



Awel y Môr Offshore Wind Farm

Category 6: Environmental Statement

Volume 5, Annex 8.1: Archaeological Desk-Based Assessment

Date: April 2022

Revision: B

Application Reference: 6.5.8.1

Pursuant to: APFP Regulation 5(2)(a)



REVISION	DATE	STATUS/ REASON FOR ISSUE	AUTHOR:	CHECKED BY:	APPROVED BY:
A	August 2021	PEIR	Wessex	RWE	RWE
B	March 2022	ES	Wessex	RWE	RWE

www.awelymor.cymru

RWE Renewables UK
Swindon Limited

Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire SN5 6PB
T +44 (0)8456 720 090
www.rwe.com

Registered office:
RWE Renewables UK
Swindon Limited
Windmill Hill Business Park
Whitehill Way
Swindon

Document Information

Document title Awel y Môr Onshore, Denbighshire
Document subtitle Volume 3 Annex 8.1 Archaeological Desk-based Assessment
Document reference 231901.01

Client name GoBe Consultants Ltd.
Address Suites B2 and C2
 Higher Mill
 Buckfast Abbey
 Buckfastleigh
 Devon
 TQ11 0EE

National grid reference 301897, 377096

WA project name Awel y Mor Onshore EIA
WA project code 231900 and 231901
Project management by Mark Turner
Document compiled by Bethany Watson/Marie Kelleher
Graphics by Marie Kelleher

Quality Assurance

Issue	Date	Author	Approved by
1	07/06/2021	BW/MK	MT
2	12/01/2022	BW/MK	MT



Contents

Summary	iii
Acknowledgements.....	iv
1 INTRODUCTION	1
1.1 Project background.....	1
1.2 Aims and purpose of the assessment	1
2 METHODOLOGY	2
2.1 Introduction.....	2
2.2 Study Area.....	2
2.3 Sources	2
2.4 Site visit	3
2.5 Assessment of significance.....	4
2.6 Assumptions and Limitations	4
2.7 Exceptional limitations	4
2.8 Copyright	5
3 BASELINE RESOURCE	5
3.1 Designated archaeological assets	5
3.2 Draft Order Limits (DOL) and Export Cable Corridor (ECC) Description	5
3.3 Site Visit Observations.....	5
3.4 Topography, Hydrology and Geology.....	6
3.5 Historic and archaeological background	7
4 ARCHAEOLOGICAL INTEREST AND SIGNIFICANCE	18
4.1 Introduction.....	18
4.2 Assessment of archaeological survival and previous impacts	19
4.3 Interest and significance	19
5 HISTORIC LANDSCAPE CHARACTER	20
5.1 Historic Landscape Characterisation.....	20
6 IMPACT ASSESSMENT	21
6.1 Development proposals	21
6.2 Statement of Potential Impact.....	22
7 CONCLUSIONS	23
REFERENCES	25
Historic Environment Records.....	26
Cartographic and documentary sources.....	26
Online resources.....	26
APPENDICES	28
Appendix 1: Terminology	28
Appendix 2: Gazetteers	0

List of Figures

Figure 1	Location of Onshore Cable Route and 1km Study Area
Figure 2	Onshore Cable Route (A-D) and Underlying Superficial Geology
Figure 3	Onshore Cable Route (D-F) and Underlying Superficial Geology
Figure 4	Onshore Cable Route (E-G) and Underlying Superficial Geology
Figure 5	Designated and Non-designated Heritage Assets (Sections A and B)
Figure 6	Designated and Non-designated Heritage Assets (Sections B and C)
Figure 7	Designated and Non-designated Heritage Assets (Sections C and D)



Figure 8	Designated and Non-designated Heritage Assets (Sections D and E)
Figure 9	Designated and Non-designated Heritage Assets (Sections E and F)
Figure 10	Designated and Non-designated Heritage Assets (Sections F and G)
Figure 11	LiDAR Route Sections A-C
Figure 12	LiDAR Route Sections C-D
Figure 13	LiDAR Route Sections D-E
Figure 14	LiDAR Route Sections E-F
Figure 15	LiDAR Route Sections F-G
Figure 16	Areas of the Onshore ECC not accessed for Walkover Survey or Geophysical Survey
Figure 17	Areas of the Onshore ECC not accessed for Walkover Survey or Geophysical Survey

List of Plates

Plate 1	View looking north east within Route Section A
Plate 2	View looking north west within Route Section A
Plate 3	View of Rhyl Golf Club within Route Section B
Plate 4	View from within land parcel 186 immediately south of the railway line within Route Section B
Plate 5	View looking south within the OL within the southern part of Route Section B, north of Dyserth Road
Plate 6	View of the River Clwyd (Route Section D) looking south east
Plate 7	View from within OL within northern part of Route Section E
Plate 8	View of Rhuddlan Chain Link Home Radar building, located within woodland off of Nant-Y-Faenol Road (outside of OL)
Plate 9	View looking west from within the southern part of Route Section E, Bodelwyddan Castle and St Margaret's Church visible in the distance
Plate 10	View looking north within the southern part of Route Section E
Plate 11	View of Tyddyn Isaf from within the OL, looking west
Plate 12	View from within the OL to the east of Gipsy Lane, within Route Section E
Plate 13	View of farmstead at Faenol-Bropor, looking south west (Route Section F)
Plate 14	View of extant ridge and furrow earthworks within field to the south of Faenol-Bropor (Route Section F)
Plate 15	Pasture and hedgerow boundaries south of Faenol-Bropor (Route Section F)
Plate 16	View of pasture and Bodelwyddan Park boundary wall, looking north, within the southern part of Route Section F
Plate 17	View looking south west across the eastern extent of Route Section G
Plate 18	View of peat layer (5001), above clay layer. View from the east (0.5m scale)
Plate 19	View of peat layer (5001), above clay layer. View from the east (0.5m scale)
Plate 20	View of peat layer (5002), above clay layer. View from the east (1m scale)
Plate 21	View of peat layer and tree roots (5003), from the west (1m scale)
Plate 22	View of concrete sheets and pillars (5004) from the west (1m scale)
Plate 23	View of peat layer (5005) from the south west (1m scale)
Plate 24	View of tree stump (5006), view from west (1m scale)
Plate 25	View of log (5006) from the west (1m scale)
Plate 26	View of tree stump and log (5006) from west (1m scale)
Plate 27	View of tree stump (5007) from the west (1m scale)
Plate 28	View of log (5008), view from west (1m scale)
Plate 29	Chain Radar Building 2
Plate 30	Chain Radar Building 2
Plate 31	Associated three sided storage structure close to Chain Radar Building 2

Summary

Wessex Archaeology was commissioned by Awel y Môr Offshore Wind Farm Limited to prepare an Archaeological Desk-Based Assessment of land for the onshore component of the Awel Y Mor Offshore Windfarm, to be located off of the north coast of Wales near Rhyl. The onshore component of the project is located within Denbighshire, with the cable route extending approximately 12km from the east of Rhyl to the existing National Grid Bodelwyddan Substation located to the south of St Asaph Business Park. This study will act as the baseline for the Onshore Archaeology and Cultural Heritage Chapter of the Environmental Statement (ES) for the Development Consent Order (DCO) application.

The aims of this study were to assess the known and potential archaeological resource and historic landscape within the onshore Order Limits (OL) which includes the onshore Export Cable Corridor (ECC), the proposed substation to the west of St Asaph Business Park and the surrounding area, and to assess the likely direct impacts of the development proposals on this resource. The effects of the development proposals on the archaeological resource will be a material consideration in the determination of the DCO application.

This assessment has established that there is an archaeological interest within the OL. This is defined as the potential for the presence of buried archaeological remains. Based upon the available information the OL including the proposed substation site, can be broadly divided into three main character areas in terms of its archaeological potential.

The coastal zone (Route Sections A & B), where there is potential for prehistoric remains, in particular relating to Mesolithic fossil forest and palaeoenvironmental remains preserved within peat deposits on the foreshore. As well as Bronze Age features found during excavations for another linear route, for a similar project, adjacent to the OL extending from close to the foreshore at Rhyl for 2km inland, suggesting activity in this period over a wide area.

The next character area covers the River Clwyd and focusses on the area around the river and the area to the north of the river, on the south east outskirts of Rhyl (Route Sections C-E). The area around the River Clwyd has potential for Mesolithic remains as activity of this date has been recorded at Rhuddlan to the east of the OL and a number of finds have been found from a site which overlooks the Clwyd from both the early and late Mesolithic, suggesting continuing activity throughout the Mesolithic period. This area would have been an attractive place for transient Mesolithic communities and as such there is potential for further Mesolithic scatters to be present. Section C which lies to the south east of Rhyl has a background potential for the Roman period represented by a possible Roman cropmark (outside of the OL) and a Roman coin found within the OL.

The southern section of the OL route has been characterised as the inland area (Sections E-G). As with the entirety of the OL, there is potential for post-medieval land management features to be found including field boundaries and other features relating to the management of the agricultural land at this time. The southern part of the OL has potential for medieval and post-medieval ridge and furrow which is recorded on the Historic Environment Record, as being identified from aerial photographs and LiDAR survey. A single field was identified as extant ridge and furrow earthworks during the walkover survey, which formed part of the land associated with Faenol-Bropor farmstead. A roman road is postulated to cross the southern part of the OL, although no archaeological works have been undertaken to prove its alignment. There is potential for discovery of the road surface and/or any associated roadside activity which may have taken place.

Prior to the surveys undertaken for this scheme there had been little intrusive archaeological investigation within and surrounding the OL and within this area of north Wales more generally. The geophysical survey undertaken for the purposes of the ES have revealed that there is potential for



archaeological remains to exist within the Onshore ECC and substation area where geophysical anomalies of potential archaeological origin have been identified. Any adverse impact to buried archaeological features as a result of the implementation of the development proposals would be permanent and irreversible in nature. This potential adverse effect could be reduced through the implementation of an appropriate scheme of archaeological mitigation, in accordance with national and local planning policy.

The need for, scale, scope and nature of any further archaeological works should be agreed through consultation with the statutory authorities and will be agreed through the Development Consent Order application Process.

Acknowledgements

This project was commissioned by Awel y Môr Offshore Wind Farm Limited and Wessex Archaeology is grateful to them in this regard. Wessex Archaeology would also like to thank the Clwyd Powys Historic Environment Record for supplying the Historic Environment Record data.



Awel y Mor Onshore Denbighshire

Archaeological Desk-Based Assessment

1 INTRODUCTION

1.1 Project background

1.1.1 This assessment seeks to inform an application for a Development Consent Order for the proposed Awel y Môr Offshore Wind Farm. The onshore infrastructure of AyM will include an onshore Export Cable Corridor (ECC) route and onshore substation works. The cable route will run from the coast to the east of Rhyl, to the substation to the south of the A55 and connecting to the existing National Grid Bodelwyddan Substation to the west of St Asaph, extending for approximately 12km (**Figure 1**). **Figure 1** shows the overall location of the Order Limits (OL). The onshore ECC (approximately 40m-60m wide) is shown on **Figures 2-4**.

1.1.2 This assessment has reviewed the potential effect of the onshore elements of the proposals on the significance of the buried archaeological resource and the historic landscape.

1.2 Aims and purpose of the assessment

Introduction

1.2.1 The purpose of this assessment is to comply with the appropriate assessment planning guidance as outlined in Planning Policy Wales (PPW), edition 11, paragraph 6.1.26, the requirement for Heritage Impact Assessment and provision for treatment of archaeological remains in Technical Advice Note 24: The Historic Environment (TAN 24) and in line with Chartered Institute for Archaeologists Guidance Standards and Guidance for historic environment desk-based assessment (2020). This assessment will also identify and reference any other relevant and/or appropriate documents such as existing heritage or archaeological site management plans that may be in operation in the locality.

1.2.2 In conjunction with the ES, this will allow the Planning Inspectorate to make informed decision with regard to the DCO application.

Aim

1.2.3 This report will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the archaeological resource and historic landscape within a specified area. The desk-based assessment will be undertaken using appropriate methods and practices which satisfy the stated aims of the project, and which comply with the Code of Conduct and other relevant regulations of the Chartered Institute for Archaeologists.

1.2.4 This report will establish the impact of the proposed development on the significance of the archaeological resource or will identify the need for further evaluation to do so, and will enable reasoned proposals and decisions to be made to mitigate, offset or accept without further intervention that impact, as described in TAN 24. In particular it will assist with Paragraphs 4.7 and 4.8:

4.7 Where archaeological remains are known to exist, or considered likely to exist, and a study has not already been undertaken by the applicant, the local planning authority should ask an applicant to undertake a desk-based archaeological assessment and, where appropriate, an archaeological evaluation. These should be done by a qualified and competent expert to the appropriate standard. The reports of these investigations will form part of the planning application. Applicants should show they have modified their development proposals to minimise any negative impact on the identified archaeological remains, and how they intend to mitigate any remaining negative impacts.

4.8 The need for a desk-based assessment, and field evaluation where appropriate, should be discussed with the local planning authority prior to submission of an application, and where required the results of these studies should be submitted as part of the planning application. Failure to provide sufficient archaeological information of the appropriate standard may be a valid reason for the local planning authority to refuse planning permission.

2 METHODOLOGY

2.1 Introduction

- 2.1.1 The methodology employed during this assessment was based upon relevant professional guidance, including the Chartered Institute for Archaeologists' *Standard and guidance for historic environment desk-based assessment* (CifA 2020).

2.2 Study Area

- 2.2.1 Baseline conditions were established through a desk-based review of publicly accessible sources of primary and synthesised information pertaining to the historic environment within a 1km radial Study Area from the onshore ECC. This was extended in February 2022 to cover the extension of the OL at Rhyl for the Temporary Construction Compound (TCC) located close to Frith Beach Festival Gardens (1.3km from the onshore ECC). Additional HER data was sought in a 1km study area surrounding this part of the OL, to provide context for the assessment of the impact of the TCC. The recorded historic environment resource within the Study Area was considered to provide a context for the discussion and interpretation of the known and potential historic environment resource (historic assets) that could be affected by the proposed development, via the application of informed professional judgement.

2.3 Sources

- 2.3.1 The following publicly accessible sources of primary and synthesised information were consulted:
- Datasets maintained by Cadw for designated sites located within Wales;
 - The Clwyd-Powys Historic Environment Record (CPHER), comprising a database of recorded archaeological sites, find spots, and archaeological events within the region;
 - National Monuments Record of Wales (NMRW), which holds the national collection of information about the historic environment of Wales, and is maintained by the Royal Commission on the Ancient and Historical Monuments of Wales (RCHAMW) – this source could only be consulted in digital format due to the Covid-19 restrictions;
 - Aerial photography held online (<http://aerialphotos.wales.gov.uk/>, and <http://lle.wales.gov.uk/home>). Images held by the National Monuments Record of Wales and at the Denbighshire Archives cannot be accessed at this point due to Covid-19 restrictions;

- LiDAR data held by the Welsh Government (<http://lle.wales.gov.uk/home>);
- LANDMAP, a GIS based landscape resource maintained by Natural Resources Wales (formerly the Countryside Council for Wales) and comprising a nationally consistent dataset pertaining to Historic Landscapes and environmental designations including AONBs;
- National heritage datasets including Archaeological Data Service (ADS), the Portable Antiquities Scheme and Parks and Gardens UK;
- Historic manuscripts, surveyed maps, and Ordnance Survey maps held online;
- Historic maps held at the Royal Airforce Museum, London;
- Relevant primary and secondary sources held online and Wessex Archaeology's own library. Both published and unpublished archaeological reports relating to excavations and observations in the vicinity of the Site will be studied; and
- Cof Cymru displays depictions and associated record descriptions of Designated Historic Assets in Wales.

2.3.2 Sources consulted during the preparation of this assessment are listed in the References section at the end of this report. Records obtained from the CPHR are listed in **Appendix 3** and illustrated in **Figures 5-10**.

2.3.3 It should be noted that some sources, in particular the records held at the county Archives and RCAHMW were not available for consultation due to Covid 19 restrictions at the time of writing. Attempts were made to visit the archives following their reopening in Autumn/winter 2021, however due to restrictions of visitor numbers and high demand for appointments due to closure, access to these archives was not achieved. Given the good levels of digital sources including access to aerial photos, tithe maps, OS surveyors drawings from the early 19th century and Ordnance Survey maps, it is considered that this assessment has not been affected by this. Access to the RAF Museum was possible and historic maps relating to the Chain Radar Station at Erw'r-gaseg were consulted.

2.4 Site visit

2.4.1 The site visit was undertaken between 26th and 30th April 2021. Site conditions are summarised below (see **Section 4.1**). Some areas of the ECC were unavailable for access during the survey but the majority of these areas were walked by the geophysical survey team in late 2021. A follow up Site visit to the foreshore area where proposed offshore export cables will be joined to the onshore export cables (the landfall area), was undertaken in December 2021. Following the clearance of vegetation at Erw'r-gaseg, the area for the chain radar station was visited in January 2022 and the structures that had previously been obscured by trees and vegetation were photographed and mapped.

2.4.2 The aim of the site visits were to assess the general aspect, character, condition and setting of the Site and to identify any prior impacts not evident from secondary sources. The site visit also sought to ascertain if the site contained any previously unidentified features of archaeological, architectural or historic interest.

2.5 Assessment of significance

Significance

- 2.5.1 The Welsh Government's Heritage Impact Assessment in Wales document (CADW May 2017) includes a section on Understanding Significance (Section 4.2) which states that;

'Your statement of significance should include a brief description of the historic asset and a summary of its overall heritage value. It should make specific reference to those aspects of its significance that will be most directly affected by your proposals and their contribution to the whole. Focusing on the heritage values of your historic asset will help you to analyse its significance:

- Evidential value: the extent to which the physical fabric tells how and when your historic asset was made, how it was used and how it has changed over time. There may be buried or obscured elements associated with your historic asset which may also be an important potential source of evidence;*
- Historical value: your historic asset may illustrate a particular past way of life or be associated with a specific person or event; there may be physical evidence for these connections which it could be important to retain;*
- Aesthetic value: the design, construction and craftsmanship of your historic asset. This can also include setting and views to and from the historic asset, which may have changed through time;*
- Communal value: your historic asset may have particular significance to people for its commemorative, symbolic or spiritual value, or for the part it has played in local cultural or public life. This will be particularly important in the case of buildings in public use or sites where public access must be maintained or improved' (CADW 2017).*

- 2.5.2 Heritage values are further discussed in the Welsh Government's document Conservation principles for the sustainable management of the historic environment in Wales (CADW 2011).

2.6 Assumptions and Limitations

- 2.6.1 Data used to compile this report consists of secondary information derived from a variety of sources, only some of which have been directly examined for the purposes of this Study. The assumption is made that this data, as well as that derived from other secondary sources, is reasonably accurate.

- 2.6.2 The records held by the CPHR are not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within it is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

2.7 Exceptional limitations

- 2.7.1 Some sources of information, in particular the records held at the county Archives and RCAHMW were not available for consultation due to Covid 19 restrictions at the time of writing. Attempts were made to visit the archive following their reopening in Autumn/Winter 2021, however due to restrictions of visitor numbers and high demand for appointments due to closure, access to these archives was not achieved. Given the good levels of digital sources including access to aerial photos, tithe maps, OS surveyors drawings from the early

19th century and Ordnance Survey maps, it is considered that this assessment has not been affected by this. Access to the RAF Museum was possible and historic maps relating to the Chain Radar Station at Erw'r-gaseg were consulted.

2.8 Copyright

- 2.8.1 This report may contain material that is non-Wessex Archaeology copyright (e.g., Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the Copyright, Designs and Patents Act 1988 with regard to multiple copying and electronic dissemination of the report.

3 BASELINE RESOURCE

3.1 Designated archaeological assets

- 3.1.1 There are no designated archaeological assets within the proposed ECC route or the OL. Designated archaeological asset within the 1km Study Area comprise;
- Rhuddlan Town Banks (FL068) located 700m to the east of the OL;
 - Rhuddlan Castle (FL004) located 1km from the OL; and
 - First World War Practice trenches within Bodelwyddan Park (FL186) located 670m to the west of the OL.

3.2 Order Limits (OL) and Onshore Export Cable Corridor (ECC) Description

- 3.2.1 The OL and Onshore ECC route extends over approximately 12km between the Mean Low Water Level at the beach east of Rhyl, through the Rhyl Golf Course and through the Lyons Robin Hood Holiday Park, across agricultural fields to the east of Rhyl and curves south west around the northern edge of Rhuddlan. The route crosses the River Clwyd to the west of Rhuddlan and continues south between Pengwern and Bodelwyddan. The route crosses the A55 to the west of the St Asaph Business Park and turns east south of Glascoed Road (B5381) to connect to the existing National Grid Substation (**Figure 1**).
- 3.2.2 Due to the length of the route, the OL crosses a number of different land types including the coastal area and built areas, although much of the route is aligned through agricultural land used predominantly for pasture with some areas used for crop. For ease of reference the route has been divided into Route Sections A-G below, shown on **Figure 1**.

