRN 11458) 360m to the east

Both the Dyffryn Ogwen and North Arllechwedd Landscape of Outstanding Historic Interest (HLW (Gw) 10 and 12 respectively) are identified on the *Register of Landscapes of Outstanding Historic Interest in Wales*, Cadw: Welsh Historic Monuments, 1998 (*Register*), and the Register may be a material consideration in the planning process as set out in *Planning Policy Wales*, July 2014 (*PPW*), paragraph 6.5.25, which states:

Information on the historic landscapes in the second part of the Register should be taken into account by local planning authorities in considering the implications of

developments which are of such a scale that they would have a more than local impact on an area on the Register.

Detailed guidance on the use of the Register is provided in the *Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process*, revised (2nd) edition, Cadw, 2007 (“Guide to Good Practice”), which includes a Technical Annex setting out the ASIDOHL2 process (Assessment of the Significance of Impact of Development on Historic Landscapes) used in this assessment. Appendices II-V sets out the scoring system and calculations used in this process.

The ASIDOHL2 process is based on assessing development impacts in relation to discreet Historic Landscape Character Areas (HLCAs), into which the Historic Landscape has been geographically sub-divided in the *Ardal Arfon Historic Landscape Characterisation Report* (GAT 2000). The descriptions of the HLCAs featured in this assessment are reproduced in Appendix I, while the full report is available upon request from:

GAT@heneb.co.uk

The proposed development area is located half within the *Dyffryn Ogwen Landscape of Outstanding Historic Interest* (HLW (Gw) 10) and half within the *North Arllechwedd Landscape of Outstanding Historic Interest* (HLW (Gw) 12), with the majority of the site located wholly within the discreet Historic Landscape Character Area (HLCA) of the *Lowland Coastal Area Around Wig* (HLCA 31). This is accounted for in the *Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process*, revised (2nd) edition, Cadw, 2007 (“Guide to Good Practice” p13):

Although there may appear to be a coincidence in their edges, the characterisation programme has shown that in some landscape areas on the Register, particularly those identified under Criterion 3 - Historic diversity/ Multiperiod, Historic Character Area edges can fall outside the extent of the landscape area on the Register. This is because Historic Character Areas are identified at a much smaller scale and at a much greater level of detail than was possible for the landscape areas on the Register, and where there is a great degree of diversity, edges can be drawn at a number of places depending on which characteristic is selected as being the most dominant.

In order to resolve this potential ambiguity, the following guidance is offered. In planning terms, the status of the Register is non-statutory, and this includes information from characterisation that is intended to support the Register. The extent of the landscape areas on the Register and Historic Character Areas are, therefore, indicative and advisory only.

It will be a matter for the planning or other competent authority undertaking an EIA, or the Public Inquiry Inspector concerned, to determine where a precise edge should be drawn. All the evidence available in the Register, the relevant characterisation report and any relevant work done subsequently should be carefully considered and weighed against the nature and extent of the proposed development and its predicted impact on the landscape area on the Register. The guiding principle is that where drawn edges are required, they should be as consistent as possible with the maintenance of those historic elements or characteristics that demonstrate the outstanding or special interest of the landscape area on the register.

A.3 SUMMARY OF THE IMPACTS OF THE PROPOSED DEVELOPMENT

The contents and significance of the Dyffryn Ogwen HLW (Gw) 10 and North Arllechwedd HLW (Gw) 12 Historic Landscapes are summarised in the *Register* as:

Dyffryn Ogwen: *The classic glaciated valley in north Snowdonia, containing contrasting evidence of prehistoric and later land use, superimposed by the extensive and visually dramatic remains of the recent and continuing industrial exploitation of slate. The area includes: Neolithic and Bronze Age funerary and ritual monuments; Iron Age hillforts and concentrations of relict settlements and field systems; medieval settlements; large and extensive remains of 19th and 20th centuries slate quarries, tips, attendant settlements and transport systems; Penrhyn Castle and Park; Telford's Holyhead Road; historic literary and social associations.*

North Arllechwedd: *A dissected, mainly upland, area situated on the northern flanks of the Carneddau ridge in north Snowdonia, containing well-preserved relict evidence of recurrent land use and settlement from the prehistoric to medieval and later periods. The area includes: a Neolithic axe factory site; dense and remarkable concentrations of Bronze Age funerary and ritual monuments; Iron Age hillforts, settlements, field systems; prehistoric trackways; a Roman road; medieval settlements, field systems, a motte and commotal centre at Abergwyngregyn; recent mining and quarrying remains.*

The proposed development would have a direct (physical) impact upon the following HLCAs:

HLCA 31	Lowland Coastal Area Around Wig
HLCA 39	Enclosed Hill Slopes Below Moel Wnion

The proposed development would have indirect (mainly non-physical) impacts on the following HLCAs:

HLCA 31	Lowland Coastal Area Around Wig
HLCA 34	Abergwyngregyn
HLCA 39	Enclosed Hill Slopes Below Moel Wnion

This report provides a full assessment of the significance of the impacts of the proposed development on the Historic Landscape in relation to the above HLCAs, in compliance with the ASIDOHL2 process.

A.4 ASIDOHL STAGE 1: CONTEXTUAL INFORMATION

A.4.1 Summary description of development

The first stage of the ASIDOHL2 process draws together the contextual information for the project.

The Welsh Government: Transport proposes an improvement to the A55 trunk road between Tai'r Meibion and Abergwyngregyn, in the County of Gwynedd, northwest Wales. This consists of the upgrading of a 2.2km (1.3 mile) section of the A55(T). The existing horizontal alignment would essentially be retained and a 1m wide hard strip would be added to each side of both the two lane carriageways. The vertical alignment would be improved to current standards and in general the existing pavement would be overlain with new bituminous construction.

Verges

The northern verge would be 2.5m wide and grassed. The southern verge would also be 2.5m wide but would consist of a 1.7m wide bituminous hard shoulder with a filter drain alongside. The verge width would vary to provide the required visibility splays at the junction to Y Glyn Farm and the Bryn Meddyg properties.

New roads, pathway, and access track

A new, 3m wide, 2.6km (1.6 mile) section of Class 3 road/ Non-Motorised User Route (NMU) would run parallel with, and to the north of, the northern verge from the Abergwyngregyn Interchange, adjacent to Pentre Aber Farm (formerly College Farm), westwards to just east of Wig Farm. This road will also connect Wig Crossing Cottages and Wig Farm (Plates 01 and 02), and continue westwards to terminate at the Tal-y-Bont Interchange (Plate 03).

A new, 3m wide, 250m stretch of link road would run parallel with, and to the south of, the southern verge from Bryn Meddyg to the existing access road (Plate 04).

A 850m section of footway will run between the Tan-yr-Allt cottages and the Tan-y-Lon bus stop (Plate 05). The footway will be 1.5m wide, except where it crosses the Tan-y-Lon overpass where it will reduce to 0.9m due to restricted area for construction. The footpath will be built within the existing grass verge of the road.

A new 3.5m wide, 500m stretch of field access track (hard standing) would run northeast from Henffordd Road towards Coed Wern-porchell before turning east to run along the southern edge of the wood, cross over the Afon Wig and link up with the existing Wig Farm subway access track (Plate 07).

Road widening

At the southwestern end of the site, the Unclassified Roman Road (Henffordd Road) would be widened on its northern side from just west of Crymyln, up to the western Tai'r Meibion farm entrance, approximately 810m, in order to accommodate agricultural vehicles (Plate 06). The new width would be 3.5m with a 1.5m wide footway.

Kerbs and drainage

Both carriageways would have standard crossfall to the nearside edge to discharge surface water into a drainage channel alongside. Kerbs would only be provided at the junction on the westbound carriageway, cattle underpasses, and locations where there was a footway.

The surface water would be collected in a new drainage system and discharged into existing watercourses as at present. Eight watercourses cross under the A55(T) via existing culverts and these would be extended to accommodate the carriageway requirements. New outfalls would be constructed to replace the existing at the eastern end of the scheme. An attenuation pond up to 1000m² in area may be built on the northern side of the carriageway, to the east of Wig Farm. This will be confirmed as part of the detailed design at a later date.

New junctions and improved safety

For safety reasons all the existing private accesses, field accesses, and gaps in the central reservation would be permanently closed. There would be no junction on the eastbound carriageway and access to properties on the northern side would be from the Tal-y-Bont Interchange to the west via the new NMU/ Private Means of Access (PMA) adjacent to the A55(T). Access to properties on the southern side would be via a single westbound junction to Y Glyn Farm with a link road to the Bryn Meddyg properties.

Right turns would not be permitted from the westbound junction. Drivers wishing to travel towards Conwy would have to turn left onto the dual carriageway and then use the Tal-y-Bont Interchange. Access to these properties on journeys from Bangor would have to be via the Abergwyngregyn Interchange.

Subways

The existing cattle underpasses at Tai'r Meibion and Wig Farms would be extended to accommodate for the widened carriageway and to meet current standards.

Land use setting and land take

The Proposed Improvement is situated in a rural area comprising mainly of improved agricultural grazing land with associated farms and farm buildings. There are also small areas of mixed woodland and a small number of private non-agricultural dwellings within the surrounding area.

The coastal plain has a particular, historical significance within the local area, with small settlements dating from medieval times, and communication routes gradually developing. These were restricted by the shoreline cliffs between Llanfairfechan and Conwy until the large scale engineering works of the 19th and 20th centuries opened up rail and road routes along the North Wales coast. The A55(T) represents the only Trunk Road within the area, but there is a single track Unclassified County road (Roman Road) linking the village of Abergwyngregyn to the various farms and properties along the southern side of the A55(T). The Chester to Holyhead Railway Line is located parallel to and approximately 300m to the north of the A55(T).

The land use within the A55 corridor is predominantly pastoral and the fields consist almost entirely of improved pasture within a fertile coastal strip. The proposed access route from Tan-y-Lon to Wig crosses some smaller fields at the interface between the coastal strip and the uplands to the south.

The topography of the area consists of three distinct zones, the coastal plain, the uplands to the south and the Aber valley. The Aber valley is a deep and steep sided narrow valley with glacial origins, as shown by the truncated stream valleys that enter it, with waterfalls. The river has also worn down into the valley creating a small gorge through the glacial debris on the valley floor. At the mouth of the valley, close to the Aber Falls hotel at 25m OD, the river enters onto a narrow coastal plain. This is gently sloping, formed of the outwash delta of glacial materials from the mountains around. At its north edge it consists of fine sediments only a few metres above maximum high tide and is eroding into the sea.

Policy context

The European Union Council Directive 2011/92/EU, amended by Directive 2014/52/EU, requires the preparation of an Environmental Impact Assessment (EIA) for certain types of projects likely to have significant effects on the environment. This helps to ensure that the predicted effects and the scope for reducing them are properly understood by the relevant authorities, statutory consultees and general public. The Highways (Environmental Impact Assessment) Regulations, 2007 (SI No. 1062) interpret these Directives. Under these Regulations, a highway scheme such as a motorway widening or new bypass may require an Environmental Impact Assessment (EIA). In accordance with the Schedules to the Regulations and Directive it has been determined that an EIA is required for this highway scheme.

The Environmental Assessment will utilise current guidance set out in DMRB Volume 11, published in 2008 with subsequent amendments, including Interim Advice Notes HA 200/08, HA 201/08, HA 202/08, HA 204/08, HA 205/08, HD 47/08, and HD 48/08. The Stage 3 assessment set out in DMRB Volume 11 will be expanded, as appropriate to incorporate other good practice methodologies. It will also take into account changes arising from any future revisions to the guidance in DMRB.

An Assessment of the Significance of the Impact of Development on Historic Landscape Areas on the Register of Landscapes of Historic Interest in Wales (ASIDOHL2) is required as part of the EIA. Guidelines and methodology are set out in *Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process Revised (2nd) edition* (Cadw 2007).