3.3 Site Visit Observations

- 3.3.1 The CPHR records areas within the southern part of the route as ridge and furrow earthworks identified from aerial photographs and LiDAR images. The site visit confirmed that the majority of these recorded earthworks were not visible above ground (**Plates 14 & 16-18**). A single field associated with Faenol-Bropor could be identified as extant ridge and furrow earthworks, located to the south east of the farmstead (**Plate 15; Figure 10**; Section F).
- 3.3.2 The Rhuddlan Chain Home Radar Station was identified within an area of woodland within Route Section E to the west of Pengwern. A single structure was identified in April 2021 although earthmoving was evident in the form of a large mound adjacent to the structure, perhaps to shield it from view. Due to the dense trees and undergrowth no other structural

remains or foundation pads could be identified at ground level. The Chain Home Radar Station building identified in April 2021 shown in **Plate 8**. Following the clearance of vegetation and trees, another visit was undertaken in January 2022 to the southern part of the wooded area. An additional Chain Radar Station building was identified as well as smaller storage structures and concrete pads. These structures were photographed and mapped and lie outside of the OL to the north (**Figure 9; Plates 29-31**).

- 3.3.3 Most of the woodland within which the Chain Home Radar Station is sited no longer forms part of the OL (the OL had covered much of the woodland when Statutory Consultation was undertaken). The boundary of the OL has been reduced in this area to exclude much of this woodland.
- 3.3.4 The site visit confirmed the presence of hedgerows within the route corridor which may be considered to be historically important under the hedgerows regulations (**Plates 13-16**). The hedgerows are present on the tithe map and 1st edition Ordnance Survey map and form an integral part of a field system.
- 3.3.5 A visit to the foreshore was conducted in December 2021 to identify potential archaeological features/deposits within the inter-tidal zone. Areas of peat deposits were identified on the foreshore along with tree stumps and logs. Concrete sheets and pillars were also observed. The positions of these remains are shown on **Figure 5** and a gazetteer is provided in **Appendix 2**; photographs are presented in **Plates 18-24**.

3.4 Topography, Hydrology and Geology

- 3.4.1 The northern extent of the onshore ECC makes landfall on the beach between Rhyl and Prestatyn. To the south of the coastal area beyond the sea wall is the Rhyl Golf Course, Holiday Park and the railway. To the south of the railway embankment is an area of low lying poorly drained ground with a number of drainage ditches cut through it. The route steadily inclines to the south to a height of around 15m aOD near Rhydorddwy Goch Farm and then gradually drops away again towards the River Clwyd to approximately 3m aOD. On the southern side of the Clwyd the land begins to rise again to approximately 11m aOD close to Pengwern, and continues to rise to the south to approximately 21m aOD at Faenol-Bropor. The southern part of the onshore ECC to the north and south of Glascoed Road lies between 48-58m aOD.
- 3.4.2 The northern part of the onshore ECC is characterised by small fields bound by drainage ditches reflecting the low-lying nature of the landscape and the need for suitable drainage. This is less apparent in the southern part of the onshore ECC particularly as the land rises out of the river valley where the land is better drained.
- 3.4.3 Following the end of the last ice age, sea levels began to rise as the ice sheets retreated, and as such there were many periods of marine transgression and regression forming landsurfaces during the stable periods which frequently became inundated. This formed Holocene peat deposits which have been known to become exposed on the foreshore at Rhyl which can provide preservation of organic and palaeoenvironmental remains. Peat deposits, tree stumps and a log were observed during the foreshore walkover survey in December 2021 and are discussed in more detail below.
- 3.4.4 Due to the length of the onshore ECC and the changing environment, low lying coastal areas to higher inland areas, the superficial geology of the route is varied (**Figures 2-4**). The northern part of the route, at the landfall in Section A are Marine Beach deposits of

sand. Section B is underlain by Tidal Flat deposits of clay, silt and sand in its northern part and Devensian till deposits in its southern part. Section C is largely underlain by Devensian till deposits with areas of Devensian Glaciofluvial sheet deposits of sand and gravel around Bryn Cwnin Farm. The northern part of Section D is a mix of Devensian Glaciofluvial sheet deposits, Devensian till and Tidal Flat Deposits. The southern part of Section D and the northern part of Section E around the River Clwyd are Tidal Flat Deposits. The southern part of Section E and the entirety of Sections F and G are underlain by Devensian till deposits.

- 3.4.5 Bedrock geology across the northern part of the route comprises Permian Rocks of interbedded sandstone and conglomerate with the southern part of the route comprising Warwickshire group siltstone, sandstone and subordinate mudstone (British Geology Viewer).

3.5 Historic and archaeological background

- 3.5.1 The following section is a summary of the archaeological and historical development of the OL and the Study Area, compiled from the sources listed in **Section 2.3**. The potential for the likelihood of as yet unrecorded archaeological remains within the OL is informed by the consideration of the known heritage assets within the Study Area, in conjunction with the geology and topography of the area.
- 3.5.2 Records obtained from the CHER, Cadw and other sources are listed in **Appendix 2** and illustrated in **Figures 5–10**. CHER records are referred to by their monument number assigned by the Historic Environment Record, in brackets below.
- 3.5.3 This section has been supplemented with a summary of the results of the Geophysical Survey undertaken in 2021. The results are presented in full in a separate report (Wessex Archaeology 2022).

Section A: Intertidal (MLW to MHW) and Section B: Intertidal (MHW) to B4118

- 3.5.4 Recent foreshore surveys undertaken by CPAT in April 2021 and surveys undertaken for the purposes of this assessment in December 2021 has identified a number of historic assets on the foreshore. Those identified during December 2021 are plotted on **Figure 5**, listed in **Appendix 2** and shown in **Plates 18-24**. Peat deposits were identified upon the foreshore at 5001, 5002, 5003 and 5005 which were in many cases described as being above a layer of clay. Tree stumps, roots and logs were also recorded on the foreshore at 5003, 5006, 5007 and 5008 as further evidence of the fossil forest previously recorded on the foreshore at Rhyl. The proximity of the onshore ECC to the Irish Sea would likely have made this landscape attractive for early prehistoric populations, and there is evidence of Mesolithic and Neolithic settlement at Prestatyn and Rhyl, indicating the exploitation of coastal resources (**CPAT Report no. 266**).
- 3.5.5 Archaeological investigations on the beach at Rhyl, to the west of the onshore ECC (**CPAT Report no. 1582**) have identified that the existing sea defences have been built on an embankment of medium dense to dense sandy gravel, with a variable cobbles and fine content. The beach sands typically comprised slightly gravelly fine to coarse sands with shell fragments. The underlying geological background beneath this surface consisted of:
- Tidal flat deposits – organic silty clays with subordinate peat and sand layers
 - Glaciofluvial deposits

- Glacial Till deposits
- Weathered sandstone

- 3.5.6 Where there were lenses of peat and other organic remains identified within the geology, these have the potential to preserve important evidence relating to coastal change and human activity during the Mesolithic and later prehistoric periods. These types of archaeological remains are expected to run through this section of the onshore ECC.
- 3.5.7 The earliest evidence of human occupation along the northern coastline of Wales is at the Pontnewydd Cave site near Llandudno, dating to c. 225 ka (thousand years) Before Present (BP) (Flemming 2005). Later Palaeolithic sites along this coastline include Kendricks Cave on the Great Orme Peninsula near Llandudno, from which Late Upper Palaeolithic materials (c.10ka BP) were found (Flemming 2005).
- 3.5.8 In the wider area, along the coast to the north east, worked flint and chert of Mesolithic date have been recovered from several locations around Prestatyn as well as shell middens of Mesolithic date indicating the consumption of mussels. Mesolithic 'Fossil Forests' have been identified on the Welsh coastline at Rhyl, Borth, Cardigan Bay and Conwy. The Mesolithic fossil forest was first recorded at Rhyl in 1893 and was recorded as *'thirty trees rooted as they grew, whilst there are a number of horizontal trunks which appear to rest as they fell'* (North Wales Chronicle, 11 February 1893). The tree stumps were recorded again in 1912 when 200 tree stumps were recorded between Rhyl Pier and halfway between Rhyl and Prestatyn. In 1918, 100 tree stumps were noted (CPAT 2019). During the mid-holocene the forests were present along the coast for around 2000 years, in areas which are now only exposed at low tide and peat beds have been known to outcrop on the foreshore at Rhyl at low tide. An antler mattock of Mesolithic date was found at the western extent of the Study Area upon the foreshore near Splash Point, Rhyl (33099). Objects dating to the prehistoric periods such as bone, shell and bronze have been found on the Welsh coastline dating to the Neolithic (101936 and 57896) and Bronze Age (101937). A neolithic axe head has been found just south of the foreshore in Route Section A, 900m from the OL (140654). Nearby a possible ditched enclosure identified as a possible cropmark from aerial photographs is recorded on the HER, approximately 50m across, located approximately 940m from the OL (141401).
- 3.5.9 The Burbo Bank Offshore Wind Farm Extension onshore cable connection found Bronze Age remains in the northernmost part of the onshore ECC near the shore at Rhyl which comprised mainly boundary ditches and scatters or groups of pits and postholes. It was suggested that domestic structures could be in the vicinity. The gullies were identified as being agricultural in nature and may be an indication of former Bronze Age field boundaries. Many of the pits contained evidence of burning and therefore could be associated with domestic activity. The Bronze Age activity extended across a 2km section of the onshore ECC suggesting that the activity extended over a large area just in from the present shoreline (Oxford Archaeology 2016).
- 3.5.10 There is a distinct absence of Romano-British evidence within this landscape, which is reflected as a theme across the north-eastern region of Wales (Archaeoleg 2003). Although, little archaeological investigation has taken place within the area.
- 3.5.11 The Domesday Survey indicates that the landscape was very sparsely settled by the medieval period, with settlements within the vicinity of the onshore ECC (Cefn Du and Rhyd Orddwy) only having populations of approximately two households. There is no evidence of

Saxon activity within this part of the onshore ECC; however, these sparse settlements may have originated in earlier Saxon settlements.

- 3.5.12 The Agricultural Revolution and associated developments in technological innovation saw the enclosure of the medieval open field system and the construction of more farmstead buildings nationwide. Rhyl Marsh was enclosed in 1842 and the Tithe Mapping indicates that the landscape had been fully enclosed by 1845 (National Library of Wales 2021). This agricultural development is reflected in the development of the Rhyd-wen (or Rhydorddwy-wen) dating to the 17th century and Rhydorddwy Fawr Farmhouse dating to the mid-19th century, to the west and east of the onshore ECC respectively (**14986** and **14983-85**).
- 3.5.13 The existing railway line that runs through Section A of the onshore ECC route has been identified on the First Edition Ordnance Survey mapping as the London and North Western Railway (Chester and Holyhead Branch), with historic documentation indicating that the company was merged with the Chester and Holyhead Railway in 1858. It has been in continuous use since then, running through to Rhyl train station (which opened in 1848 and has 2 platforms available for passengers), to the west of the OL.
- 3.5.14 Historic mapping indicates that the rest of this section of the onshore ECC has been part of an extensive agricultural landscape from the mid-19th century to the present, with many of the field boundaries to the south of the railway line having remained intact since at least 1845, when the Rhyl Tithe map was drawn (**not replicated**). 1910 Ordnance Survey mapping indicates Salam bungalow had been constructed at the edge of the foreshore within the OL. There also seems to have been smaller structures within the north-western boundary of the onshore ECC, which likely indicate outbuildings associated with a small farmstead outside of the onshore ECC. The Rhyl Golf Club is known to have been established in 1890 and is one of the oldest surviving golf clubs in north Wales, although in its early form covered a smaller area to the west of the OL. The course was extended and reopened in 1908 by which time the links extended into the OL. Prior to this this part of the OL comprised small irregular parcels of land bound by drainage ditches.
- 3.5.15 By 1938 Ordnance Survey mapping, there had been further developments to the north of the railway line, with the Rhyl Coast Road constructed by this time, that runs east to west parallel to the railway line that is still used today, as well as shifting field boundaries and the construction of houses to the east of the onshore ECC. There is an undated point for a brewery located close to the eastern boundary of the OL that has been indicated to have been 19th century in date, but there is no historic mapping that suggests it was still extant by the First Edition Ordnance Survey mapping if it was there at all (**152294**).
- 3.5.16 1960-1963 Ordnance survey mapping shows the continuation of the Rhyl Golf Links within Section A of the onshore ECC, to the north of the Rhyl Coast Road with the area to the south of the road being turned in the Robin Hood Holiday camp. These areas have continued with these uses up until the present day.
- 3.5.17 LiDAR data covering Section A just covers the beach area and no potential archaeological features are identified from the LiDAR data in that area. Some potentially raised areas can be seen within the OL within Section B immediately south of the railway line. These may measure between 30-60m across but may be very slight raises as these could not be identified on the site visit. These may be natural of natural origin, however, should they be of archaeological origin, their coastal position could suggest that these may have been salterns related to salt making on the coast. No other potential archaeological features were identified from the LiDAR data in Section B.

- 3.5.18 Geophysical survey results from within Section B to the south of the railway line revealed a probable former field boundary and a number of pit-like features which were interpreted as being of possible archaeological origin. As no intrusive investigation of these features has been undertaken the presence, date and significance of these features is unconfirmed.

Section C: B5118 to A525

- 3.5.19 The proximity of the onshore ECC to the Irish Sea would likely have made this landscape attractive for early prehistoric populations, and there is evidence of Mesolithic and Neolithic settlement at Prestatyn and Rhyl, indicating the exploitation of coastal resources (**CPAT Report no. 266**). The absence of extensive prehistoric activity within this landscape could relate to the lack of previous targeted intrusive archaeological investigations, and therefore raises the possibility that there remains a background potential for further, as yet undiscovered archaeological remains within the OL.
- 3.5.20 Romano-British activity is also limited within the north-eastern region of Wales, with research suggesting that there is a lack of evidence of Romano-British settlement patterns and urban centres (Archaeoleg 2003). However, Bryn Cwnin Cropmark (**102650**) has been interpreted as a Romano-British enclosure located 125m to the south east of the OL. A visit was conducted in 1995 and the site was considered flat with no above ground expression of the cropmark. A 'C' shape cropmark can be seen in this location on the 2006 aerial images however, it cannot be identified on any of the other more recent aerial images. The LiDAR data in this area shows a sub-rectangular feature of unknown origin to the south of the HER point, but this is unlikely to relate to the cropmark. No other possible archaeological features could be identified from the LiDAR in Section C. A roman coin was found within the OL in the southern part of Section C at Bryn Cwybr (**106448**).
- 3.5.21 The Domesday Survey (1086) indicates that the landscape was settled by the medieval period, with a number of small settlements running along the onshore ECC, situated within the historic county of Cheshire (Cefn Du, Cwybr Bach, Cwybr, Rhuddlan and Llan Elwy). There is no evidence of Saxon activity within the landscape; however, these sparse settlements may have originated in earlier Saxon settlements.
- 3.5.22 It is likely that the landscape continued to be predominantly agricultural in nature during the early medieval and medieval periods, made of a regularly formed fields containing ridge and furrow. Ridge and furrow would have been a crucial part of the medieval feudal system where peasant workers were given strips of land by knights and lords of the manors, in exchange for a percentage of their produce for sustenance.
- 3.5.23 Tithe Mapping indicates that the landscape within Section C had been fully enclosed by 1845 (National Library of Wales 2021). This agricultural development is reflected in the development of Bryn Cwnin Farm within the southern section of Section C. The current farmhouse is Grade II listed and dates to 1820 although fragments of earlier buildings suggest that the farm had been established well before that time. An associated range of farm buildings (also Grade II listed) are thought to date to the late 18th century. The remainder of Section C is characterised on the historic maps by small and medium square and rectangular fields with a few pockets of woodland. A number of the fields on the first edition map have small square ponds/depressions. A small number of these are labelled as gravel pits and as such it may be that small scale gravel extraction was taking place in this area. The low-lying nature of the area would have resulted in disused gravel pits filling with water to create ponds.

- 3.5.24 In the later part of the 20th century some of the smaller fields within Section C were amalgamated to create larger fields, although the majority of the field layout continued from the end of the 19th century.
- 3.5.25 A number of features of possible archaeological origin were identified through the geophysical survey within Route Section C. A possible enclosure was suggested to the south of Dyserth Road, however it was also noted that due to the weak response this could be as a result of modern ploughing rather than of archaeological origin. It has been suggested that within Route Section C parallel linear trends could be as a result of ridge and furrow cultivation. To the north of Bryn Cwnin Farm possible penannular anomalies which could relate to either Bronze Age ring ditches or an Iron Age to Roman roundhouse were identified. Without further investigation the date and presence of these features is confirmed. To the south of this possible associated linear features were also identified as well as a possible series of pits and to the south west a rectilinear feature was also identified. To the south of Bryn Cwnin Farm further linear and curvilinear anomalies were identified.
- 3.5.26 Further penannular and rectilinear anomalies were identified to the south east of Bryn Cwnin Farm. A number of pit-like features of possible archaeological origin were identified throughout Route Section C.

Section D: A525 to A547

- 3.5.27 There is evidence of early prehistoric evidence within Section D, with areas of Mesolithic activity (**35030** and **81662**) identified situated close to the River Clwyd near Rhuddlan. The river would have provided the natural resources which would have made this landscape attractive for early prehistoric populations. During this period this area would have been 10km inland of the former Mesolithic coastline. As a result of rising sea levels, an estuary formed at the mouth of the River Clwyd between Abergele and Rhyl. Finds from the Rhuddlan area include worked flint, hazelnut shells and other charred plant remains some of which came from small pits. Mesolithic activity was recorded in 1972 at Rhuddlan which found flint artefacts including a scraper, awl and microliths (57739).
- 3.5.28 Excavations that took place in the area (**35030**) in advance of the Rhuddlan bypass identified scatters of flint and chert flakes in a context of brown clay layer containing gravel, as well as timbers, hazelnuts and snail shells in upper grey clay associated with a nearby barrow pit. A Neolithic axe was also found to the east of the onshore ECC at Rhuddlan (**102029**). Furthermore, excavations at Gwindy Street in Rhuddlan (**81662**) found a total of 38 flints and cherts, tools in which included scarpers, fabricators and utilised/retouched pieces. These excavations indicate that there is potential for further as yet undiscovered early prehistoric remains to be present within the OL. In the wider area potential Neolithic occupation sites have been indicated at Prestatyn and Dyserth.
- 3.5.29 The position of Section D around the River Clwyd and the proximity of the onshore ECC to the north Welsh coastline, suggests that the landscape would have likely been attractive to these prehistoric populations for its accessibility to natural resources. Across the north-eastern region of Wales, there have been many later prehistoric settlement sites identified purely through cropmarks with little excavation undertaken, and therefore intrusive archaeological works may enhance our understanding of the prehistoric communities in Wales (Archaeoleg 2003).
- 3.5.30 This is supported by the Bronze Age activity within the landscape, which includes excavations that identified domestic refuse tip (**55749**), as well as a further pit containing pottery (**57747**) both within the town of Rhuddlan. Furthermore, fieldnames implicitly suggest that there was a Bronze Age cairn (**101478**) located in the landscape of the

southern part of the onshore ECC. Excavations for Burbo Bank Extension Offshore Wind Farm close to the coast at Rhyl also discovered Bronze Age remains. These suggest the presence of a Bronze Age community within the landscape, or at least that the area was visited by communities during the period.