The Gwynedd Unitary Development Plan 2001-2016 Policy CH25 – New Roads and Road Improvements states:

Proposals for improvements to existing roads and for new sections of roads will be approved provided there is sufficient justification for the development on economic and public safety grounds and that there will be no unacceptable environmental effects. Developers must prove that other options have been considered and that the scheme with the least environmental impact has been chosen that all the following criteria can be met:

- *that the improvement/ new road scheme reflects the road's status in the defined road hierarchy;*
- *that the design reduces the danger of accidents for road users;*
- *that the design incorporates measures that encourages journeys by public transport and reflects the needs of cyclists and pedestrians;*
- *that the scheme is acceptable in terms of its impact on the community;*
- *that the scale and design of the proposed development is suitable for the location;*
- *that every practical effort is made to ensure that the development will not cause significant harm to the landscape, the coast, biodiversity, or historic areas/features,. Particularly within or near designated areas;*
- *that appropriate measures are included to reduce the risk of injury or death as a result of collision between vehicles and wildlife;*

- *that the development will not cause significant harm to the amenities of neighbouring residents or sensitive uses;*
- *that the proposal incorporates adequate measures to mitigate the effects of the scheme.*

In addition - Paragraph 5.3.16 states '*It is important to ensure that the necessary changes/improvements to the highway network seek to reduce the environmental effect of the scheme, especially within sensitive areas such as the Area of Outstanding Natural Beauty, nature conservation sites of international, national and local importance, Landscape Conservation Areas, conservation areas and sites which help reduce the number of animals killed or wounded on the roads*'

The Gwynedd Unitary Development Plan 2001-2016 is due to be replaced by the Gwynedd and Anglesey Joint Local Development Plan (LDP) and a draft version of this plan has been created (2015). This Deposit Plan sets out Gwynedd Council and the Isle of Anglesey County Council's proposed planning policy up to 2026. Policy TRA1 Transport Network Developments deals with improvements to existing infrastructure and states:

Improvements to the existing transport network will be granted provided they conform to the following criteria:

- *The choice of route and/or site minimises the impact on the built and natural environment, landscapes and property; and*
- *Permanent land-take is kept to the minimum that is consistent with good design and high quality landscaping; and*
- *In the case of cycle ways, park and ride schemes, roads and roadside service areas, the scheme will help to improve road safety; and*
- *In the case of new roads a full range of practicable solutions to the transport problem has been considered and road enhancement provides the optimum solution; and*
- *In the case of roadside service areas, the scheme must adjoin the strategic road network, focus primarily on serving the needs of motorists, not impede the movement of strategic traffic and in line with Strategic Policy PS12 not undermine retail provision in the Sub-Regional Centre, Urban and Local Service Centres or Villages.*

Policy AT1: Conservation Areas, World Heritage Sites and Registered Historic Landscapes, Parks and Gardens states:

Proposals within or affecting the setting and/ or significant views into and out of Conservation Areas, World Heritage Sites and Registered Historic Landscapes, Parks and Gardens shown on the Constraints Map must, where appropriate, have regard to:

- *Adopted Conservation Area Character Appraisals, Conservation Area Plans and Delivery Strategies.*
- *World Heritage Site Management Plans.*
- *The Register of Landscape, Parks and Gardens of Special Historic Interest in Wales.*

- *Other detailed assessments adopted by the Local Planning Authority.*
- *Development proposals should be supported by a Heritage Impact Assessment, where appropriate.*

Policy AT4: Protection of Non-Designated Archaeological Sites states:

Proposals which may affect sites that are of potential national archaeological importance or are of acknowledged local heritage importance including sites of industrial archaeology that are not scheduled will:

- *Be assessed in terms of the intrinsic importance of the 'site' and the potential extent of harm.*
- *Require, where appropriate, either an archaeological assessments and/ or field evaluation by an archaeological body or a professionally qualified archaeologist in order to determine the archaeological impact of the proposed development before the Planning Authority determines the application.*
- *A proposal which affects locally important archaeological remains will only be granted if the need for the development overrides the significance of the archaeological remains.*
- *Where proposals are acceptable, a site a site a condition will be attached to the permission stating that no development should take place until an agreed programme of archaeological work has taken place.*

A.4.2 Context for ASIDOHL2 assessment

At the request of Ymgynghoriaeth Gwynedd Consultancy (YGC), Gwynedd Archaeological Trust have been contracted to undertake an ASIDOHL2 assessment of the significance of the impact of the proposed development on the Historic Landscape. The ASIDOHL2 assessment is required due to the proposed scheme running through both the Dyffryn Ogwen and North Arllechwedd Landscape Areas of Outstanding Historic Interest (HLW (Gw) 10 and 12 respectively).

A.4.3 Assessment methodology

The assessment follows the guidance for the ASIDOHL2 process set out in the Register Guide to Good Practice, and was undertaken by Robert Evans, of Gwynedd Archaeological Trust, with advice on the ASIDOHL2 process provided by the *Guide to Good Practice On Using the Register Of Landscapes Of Historic Interest in Wales in the Planning and Development Process* revised (2nd) edition (Cadw 2007). This assessment was subsequently revised by Dave McNicol of Gwynedd Archaeological Trust.

A full examination of all available information has been undertaken including an examination of archival sources and aerial photographs. Field visits were undertaken in April 2008 and June 2015, including a walk over study of the scheme and an assessment of historic viewpoints.

A.5 ASIDOHL2 STAGE 2: ASSESSMENT OF DIRECT, PHYSICAL IMPACTS OF DEVELOPMENT

A.5.1 Introduction

The second stage of the ASIDOHL2 process describes and as far as possible quantifies the direct physical impacts of the proposed development on the HLCA affected by the development. This is described and quantified in three ways, which can be summarised as follows:

- a) In absolute terms, i.e. the proportion of the surface area of the HLCA affected
- b) In relative terms, i.e. the proportion of each of the 'key historic landscape characteristics' (the baseline being those characteristics identified in the HLCA Report) that will be permanently lost or removed by the development
- c) In landscape terms, the contribution that the 'key historic landscape characteristics' identified in (b) makes to the value of the HLCA as a whole.

The physical impacts are each assigned a score and the overall scores for the impacts on the individual HLCA are used to produce a quantified expression of the overall magnitude of direct impact on a 28 point scale (see Table A.1). These are presented as a table for each HLCA along with qualifying statements and background information and summaries of the key characteristics of the HLCAs affected. The scoring system and calculations used can be seen in Appendix I.

Score	Grading
24-28	Very Severe
19-23	Severe
14-18	Considerable
9-13	Moderate
4-8	Slight
0-3	Very Slight

Table A.1 Overall magnitude of direct physical impacts

A.5.2 Historic Landscape Character Area 31 Lowland Coastal Area Around Wig (Fig. 3)

Historic background

This area was formerly part of the Penrhyn, Madryn, and Bulkeley estates. The area around Henfaes farm in Aber was part of the manor of Aber, which is thought to derive from the *maerdref* associated with the *llys* at Aber. The whole coastal area was radically altered with the coming of the railway and the main road in the 19th century, and bears little evidence of former organisation. It contains a number of listed buildings, such as the farmhouses of Tai'r Meibion and Wig

Key historic landscape characteristics

Large, regular enclosures, substantial farms, road and rail links.

A lowland area abutting the Menai Straits, dominated by large estate farmhouses and divided up into large regular enclosures. The main arterial road and rail links between north-west Wales and the north of England dominate the landscape, and are largely responsible for its current appearance.

Conservation priorities and management

Preservation of open character; encouragement to use of traditional building materials and to adaptation in a manner that reflects the appropriate Penrhyn and Baron Hill estate style.

Impacts: The impact in terms of area is moderate. There are a number of archaeological features which will be partially destroyed by the proposed development. A possible Roman road and a section of hedgerow which may be protected by the Hedgerow Regulations Act may also be affected.

Absolute Impact (loss of area) 2.452 ha – 0.003%				
Magnitude and score Very Slight - 1				
Relative and landscape impacts (loss of known elements or characteristics) and scores				
Element / % loss	Status	Magnitude	Landscape value	Landscape value effect
Improved field systems (5%)	C - 2	Slight - 2	Low - 2	Slightly Reduced - 2
Field Boundaries (2%)	D - 1	Slight - 2	Very Low - 1	V Slightly Reduced - 1
Medieval Hedgerow (20%)	C - 2	Moderate - 3	Low - 2	Slightly Reduced - 2
Possible Roman Road (5%)	B - 3	Slight - 2	Medium - 3	Slightly Reduced - 2
Buried Archaeology	U - 1	Severe - 5	Very Low - 1	V Slightly Reduced - 1
OVERALL DIRECT IMPACT	9- Moderate			

Table A.2 Assessment of Direct, Physical impacts on Historic Landscape Character Area 31 Lowland Coastal Area Around Wig

A.5.3 Historic Landscape Character Area 39 Enclosed Hill Slopes Below Moel Wnion (Fig. 3)

Historic background

This area comprises the north-facing coastal steep slopes between low-lying improved coastal flats (HLCA 31) and unenclosed mountain/ uplands (HLCA 36). It extends for several miles either side of Aber. It has a fairly consistent character, with large enclosures reflecting post-medieval re-organisation, but most importantly still retains a whole series of relict prehistoric and medieval archaeology, including hut group and long hut settlements surrounded by a complex of lynchets, field banks and ridge and furrow, towards the top of the area where the ground is less steep. Twentieth century conifer plantations as well as woodland are visually prominent woods and forestry add to the picture.

Key historic landscape characteristics

Relict archaeology (prehistoric and medieval settlement and fields), woods.

An important area containing remains of earlier land divisions and settlement which has immense potential for reconstructing for past landscapes.

Conservation priorities and management

The conservation priorities must be the relict archaeology: some mapping of aerial photographs has taken place, but detailed field survey is needed.

Impacts: The impact in terms of area is moderate. There are a number of archaeological features which will be partially destroyed by the proposed development. A possible Roman road and a section of hedgerow which may be protected by the Hedgerow Regulations Act may also be affected.

Absolute Impact (loss of area) 0.225 ha – 0.0002%				
Magnitude and score Very Slight – 1				
Relative and landscape impacts (loss of known elements or characteristics) and scores				
Element / % loss	Status	Magnitude	Landscape value	Landscape value effect
Medieval Hedgerow (20%)	C - 2	Moderate - 3	Low - 2	Slightly Reduced - 2
Possible Roman Road (5%)	B - 3	Slight - 2	Medium - 3	Slightly Reduced - 2
Field Boundaries (2%)	D – 1	Slight - 2	Very Low - 1	V Slightly Reduced - 1
Buried Archaeology	U - 1	Severe – 5	Very Low - 1	V Slightly Reduced - 1
OVERALL DIRECT IMPACT	9- Moderate			

Table A.3 Assessment of Direct, Physical impacts on Historic Landscape Character Area 39 Enclosed Hill Slopes Below Moel Wnion

A.6 ASIDOHL2 STAGE 3: ASSESSMENT OF INDIRECT IMPACTS OF DEVELOPMENT

A.6.1 Introduction

The third stage of the ASIDOHL2 process describes and as far as possible quantifies the **indirect physical and non-physical impacts** of the development on the HLCA affected. A clearly defined area will be directly or physically affected (assessed in Stage 2), but a much greater area could be indirectly affected owing to fragmentation or changes to the setting of features within the landscape. Changes to views of, or views from a landscape element or key characteristic are also important potential impacts to consider.

This stage is divided into two categories of impacts; the first, Stage 3 (a) assesses the indirect physical impacts; while the second, Stage 3 (b) assesses the indirect (non-physical) visual impacts. The scoring system and calculations used can be seen in Appendix II.