- 3.5.31 An Iron Age enclosure is recorded 230m to the north west of the onshore ECC within Section D, this has been identified from aerial photographs and is believed to be a possible defended enclosure (**101858; CPAT 2008**). Romano-British activity is limited within the north-eastern region of Wales, with research suggesting that there is a lack of evidence of Romano-British settlement patterns and urban centres (Archaeoleg 2003). However Roman remains have been found at Rhuddlan, although the nature of the remains is unclear. A sherd of samian ware pottery is recorded at Rhuddlan (102572) as well as a small roman ditch uncovered during road widening (101754).
- 3.5.32 Rhuddlan was one of the principal centres of activity in the area during the medieval period. The burh of *Cledemutha* (the name perhaps derived from 'Clwydmouth') is documented as having been constructed by Edward the Elder in 921AD. Excavations have revealed that Rhuddlan was enclosed by a large ditch and bank earthwork (the town ditch), may represent the late Saxon Burh. Earlier evidence dating to the Roman period may indicate that Rhuddlan was already an important early medieval centre before the construction of the late Saxon burh. A large ditch of 10th century date was recorded during excavations at Rhuddlan (164156).
- 3.5.33 The historic maps marked the Site of the Battle of Morfa Rhuddlan which was a battle between the Welsh and the Saxons in 795, where the Welsh were defeated and their King Carradog was slain by the Saxons. The exact location of the battle is unknown although the label on the 1st edition Ordnance Survey is position over Gipsy Lane which lies within the OL.
- 3.5.34 There have been a number of targeted excavations within Rhuddlan that have been able to trace the development of the town through the medieval period. During the 11th century a much smaller area of Norman occupation was established in the north western corner of the Saxon Burh. A motte and Bailey Castle was also built in 1073AD by Robert of Rhuddlan. After Edward's defeat of an uprising at Rhuddlan in 1277AD, Edward built a large stone castle in the north western corner of the former Saxon burh and established it as a new town. Around the same period the course of the River Clwyd was straightened by a new channel to allow sea-going vessels access to Rhuddlan from the sea, establishing it as a port. Excavations at Rhuddlan have revealed the remains of a stone-built Norman church, medieval houses and other timber buildings, burgage plots, defensive ditches and pottery kilns. An HER entry records the Battle of Rhuddlan in 1403 whereby Rhuddlan was burnt by Owain Glyndwr, although the castle remained in English hands. By 1406/7 the town was again under English control (57771).
- 3.5.35 It is likely that the rest of the landscape continued to be predominantly agricultural in nature during the early medieval and medieval periods, made of a regularly formed fields containing ridge and furrow. Ridge and furrow would have been a crucial part of the medieval feudal system where peasant workers were given strips of land by knights and lords of the manors, in exchange for a percentage of their produce for sustenance. In 1794 the Rhuddlan Marsh Embankment Trust was established to reclaim the marshes of Morfa Rhuddlan. Cwybr Marsh to the north of Rhuddlan was enclosed in 1815.
- 3.5.36 The historic maps show that the area around the River Clwyd was formed of a part marshland and part reclaimed area on the first edition map. By the 2nd edition map the area

around the River Clwyd had been entirely enclosed as small irregular fields delineated by drainage ditches. This field layout has continued to the present day.

- 3.5.37 A former branch line of the London and North Western Railway line was aligned to the south of the River Clwyd known as the Vale of Clwyd Branch line. A station was located to the west of the OL south of Rhuddlan at Marsh Lane and another station to the north west known as Foryd Station. Just beyond Foryd Station the line connected to the Chester to Holyhead branch line at Foryd Junction. The line had been established by the 1st edition Ordnance Survey map but by the 1970s Rhuddlan Station is shown to have been removed and the line dismantled. The onshore ECC of the former railway line is now an access track.
- 3.5.38 The LiDAR data covering Section D shows a number of natural channels close to the River Clwyd, however no features of potential archaeological origin could be identified to the north of the Clwyd.
- 3.5.39 Within Route Section D curvilinear and rectilinear anomalies were identified through the geophysical survey of possible archaeological origin. A number of smaller possible pit-like features were also identified within Route Section D. Without further investigation the presence, date and significance of these features remains unconfirmed.
- 3.5.40 A possible former drain or field boundary was identified within the southern part of Route Section D. Other responses within this section are thought to date to modern services or geological variations.

Section E: A547 to A55

- 3.5.41 The absence of extensive prehistoric activity within this landscape could relate to the lack of previous targeted intrusive archaeological investigations, and therefore raises the possibility that there remains a background potential for further, as yet undiscovered archaeological remains within the immediate vicinity of the onshore ECC. A point for Mesolithic settlement, Bronze Age settlement and Romano-British settlement is recorded within Route Section E although this relates more generally to numerous flint finds found at Rhuddlan rather than actually Mesolithic occupation at this location (57767, 58845, 57768).
- 3.5.42 Romano-British activity is also limited within the north-eastern region of Wales, with research suggesting that there is a lack of evidence of Romano-British settlement patterns and urban centres (Archaeoleg 2003). However, there has been Romano-British rural settlement identified at Rhuddlan, in close proximity to the River Clwyd, and there is a conjectural Romano-British Road, that runs east to west across the landscape to the south of St Asaph originally connecting Chester to Caernarfon. Due to the proximity to this major routeway, this would suggest that the area through which the onshore ECC is routed would have been a part of the Romano-British agricultural hinterland, with smaller rural settlements to support the agricultural production within the landscape. Romano-British finds have been recorded in the western part of the Study Area, approximately 900m from the onshore ECC through metal detecting, including a roman brooch and roman coins (70799).
- 3.5.43 Archaeological assessment undertaken in advance of the Burbo Bank Extension Offshore Wind Farm comprised a large number of archaeological trial trenches along its route. Approximately 1.1km to the east of Section E a series of large drainage ditches were discovered to the south of Rhuddlan and close to the River Clwyd. Samples from the base of one of the ditches provided a 5th-6th century date which suggests that land reclamation may have taken place earlier than previously supposed and that the area around it may

have been used for crop. The ditch had been recut several times indicating that it was in use for some time (Oxford Archaeology 2016; 169425).

- 3.5.44 The Domesday Survey (1086) indicates that the landscape was settled by the medieval period, with a number of small settlements running along the onshore ECC, situated within the historic county of Cheshire (Cefn Du, Cwybr Bach, Cwybr, Rhuddlan and Llan Elwy). There is no evidence of Saxon activity within the landscape; however, these sparse settlements may have originated in earlier Saxon settlements.
- 3.5.45 The Agricultural Revolution and associated developments in technological innovation saw the enclosure of open fields and the construction of more farmstead buildings nationwide. Tithe Mapping indicates that the landscape had been fully enclosed by 1845 (National Library of Wales 2021). This agricultural development is reflected by the number of farmsteads constructed during this period including Tyddyn Isaf which lies adjacent to the OL and is Grade II listed (80758). The farmhouse dates to the mid to late 19th century and incorporates an older house into its rear wing. The tithe map created in the 1840s shows the original farmhouse when it was in a tenancy of the Bodelwyddan Estate. The land to the immediate east of Tyddyn Isaf is recorded as having previously been ridge and furrow, although this had no above ground expression during the walkover survey. Ridge and furrow would have been a crucial part of the medieval feudal system where peasant workers were given strips of land by knights and lords of the manors, in exchange for a percentage of their produce for sustenance.
- 3.5.46 The onshore ECC route runs to the west of Pengwern Hall, which is a Grade II Listed former Georgian Hall. Now converted into a college for adults with special needs, the building retains much of its original character. A number of the post-medieval historic assets within proximity to this part of the onshore ECC are related to the development of the Pengwern Hall, including the former coach house, former stables and features associated with the development of the gardens. The HER records that land at Pengwern may have been requisitioned by the army for use as a prisoner of war camp and latterly a camp for displaced persons (**132201**). Pengwern is shown at the edge of the 1941 Air Ministry map, but lay outside of the boundary of the Air Ministry land. A thick tree belt is indicated along its western edge and to the north of the buildings a wood is labelled. In the south western corner of the land associated with Pengwern a series of buildings are indicated with the label 'Army Guard'. This comprised of four barrack blocks, a 'Dining and Institute Block', an Orderly Room and 'T mast'.
- 3.5.47 Other post-medieval to modern farmsteads within the vicinity of this part of the onshore ECC route include Bryn-Carrog Farm, Tyisaf, Sarn, Meadow Brook Farm, and Fferm Farm. Historic maps from the late 19th and 20th centuries show the continued use of this section of the onshore ECC as agricultural land characterised by agricultural fields and small patches of woodland with some fields delineated by a ditch and wooded boundary rather than a hedgerow.
- 3.5.48 Close to the southern part of Route Section E, 420m to the east of the OL in the southern part of Section E, is the site of an army camp which is known to have been in existence by late 1914. This was a large, tented camp at St Asaph and was intended as a temporary construction, although it has been suggested that some of the buildings may have been timber. The camp was known as Gwernigron Camp and a sale of materials in October 1915 suggested that the camp had been closed by this time and the soldiers transferred to Kinnel Camp. There does not appear to be any traces of the camp on the ground or through aerial surveys (132162).

- 3.5.49 Within an area of woodland to the west of Pengwern Farm are the remains of a Chain Radar Station at Erw'r-gaseg close to the OL, known as the Rhuddlan Chain Home Radar Station. The Chain Home Low was the system used by the RAF during WWII as an early warning system to detect aircraft flying as low as 500ft. The example at Rhuddlan is of the 'West Coast' type and is thought to have originally had two pairs of 325" guyed steel transmitting masts and two 240" wooden receiving towers. The Radar Station is shown on a map dating to 1941 showing two separate buildings within the wooded area at Erw'r-gaseg. The building at the northern extent of the woodland was accessible during the site visit in April 2020 and the exterior of the building is shown in **Plate 8**. Vegetation was cleared surrounding the southern building in January 2022 and the exterior of the structure was photographed and mapped (**Figure 9; Plates 29-31**). Both of these structures lie outside of the OL to the north east. The buildings are labelled on the map as '7' 'T Block' and '11' 'Standby SETHOUSE'. Surrounding the southern structure, a number of concrete pads and small three sided storage sheds were also identified along with the main building. Geophysical survey results indicate the sub-surface presence of related structures to the north east of the woodland, which corresponds with the map from the 1940s. The map and geophysical anomalies show the possible anchor points for stays to the transmission towers arranged in a square with projections to the north and the east. Whilst the Chain Radar Station standing structures have been excluded from the OL, the geophysical survey results and historic mapping indicate that associated remains lie within the Onshore ECC.
- 3.5.50 A single field within the OL within Section E (500m to the south of the northern extent of Section E) shows a number of regular and irregular striations, with some possible small mounds. It is possible that some or all of these features could be natural and some can be identified on the aerial images. The more irregular curving lines may be of natural origin; however, it is possible that the straighter more regular lines could be of archaeological origin.
- 3.5.51 Two large parallel curving linear anomalies were identified in the northern part of Route Section E south of Abergele Road. These may form a boundary feature or an enclosure. Further south within Route Section E to the north east of Fferm, two parallel linear anomalies were identified and to the south west of Fferm a rectilinear anomaly, linear anomalies and a possible pit-like feature were identified.
- 3.5.52 Within the southern part of Route Section E, a number of interconnected linear and curvilinear features were identified during the geophysical survey although this area has now been excluded from the OL (these had been within the OL as presented at Statutory Consultation). To the south of this, within the OL, a small curvilinear anomaly and a series of small discrete anomalies were identified as possible archaeology. Further south along the route anomalies relating to a possible field system of unknown date were identified.
- 3.5.53 At the southern end of Route Section E, a possible circular anomaly and possible linear anomalies were identified. Further curvilinear, linear and penannular anomalies of possible archaeological origin were noted to the north east of this, north of Princes Gorse, although this area has now been excluded from the OL (these had been within the OL as presented at Statutory Consultation).

Section F: A55 to B5381 (Substation)

- 3.5.54 The absence of extensive prehistoric activity within this landscape could relate to the lack of previous targeted intrusive archaeological investigations, and therefore raises the possibility that there remains a background potential for further, as yet undiscovered archaeological remains within the immediate vicinity of the onshore ECC. A possible

standing stone is speculated on the HER records, 100m to the east of the OL, although little information is available (**102568**).

- 3.5.55 Romano-British activity is also limited within the north-eastern region of Wales, with research suggesting that there is a lack of evidence of Romano-British settlement patterns and urban centres (Archaeoleg 2003). Roman-British finds were discovered through metal detecting within Section F, within the OL (**38624**).
- 3.5.56 The Domesday Survey (1086) indicates that the landscape was settled by the medieval period, with a number of small settlements running along the onshore ECC route, situated within the historic county of Cheshire (Cefn Du, Cwybr Bach, Cwybr, Rhuddlan and LLan Elwy). There is no evidence of Saxon activity within the landscape; however, these sparse settlements may have originated in earlier Saxon settlements.
- 3.5.57 It is thought that St Asaph may have been the site of a monastery and episcopal see as early as 560AS by St Kentigern. St Asaph is thought to have succeeded Kentigern as bishop. The earlier settlement was referred to as Llanuile (Llanelwy) in the Domesday book but around the middle of the 12th century the name was changed to St Asaph. In 1239 construction for a cathedral began but this was burned by the troops of Edward I in 1282.
- 3.5.58 It is likely that the landscape continued to be predominantly agricultural in nature during the early medieval and medieval periods, with extensive evidence of ridge and furrow in regularly formed fields being identified in the southern part of the onshore ECC. Ridge and furrow would have been a crucial part of the medieval feudal system where peasant workers were given strips of land by knights and lords of the manors, in exchange for a percentage of their produce for sustenance. The HER records that almost all of the area within the OL was previously ridge and furrow identified from aerial photographs and LiDAR although this was only visible within a single field to the south east of Faenol-Bropor Farmstead within the OL. It is possible that the ridge and furrow could exist as below ground features in other areas.
- 3.5.59 Faenol-Bropor is a farmstead which lies to the west and north of the OL. The Barn to the north west of the farmhouse is Grade II listed (1378) and dates to the late 18th century and may have originally been a stable. The farmhouse is thought to be contemporary but this is not a listed structure. The tithe map of 1840 shows that the farmstead just comprised the large barn and the farmhouse at this time. The farm was part of the estate of Lord Mostyn at this time. The agricultural fields which surround and are associated with the farmstead retain their historic character through the presence of hedgerow boundaries, grazing fields and the surviving area of ridge and furrow. This area of ridge and furrow could be identified on the site visit and can also be seen clearly on the LiDAR image. No other potential archaeological features could be identified on the LiDAR image within Section F.
- 3.5.60 The post-medieval period saw the development of small hamlets in villages. The Agricultural Revolution and associated developments in technological innovation saw the enclosure of open fields and the construction of more farmstead buildings nationwide. Tithe Mapping indicates that the landscape had been fully enclosed by 1845 (National Library of Wales 2021).
- 3.5.61 The onshore ECC and Substation Construction area runs along the boundary of the Bodelwyddan Castle Park which has been excluded from the OL. Documentary evidence suggests that the estate originated at least in the 15th century and the current layout of the estate dates to the mid-19th century which included refurbishment of the estate wall and formal garden. The house and pleasure grounds lie on the western side of the park and to

the east and south east are a fishpond, mill and related ponds. Although the grounds are now closed to the public, the castle structure continues to be used as a hotel and is Grade II* listed. A number of structures within the grounds of the Bodelwyddan estate are also listed including the terrace wall, garden structures and part of the estate wall. Bodelwyddan Castle Park is included on the non-statutory Cadw register of Landscapes Parks and Gardens of Special Historic Interest in Wales as Grade II. The Bodelwyddan Castle Park lies outside of the OL to the west.

- 3.5.62 The grounds also contain the scheduled monument relating to WWI practice trenches which extend beyond the scheduled area over several hectares (**FL186**). These were initially excavated for practice to excavate the trenches and then subsequently used for infantry combat training. Frontline trenches are identifiable from their crenelated shape with zig zag communication lines linking back to the reserve lines. It appears that several distinct groups were created perhaps as opposing lines. Circular craters across much of the area indicate that the practice was intended to be as realistic as possible, replicating the battlefield landscape. Overlooking the training area is what is thought to be a remote command post on slightly higher ground (CPAT 2014).
- 3.5.63 A number of geophysical anomalies of possible archaeological origin were noted at Faenol-Bropor and in the substation area. Semi-circular and linear anomalies were noted east of the entrance to Faenol Bropor and further south a series of semi-circular, rectilinear possible pit alignment and linear features which could be indicative of settlement evidence.
- 3.5.64 To the west of the area for the proposed substation eight circular anomalies were identified which could be indicative of Iron Age to Roman roundhouses due to their position close to the known roman road in this area. Numerous other possible linear anomalies surround these features suggesting further settlement evidence. To the east is another concentration of anomalies which are also possible ring ditch anomalies surrounded by a sub-rectangular enclosure.
- 3.5.65 In the southern part of Route Section F linear anomalies and another possible circular anomaly have been identified.

Section G: B5381 to National Grid Substation (Figure 8)

- 3.5.66 The absence of extensive prehistoric activity within Section G could relate to the lack of previous targeted intrusive archaeological investigations, and therefore raises the possibility that there remains a background potential for further, as yet undiscovered archaeological remains within the immediate vicinity of the onshore ECC. A possible cairn was noted in 1911, 340m to the south west of the OL, after a visit by RCAHM, where a mound of stones was speculated to be a possible cairn (**101478**). In the wider area a Neolithic chambered tomb lies to the south of Section G at Cefn Meiriadog, 1km to the south of the OL (Tyddyn Bleiddyn Burial Chamber Scheduled Monument; DE007). An Iron Age Hillfort is also located within the same area, approximately 1.2km to the south of Section G, known as Bedd-y-Cawr Hillfort (DE037).
- 3.5.67 Romano-British activity is also limited within the north-eastern region of Wales, with research suggesting that there is a lack of evidence of Romano-British settlement patterns and urban centres (Archaeoleg 2003). The conjectural route of Romano-British Road runs east to west along Glascoed Road along the northern part Section G. The road lead west from the legionary fortress of *Deva* (Chester) to the forts at *Canovium* (Conwy) and *Segontium* (Caernarvon) (**46825-46833/104607/104608/104609/102985**). This would suggest that the onshore ECC would have been a part of the Romano-British agricultural hinterland, with smaller rural settlements to support the agricultural production within the

landscape. It has been suggested that St Asaph could be location of a documented Roman Fort recorded as *Verae* as this lies at the crossroads of two Roman roads and links to an occupation site at Prestatyn.

- 3.5.68 The Domesday Survey (1086) indicates that the landscape was settled by the medieval period, with a number of small settlements running along the onshore ECC route, situated within the historic county of Cheshire (Cefn Du, Cwybr Bach, Cwybr, Rhuddlan and LLan Elwy). There is no evidence of Saxon activity within the landscape; however, these sparse settlements may have originated in earlier Saxon settlements.
- 3.5.69 The landscape continued to be predominantly agricultural in nature during the early medieval and medieval periods, with extensive evidence of ridge and furrow in regularly formed fields being identified in this part of the onshore ECC. Ridge and furrow would have been a crucial part of the medieval feudal system where peasant workers were given strips of land by knights and lords of the manors, in exchange for a percentage of their produce for sustenance. The HER has recorded areas of ridge and furrow covering the entirety Section G of the onshore ECC, which has been recorded from aerial photographs and LiDAR imagery. There was no extant ridge and furrow within Section G identified during the walkover survey. The LiDAR data does not clearly show ridge and furrow within this section of the onshore ECC, although some regular linear lines can be seen in some fields which may relate to more modern deep ploughing methods. It is possible that evidence for ridge and furrow could exist as below ground archaeological features.
- 3.5.70 The Agricultural Revolution and associated developments in technological innovation saw the enclosure of open fields and the construction of more farmstead buildings nationwide. Tithe Mapping indicates that the landscape had been fully enclosed by 1845 (National Library of Wales 2021). The tithe map within Section G shows a large number of irregular fields of different sizes, the larger of which are likely to have been amalgamated from the smaller earlier fields some of which can be seen on this map. In particular there are a small number of long thin strip fields which adjacent to the trackway which may have had earlier origins.
- 3.5.71 Comparison between the 1st edition Ordnance Survey map of the late 19th century and the 1960s Ordnance Survey map show that little had changed in terms of the field layout between these times with almost all of the field boundaries retained into the mid-20th century. The later part of the 20th century saw some amalgamation of the fields although much of the former rural and agricultural character was retained. No potential archaeological features could be identified from the LiDAR image within Section G.
- 3.5.72 In the northern part of Route Section G, a number of anomalies of possible archaeological origin have been identified including a rectilinear anomaly and an amorphous positive response. Further south, to the south of Waen Mereydd a semi-circular ring ditch and a former field boundary were identified as geophysical anomalies. Linear and curvilinear anomalies of possible archaeological origin were noted further west.

4 ARCHAEOLOGICAL INTEREST AND SIGNIFICANCE

4.1 Introduction

- 4.1.1 This section provides an initial assessment of the significance of potential archaeological remains which may lie within the onshore ECC, that may be subject to physical impacts.