A.6.2 Stage 3 (a) Indirect, physical impacts

The principal types of indirect physical impacts set out in the Guide to Good Practice include, but are not confined to:

- a) An increased risk of exposure, erosion, disturbance, decay, dereliction or any other detrimental physical change to elements, during or consequent to development.
- b) Related to (a), the likelihood of increased management needs to maintain elements as, for example, through altered habitats, water levels, increased erosion, new access provision etc., during or consequent to development.
- c) The severance, fragmentation, dislocation or alteration of the functional connections between related elements, for example, a field system becomes 'severed' from its parent farmstead by intervening development.
- d) The frustration or cessation of historic land use practices, for example, it becomes more difficult or impossible to manage an area in a traditional manner as a result of development.
- e) The frustration of access leading to decreased opportunities for education, understanding or enjoyment of the amenity of elements, during or consequent to development

A.6.3 Stage 3 (b) Indirect (non-physical) impacts

These can occur to elements as a result of one or a combination including, but are not confined to, the following:

- a) Visual impacts on elements from which a development can be seen (considered up to its maximum height). The impact might be on 'views to' or 'views from' these elements, and it should be assessed with reference to key historic viewpoints and essential settings. These should be considered in relation to a site's original character and function, as well as to vantage points and visual experience of a visitor today.
- b) Impact on the visual connections between related elements, by occlusion, obstruction etc., for example, an essential line of sight between historically linked defensive sites will become blocked or impaired by an intervening development.

- c) Conversely, the creation of inappropriate visual connections between elements not intended to be inter-visible originally, by the removal of intervening structures, barriers, shelters, screening or ground.
- d) the visual impact of the development itself in relation to the existing character of the HLCA considering:
 - its form – the scale, number, density, massing distribution etc. of its constituent features;
 - its appearance – the size, shape, colour fabric etc., of its constituent features.

Stage 3 (b) is aimed at assessing to what extent the development constitutes a visual intrusion or encroachment, and to what extent in turn that affects the HLCA's character.

The indirect impacts in Stages (a) and (b) are each assigned a score, which are then added together and calibrated to the 28-point scale used in Stage 2 (see Table A.1), in order to produce a quantified expression of the overall magnitude of indirect impacts on the individual HLCAs. These are presented as a table for each HLCA along with qualifying statements and background information and summaries of the key characteristics of the HLCAs affected.

A.6.4 Historic Landscape Character Area 31 Lowland Coastal Area Around Wig (Fig. 3)

Historic background

This area was formerly part of the Penrhyn, Madryn, Gorddinog and Bulkeley estates. The area around Henfaes farm in Aber was part of the manor of Aber, which is thought to derive from the *maerdref* associated with the *llys* at Aber. The whole coastal area was radically altered with the coming of the railway and the main road in the 19th century, and bears little evidence of former organisation.

Key historic landscape characteristics

19th Century Improved Field Systems in a regular rectangular pattern, with associated dispersed farmhouses built by the Penrhyn and Baron Hill estates in their house style. The main arterial road and rail links between north-west Wales and the north of England dominate the landscape, and are largely responsible for its current appearance.

Impacts: The functional change to the transport routes within the Character Area is minimal. The development will not alter significantly the historic character of the area. There will be some disruption to routes from farms to and through their associated field systems. Most lanes and roads will be retained so the magnitude of this impact will be slight.

The development form and appearance will be similar to that of the present road and its impact will therefore be very slight along the A55 carriageway. It will be greatest on the improvement of the 'Roman Road' and the access track across the fields between Tan-y-Lon to Wig lane.

Impacts	Category and Score	Magnitude and Score
Disruption of historic landscape patterns	B – 3	Moderate – 3

Table A.4 Assessment of Indirect, physical impacts on Historic Landscape Character 31 Lowland Coastal Area Around Wig

Impacts	Category and Score	Magnitude and Score
Development form	B - 3	Moderate - 3
Development appearance	B - 2	Slight - 2
Overall Magnitude of Indirect Impacts	Score: 15	Grading: Considerable

Table A.5 Assessment of Indirect, visual impacts on Historic Landscape Character Area 31 Lowland Coastal Area Around Wig

A.6.5 Historic Landscape Character Area 34 Abergwyngregyn (Fig. 3)

Historic background

A village at the seaward end of an enclosed valley associated with one of the medieval princes' *llysoedd* and its manor. Most of the present dwellings are no earlier than the nineteenth century, and were constructed either by the Bulkeley estate or by their successors, the Penrhyn estate. The *mwd* dominates the village, both visually and historically.

Key historic landscape characteristics

The Aber valley is a deep and steep sided narrow valley with glacial origins, at the mouth of which the river enters onto a narrow coastal plain. Abergwyngregyn was the crossing point at the junction of the coastal road and another taking the upland route through the valleys, which was the key to its importance. In the late 11th century Gruffudd ap Cynan made Aber the *llys* or court of the commote of Arllechwedd Uchaf. The valley was a sheltered place and its position facing Penmon priory across the Lavan sands may also have made it attractive.

Impacts: Views of parts of the 19th century field system will be slightly affected. From higher viewpoints the line of the new development will not contrast with the straight roads and ditches in the area. The impact is slight on both sides of the road, where the road is straight and runs to the field boundaries.

Impacts	Category and Score	Magnitude and Score
Functional connection between field systems and farms disrupted	B – 3	Slight – 2

Table A.6 Assessment of Indirect, physical impacts on Historic Landscape Character 34 Abergwyngregyn

Impacts	Category and Score	Magnitude and Score
Impact to views of the field system	B - 3	Moderate - 3
Impact to historic viewpoint from the village	A - 3	Moderate - 3
Overall Magnitude of Indirect Impacts	Score: 15	Grading: Considerable

Table A.7 Assessment of Indirect, visual impacts on Historic Landscape Character 34 Abergwyngregyn

A.6.6 Historic Landscape Character Area 39 Enclosed Hill Slopes Below Moel Wnion (Fig. 3)

Historic background

This area comprises the north-facing coastal steep slopes between low-lying improved coastal flats (HLCA 31) and unenclosed mountain/ uplands (HLCA 36). It extends for several miles either side of Aber. It has a fairly consistent character, with large enclosures reflecting post-medieval re-organisation, but most importantly still retains a whole series of relict prehistoric and medieval archaeology, including hut group and long hut settlements surrounded by a complex of lynchets, field banks and ridge and furrow, towards the top of the area where the ground is less steep. Twentieth century conifer plantations as well as woodland are visually prominent woods and forestry add to the picture.

Key historic landscape characteristics

This area contains smaller fields in undulating countryside at the southern edge of the coastal plain before it meets the uplands to the south. The roads and fields show evidence of estate management, primarily by the Baron Hill and Penrhyn estates, and smaller irregularly shaped fields with distinctive estate fences, and the survival of wooden gates. There is also evidence of estate plantations and trees, forming a distinctive estate landscape.

Impacts: Views of parts of the estate 19th century field system will be affected. From higher viewpoints such as Moel-y-Gest the line of the new development, particularly the new access track will contrast with the historic boundaries in the area. The impact is slight on the view of the A55 carriageway, where the road is straight and runs parallel to the field boundaries.

Impacts	Category and Score	Magnitude and Score
Functional connection between minor road to Crymlyn, field systems and farms disrupted	B – 3	Moderate – 3

Table A.8 Assessment of Indirect, physical impacts on Historic Landscape Character 39 Enclosed Hill Slopes Below Moel Wnion

Impacts	Category and Score	Magnitude and Score
Impact to views of the field system due to fragmentation of historic field shapes behind Tai'r Meibion	B - 3	Considerable - 4
Development Form	3	Moderate - 3
Development appearance	3	Considerable - 4
Overall Magnitude of Indirect Impacts	Score: 18	Grading: Considerable

Table A.9 Assessment of Indirect, visual impacts on Historic Landscape Character Area 39 Enclosed Hill Slopes Below Moel Wnion

The following table is a summary of the overall magnitude of indirect impact scores and grading. The magnitude is based on the 28 point scale system used in stage 2 and stage 3 (see Table A.1)

Historic Landscape Character Area	Overall Magnitude (Score)
HLCA 31 Lowland Coastal Area Around Wig	Considerable - 15
HLCA 34 Abergwyngregyn	Considerable - 15
HLCA 39 Enclosed Hill Slopes Below Moel Wnion	Considerable - 18
Average Overall Magnitude	Considerable - 16

Table A.10 ASIDOHL2 Stage 3: Summary of Overall Magnitude of Indirect Impacts on Historic Character Areas

A.7 ASIDOHL2 STAGE 4: EVALUATION OF RELATIVE IMPORTANCE

A.7.1 Introduction

The fourth stage of the ASIDOHL2 process and report evaluates the relative importance of the HLCAs (or part(s) thereof) directly or indirectly affected by development in relation to:

- (a) if relevant, the whole of the HLCA(s) or;
 - (b) the whole of the Historic Landscape Area (HLA) on the Register,
- followed by in each case;
- (c) an evaluation of the relative importance of the HLCA(s) concerned in the national context.

‘Which evaluation steps have to be done and how much input is required will depend on the scale of the development in relation to the nature and extent of the affected Historic Character Area(s) and the historic landscape area on the Register. For example, if a development directly affects an entire Historic Character Area, then only evaluation steps (b) and (c) need to be done. The complexity of the Historic Character Area(s) in terms of the variety of characteristics and numbers of elements affected will also influence the amount of input required.

In cases where both steps (a) and (b) have to be done, evaluating relative importance is necessary because it may well be that the relative importance of an element within the Historic Character Area differs from its relative importance within the overall historic landscape area on the Register. For example, a particular element could be abundant and fairly representative of the Historic Character Area as a whole, but might be quite rare in relation to the whole of the historic landscape area on the Register. Clearly, if an entire Historic Character Area is directly affected with the complete loss of all its constituent elements, then step (a) would not apply.

It is likely that evaluation scores could be influenced by a number of factors. The relative size and number of Historic Character Areas within the historic landscape area on the Register, and the number of Historic Character Areas affected in relation to the total number of Historic Character Areas within the historic landscape area on the Register, could all have some bearing on the values determined.

With regard to evaluation step (c), ‘national context’ should be taken to refer to the historic landscape areas on the Register, not the whole of Wales. Although all historic landscapes on the Register are of national importance, being either of outstanding or of special historic interest, some component Historic Character Areas may be of even greater significance, because of the range or the quality of elements they contain, the presence of designated elements within them, their relationship with other Historic Character Areas, their status as a key component in the historic landscape area on the Register, or because of a combination of these factors’ (“Guide to Good Practice” p23).

The criteria used to evaluate relative importance are the Secretary of State's Criteria for Scheduling Ancient Monuments (Welsh Office Circular 60/96, *Planning and the Historic Environment*, p.15, Annex 3), although depending on the individual circumstances and the characteristics of the HLCAs concerned, not all criteria will be universally applicable.

The selected criteria are scored on a scale of 1 to 5 (Very Low or Poor to Very High or Very Good) and in many cases, the scores will be the same for stages (a) and (b) where both are required. Scores for stage (c) however, will generally but not always, be graded lower

than stages (a) and (b), because of the greater numbers and the wider ranges of element qualities to be found in the national context.

Scores are summarised as an overall percentage (out of a maximum possible score of all Very High grades) at the end of stages (a) and (b) and also (c) Stage 4 is then completed with a determination of, and a table showing, the average, overall value of all the HLCAs (or part(s) thereof) affected. The scoring system and calculations used can be seen in Appendix III.

A.7.2 Relative Importance in relation to (A) The Whole of the HLCA; (B) The Whole of the HLA

Historic Character Area

The elements affected are the A55 road and its wider 19th century transport links as defined by the earlier turnpike road and Chester to Holyhead railway, along with improved 19th century fields with associated estate farms and some earlier field systems on the higher slopes.

Rarity

- a) Moderate: There are some elements of the field systems HCA
- b) Moderate: There are other 19th century and earlier elements to the field systems in the HLA

Representativeness

- a) Low: The affected area contains some of the elements that characterise the HCA
- b) Low: The affected area contains some of the elements that characterise the HLA

Documentation

- a) Moderate: There is some relevant material pertaining to the road, rail and field systems
- b) Moderate: There is some relevant material pertaining to the road, rail and field systems

Group Value

- a) Low: Contains transport and agricultural elements
- b) Low: Contains transport and agricultural elements

Survival

- a) Very good: Most of the field system survives
- b) Very good: More than 90% of the field system survives

Condition

- a) Fair: The 19th century and earlier 20th century road system has been much upgraded and turned into a trunk road
- b) Fair: The 19th century and earlier 20th century road system has been much upgraded and turned into a trunk road

Coherence

- a) Very high: The road, rail and field systems retain their original function
- b) Very high: The road, rail and field systems retain their original function

Integrity

- a) Low: The road system retains little of its original character, its modern appearance is significantly different to the turnpike and previous roads

b) Low: The road system retains little of its original character, its modern appearance is significantly different to the turnpike

Potential

a) Low: The road has been well recorded and there is little scope for further landscape analysis

b) Low: The road has been well recorded and there is little scope for further landscape analysis

Amenity

a) Low: Modern trunk road

b) Low: Modern trunk road

Associations

a) Moderate: The 19th century transport links are a secondary result of the need to provide an alternative route to the A5 to the port of Holyhead and connections to Ireland

b) Moderate: The 19th century transport links are a secondary result of the need to provide an alternative route to the A5 to the port of Holyhead and connections to Ireland

VALUE:	V high/ good	High/ good	Mod/ med	Low	Poor/ none	V high/ good	High/ good	Mod/ med	Low	Poor/ none
in relation to: CRITERION	(a) Whole of historic landscape character area					(b) Whole of historic landscape area on the Register				
Rarity			x					x		
Representativeness				x					x	
Documentation			x					x		
Group Value				x					x	
Survival	x					x				
Condition				x					x	
Coherence	x					x				
Integrity				x					x	
Potential				x					x	
Amenity				x					x	
Associations			x					x		

Table A.11 Evaluation of the relative importance of the part of Historic Landscape Character Area Directly and/ or Indirectly affected by Development

Score for Stage (a) 31/55 = 56.36%

Score for Stage (b) 31/55 = 56.36%

Historic Landscape Character Area 31 Lowland Coastal Area Around Wig

Part of the improved coastal strip and its constituent parts (fields, drains, roads, railways, etc). The road and field systems are the affected parts.

Rarity

a) Moderate: The improved coastal strip is one of the major defining historic landscape features and is unique. Only a small part of the overall landscape feature will be affected, somewhat downgrading the rarity score

b) Moderate: The improved land is one of the major defining historic landscape features. Only a small part of the overall landscape feature will be affected, somewhat downgrading the rarity score

Representativeness

a) Low: The affected area contains some of the elements that characterise the HCA

b) Low: The affected area contains some of the elements that characterise the HLA

Documentation

a) High: Plans maps and documents demonstrate the landscape development in some detail since the late 18th century

b) High: Plans maps and documents demonstrate the landscape development in some detail since the late 18th century

Group Value

a) High: Contains fields, drains, roads, and railway.

b) High: Contains fields, drains, roads, and railway

Survival

a) Good: Roughly 75% of landscape elements surviving

b) Good: Roughly 75% of landscape elements surviving

Condition

a) Good: Most elements surviving in good condition

b) Good: Most elements surviving in good condition

Coherence

a) High: Most elements present although the original function

b) High: Most elements present although the original function

Integrity

a) High: Most elements retaining much of their original character, visible and fairly easily understood

b) High: Most elements retaining much of their original character, visible and fairly easily understood

Potential

- a) Moderate: Some scope for further landscape analysis
- b) Moderate: Some scope for further landscape analysis

Amenity

- a) High: Popular and easily understood landscape
- b) High: Popular and easily understood landscape

Associations

- a) High: The area forms a coherent and easy to understand relationship between agricultural improvement, estate development and transport links
- b) High: The area forms a coherent and easy to understand relationship between agricultural improvement, estate development and transport links

VALUE:	V high/ good	High/ good	Mod/ med	Low	Poor/ none	V high/ good	High/ good	Mod/ med	Low	Poor/ none
in relation to: CRITERION	(a) Whole of historic landscape character area					(b) Whole of historic landscape area on the Register				
Rarity			x					x		
Representativeness				x					x	
Documentation		x					x			
Group Value		x					x			
Survival		x					x			
Condition		x					x			
Coherence		x					x			
Integrity		x					x			
Potential			x					x		
Amenity		x					x			
Associations		x					x			

Table A.12 Evaluation of the relative importance of the part of HLCA 31 Lowland Coastal Area Around Wig Directly and/ or Indirectly affected by Development

Score for Stage (a) 40/55 = 72.72%

Score for Stage (b) 40/55 = 72.72%

Historic Landscape Character Area 34 Abergwyngregyn

The affected elements are the view from the western edge of the character area to the A55

Rarity

- a) Very High: The motte and the open area around it, which is of immense archaeological importance, and in general of the character of an estate village
- b) Very High: The motte and the open area around it, which is of immense archaeological importance, and in general of the character of an estate village

Representativeness

- a) High: The affected area contains most of the elements that characterise the HCA
- b) High: The affected area contains some of the elements that characterise the HLA

Documentation

- a) High: There is a considerable amount of documentation relating to the area
- b) High: There is a considerable amount of documentation relating to the area

Group Value

- a) High: The distinctive form of cottage architecture, vernacular in inspiration but showing the influence of the polite, is apparent here, dating from when the village was in the ownership first of the Bulkeley and then of the Penrhyn estates
- b) High: The distinctive form of cottage architecture, vernacular in inspiration but showing the influence of the polite, is apparent here, dating from when the village was in the ownership first of the Bulkeley and then of the Penrhyn estates

Survival

- a) Good: Many original elements survive
- b) Good: Many original elements survive

Condition

- a) Moderate: Most of the original elements in moderate condition
- b) Moderate: Most of the original elements in moderate condition

Coherence

- a) High: The area has a coherent character
- b) High: The area has a coherent character

Integrity

- a) High: Most elements retaining much of their original character, visible and fairly easily understood
- b) High: Most elements retaining much of their original character, visible and fairly easily understood

Potential

- a) High: Significant scope for further landscape analysis
- b) High: Significant scope for further landscape analysis

Amenity

- a) High: Popular and easily understood landscape
- b) High: Popular and easily understood landscape

Associations

- a) Very High: Associated with a *llys* of the early princes of Gwynedd
- b) Very High: Associated with a *llys* of the early princes of Gwynedd

VALUE:	V high/ good	High/ good	Mod/ med	Low	Poor/ none	V high/ good	High/ good	Mod/ med	Low	Poor/ none
in relation to: CRITERION	(a) Whole of historic landscape character area- Not Applicable					(b) Whole of historic landscape area on the Register				
Rarity	x					x				
Representativeness		x					x			
Documentation		x					x			
Group Value		x					x			
Survival		x					x			
Condition			x					x		
Coherence		x					x			
Integrity		x					x			
Potential		x					x			
Amenity		x					x			
Associations	x					x				

Table A.13 Evaluation of the relative importance of the part of HLCA 34 Abergwyngregyn Directly and/ or Indirectly affected by Development

Score for Stage (a) 45/55 = 81.81%

Score for Stage (b) 45/55 = 81.81%

Historic Landscape Character Area 39 Enclosed Slopes Below Moel Wnion

The affected element here is the indirect visual impact upon the enclosed field system and early track way. There is no direct effect on this character area.

Rarity

a) Moderate: The field system is a major element of the key Historic landscape characteristic and is unique. Only a small proportion of its components will, however, be indirectly affected

b) Low: The field system is an important landscape characteristic. Only a small proportion of its components will, however, be indirectly affected

Representativeness

a) Low: The affected area contains some of the elements that characterise the HCA

b) Low: The affected area contains some of the elements that characterise the HLA

Documentation

a) Moderate: There is some relevant material pertaining to the field system

b) Moderate: There is some relevant material pertaining to the field system

Group Value

a) Low: Contains farms field systems and roads

b) Low: Contains farms field systems and roads

Survival

a) Very Good: Fields mostly retain their original layout

b) Very Good: Fields mostly retain their original layout

Condition

a) Good: Most elements surviving in good condition

b) Good: Most elements surviving in good condition

Coherence

a) Very High: Landscape retains its original function

b) Very High: Landscape retains its original function

Integrity

a) High: Agricultural landscape retains much of its original character

b) High: Agricultural landscape retains much of its original character

Potential

a) Moderate: Some scope for further study and landscape analysis

b) Moderate: Some scope for further study and landscape analysis

Amenity

a) Low: Little scope for development of farmland as an amenity

b) Low: Little scope for development of farmland as an amenity

Associations

a) Moderate: Farms improved by major local estates.

b) Moderate: Farms improved by major local estates

VALUE:	V high/ good	High/ good	Mod/ med	Low	Poor/ none	V high/ good	High/ good	Mod/ med	Low	Poor/ none
in relation to: CRITERION	(a) Whole of historic landscape character area					(b) Whole of historic landscape area on the Register				
Rarity			x					x		
Representativeness				x					x	
Documentation			x					x		
Group Value				x					x	
Survival	x					x				
Condition		x					x			
Coherence	x					x				
Integrity		x					x			
Potential			x					x		
Amenity				x					x	
Associations			x					x		

Table A.14 Evaluation of the relative importance of the part of HLCA 39 Enclosed Slopes Below Moel Wnion Directly and/ or Indirectly affected by Development

Score for Stage (a) 36/55 = 65.45%

Score for Stage (b) 36/55 = 65.45 %

The affected element is the field system. This survives in good condition and retains its original function.

A.7.3 Relative Importance in the National Context

The results are summarised in tables at the end of this section

Historic Landscape Character Area 31 Lowland Coastal Area Around Wig

Rarity

High: The HCA contains two landscapes of Outstanding Historic Interest (Cadw 1998)

Representativeness

Medium: The HCA contains some of the elements that characterise the wider landscape

Documentation

Moderate: There is some relevant material pertaining to the agricultural and transport remains.

Group Value

Medium: The HCA contains rail and road routes along with agricultural land

Survival

Moderate: about 80% of elements survive

Condition

Good: Elements survive in above average condition

Coherence

Moderate: Historic themes present

Integrity

Moderate: Mines and transport links retain some of their original character but are not easily understood

Potential

Moderate: The landscape has been reasonably well recorded, although there is potential for future work

Amenity

Low: One of the historic transport links, the railway, is still in use, others are visible but inaccessible

Associations

Moderate: The 19th century transport links are a secondary result of the need to provide an access route to the port of Holyhead.

Historic Landscape Character Area 34 Abergwyngregyn

Rarity

Very High: The historic settlement is one of the major defining historic landscape features within the wider landscape and is unique

Representativeness

Moderate: The HCA contains many of the elements that define the wider landscape

Documentation

High: Plans maps and documents demonstrate the landscape development in some detail since the late 18th century.