4.2 Assessment of archaeological survival and previous impacts

- 4.2.1 Due to the coastal location of Section A of the onshore ECC and the changing coastal environment it is possible that natural processes such as tidal erosion have the potential to expose archaeological remains or bury archaeological remains beneath sand deposits (**Plates 1-2 & 18-24**).
- 4.2.2 The northern extent of Section B is part of the Rhyl Golf Club and as such, earth moving to create the golf course will have taken place since the course was established in the late 19th century (**Plate 3**). Due to the proximity of the course to the sea it is possible that the ground may have been raised to reduce the likelihood of coastal flooding. Two geotechnical boreholes were sunk within the Golf Course (BH304 and BH306) to a maximum depth of 4m and 6m. BH306 encountered pale yellow sand beach deposits and BH304 encountered grey/black sand deposits. Both suggest that substantial ground removal has not taken place in this area. The Holiday Park located to the south of the golf course is also likely to have undergone some form of landscaping during the construction of the holiday park which has the potential to have damaged or removed archaeological remains based on the depth and extent of these activities. The remainder of section B is used for agricultural purposes and it is likely that archaeological remains (if present) will survive in these areas.
- 4.2.3 Sections C and D of the onshore ECC are also agricultural land and as such conditions for survival of archaeological remains is expected to be good. Section E is also predominantly agricultural and conditions for survival are expected to be good across much of this area. The results of the geophysical survey suggest that archaeological remains have survived within these areas, although to date this has not been confirmed by any intrusive investigations.
- 4.2.4 Sections F and G are aligned through agricultural areas and as such survival of archaeological remains (if present) is expected to be good (**Plates 14-18**). Geophysical survey results in this area suggest that archaeological remains survive in these areas although this has not been confirmed through any intrusive investigation.

4.3 Interest and significance

- 4.3.1 The archaeological interest of any archaeological remains within the OL is derived from their evidential value through the information they may yield about past human activity. This section will be split into the relevant zones.

Sections A & B- Coastal Zone

- 4.3.2 The coastal area has potential for geoarchaeological and palaeoenvironmental remains relating to peat deposits which are known to exist on the foreshore at Rhyl found at a depth of around 1-2m below the beach surface with some areas of peat deposits and timber identified upon the surface during the foreshore walkover. The coastal area at Rhyl and beyond is known for the discovery of a Mesolithic fossil forest revealed by scouring of the foreshore. In addition, number of prehistoric finds have been recorded in the coastal area including an antler mattock, and Neolithic and Bronze Age tools as well as Mesolithic shell midden deposits in the area. These remains have archaeological interest and dependent upon the nature of these remains could be of low to medium significance.
- 4.3.3 Bronze Age features were discovered during the archaeological works for the Burbo Bank Onshore Cable Route. The Bronze Age features were focused on the northern part of the Burbo Bank Onshore Cable route and spread across an area extended 2km inland suggesting some widespread activity in the area. Bronze Age pits and a linear feature were discovered within Trench 2 which lies adjacent to the OL. Due to the rarity of Bronze Age

features in this area and the widespread nature of the features, the excavators assigned a medium (regional) significance to this discovery.

Section C and D-River Clwyd

- 4.3.4 Sections C and D cover the area around the River Clwyd and the area to the north around the south eastern outskirts of Rhyl. This area has potential for the discovery of Mesolithic flint scatters which may be found close to the river. This area would have been an attractive place for transient populations during this period making use of the natural resources. Evidence dating to the Mesolithic period would have archaeological significance and is likely to be considered of medium significance. Due to the riverine location of this area, there is also potential for palaeoenvironmental remains to be preserved within organic deposits. This may be considered to be of low to medium significance.

- 4.3.5 To the north of the river there is some background potential for Romano-British remains represented by a possible enclosure identified as a cropmark which has been assigned a possible Roman date. A Roman coin has also been found within this area. The significance of the enclosure will be dependent upon its function and date, although at present it is considered likely to be of low significance.

Sections E-G -Inland Area

- 4.3.6 Sections E to G of the onshore ECC lie within a predominantly rural area and as such there is potential for evidence of medieval and post-medieval agricultural practices. Within Section F a small area of ridge and furrow was identified as extant earthworks in land associated with the historic farmstead of Faenol-Bropor. The areas surrounding this are recorded as ridge and furrow visible from LiDAR but not perceptible on the ground. There is also potential for former field boundaries and agricultural structures associated with the development of the farmstead over time. Evidence for medieval and post-medieval agricultural practices are considered to be of low archaeological interest.
- 4.3.7 The postulated route of a Roman road is aligned along Glascoed Road which bisects the OL. To date there has been no archaeological investigation to confirm the route/alignment of the road in this area. There is potential for the discovery of a road surface and/or the discovery of associated roadside activity within the vicinity of Glascoed Road. Archaeological evidence of this type would be expected to be of low to medium significance.
- 4.3.8 Due to a lack of previous archaeological investigation within the onshore ECC and the surrounding area, there is also potential for as yet unknown archaeological remains to exist within Sections E-G. As such there is potential for earlier remains of prehistoric and roman periods to exist at within the onshore ECC. Survival of archaeological remains across much of this area is expected to be good. As the presence, date and significance of potential archaeological remains is unknown, the significance of such remains cannot be ascertained with certainty although it is expected that such remains would be of low to medium archaeological interest.

5 HISTORIC LANDSCAPE CHARACTER

5.1 Historic Landscape Characterisation

- 5.1.1 Cadw maintains a list of Registered Historic Landscapes which are designated historic assets of outstanding or special historic interest. The characterisation is the examination of the processes that have shaped the landscape over centuries of human activity which have made a contribution to its present character. CPAT have studied the designated historic landscapes within Denbighshire and have examined the historic character of each.

- 5.1.2 The area for the proposed OL is not part of a registered historic landscape. The closest Registered Historic Landscapes to the Onshore OL is The Lower Elwy Valley and the Vale of the Clwyd. As such no formal historic landscape characterisation exists for the area of the OL.
- 5.1.3 In the absence of any formal characterisation, the area can be broadly characterised in the following ways. The coastal area which consists of the beach, golf course and holiday park within Sections A and B. The southern part of Section B and all of Section C are characterised by small irregular enclosures bound by drainage ditches and hedges. Section D falls either side of the River Clwyd and as such sits within the river valley. On the northern side of the river this area is predominantly small irregular enclosures bound by drainage ditches, however on the southern side more regular larger square enclosures are dominant. Section E is comprised of larger agricultural fields (likely an amalgamation of smaller, earlier fields), and a single area of woodland. Section F is comprised of the historic farmstead at Faenol-Bropor and its associated agricultural land. This comprises fields of varying size, predominantly used for grazing and bound by hedgerows. The HER records that this area was formerly ridge and furrow although this could only be identified as extant within a single field on the walkover survey. The time depth of the historic character of the landscape is more easily perceived within this area. Similarly, Section G has retained a series of smaller, regular fields, when compared to other parts of the onshore OL, perhaps suggesting the retention of an earlier field layout. Some of the larger fields within the eastern part of Section G are likely to have been an amalgamation of smaller earlier fields as seen in the western part of Section G.

Historic hedgerows

- 5.1.4 The walkover survey identified a number of hedgerows which may be considered to be historically 'important' under the Hedgerows Regulations Act 1997. These were evident within the agricultural areas, although were absent from the areas closest to the coast and around the river Clwyd which tended to be bound by drainage ditches rather than hedgerows. The hedgerows were commonly associated with the historic farmsteads throughout the onshore ECC, such as Bryn Cwnin, Tyddyn Isaf, Pengwern, and Faenol-Bropor, as a such may have first been established in the post-medieval period or earlier. No stone wall boundaries were identified within the OL during the walkover survey, although the boundary to Bodelwyddan Castle Estate was bound by a more formal high stone wall to delineate the parkland estate. Possible historic hedgerows within the OL are shown on **Figures 5-10**.

6 IMPACT ASSESSMENT

6.1 Development proposals

- 6.1.1 The Development Proposals involve the construction, operation and decommissioning of an Offshore Wind Farm off of the north coast of Wales comprising up to 50 Wind Turbine Generators (WTGs). The onshore aspects of the proposals involve;
- Infrastructure at landfall and HDD installations where the offshore cables are brought ashore;
 - Up to two Transition Joint Bays (TJBs) connecting the offshore cables to the onshore cables;
 - Installed cable ducts, joint pits and cables comprising up to two circuits;

- Cable Route extending for approximately 12km;
- Horizontal Directional Drilling (HDD) installations (or use of other trenchless crossing techniques) to facilitate crossings of road, watercourses and potentially areas of woodland;
- The onshore Substation to the west of St Asaph Business Park; and
- Up to two interconnecting cable circuits for the grid connection from the OnSS to the existing National Grid Bodelwyddan Substation.

6.1.2 At this stage decisions on exact locations of infrastructure and the precise technologies and construction methods that will be employed have not been made. These will be determined during detailed design that would take place between a decision on the application for development consent and the start of construction. In this instance a Maximum Design Scenario has been adopted as part of the 'Rochdale Envelope' approach to represent a worst-case scenario.

6.2 Statement of Potential Impact

6.2.1 The construction of the onshore elements of the proposed development is anticipated to entail the following sources of ground disturbance and excavations.

- Cut and Cover excavation for the onshore cables;
- Excavation for Transition Joint Bays;
- Excavation for Horizontal Directional Drilling entrance and exit pits;
- Horizontal Directional Drilling (dependent upon the depth);
- Construction for the Substation and Substation compound;
- Construction of temporary construction access roads;
- Construction of permanent operational maintenance access roads; and
- Construction of temporary construction compounds.

6.2.2 The aforementioned works have the potential to result in the damage to or loss of any buried archaeological features which may be present within their footprint. This could in turn result in a total or partial loss of significance of these archaeological assets.

6.2.3 Any adverse impact to buried archaeological features would be permanent and irreversible in nature. This potential adverse effect could be reduced through the implementation of an appropriate scheme of archaeological mitigation, which has been proposed within the Outline Written Scheme of Investigation for Archaeological Investigation (Wessex Archaeology 2022) and set out within the ES Chapter.

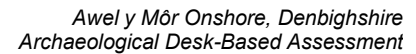
6.2.4 An assessment of the effects of the development upon elements of the historic landscape such as historic hedgerows and boundaries has been assessed in the Environmental Statement Chapter.

7 CONCLUSIONS

- 7.1.1 The effect of the development proposals upon the known and potential resource will be a material consideration in the determination of the Development Consent Order application.
- 7.1.2 This assessment has established that there is an archaeological interest within the onshore OL. This is defined as the potential for the presence of buried archaeological remains. Based upon the available information the onshore OL can be broadly divided into three main character areas in terms of its archaeological potential. The coastal zone (Sections A & B), where there is potential for prehistoric remains, in particular relating to Mesolithic fossil forest and paleoenvironmental remains preserved within peat deposits on the foreshore. The excavations for another linear route associated with a similar project adjacent to the OL found Bronze Age features extending from close to the foreshore at Rhyl for 2km inland suggesting activity in this period over a wide area.
- 7.1.3 The next character area covers the River Clwyd and focusses on the area around the river and the area to the north on the south east outskirts of Rhyl (Sections C-E). The area around the River Clwyd area has potential for Mesolithic remains as activity of this date has been recorded at Rhuddlan to the east of the OL and a number of finds from a site which overlooks the River Clwyd from both the early and late Mesolithic suggesting continuing activity throughout the Mesolithic period. This place would have been an attractive place for transient Mesolithic communities and as such there is potential for further Mesolithic scatters to be present. Section C which lies to the south east of Rhyl has a background potential for the Roman period represented by a possible Roman cropmark and a Roman coin found close to and within the OL.
- 7.1.4 The southern section of the onshore OL has been characterised as the higher inland area (Sections E-G). The potential for archaeological remains within Section E is largely unknown as there are no recorded heritage assets and no archaeological investigations have taken place within this area. However, as with the entirety of the onshore ECC, there is potential for post-medieval land management features to be recovered including field boundaries and other features relating to the management of the agricultural land at this time. The southern part of the onshore OL has potential for medieval and post-medieval ridge and furrow which is recorded as being identified from LiDAR survey. A single field was identified as extant ridge and furrow earthworks during the walkover survey, which formed part of the lands of the Faenol-Bropor farmstead. A roman road crossing the southern part of the onshore ECC, although no archaeological works has been undertaken to prove its alignment. There is potential for discovery of the road surface and/or any associated roadside activity which may have taken place.
- 7.1.5 Aside from the archaeological investigations undertaken to inform this DCO application, little intrusive archaeological investigation within and surrounding the onshore OL and within this area of north Wales more generally had taken place. Geophysical survey along the route of the ECC and within the area for the substation have identified geophysical anomalies of possible and probable archaeological origin. As these features have not been ground truthed by any intrusive archaeological investigation the extent, nature, date and significance of archaeological remains is unconfirmed.
- 7.1.6 Any adverse impact to buried archaeological features as a result of the implementation of the development proposals would be permanent and irreversible in nature. This potential adverse effect could be reduced through the implementation of an appropriate scheme of archaeological mitigation, in accordance with national and local planning policy.



- 7.1.7 The need for, scale, scope and nature of any further archaeological works should be agreed through consultation with the statutory authorities.



Ancient Monuments and Archaeological Areas Act (1979). Available at: [Ancient Monuments and Archaeological Areas Act 1979 \(legislation.gov.uk\)](#)

1. *Journal of Management Studies*, 1990, 27, 1, 1-14.

[illegible]



Historic Environment Records

Clwyd and Powys Historic Environment Record (CPHER)

Cartographic and documentary sources

1819 Draughtsman's Drawing Ordnance Survey, St Asaph

1840 Tithe Map available at : [REDACTED]

1872-74 Ordnance Survey Map (First ed.) 1:2,500

1899 Ordnance Survey Map 1:2,500

1913 Ordnance Survey Map 1:2500

1938-53 Ordnance Survey Map 1:10560

1941 Rhuddlan, A.M.E Station 65, Layout (January 29 1941)

1962 Ordnance Survey Map 1:2500

1968-69 Ordnance Survey Map 1:10560

1971-94 Ordnance Survey Map 1:10000

Online resources

[REDACTED]

[REDACTED]

[REDACTED]

<https://cadw.gov.wales/advice-support/cof-cymru/search-cadw-records/>

[REDACTED]

[REDACTED]

[REDACTED]

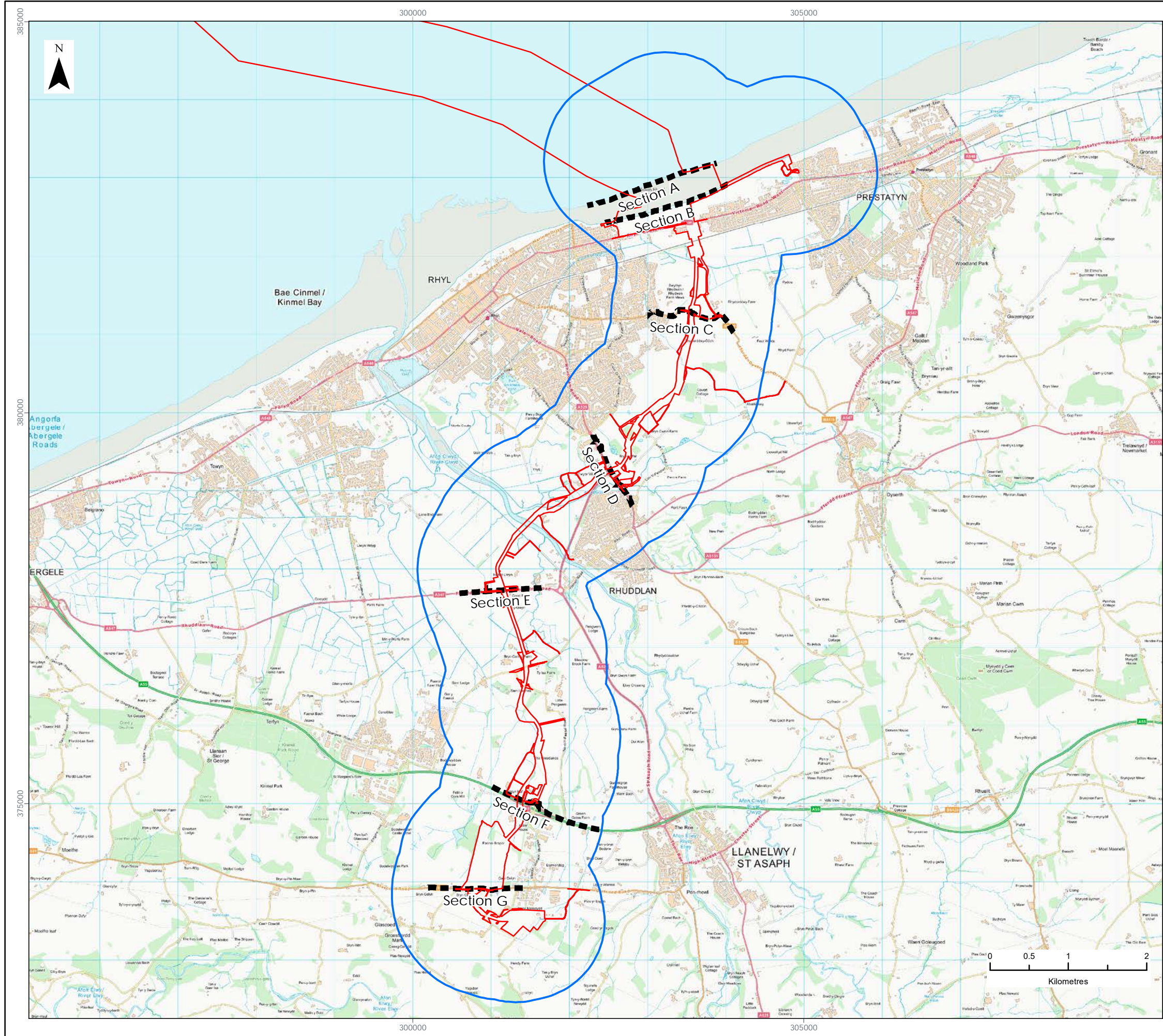
[REDACTED]

[REDACTED]

<http://lle.gov.wales/Catalogue?lang=en&text=Lidar>

<https://cadw.gov.wales/advice-support/cof-cymru/search-cadw-records>





LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Study Area

Data Source:
© Crown Copyright [and database rights] (2022) OS OpenData.