Group Value

Very High: Contains settlement, fields, drains, roads and railway

Survival

Good: Roughly 75% of landscape elements surviving

Condition

Good: Most elements surviving in good condition

Coherence

High: Most elements present although the original function of some has now ceased

Integrity

High: Most elements retaining much of their original character, visible and fairly easily understood

Potential

High: Considerable scope for further landscape analysis, particularly in relation early settlement history

Amenity

High: Popular and easily understood landscape

Associations

Very High: Associated with a *llys* of the early princes of Gwynedd

Historic Landscape Character Area 39 Enclosed Hill Slopes Below Moel Wnion

Rarity

High: Forms part of North Arllechwedd landscape of outstanding Historic Interest

Representativeness

Low: The affected area contains some of the elements that characterise the wider landscape

Documentation

Moderate: There is some relevant material pertaining to the area

Group Value

High Contains early and estate enclosed landscapes

Survival

Good: Field boundaries and landscape survive in good condition

Condition

Good: Most of the original elements in good condition

Coherence

Good: The landscape forms a coherent entity

Integrity

High: Landscape elements readily visible and reasonably well understood

Potential

Moderate: The quarry retains some scope for further study and landscape analysis

Amenity

Moderate: Limited scope for development of predominantly agricultural land

Associations

None: No known associations

VALUE:	V high/ good	High/ good	Mod/ med	Low	Poor/ none	V high/ good	High/ good	Mod/ med	Low	Poor/ none
in relation to: CRITERION	HLCA 31 Lowland Coastal Area Around Wig					HLCA 34 Abergwyngregyn				
Rarity	x					x				
Representativeness			x						x	
Documentation		x					x			
Group Value	x					x				
Survival		x					x			
Condition		x					x			
Coherence		x					x			
Integrity		x						x		
Potential		x						x		
Amenity		x					x			
Associations	x					x				

Table A.15 Evaluation of the relative importance in the national context of HLCA 31 & 34 Directly and/ or Indirectly affected by Development

Score for Stage HLCA 31 Lowland Coastal Area Around Wig: 46/55 = 83.63%: Very High

Score for Stage HLCA 34 Abergwyngregyn: 43/55 = 78.18%: High

VALUE:	V high/ good	High/ good	Mod/ med	Low	Poor/ none
in relation to: CRITERION	HLCA 39 Enclosed Hill Slopes Below Moel Wnion				
Rarity		x			
Representativeness				x	
Documentation			x		
Group Value		x			
Survival		x			
Condition		x			
Coherence		x			
Integrity			x		
Potential			x		
Amenity			x		
Associations					x

Table A.16 Evaluation of the relative importance in the national context of HLCA 39 Directly and/ or Indirectly affected by Development

**Score for Stage HLCA 39 Enclosed Hill Slopes Below Moel Wnion: 35/55 = 63.63%:
High**

Historic Landscape Character Area	Grading (average of (a)+(b)+(c))
HLCA 31 Lowland Coastal Area Around Wig	84 – Very High (range 80-100)
HLCA 34 Abergwyngregyn	78 - High (range 60-79)
HLCA 39 Enclosed Hill Slopes Below Moel Wnion	64 - High (range 60-79)
GRADE OF OVERALL VALUE	75 - High (range 60-79)

Table A.17 ASIDOHL2 Stage 4: Grade of overall value of relative importance of the HLCAs (or parts thereof) affected by development

A.8 ASIDOHL2 STAGE 5: ASSESSMENT OF OVERALL SIGNIFICANCE OF IMPACT OF DEVELOPMENT

A.8.1 Introduction

The final stage of the ASIDOHL2 process combines the results of Stages 2 – 4 in order to determine the overall significance of the impact of development on the HLA. This is determined by setting out and scoring the value of the HLCAs affected in relation to the effect caused by development, and the consequent change in the value of the HLA on the Register. This is presented in Table A.19 which is based on the framework, grades and scores set out in Table 13 of the Guide to Good Practice. The overall significance of impact for each HLCA is determined by adding together the scores in columns (a), (b), and (c) and grading them using the overall significance of impact table set out in Table 14 of the Guide to Good Practice, and reproduced here in Table A.18. The scoring system and calculations used can be seen in Appendix IV.

Score	Grade
26-30	Very Severe
21-25	Severe
16-20	Fairly Severe
10-15	Moderate
4-9	Slight
0-3	Very Slight

Table A.18 Overall Significance of Impact

HISTORIC LANDSCAPE CHARACTER AREA	(a) VALUE OF HLCA based on Stage 4	(b) IMPACT OF DEVELOPMENT ON HLCA based on Stages 2-3	(c) IMPACT ON HISTORIC LANDSCAPE	OVERALL SIGNIFICANCE OF IMPACT (a)+(b)+ c)
HLCA 31 Lowland Coastal Area Around Wig	9 Very High	4 Medium Disruption to historic landscape patterns in the area of Tai'r Meibion	1 Very Low	14 Moderate Slight disruption to historic transport routes. There will be a direct impact on the field system with the new trackway from Tai'r Meibion to Wig Overall impact on HLA moderate.
HLCA 34 Abergwyngregyn	8 High	2 Low Little or no impact on surviving archaeology	1 Very Low	11 Moderate Slight intrusive fragmentation of field patterns result in an impact on one of the major defining features of the landscape. There is therefore a slight reduction in the overall value of the HLA
HLCA 39 Enclosed Hill Slopes Below Moel Wnion	7 High	2 Low Little or no impact on surviving archaeology, slight change to setting	1 Low	10 Moderate Impact on key elements are minimal resulting in little change to the HLA
GRADE OVERALL VALUE	OF 12 Moderate The impact on the area around the trackway running from Tai'r Meibion to Wig is the dominant feature of the proposed scheme both in terms of area affected and its importance as an element of the landscape. This will result in a very minor reduction in the value of the HLA. Other impacts are indirect and cumulatively result in a slight reduction in the value of the HLA			

Table A.19 ASIDOHL2 Stage 5: Summary of the overall significance of impact of the proposed development on the Dyffryn Ogwen (HLW (Gw) 10) and North Arllechwedd (HLW (Gw) 12) landscapes of outstanding historic interest (Based on Guide to Good Practice, Table 13, p.29)

The overall significance of impact has been graded as **Moderate**. It should be noted that the result of a series of impacts is usually as a cumulative as opposed to a diluting effect. The overall significance of impact therefore cannot be seen as an average score of the impacts on the individual HLAs.

Possible mitigation

Whilst the direct and indirect physical impacts of the scheme cannot be mitigated in terms of the changes that they will introduce to the historical integrity of the landscapes under assessment, the indirect (non-physical) visual impacts of the scheme can be somewhat reduced by replacing or reinstating any affected boundary features, trees and hedgerows. In the case of trees and hedgerows, the use of species already in existence in the surrounding landscape will result in an overall reduction of the residual visual impact on the landscape once the replacement landscaping establishes in the medium to long term. The proposed development runs alongside the existing A55 road and is embanked in places and this also lessens its visual impact on the landscape. The minimal use of lighting and signage is also recommended to minimise the visual impact of the scheme.

Comparison with results of Heritage Desk Based Assessment

Both this ASIDOHL2 study and a Heritage Desk Based Assessment (HDBA) (McNichol and McGuinness, 2016) carried out for the scheme, assess the impact of the scheme on affected historic landscapes. Two different assessment criteria and methodologies (ASIDOHL2 and DMRB) have been used to evaluate the impact of the development on the landscape.

The two studies have produced slightly differing yet comparable results. For example, the impact of the scheme on the *Very High Value* HLCA 31 Lowland Coastal Area around Wig is assessed as Medium in this ASIDOHL2 and the Overall Significance of Impact as Moderate. The impact of the scheme on the *High Value* HDBA Asset Number 24 Enclosed Fields S and E of Tai'r Meibion, a part of HLCA 31 directly physically impacted by the scheme, is Moderate and the Significance of Effect Moderate Adverse prior to mitigation.

The DMRB methodology also assesses the Significance of Effect taking into account mitigation, ASIDOHL2 does not. The concluding Significance of Effect of the scheme on Asset 24 with mitigation is thus reduced to Moderate Slight/Adverse in the HDBA.

In both studies, the recommended mitigation for minimising the impact on affected landscapes is the same: the replacement or reinstatement of any affected boundary features, trees and hedgerows and the minimal use of lighting and signage.

A.8.2 Concluding Statement

An assessment of the significance of the impact of development on the Dyffryn Ogwen and North Arllechwedd Landscape Areas of Outstanding Historic Interest (HLW (Gw) 10 and 12 respectively) has been carried out.

The improvement route passes through two landscapes of Outstanding Interest in Wales (Cadw 1998), the northern part of number 28 the Ogwen Valley, and the southwestern part of number 30 North Arllechwedd. These stress the importance of the area around the A55 as a fertile coastal strip and as a starting point for crossing the Lavan sands for the Beaumaris ferry (Cadw 1998, 115).

The topography of the area consists of three distinct zones, the coastal plain, the uplands to the south and the Aber valley. The Aber valley is a deep and steep sided narrow valley with glacial origins, as shown by the truncated stream valleys that enter it, with waterfalls. The river has also worn down into the valley creating a small gorge through the glacial debris on the valley floor. At the mouth of the valley, close to the Aber Falls hotel at 25m OD, the river enters onto a narrow coastal plain. This is gently sloping, formed of the outwash delta of glacial materials from the mountains around. At its north edge it consists of fine sediments only a few metres above maximum high tide and is eroding into the sea.

The land use within the A55 corridor is predominantly pastoral and the fields consist almost entirely of improved pasture within a fertile coastal strip. The proposed access route from Tan-yr-Allt to Wig, passing under the A55, crosses some smaller fields at the interface between the coastal strip and the uplands to the south.

The assessment area and that surrounding it is rich in archaeological remains from the prehistoric through to the post-medieval period. The majority of the sites are located around the village of Abergwyngregyn. The whole area under assessment is likely to be the site of early settlement, with a particular emphasis on cooking activity close to the water courses. This usually takes the form of mounds of fire cracked rocks. The presence of the Roman road between Caernarfon and Caerhun is of great significance and means that there is significant potential for finding Roman remains. There is significant evidence for medieval settlement at Abergwyngregyn and Y Wig, within the study area.

The principal 19th century landowners in the study area were the Bulkeley and Pennant families, the former having gained control of the manor in 1689, who at some time between 1848 and 1896 reorganised the coastal strip into a landscape of rectilinear fields. This resulted in the loss of many of the small roads and buildings shown on earlier maps. This field pattern has survived with only limited alteration until the present day, the older pattern surviving in discrete areas to the south. The Bulkeley family remained the main proprietors of the manor until 1863 when they sold off their Caernarfonshire lands and Abergwyngregyn holdings to the Penrhyn estate in whose holding it remained until into the 20th century.

The scheme will have a Slight direct physical impact on the improved field systems in the Lowland Coastal Area Around Wig HLCA 31. It will also have a Slight direct physical impact on the field boundaries and the possible Roman Road, a Moderate direct physical impact on a medieval hedgerow, and a potentially Severe direct physical impact on buried archaeology in both the Lowland Coastal Area Around Wig HLCA 31 and the Enclosed Slopes Below Moel Wnion HLCA 39.

The scheme will have a Moderate indirect physical impact on historic landscape patterns in the Lowland Coastal Area Around Wig HLCA 31, a Slight indirect physical impact on the functional connection between field systems and farms in Abergwyngregyn HLCA 34, and a Moderate indirect physical impact on the functional connection between the minor road to

Crymlyn and nearby field systems and farms in the Enclosed Slopes Below Moel Wnion HLCA 39.

Before mitigation, the scheme will have a Moderate indirect (non-physical) visual impact due to its form in both the Lowland Coastal Area Around Wig HLCA 31 and the Enclosed Slopes Below Moel Wnion HLCA 39. The scheme will have a Slight indirect (non-physical) visual impact due to its appearance in the Lowland Coastal Area Around Wig HLCA 31, and a Considerable indirect (non-physical) visual impact due to its appearance on the Enclosed Slopes Below Moel Wnion HLCA 39. In the Enclosed Slopes Below Moel Wnion HLCA 39, the scheme will have a Considerable indirect (non-physical) visual impact on views of the 19th Century field system due to the fragmentation of historic field shapes behind Tai'r Meibion. In Abergwyngregyn HLCA 34, the scheme will have an Moderate indirect (non-physical) visual impact on views to 19th century field systems and the historic viewpoint from the village.

The assessment defines the overall level of impact as **moderate** on both the Dyffryn Ogwen and North Arllechwedd Landscape Areas of Outstanding Historic Interest (HLW (Gw) 10 and 12 respectively). This means that there is a developmental impact on key elements of both of the landscape areas with a result that there is some reduction in their overall value.

The visual impact of the scheme on these landscapes can be somewhat reduced by replacing or reinstating any affected boundary features, trees or hedgerows. In the case of trees and hedgerows, species already in existence in the surrounding landscape should be used as replacements. This will result in an overall reduction of the residual visual impact on the landscape once the replacement landscaping establishes in the medium to long term. The minimal use of lighting and signage will also reduce the scheme's impact on the surrounding landscape as much as possible.

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Gwynedd Historic Environment Record

APPENDIX I: Assessment of Direct, Physical Impacts of Development (Stage 2): Scoring System and Calculations

Absolute Impact (Loss of Area): Percentage of area to be directly affected by the development. Grading shown in Table 1.

Relative Impact (Loss of Element/ Feature/ Area): Percentage of element/ feature/ area which will be lost or removed by the development. Grading shown in Table 1.

Percentage or Area	Grade	Sensitivity Score
75-100%	Very Severe	6
50-74%	Severe	5
30-49%	Considerable	4
15-29%	Moderate	3
5-14%	Slight	2
0-4%	Very Slight	1

Table 1: Grades of Direct Physical Impacts

Site Status: The importance or status of each element/ feature/ area affected is divided up into five categories. See Table 2.

Category	Description	Sensitivity Score
A	Sites and Monuments of National Importance	4
B	Sites and Monuments of Regional Importance	3
C	Sites/ Features of Local Importance	2
D	Minor and Damaged Sites/ Features	1
U	Sites/ Features Needing Further Investigation	1

Table 2: Site Category

Landscape Value: The extrinsic importance of elements or characteristics within the landscape. This reflects the contribution an individual element or characteristic makes to the overall value of the area. Grading shown in Table 3.

Impact/ Grade	Sensitivity Score
Very High	6
High	5
Considerable	4
Medium	3
Low	2
Very Low	1

Table 3: Landscape Value Grading

Landscape Value Effect: The effect the development will have on the extrinsic importance of the element or characteristic as a whole. Grading shown in Table 4.

Impact/ Grade	Sensitivity Score
Lost	6
Substantially Reduced	5
Considerably Reduced	4
Moderately Reduced	3
Slightly Reduced	2
Very Slightly Reduced	1

Table 4: Landscape Value Effect Grading

Overall Magnitude of Direct Physical Impacts: To calculate the overall magnitude the scores for each element are added up to produce a combined total: (Status [Category] + Magnitude + Landscape Value + Landscape Value Effect = Total X). This total is then divided by the number of elements identified, in order to obtain an average figure. This average figure is then added to the score for the Absolute Impact, and rounded off to the nearest whole number.

On a 28 point scale, which is the maximum possible, this figure provides a measure of the overall magnitude of direct physical impact. Grading shown in Table 5.

Score	Grading
24-28	Very Severe
19-23	Severe
14-18	Considerable
9-13	Moderate
4-8	Slight
0-3	Very Slight

Table 5: Grading for Overall Magnitude of Direct Physical Impacts

APPENDIX II: Assessment of Indirect Impacts of Development (Stage 3): Scoring System and Calculations

Indirect, Physical Impacts:

The principal types of indirect physical impacts include, but are not confined to:

- (i) An increased risk of exposure, erosion, disturbance, decay, dereliction or any other detrimental physical change to elements, during or consequent to development.
- (ii) Related to (i), the likelihood of increased management needs to maintain elements as, for example, through altered habitats, water levels, increased erosion, new access provision etc., during or consequent to development.
- (iii) The severance, fragmentation, dislocation or alteration of the functional connections between related elements, for example, a field system becomes 'severed' from its parent farmstead by intervening development.
- (iv) The frustration or cessation of historic land use practices, for example, it becomes more difficult or impossible to manage an area in a traditional manner as a result of development.
- (v) The frustration of access leading to decreased opportunities for education, understanding or enjoyment of the amenity of elements, during or consequent to development

For each category of indirect, physical impact identified, an assessment of its severity (impact magnitude), based on professional judgement, should be made. This should be graded as shown in Table 1. The element sensitivity (its intrinsic importance or status) for each category should also be scored and categorised, using the grades and scores shown in Table 2.

Grade	Sensitivity Score
Very Severe	6
Severe	5
Considerable	4
Moderate	3
Slight	2
Very Slight	1

Table 1: Grades of Impact Magnitudes

Category	Description	Sensitivity Score
A	Sites and Monuments of National Importance	4
B	Sites and Monuments of Regional Importance	3
C	Sites/ Features of Local Importance	2
D	Minor and Damaged Sites/ Features	1
U	Sites/ Features Needing Further Investigation	1

Table 2: Site Category

The scores for each element are added together to produce a total per element (impact magnitude + status), and these totals are added together to produce a combined total. This figure is then divided by the number of elements identified, in order to obtain an average figure. This figure is used along with the indirect non-physical impact average to obtain the overall magnitude of indirect impacts (see below).

Indirect (non-physical) Impacts

These can occur to elements as a result of one or a combination including, but are not confined to, the following:

- (i) Visual impacts on elements from which a development can be seen (considered up to its maximum height). The impact might be on 'views to' or 'views from' these elements, and it should be assessed with reference to key historic viewpoints and essential settings. These should be considered in relation to a site's original character and function, as well as to vantage points and visual experience of a visitor today.
- (ii) Impact on the visual connections between related elements, by occlusion, obstruction etc., for example, an essential line of sight between historically linked defensive sites will become blocked or impaired by an intervening development.
- (iii) Conversely, the creation of inappropriate visual connections between elements not intended to be inter-visible originally, by the removal of intervening structures, barriers, shelters, screening or ground.
- (iv) the visual impact of the development itself in relation to the existing character of the HLCA considering:
 - its form – the scale, number, density, massing distribution etc. of its constituent features;
 - its appearance – the size, shape, colour fabric etc., of its constituent features.

Assessment should be generally confined to the key elements identified during characterisation within the affected area(s). For example, Category A and B sites; and closely linked, or groups of, Category C sites, and these categories should be graded as shown in Table 2.

The element sensitivity (its intrinsic importance or status) for each category should also be scored and categorised, based on professional judgement, and using the grades and scores shown in Table 1. Development form and appearance should be similarly graded in relation to the average value of the element sensitivity.

The scores for each element, as well as the development form and appearance, are added together to produce a total (category + impact magnitude), and these totals are added together to produce a combined total. This figure is then divided by the number of elements identified, including the development form and appearance, in order to obtain an average figure.

This figure is then added to the score for the indirect, physical impacts (see above). This figure will be on a scale of 1-20, which is made up of the 10 maximum possible average scores for indirect, physical impacts, and the 10 maximum possible average scores for indirect, visual impacts. To create a 28-point scale (as is used for scaling the direct, physical impacts (Appendix II)), the average score is multiplied by 28 and then divided by 20, with the number rounded off to the nearest whole number.

This score provides a measure of the overall magnitude of indirect (physical and visual) impacts, which is then graded according to Table 3.

Score	Grading
24-28	Very Severe
19-23	Severe
14-18	Considerable
9-13	Moderate
4-8	Slight
0-3	Very Slight

Table 3: Grading for Overall Magnitude of Indirect Impacts

APPENDIX III: Evaluation of Relative Importance (Stage 4): Scoring System and Calculations

Evaluation of the relative importance of the Historic Character Area(s) (or part(s) thereof) directly and/ or indirectly affected by development in relation to:

- (a) the whole of the Historic Character Area(s) concerned, and/ or
 - (b) the whole of the historic landscape area on the Register;
- followed by,
- (c) an evaluation of the relative importance of the Historic Character Area(s) concerned in the national context.

The following is a list of criteria that may be applied in evaluations steps (a)-(c) (see above), although depending on individual circumstances, not all criteria will be universally applicable.

Rarity: In terms of period or date, and as a component of the landscape. This should be assessed in relation to what survives today, since elements of a once common type of landscape may now be rare.

Grading	Description
Very High	Sole survivor of its type in the landscape
High	Only two or three similar historic elements in the landscape
Moderate	Fewer than five broadly similar elements in the landscape
Low	More than five broadly similar elements in the landscape
None	Commonplace throughout the landscape

Table 1: Grading of Rarity

Representativeness: Should be considered in that an example of a landscape that is common can still be of national importance if, in light of other criteria, it contains a particularly representative range of elements.

Grading	Description
Very High	Contains all the elements that characterise the landscape
High	Contains most of the elements that characterise the landscape
Moderate	Contains about half of the elements that characterise the landscape
Low	Contains some of the elements that characterise the landscape
None	Sole example of the element and, therefore, not representative

Table 2: Grading of Representativeness

Documentation: The survival of documentation that increases our understanding of a landscape will raise its importance, though this is difficult to quantify owing to the extremely varied nature of documentary material. Therefore, a professional judgement is given based on the actual amount or importance of material and its academic value.

Grading	Description
Very High	Complete documentary record, or exceptionally important sources available
High	A considerable quantity of relevant material, or highly important sources available
Moderate	Some relevant material, or moderately important sources available
Low	Little relevant material, or only modestly important sources available
None	No relevant material available

Table 3: Grading of Documentation

Group Values: Relates to the diversity (or similarity) of elements including their structural and functional coherence. To some extent, the group value of individual elements will have been taken into account in Stage 2. At Stage 4, the group value relationship is usually wider and more likely to be between whole groups of related elements. Clearly, there will be instances within Historic Character Areas in which elements or groups are linked to others not directly affected by development, or situated in adjoining Historic Character Areas. *Group Value* is also likely to be more applicable to areas identified under the Register's first and second selection criteria, namely, *Intensively developed or extensively remodelled* or *Period* landscapes.

Grading	Description
Very High	Contains six or more linked elements or groups
High	Contains four or five linked elements or groups
Medium	Contains three or four linked elements or groups
Low	Contains two or three linked elements or groups
None	A single or any number of unlinked elements or groups

Table 4: Grading of Group Values

Survival: Relates to the degree of survival of elements in the landscape. In instances where the original extent or numbers are known, it may be possible to measure this quantitatively.

Grading	Description
Very Good	More than 80% of elements surviving
Good	Between 60% and 79% of elements surviving
Moderate	Between 40% and 59% of elements surviving
Fair	Between 20% and 39% of elements surviving
Poor	Under 20% of elements surviving

Table 5: Grading of Survival

Condition: Relates to the condition of elements in the landscape.

Grading	Description
Very Good	Elements surviving in very good condition for their class
Good	Elements surviving in good or above average condition for their class
Moderate	Elements surviving in moderate or average condition for their class
Fair	Elements surviving in fair or below average condition for their class
Poor	Elements surviving in poor condition for their class

Table 6: Grading of Condition

Coherence: Relates to how well the historic meaning and significance of the landscape is articulated by the historic themes, that is the historical processes and patterns that have created the individual elements within it. It may well be that historical processes and patterns have been maintained, or continue, so that the landscape retains much of its original function, thus enhancing its coherence. Clearly discernible or dominant themes can increase the coherence and importance of a landscape.

Grading	Description
Very High	Dominant historic theme(s) present – landscape retaining its original function
High	Dominant historic theme(s) present – landscape of high articulation, but original function has ceased
Moderate	Historic theme(s) present – landscape of moderate articulation
Low	Historic theme(s) present, but weak – landscape of low articulation
Very Low	Historic theme(s) suppressed by later changes

Table 7: Grading of Coherence

Integrity: The importance of a landscape may be enhanced by its integrity that relates to the survival of its original character or form. The resulting visibility and legibility of the landscape's component elements will enhance its amenity value. Greater visibility and legibility generally increase the potential for historic landscape to be easily understood by the non-specialist.

Grading	Description
Very High	Elements retaining their original character, highly visible and easily understood
High	Elements retaining much of their original character, visible and fairly easily understood
Moderate	Elements retaining some of their original character, visible but not easily understood
Low	Elements not readily visible and difficult to understand
Very Low	Elements hardly visible and very difficult to understand

Table 8: Grading of Integrity

Potential: Relates to the potential within the landscape for future historic landscape study and analysis.

Grading	Description
Very High	Wide-ranging scope for future historic landscape study and analysis
High	Considerable scope for future historic landscape study and analysis
Moderate	Some scope for future historic landscape study and analysis
Low	Little scope for future historic landscape study and analysis
Very Low	Very little scope for future historic landscape study and analysis

Table 9: Grading of Potential

Amenity: Relates to the potential value of elements to be developed as a public educational and recreational amenity.

Grading	Description
Very High	Wide-ranging scope for elements to be developed as a public educational and recreational amenity
High	Considerable scope for elements to be developed as a public educational and recreational amenity
Moderate	Some scope for elements to be developed as a public educational and recreational amenity
Low	Little scope for elements to be developed as a public educational and recreational amenity
None	Very little scope for elements to be developed as a public educational and recreational amenity

Table 10: Grading of Amenity

Associations: A landscape or an area or element within it might have important historic associations with, for example, particular institutions, cultural figures, movements, or events, etc. Often, however, there are no physical remains, or it may be difficult to tie an association to a particular place, feature, or element, with only documentary or oral sources available. Owing to the complex nature of associations, therefore, they are impossible to quantify, so an assessment is made based upon professional judgement.

Grading	Description
Very High	A highly significant, authentic and nationally well-known association(s)
High	A significant, authentic and regionally well-known association(s)
Moderate	An authentic, but less significant, perhaps locally well-known association(s)
Low	Unauthenticated or a little known association(s)
None	No known association(s)

Table 11: Grading of Associations

The criteria values in steps (a), (b), and (c), are scored as shown in Table 12.

Criterion Value	Score
Very High / Good	5
High / Good	4
Moderate / Medium	3
Low	2
Very Low / Poor	1

Table 12: Evaluation Scores

The relative importance at steps (a), (b), and (c), of the Historic Character Area(s) is calculated by the adding together of the evaluation scores. This will give a total out of a maximum of 55 if eleven criteria were applied; 50 if ten criteria were applied; 45 if nine criteria, and so on.

The average, overall value of all the Historic Character Areas (or part(s) thereof) affected is determined by combining the scores of steps (a), (b), and (c) together (or just (b) and (c) if (a) has not been applied). However, because of the disparity between score ranges that can result from different numbers of criteria being applied, the scores have to be converted to a scale of 1-100. This is done by dividing the relative importance score by the maximum score and then multiplying by 100. This is done for each step and area, and the scores are then added together and divided by the number of steps and areas, with the number rounded off to the nearest whole number. This average, overall value, or combined evaluation figure for Stage 4 would be graded as shown in Table 13.

Overall Value	Grade
80-100	Very High
60-79	High
40-59	Considerable
20-39	Moderate
5-19	Low
0-4	Very Low

Table 13: Grades of Overall Value

APPENDIX IV: Assessment of Overall Significance of Impact: Scoring System and Calculations

The overall significance of impact is determined by separately setting out and scoring the value of each of the Historic Character Areas affected in relation to the effect caused by the development and the consequent reduction in value of the historic landscape area on the register, using the model shown in Table 1.

The score for the overall significance of impact of development on the historic landscape area, as calculated for each Historic Character Area using the model shown in Table 1, is graded as shown in Table 2.

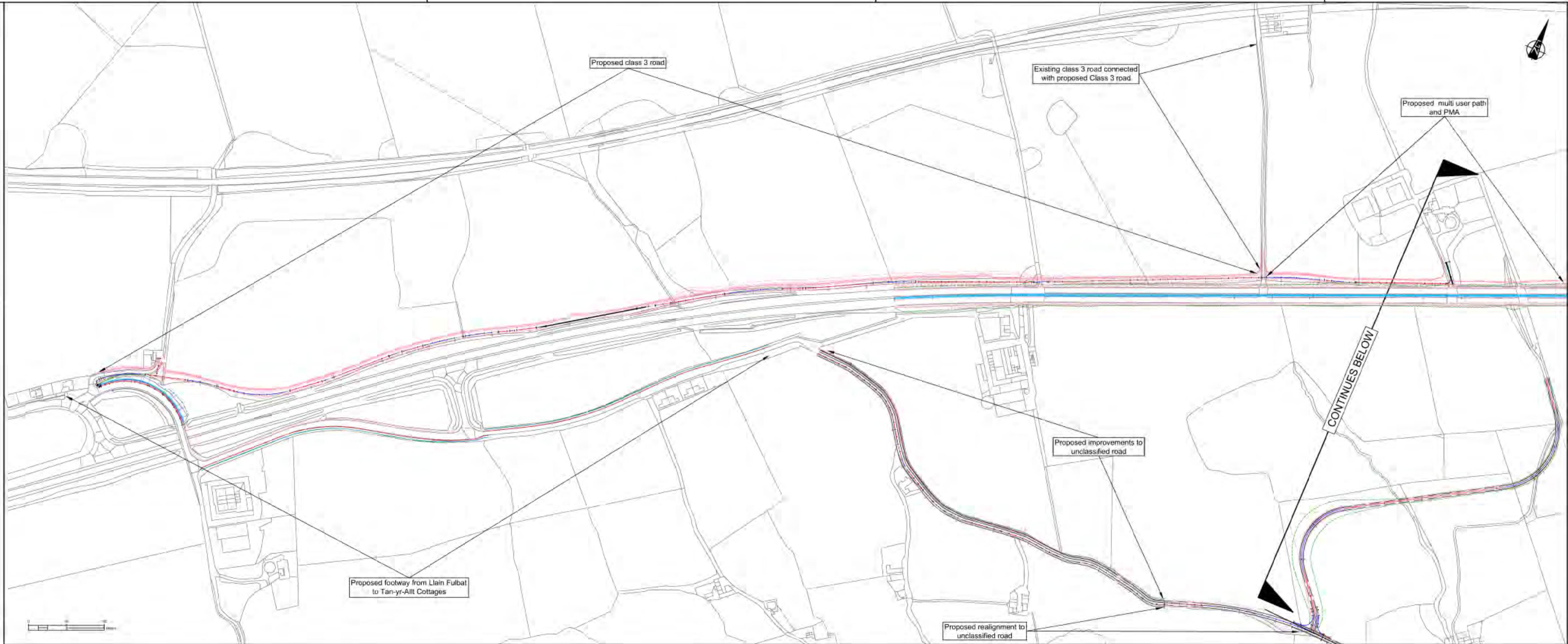
Score	Grade
26-30	Very Severe
21-25	Severe
16-20	Fairly Severe
10-15	Moderate
4-9	Slight
0-3	Very Slight

Table 2: Grades of Overall Significance of Impact

Value of Historic Character Area (Based on Stage 4 Results)	Impact of Development (Based on Stages 2 and 3 Results)	Reduction of Value of the Historic Landscape Area on Register
Very High Key elements of very high intrinsic importance and/ or condition and/ or group value, and/ or not found elsewhere in this or other historic landscape areas on the Register. Score: 9 or 10	Very High Critical land loss and consequent fragmentation and/ or visual intrusion causing key elements to be removed or so changed that detailed descriptions no longer apply, and/ or amenity value is totally lost. Score: 9 or 10	Very High Development impact on key elements is such that the overall value of the historic landscape on the Register is diminished to the point that its future inclusion on the Register may need to be reviewed. Score: 9 or 10
High Key elements of high intrinsic importance and/ or condition and/ or group value, and/ or uncommon elsewhere in this or other historic landscape areas on the Register. Score: 7 or 8	High Substantial land loss and consequent fragmentation and/ or visual intrusion causing key elements to be removed or changed so that group value and/ or coherence and/ or integrity are significantly diminished, and/ or amenity value greatly reduced. Score: 7 or 8	High Development impact on key elements is such that the overall value of the historic landscape on the Register is significantly reduced. Score: 7 or 8
Medium Key elements of varying intrinsic importance and/ or condition and/ or group value, and/ or generally typical of this or other historic landscape areas on the Register. Score 4, 5, or 6	Medium Moderate land loss and consequent fragmentation and/ or visual intrusion causing some key elements to be removed or changed so that group value and/ or coherence and/ or integrity are diminished, and/ or amenity value reduced. Score 4, 5, or 6	Medium Development impact on key elements is such that there is some, but still appreciable, reduction in the overall value of the historic landscape on the Register. Score 4, 5, or 6
Low Key elements of low to moderate importance and/ or condition and/ or group value, and/ or generally low significance in this or other historic landscape areas on the Register. Score: 2 or 3	Low Slight land loss and consequent fragmentation and/ or visual intrusion causing limited numbers of key elements to be removed or changed so that group value and/ or coherence and/ or integrity are slightly diminished, and/ or amenity value slightly reduced. Score: 2 or 3	Low Development impact on key elements is such that there is slight reduction in the overall value of the historic landscape on the Register. Score: 2 or 3
Very Low Elements untypical of the historic landscape areas on the Register and/ or changed through modern development. Score: 1	Very Low Marginal land loss and consequent fragmentation and/ or visual intrusion causing negligible changes to elements and their values. Score: 1	Very Low Development impact on key elements is such that the value of the historic landscape on the Register remains essentially unchanged. Score: 1

Table 1: Stage 5: Scoring Model

APPENDIX V: Client Plan



- NODIADAU/NOTES**
1. All units in metres unless otherwise stated.
 2. All levels in metres above Ordnance Datum.
 3. All chainages in metres.
 4. Extent of land required subject to justification pending structure designs and RRRA/assessments.

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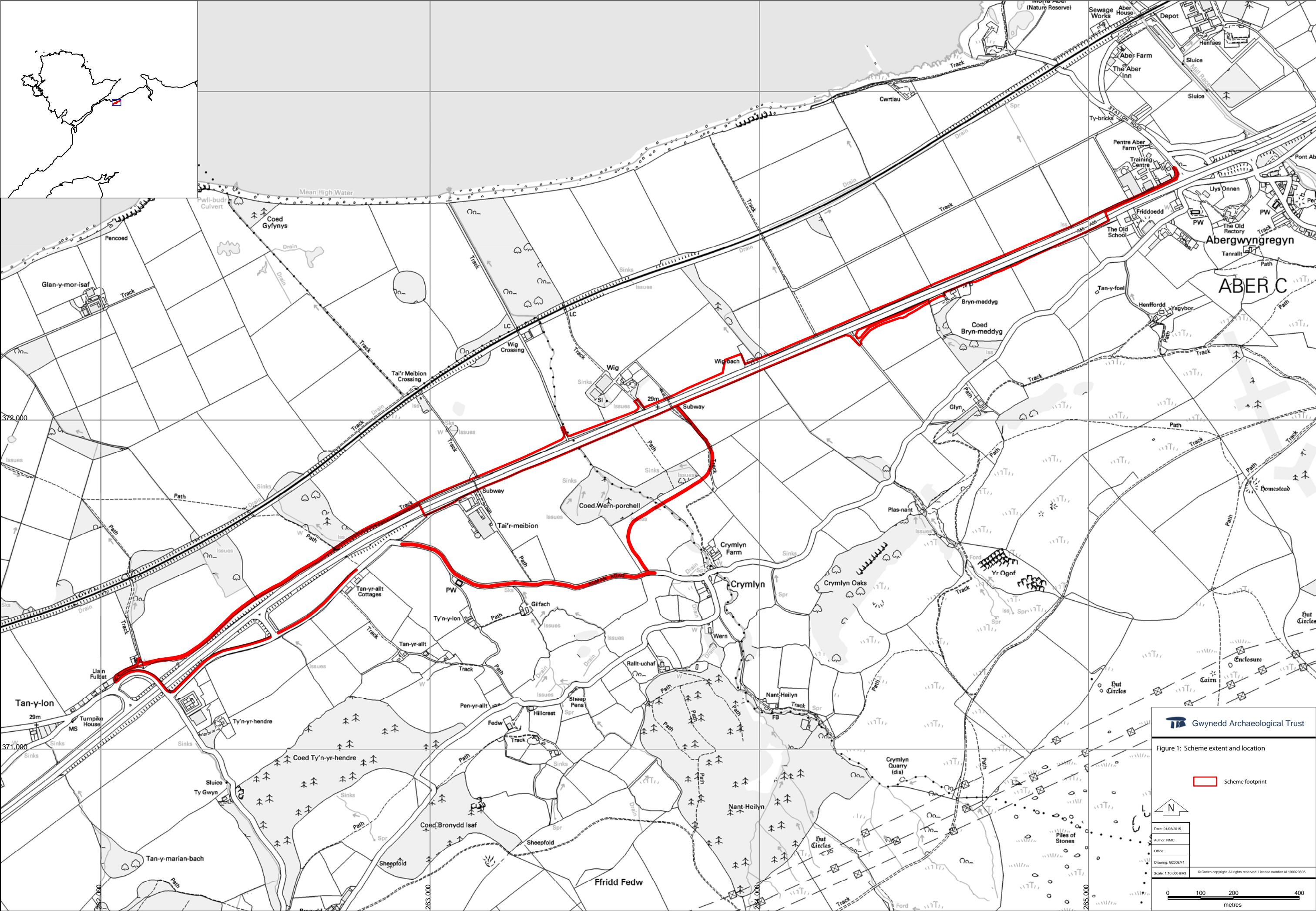


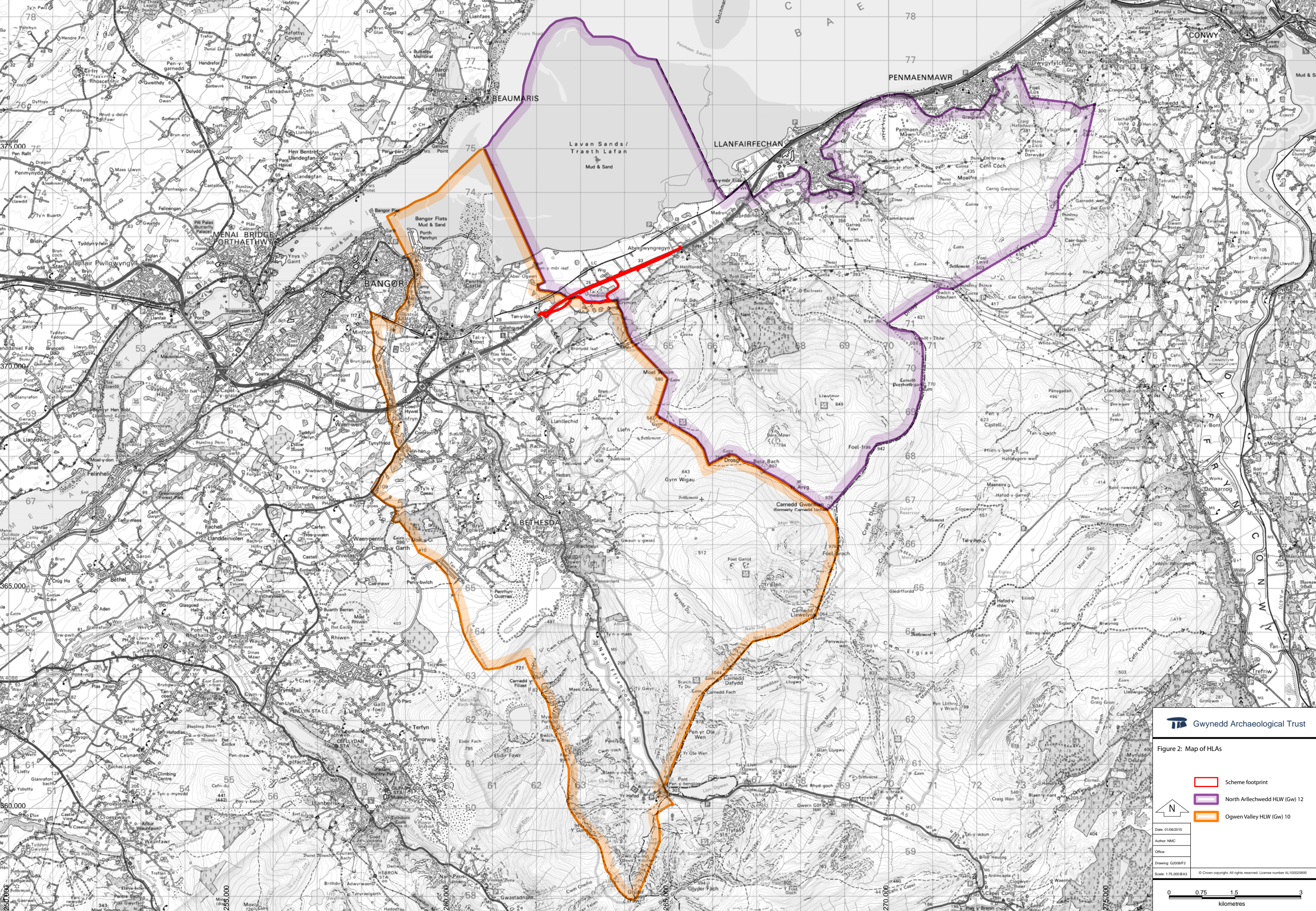
CYNLLUN / SCHEME:
A55 Tai'r Meibion to Abergwyngregyn
Junction 12 to 13 Improvements

TITL LUNIAID / DRAWING TITLE:
GENERAL ARRANGEMENT

DRAWN BY: OJ / GJW	DATE: 18.06.15
CHECKED BY: CMM	DATE: 18.06.15
Scale: 1:2000 AO	Scale: 1:2000 AO

Rhif Luniad
Drawing No. 5055/GA/100










 Gwynedd Archaeological Trust

Figure 2: Map of HLAs

 Scheme footprint

 North Arllechwedd HLW (Gw) 12

 Ogwen Valley HLW (Gw) 10



Date: 01/06/2015

Author: NMC

Office:

Drawing: G2008F2

Scale: 1:75,000 @A3

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0 0.75 1.5 3 kilometres

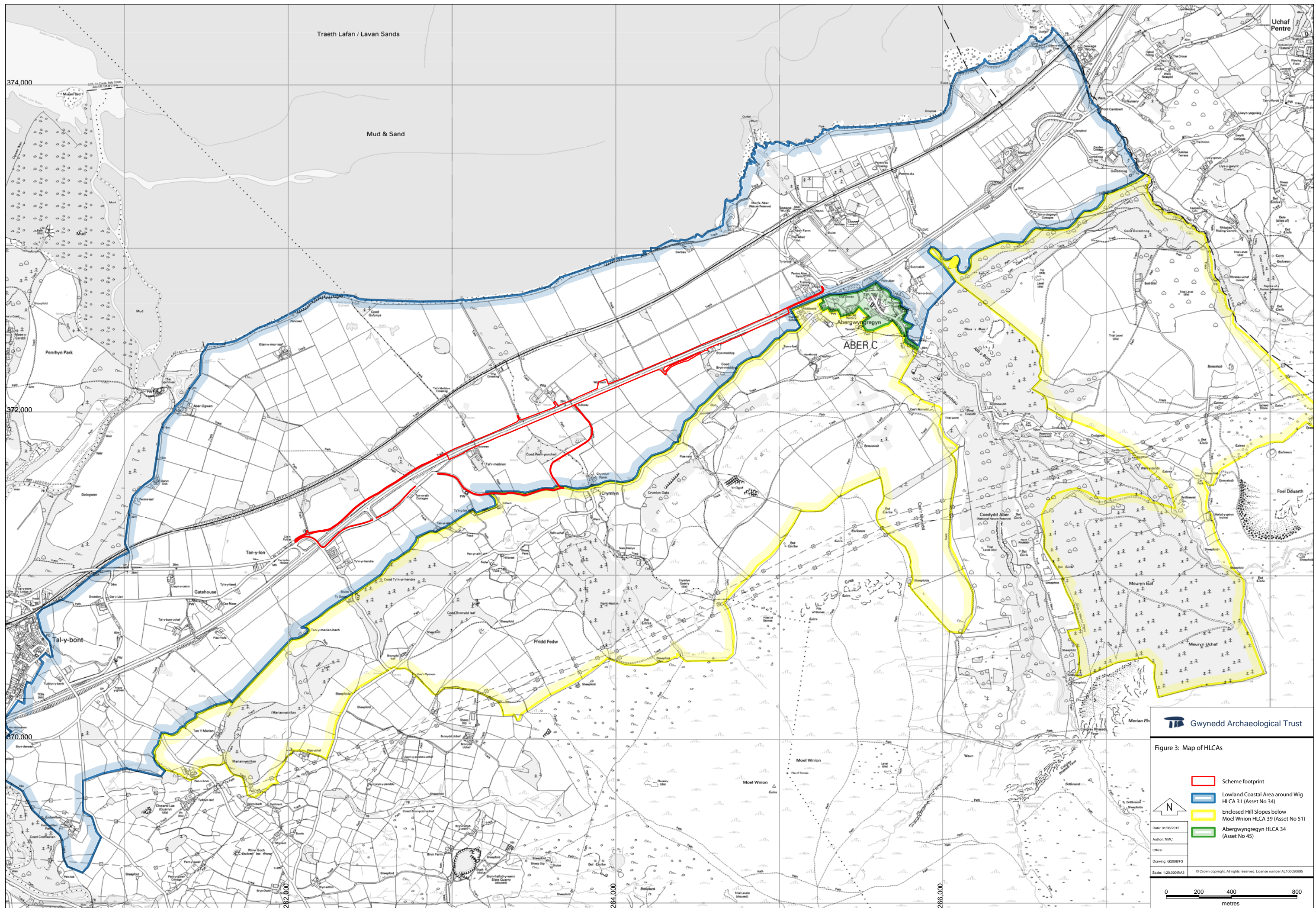




Plate 01: View of proposed location of Non-Motorised User Route. Southwest section from Wig Farm. View from the northeast.



Plate 02: View of proposed location of Non-Motorised User Route. Northeast section from Wig Farm. View from the southwest.



Plate 03: View of proposed location of Non-Motorised User Route. Tal-y-Bont section. View from the west.



Plate 04: View of proposed location of link road from Bryn Meddyg. View from the ENE.



Plate 05: View of proposed location of footpath. View from the southwest.



Plate 06: View of Unclassified Roman Road (Henffordd Road). View from the northwest.



Plate 07: View of proposed location of field access track. View from the southwest.



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