PROJECT TITLE:
AWEL Y MÔR OFFSHORE WINDFARM

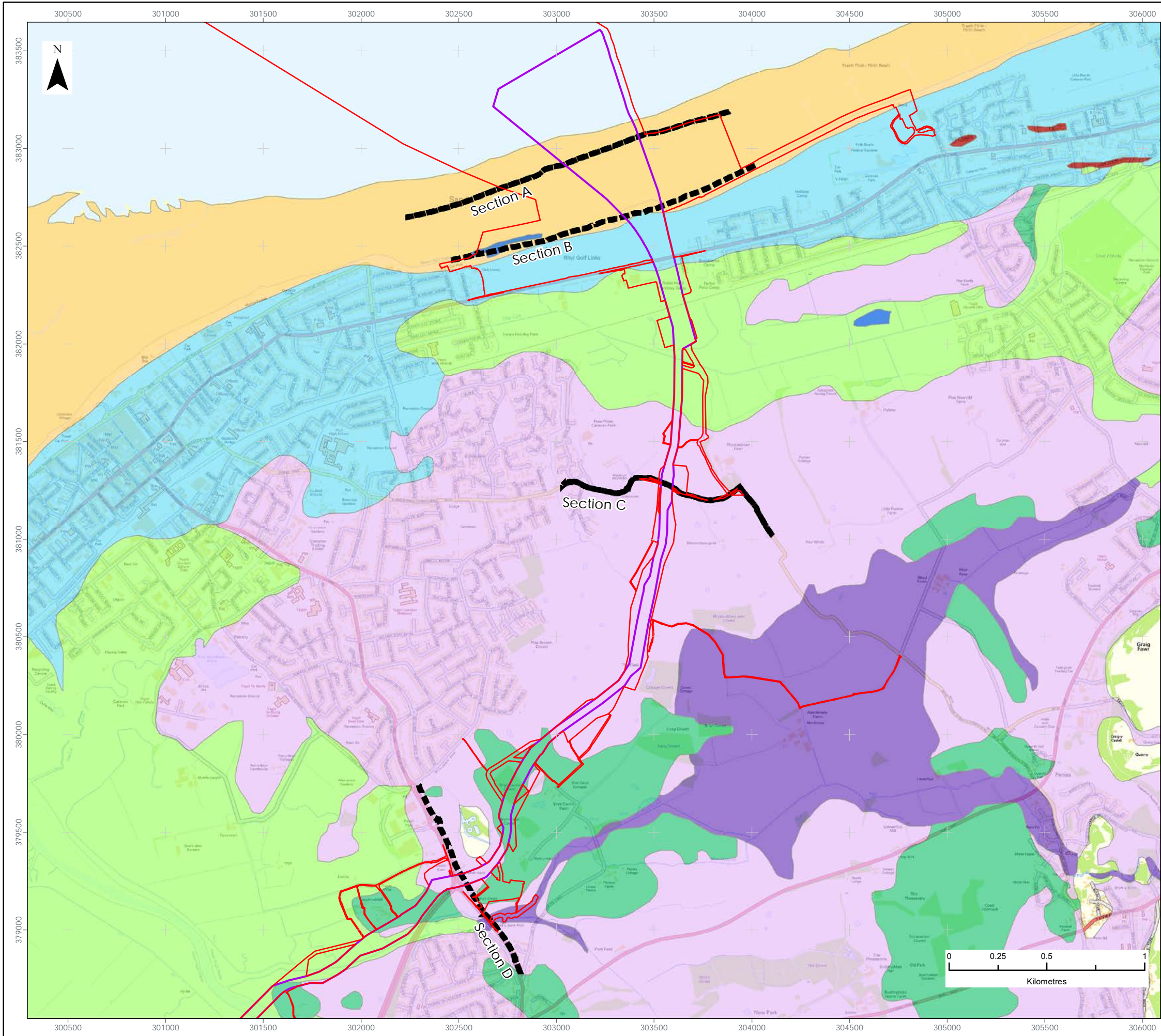
FIGURE TITLE:
Location of Order Limits
and Study Area

VER	DATE	REMARKS	Drawn	Checked
1	02/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:
Figure 1

SCALE: 1:50,000 PLOT SIZE: A3 DATUM: OSGB 1936 PROJECTION: BNG

Fferm Wynt Ailtraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

Order Limits
Onshore Cable Route Section Breaks
Onshore Export Cable Corridor

Superficial Geology

- Marine Beach Deposits
- Blown Sand
- Tidal Flat Deposits
- Till, Devensian
- Alluvium
- Glaciofluvial Deposits, Devensian
- Storm Beach Deposits
- Peat

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:
AWEL Y MÔR OFFSHORE WINDFARM

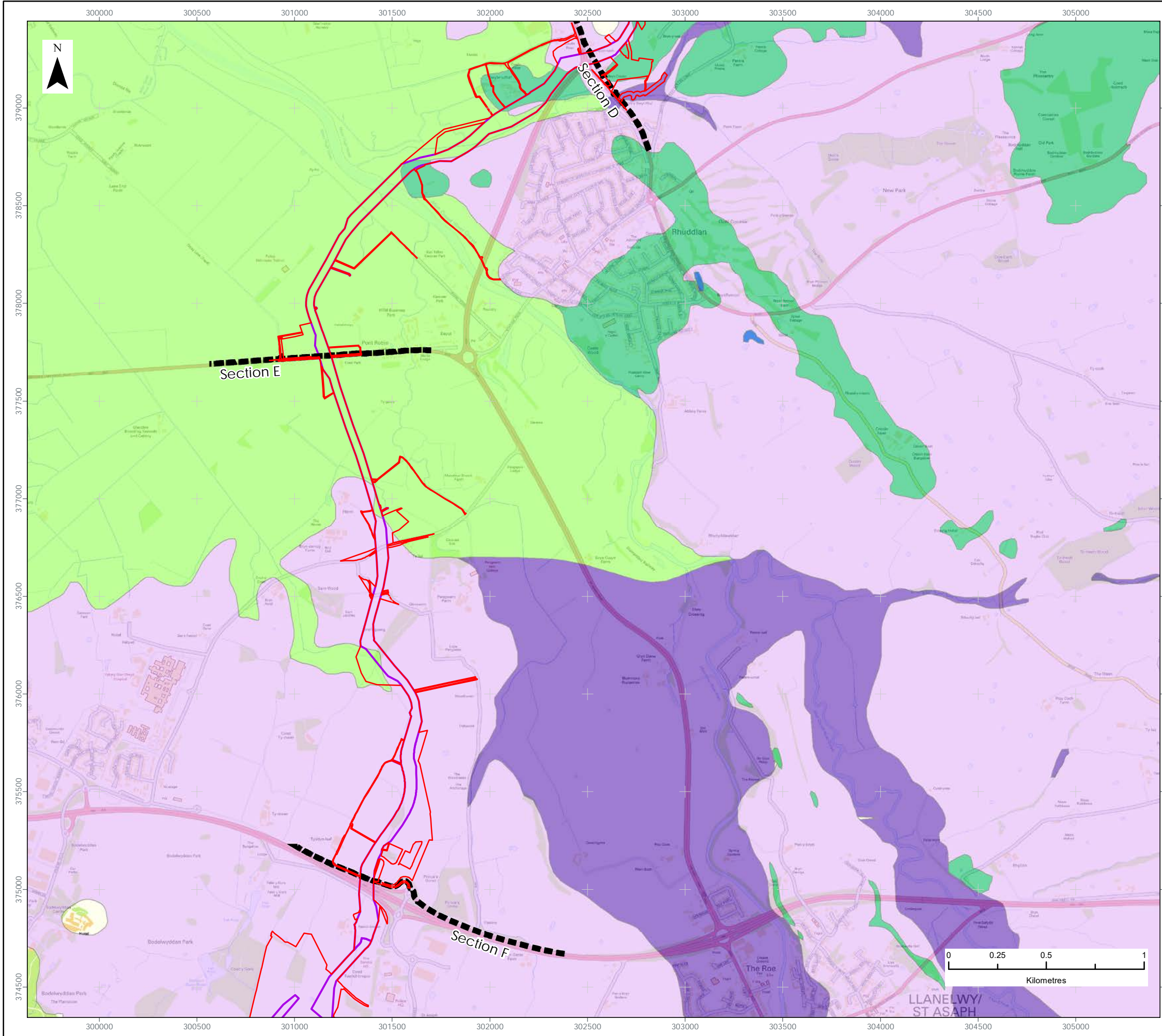
FIGURE TITLE:
**Onshore Cable Route (A-D)
and Underlying Superficial Geology**

VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:
Figure 2

SCALE: 1:20,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------





LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor

Superficial Geology

- Marine Beach Deposits
- Blown Sand
- Tidal Flat Deposits
- Till, Devensian
- Alluvium
- Glaciofluvial Deposits, Devensian
- Storm Beach Deposits
- Peat

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE:
**Onshore Cable Route (D-F)
and Underlying Superficial Geology**

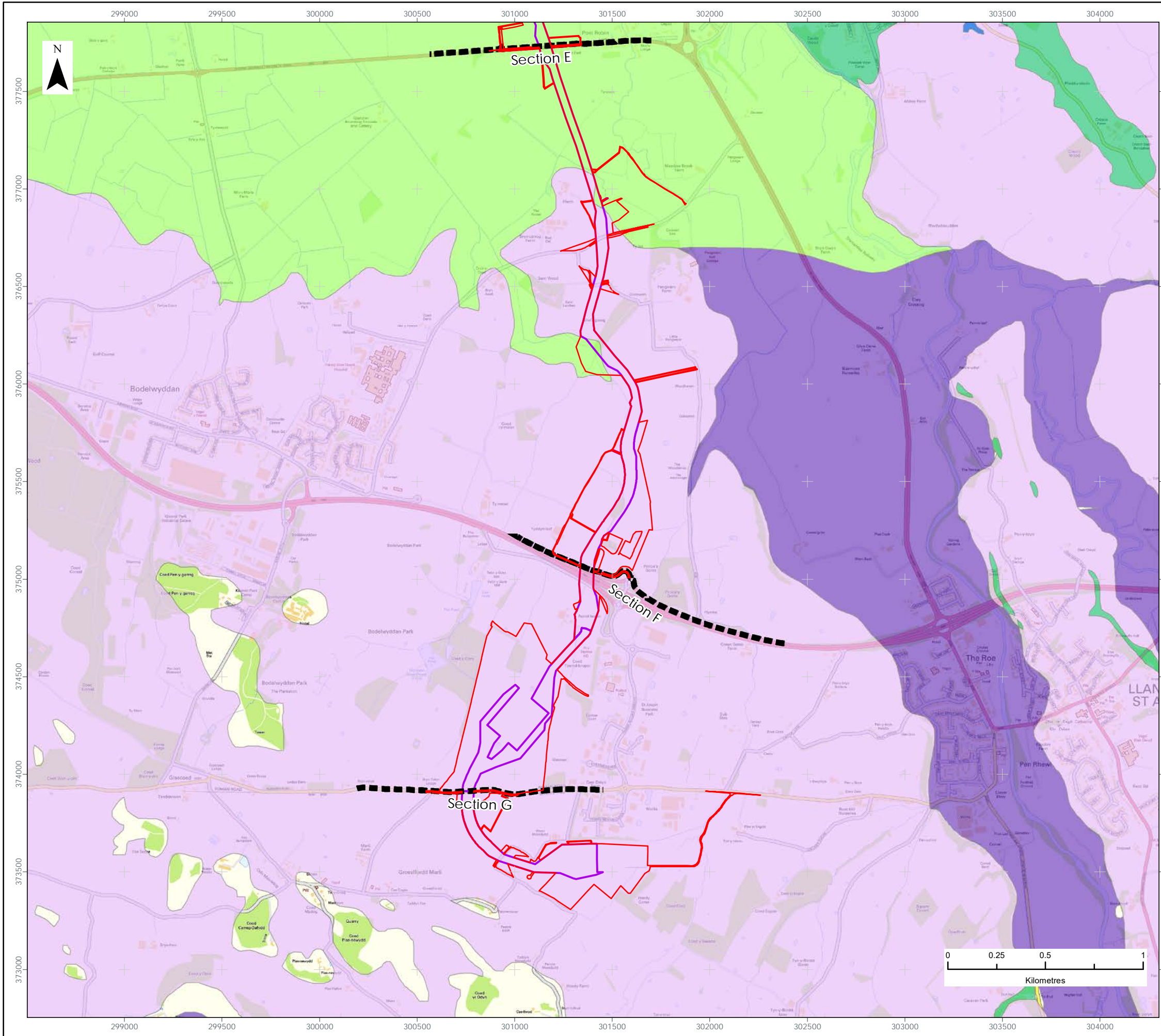
VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:

Figure 3

SCALE: 1:20,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor

Superficial Geology

- Marine Beach Deposits
- Blown Sand
- Tidal Flat Deposits
- Till, Devensian
- Alluvium
- Glaciofluvial Deposits, Devensian
- Storm Beach Deposits
- Peat

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE:
**Onshore Cable Route (E-G)
and Underlying Superficial Geology**

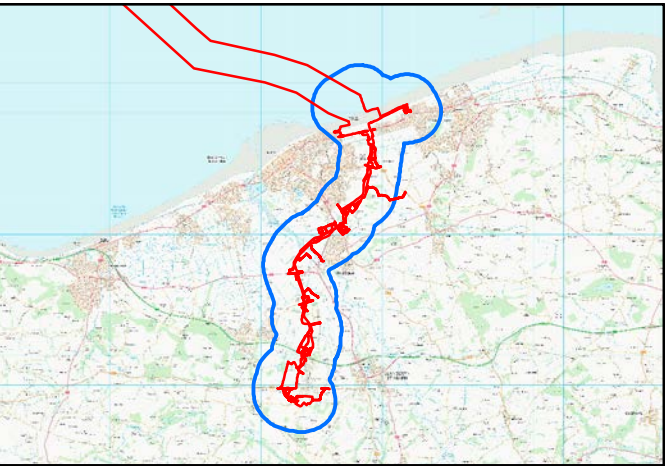
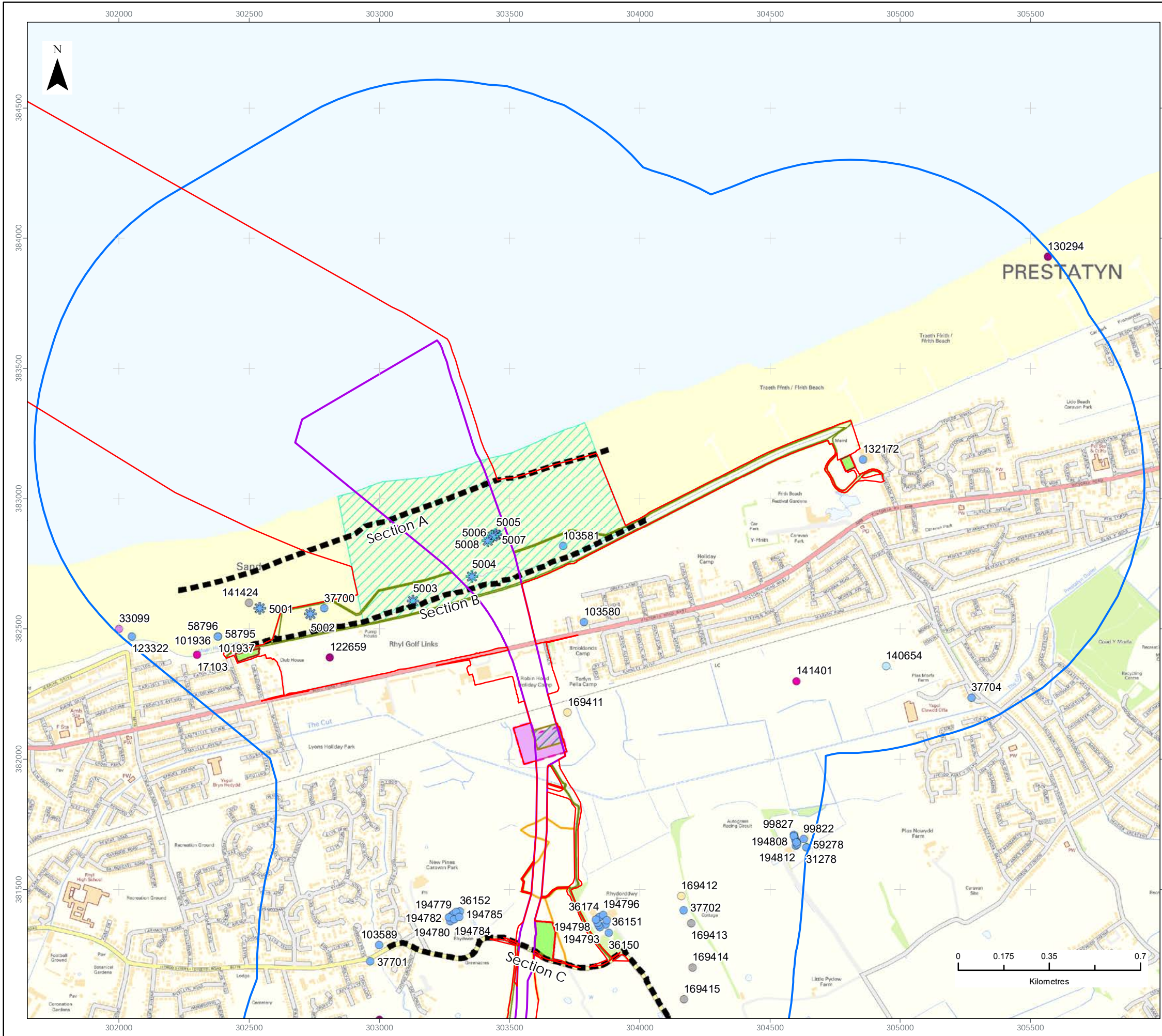
VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
2	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:

Figure 4

SCALE: 1:20,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Study Area
- Indicative Landfall HDD Compound
- Indicative HDD Compound Locations
- Indicative Operational Access Routes
- Indicative Transition Joint Bay Construction Compound
- Temporary Construction Compound Locations
- Anchoring Zone
- Intertidal Survey (Dec 2021)

Non-designated Historic Assets

- Mesolithic
- Neolithic
- Prehistoric
- Bronze Age
- Iron Age
- Romano-British
- Early Medieval
- Medieval
- Post-medieval
- 19th century
- Modern
- Undated
- Historic Hedgerows

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Historic Environment Record Data sourced from Clwyd Powys Historic Environment Record
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE:

**Non-designated Historic Assets
located within the Study Area**

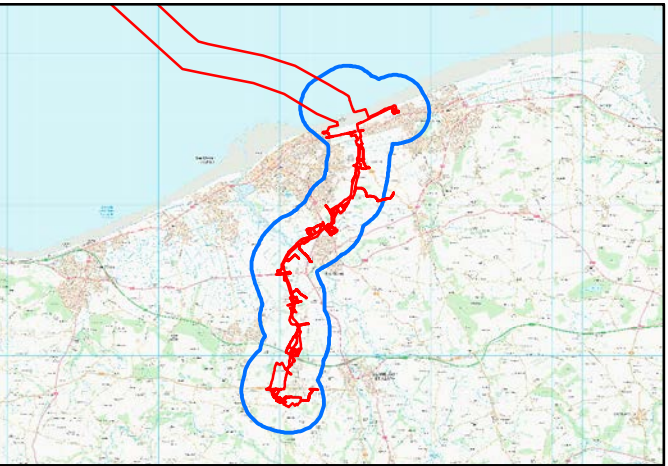
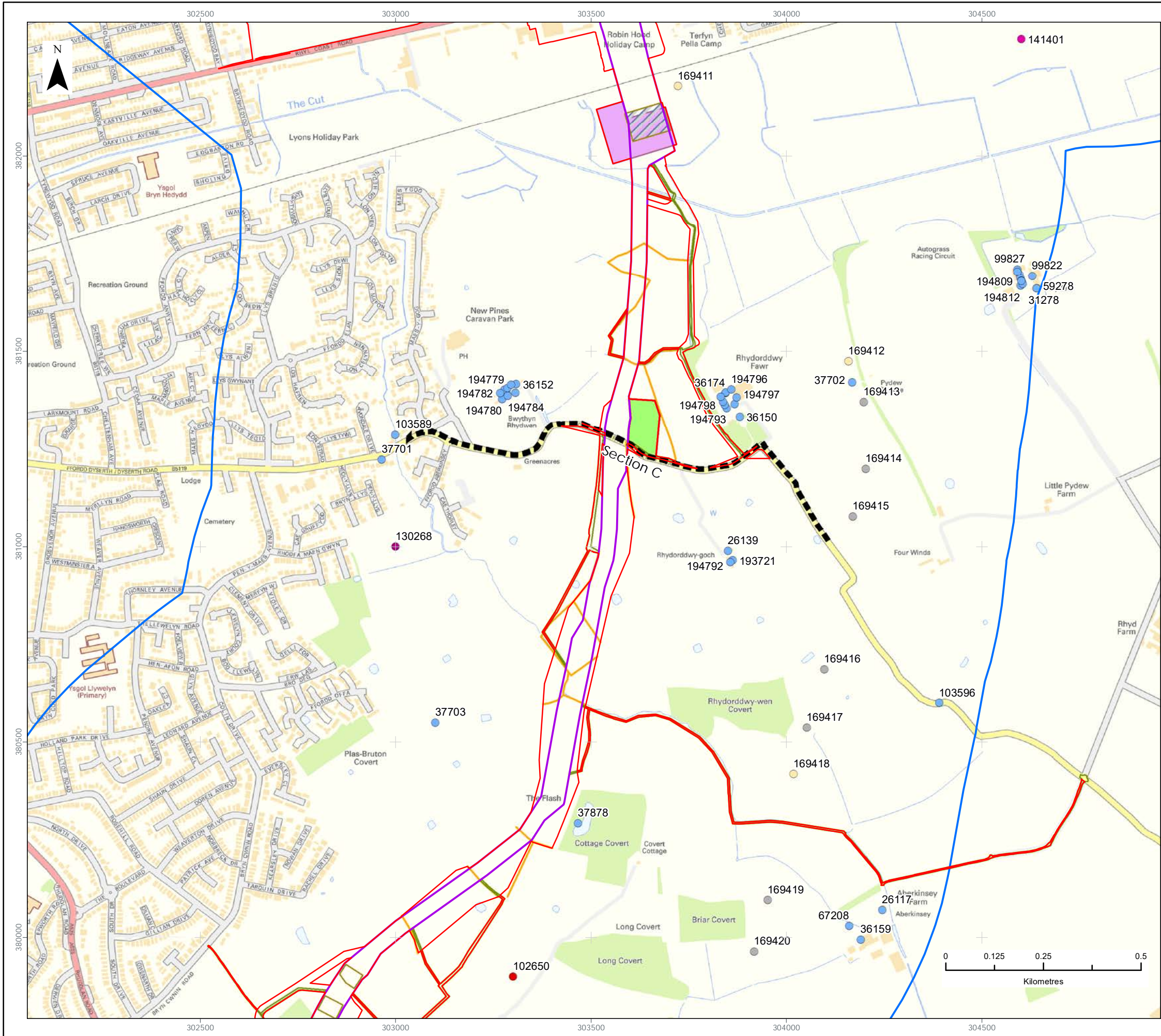
VER	DATE	REMARKS	Drawn	Checked
1	08.02.2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:

Figure 5

SCALE: 1:15,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Study Area
- Indicative HDD Compound Locations
- Indicative Landfall HDD Compound
- Indicative Operational Access
- Indicative Transition Joint Bay Construction Compound
- Temporary Construction Compound Locations

Non-designated Historic Assets

- Mesolithic
- Neolithic
- Prehistoric
- Bronze Age
- Iron Age
- Romano-British
- Early Medieval
- Medieval
- Post-medieval
- 19th century
- Modern
- Undated
- Historic Hedgerows

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Historic Environment Record Data sourced from Clwyd Powys Historic Environment Record
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:
AWEL Y MÔR OFFSHORE WINDFARM

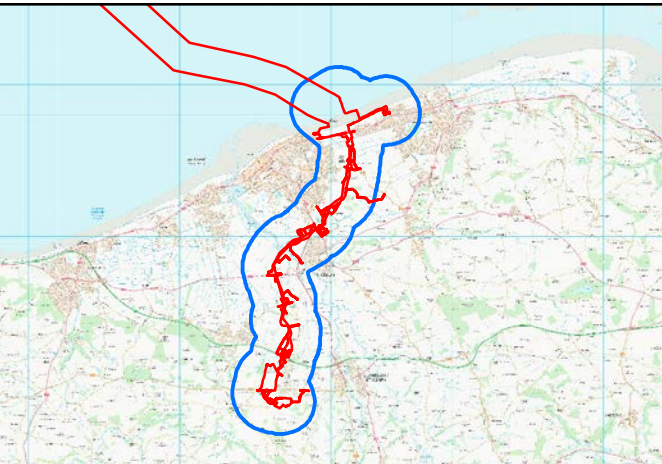
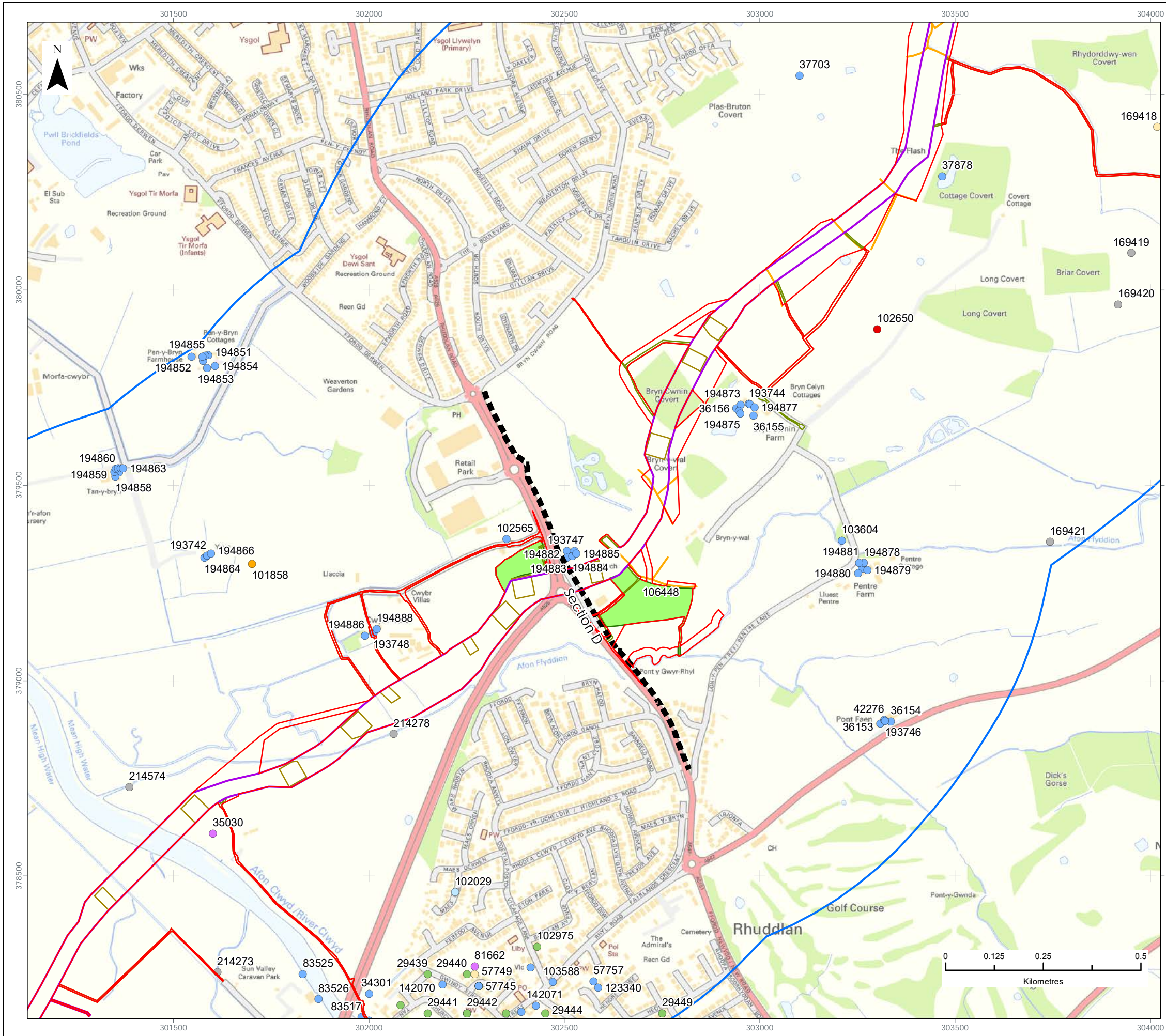
FIGURE TITLE:
**Non-designated Historic Assets
located within the Study Area**

VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:
Figure 6

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------





LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Study Area
- Indicative HDD Compound Locations
- Indicative Operational Access Routes
- Temporary Construction Compound Locations

Non-designated Historic Assets

- Mesolithic
- Neolithic
- Prehistoric
- Bronze Age
- Iron Age
- Romano-British
- Early Medieval
- Medieval
- Post-medieval
- 19th century
- Modern
- Undated
- Historic Hedgerows

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Historic Environment Record Data sourced from Clwyd Powys Historic Environment Record
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE:

**Non-designated Historic Assets
located within the Study Area**

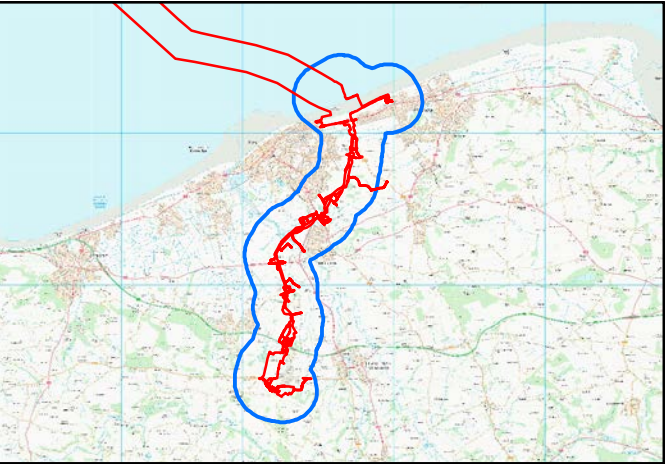
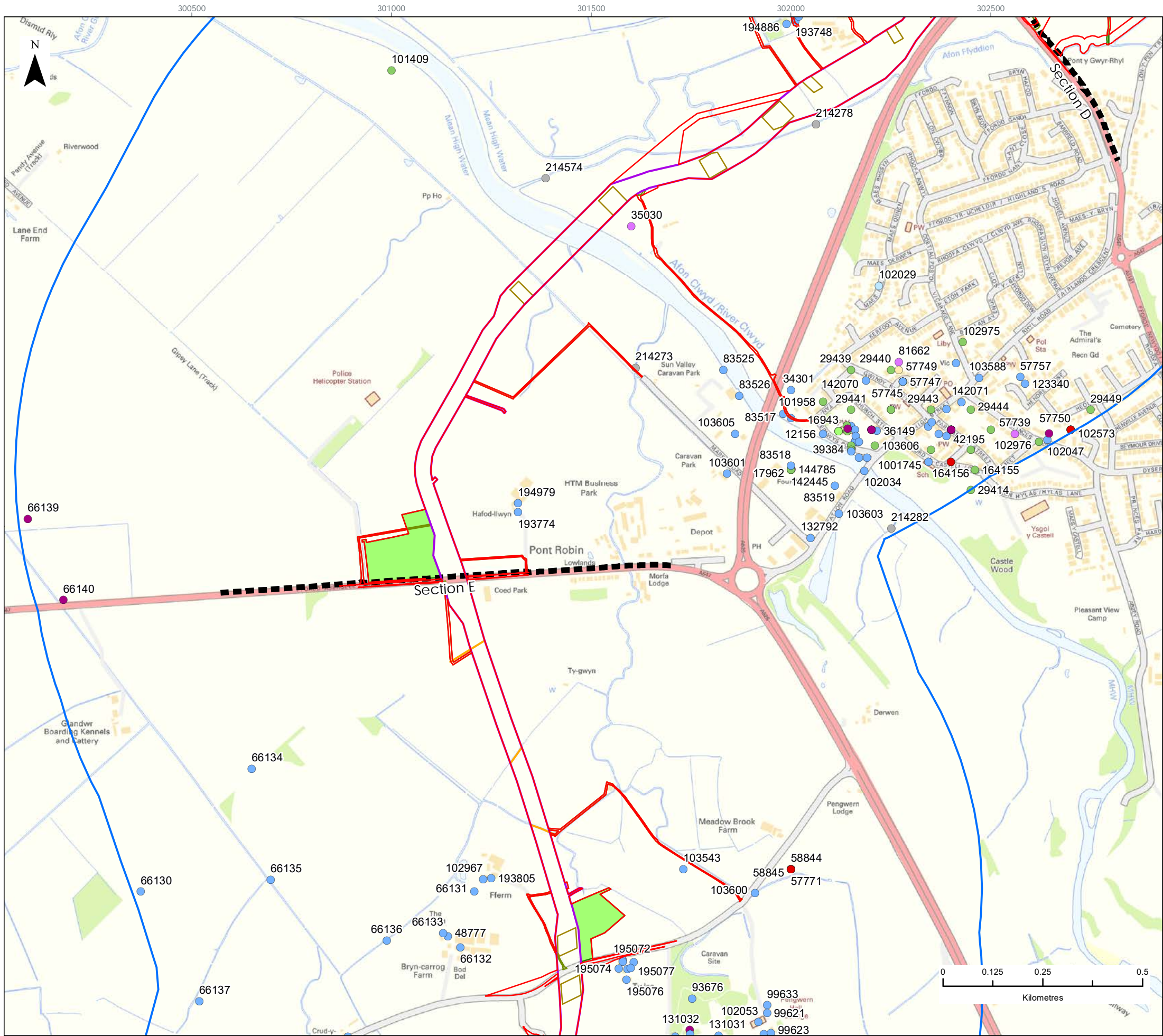
VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:

Figure 7

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Study Area
- Indicative HDD Compound Locations
- Indicative Operational Access Routes
- Temporary Construction Compound Locations
- Non-designated Historic Assets
 - Mesolithic
 - Neolithic
 - Prehistoric
 - Bronze Age
 - Iron Age
 - Romano-British
 - Early Medieval
 - Medieval
 - Post-medieval
 - 19th century
 - Modern
 - Undated
 - Historic Hedgerows

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Historic Environment Record Data sourced from Clwyd Powys Historic Environment Record
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE:

**Non-designated Historic Assets
located within the Study Area**

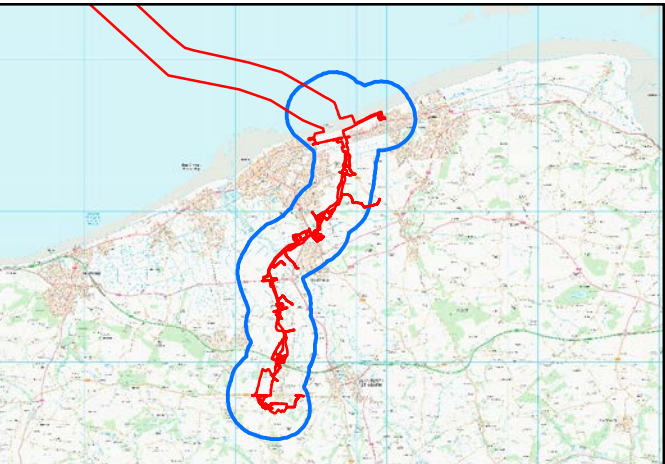
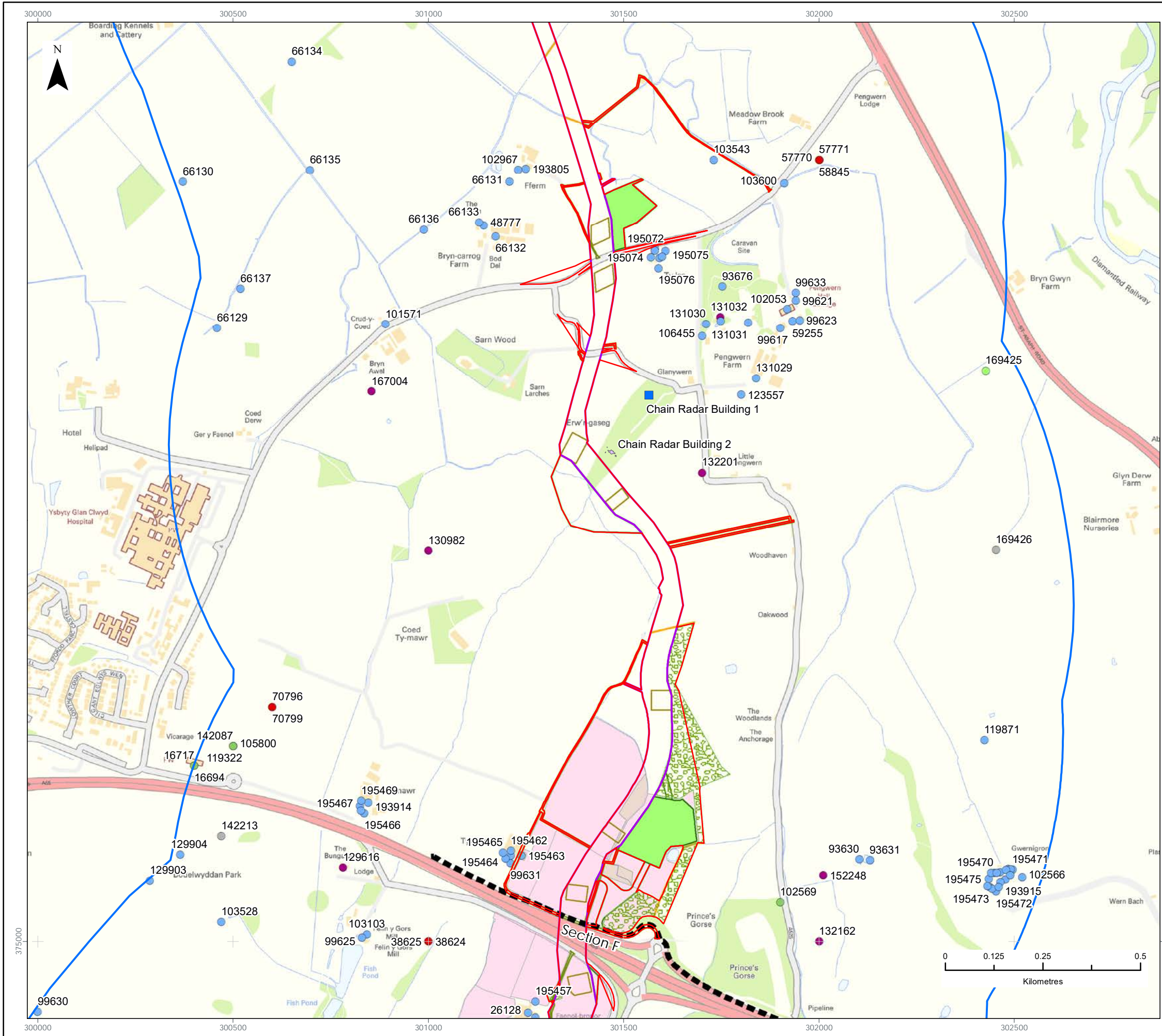
VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:

Figure 8

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Study Area
- Indicative HDD Compound Locations
- Indicative Operational Access Routes
- Temporary Construction Compound Locations
- Off Route Accesses
- Ecological Mitigation Areas
- Non-designated Historic Assets
 - Mesolithic
 - Neolithic
 - Prehistoric
 - Bronze Age
 - Iron Age
 - Romano-British
 - Early Medieval
 - Medieval
 - Post-medieval
 - 19th century
 - Modern
 - Undated
 - Historic Hedgerows
 - Ridge and furrow
 - Chain Radar Building 1
 - Chain Radar Building 2

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2021.
Historic Environment Record Data sourced from Clwyd Powys Historic Environment Record
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE:

**Non-designated Historic Assets
located within the Study Area**

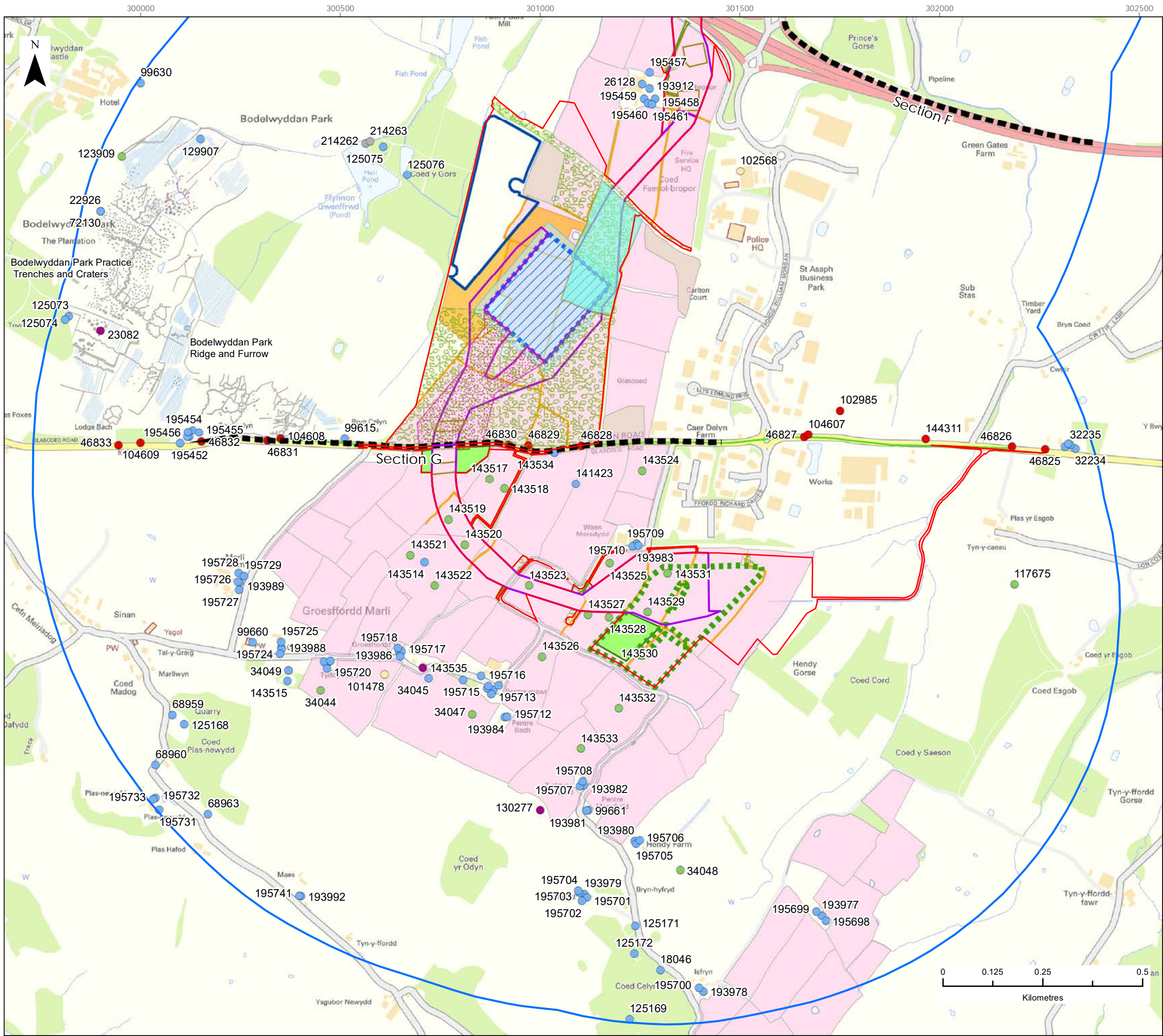
VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:

Figure 9

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Study Area
- Indicative HDD Compound Locations
- Indicative Operational Access
- Temporary Construction Compound Locations
- Temporary Construction Compound Zones
- Access Road Zone
- Construction Compound
- Substation Compound
- Substation Construction Zone
- Temporary Access Road
- EIA Mitigation

Non-designated Historic Assets

- Mesolithic
- Neolithic
- Prehistoric
- Bronze Age
- Iron Age
- Romano-British
- Early Medieval
- Medieval
- Post-medieval
- 19th century
- Modern
- Undated
- Historic Hedgerows
- Ridge and furrow
- Roman Road
- Extant Ridge Furrow

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Historic Environment Record Data sourced from Clwyd Powys Historic Environment Record
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE:

**Non-designated Historic Assets
located within the Study Area**

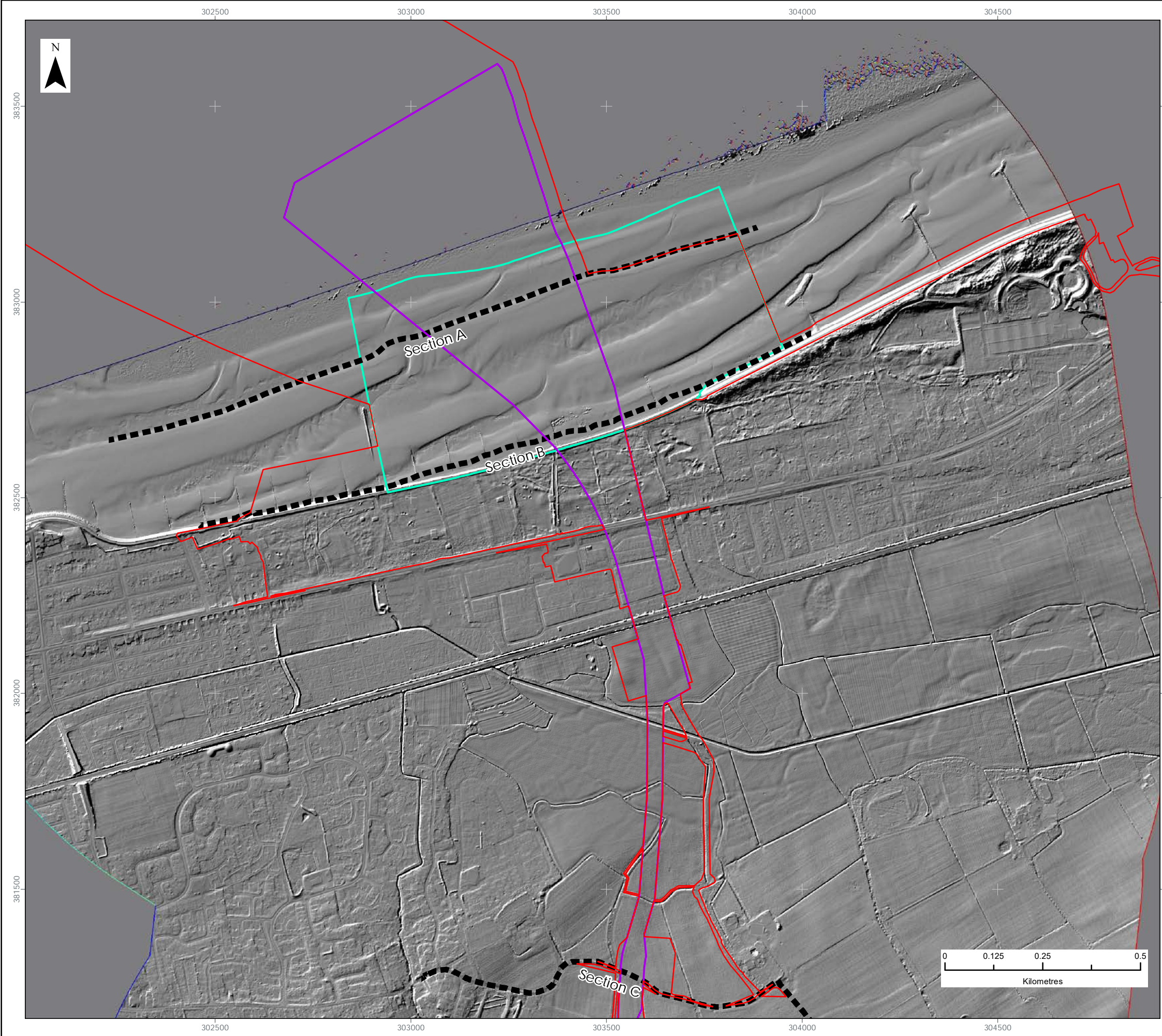
VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
2	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:

Figure 10

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Anchoring Zone

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Contains Environment Agency Information © Environment Agency and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:
AWEL Y MÔR OFFSHORE WINDFARM

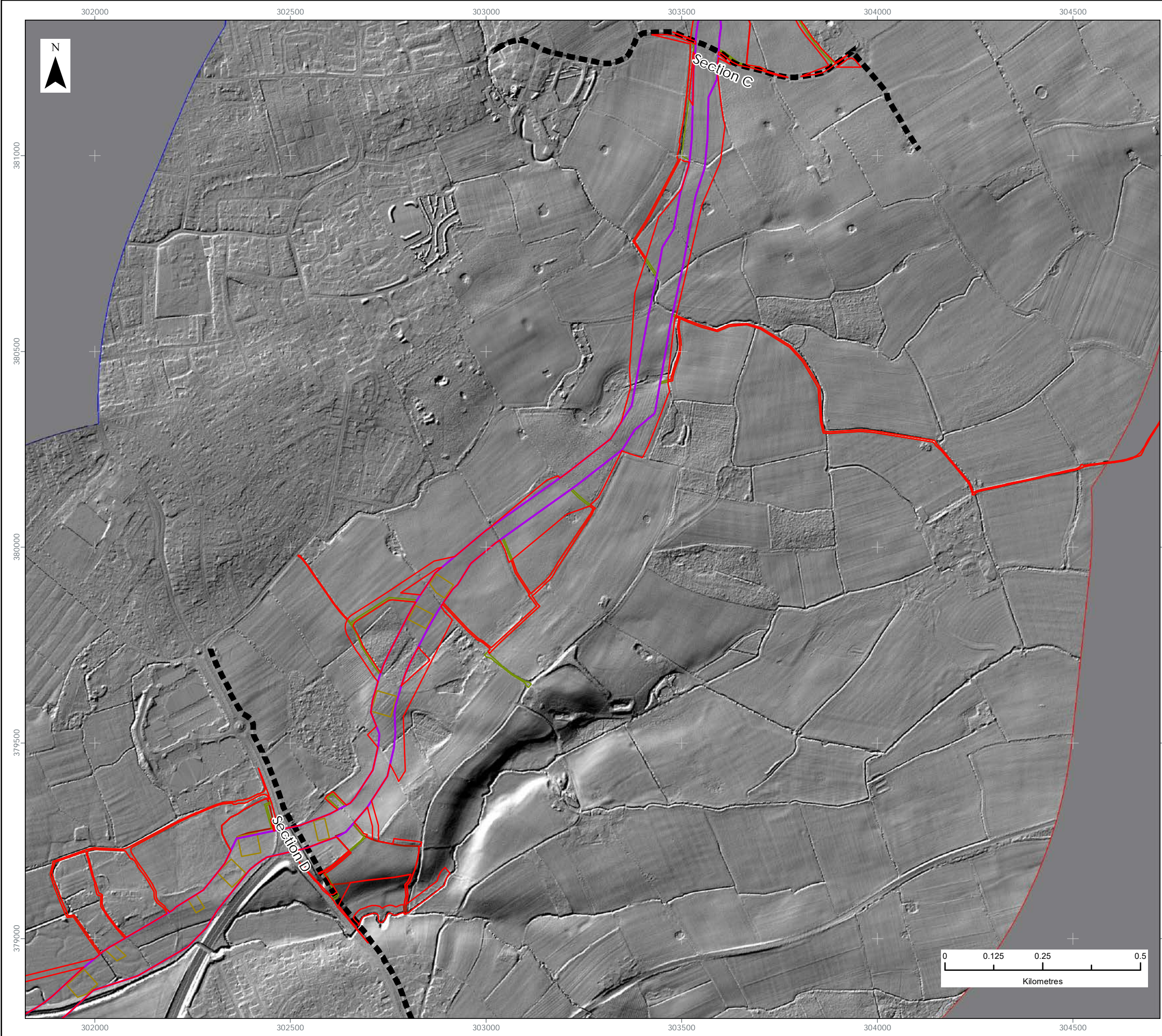
FIGURE TITLE:
LiDAR Data Route Sections A-C

VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:
Figure 11

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------





LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Contains Environment Agency Information © Environment Agency and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:
AWEL Y MÔR OFFSHORE WINDFARM

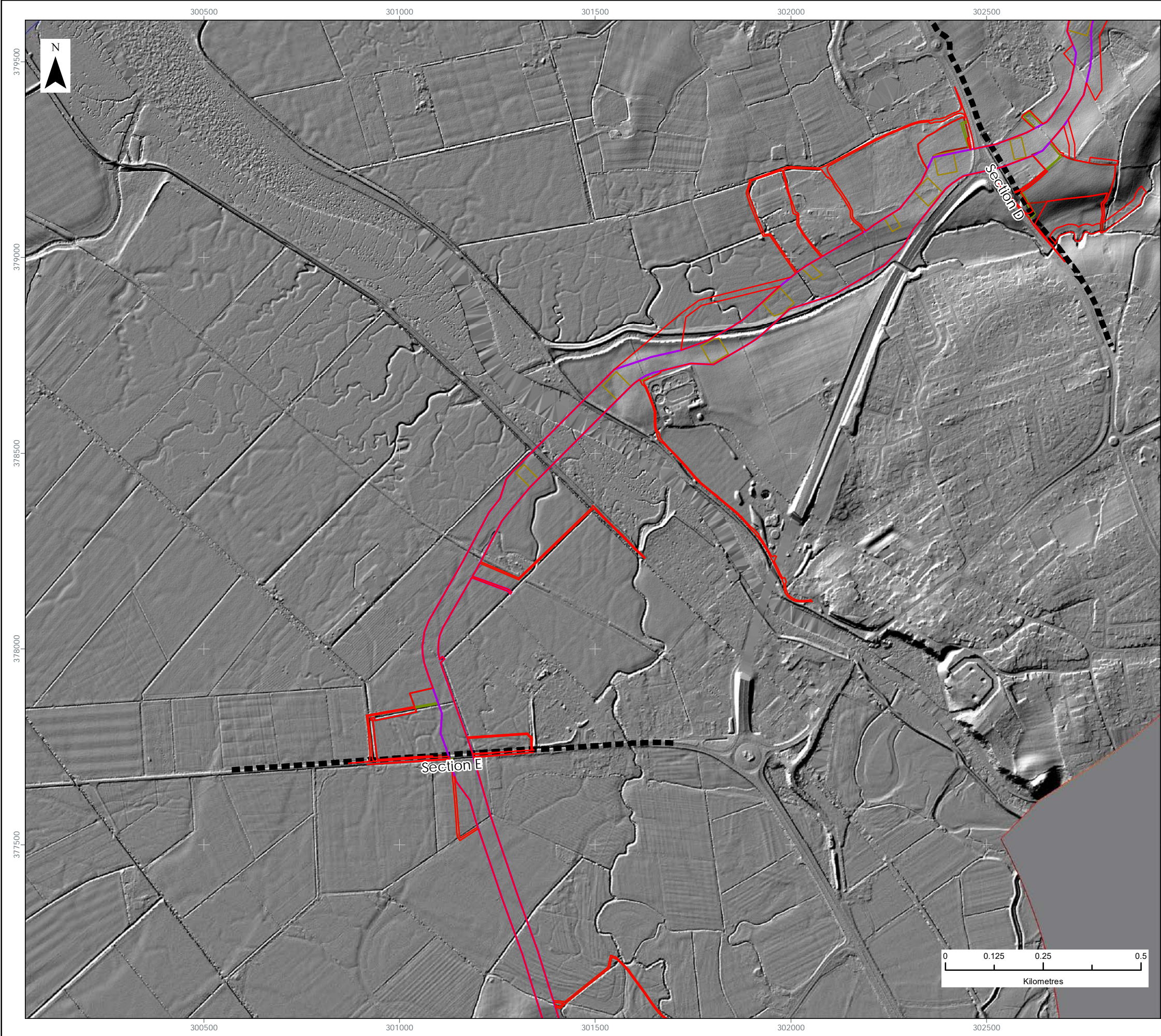
FIGURE TITLE:
LiDAR Data Route Sections C-D

VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:
Figure 12

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
------------------------	---------------	------------------	-----------------





LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Contains Environment Agency Information © Environment Agency and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:
AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE:
LiDAR Data Route Sections D-E

VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

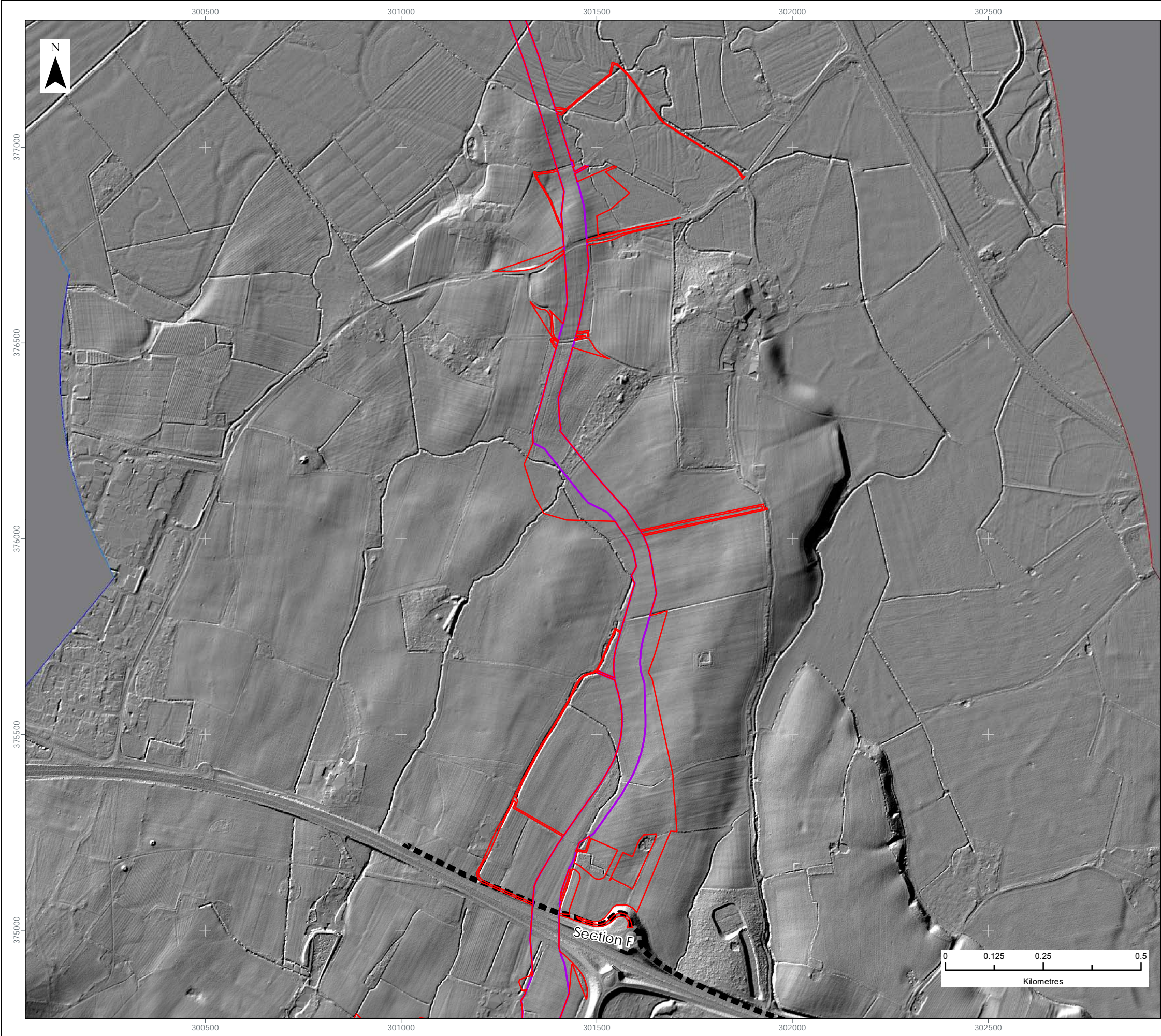
FIGURE NUMBER:
Figure 13

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
------------------------	---------------	------------------	-----------------

Fferm Wynt Ailtraeth

AWEL Y MÔR

Offshore Wind Farm



LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Contains Environment Agency Information © Environment Agency and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:
AWEL Y MÔR OFFSHORE WINDFARM

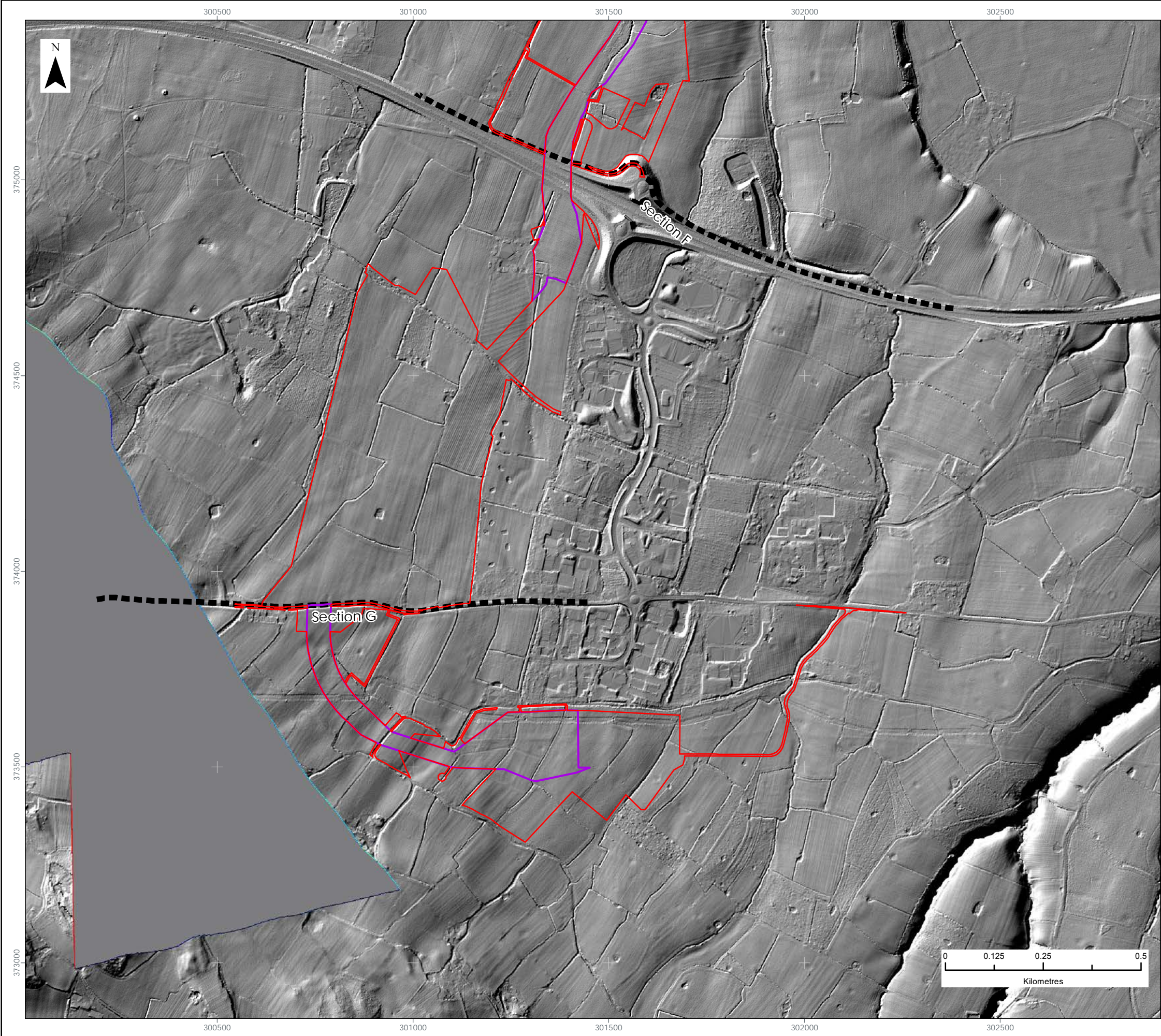
FIGURE TITLE:
LiDAR Data Route Sections E-F

VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:
Figure 14

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
------------------------	---------------	------------------	-----------------





LEGEND

- Order Limits
- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Contains Environment Agency Information © Environment Agency and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:
AWEL Y MÔR OFFSHORE WINDFARM

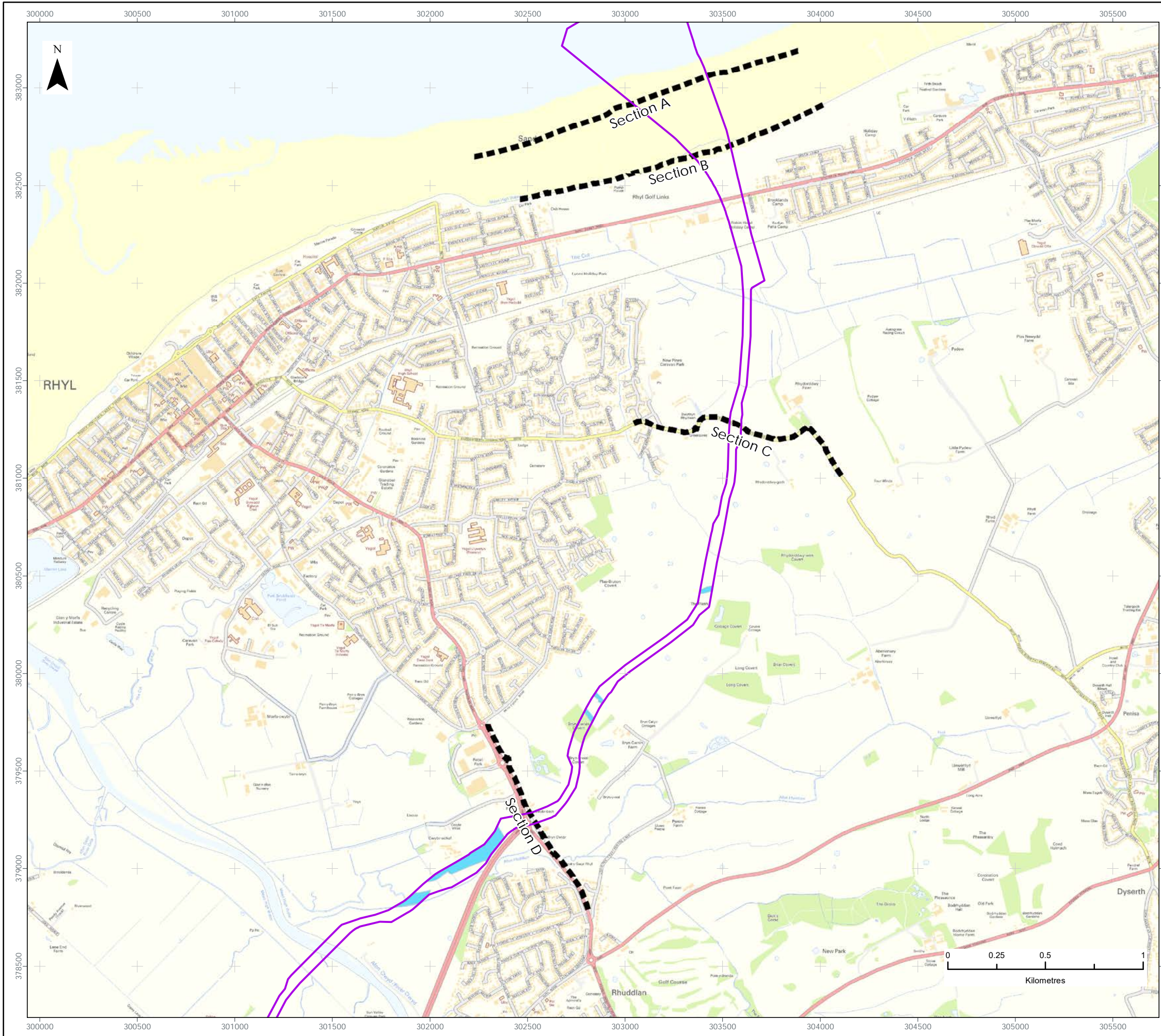
FIGURE TITLE:
LiDAR Data Route Sections F-G

VER	DATE	REMARKS	Drawn	Checked
1	08/06/2021	Draft	MK	MT
2	11/08/2021	For Issue	MK	MT
3	10/03/2022	For Issue	MK	MT

FIGURE NUMBER:
Figure 15

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------





LEGEND

- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Areas Not Accessed by Walkover Survey or Geophysical Survey

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Contains Environment Agency Information © Environment Agency and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE: Areas of the Onshore ECC not accessed for Walkover Survey or Geophysical Survey

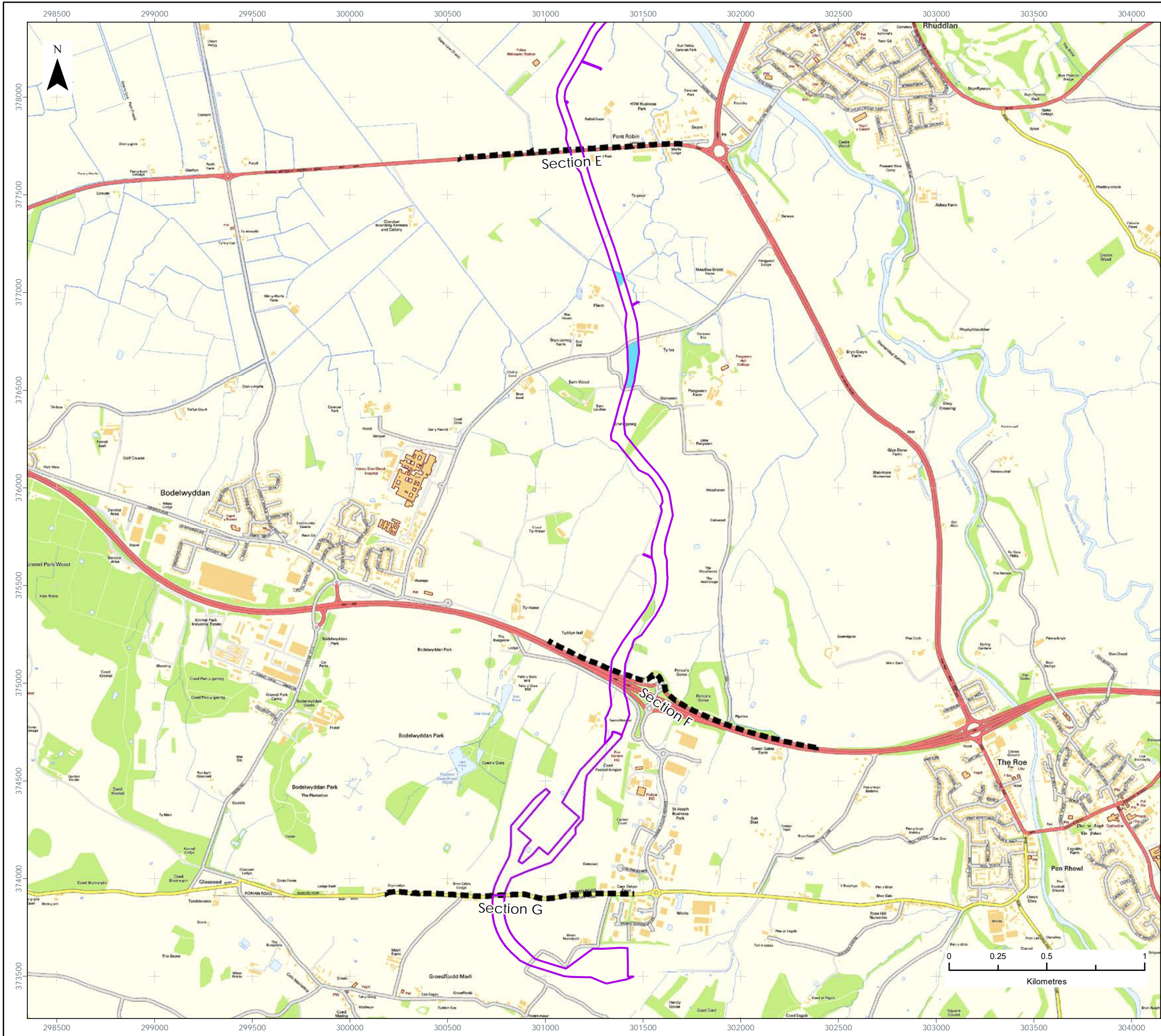
VER	DATE	REMARKS	Drawn	Checked
1	10/03/2022	for issue	MK	MT
2				
3				

FIGURE NUMBER:

Figure 16

SCALE:	PLOT SIZE:	DATUM:	PROJECTION:
1:20,000	A3	OSGB 1936	BNG

Fferm Wynt Ailtraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Onshore Cable Route Section Breaks
- Onshore Export Cable Corridor
- Areas Not Accessed by Walkover Survey or Geophysical Survey

Data Source: Contains Ordnance Survey data © Crown copyright and database right 2022.
Contains Environment Agency Information © Environment Agency and database right 2022.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

PROJECT TITLE:

AWEL Y MÔR OFFSHORE WINDFARM

FIGURE TITLE: Areas of Onshore ECC not accessed for Walkover Survey or Geophysical Survey

VER	DATE	REMARKS	Drawn	Checked
1	10/03/2022	for issue	MK	MT
2				
3				

FIGURE NUMBER:

Figure 17

SCALE: 1:20,000	PLOT SIZE: A3	DATUM: OSGB 1936	PROJECTION: BNG
-----------------	---------------	------------------	-----------------

Fferm Wynt Ailtraeth
AWEL Y MÔR
Offshore Wind Farm



Plate 1:View looking north east within Route Section A



Plate 2: View looking north west within Route Section A



Plate 3:View of Rhyl Golf Club within Route Section B



Plate 4: View from within land parcel 186 immediately south of the railway line within Route Section B


	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.	Date:	04/06/2021	Revision Number:	0
		Scale:	N/A	Illustrator:	Marie_K
		Path:	S://PROJECTS/231901/GIS/FigsMXD		



Plate 5: View looking south within the OL within the southern part of Route Section B, north of Dyserth Road

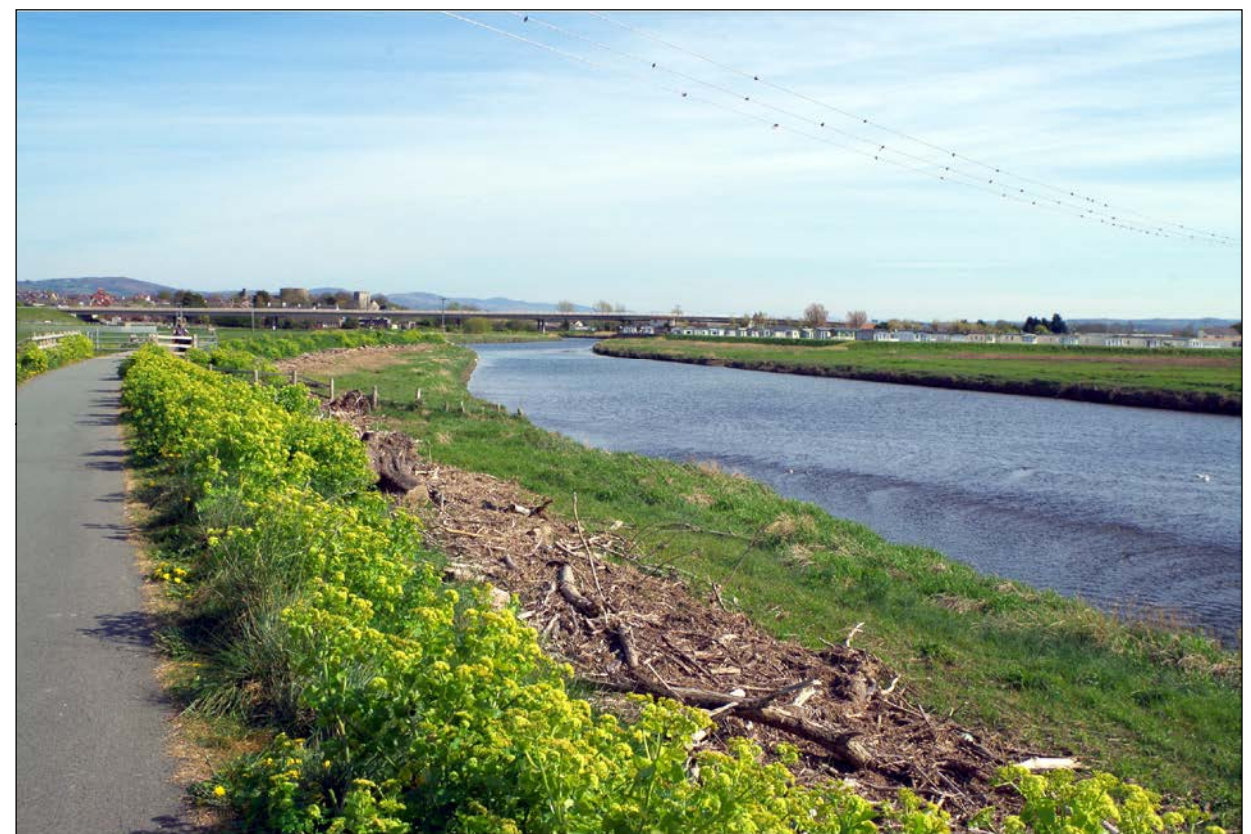


Plate 6: View of the River Clwyd (Route Section D) looking south east



Plate 7: View from within OL within northern part of Route Section E



Plate 8: View of Rhuddlan Chain Link Home Radar building, located within woodland off of Nant-Y-Faenol Road (outside of OL)



This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date:	24/02/2022	Revision Number:	0
Scale:	N/A	Illustrator:	Marie_K
Path:	S://PROJECTS/231901/GIS/FigsMXD		



Plate 9: View looking west from within the southern part of Route Section E, Bodelwyddan Castle and St Margarets Church visible in the distance



Plate 10: View looking north within the southern part of Route Section E



Plate 11: View of Tyddyn Isaf from within the OL, looking west



Plate 12: :View from within the OL to the east of Gipsy Lane, within Route Section E


	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.	Date:	24/02/2022	Revision Number:	0
		Scale:	N/A	Illustrator:	Marie_K
		Path:	S://PROJECTS/231901/GIS/FigsMXD		



Plate 13: View of farmstead at Faenol-bropor, looking south west (Route Section F)



Plate 14: View of extant ridge and furrow earthworks within field to the south of Faenol-bropor (Route Section F)



Plate 15: Pasture and hedgerow boundaries south of Faenol-bropor (Route Section F)



Plate 16: View of pasture and Bodelwyddan Park boundary wall, looking north, within the southern part of Route Section F



This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date:	17/01/2022	Revision Number:	0
Scale:	N/A	Illustrator:	Marie_K
Path:	S://PROJECTS/231901/GIS/FigsMXD		



Plate 17: View looking south west across the eastern extent of Route Section G



Plate 18: View of peat layer (5001), above clay layer. View from the east (0.5m scale)



Plate 19: View of peat layer (5001), above clay layer. View from the east (0.5m scale)



Plate 20: View of peat layer (5002), above clay layer. View from the east (1m scale)



This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date:	17/01/2022	Revision Number:	0
Scale:	N/A	Illustrator:	Marie_K
Path:	S://PROJECTS/231901/GIS/FigsMXD		



Plate 21: View of peat layer and tree roots (5003), from the west (1m scale)



Plate 22: View of concrete sheets and pillars (5004) from the west (1m scale)



Plate 23: View of peat layer (5005) from the south west (1m scale)



Plate 24: View of tree stump (5006), view from west (1m scale)



This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date:	17/01/2022	Revision Number:	0
Scale:	N/A	Illustrator:	Marie_K
Path:	S://PROJECTS/231901/GIS/FigsMXD		



Plate 25: View of log (5006) from the west (1m scale)

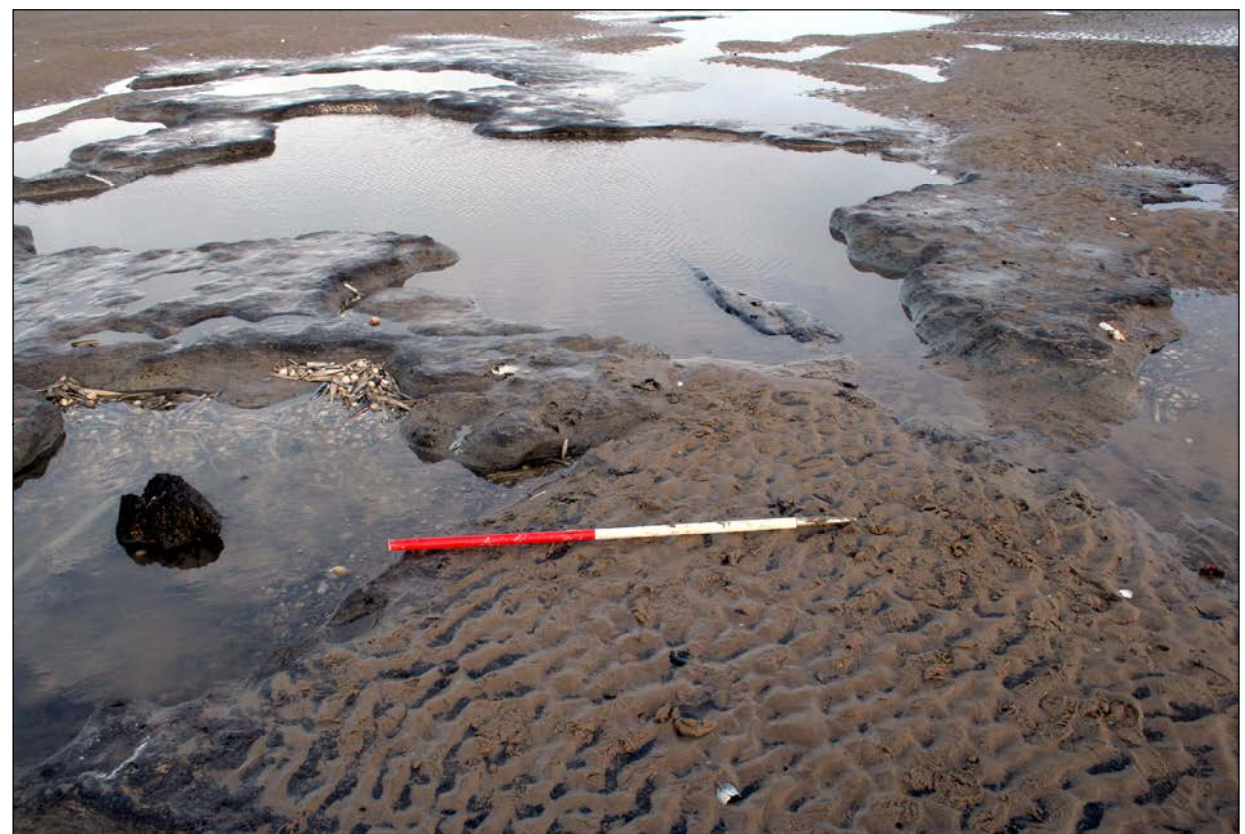


Plate 26: View of tree stump and log (5006) from west (1m scale)



Plate 27: View of tree stump (5007) from the west (1m scale)



Plate 28: View of log (5008), view from west (1m scale)



This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date:	17/01/2022	Revision Number:	0
Scale:	N/A	Illustrator:	Marie_K
Path:	S://PROJECTS/231901/GIS/FigsMXD		



Plate 29) Chain Radar Building 2



Plate 30) Chain Radar Building 2



Plate 31) Associated three sided storage structure close to Chain Radar Building 2



This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date:	30/01/2022	Revision Number:	0
Scale:	N/A	Illustrator:	Marie_K
Path:	S/: PROJECTS/231901/GIS/FigsMXD/Plates		

APPENDICES

Appendix 1: Terminology

Glossary

The terminology used in this assessment follows definitions contained within Annex 2 of NPPF:

Archaeological interest	There will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.
Conservation (for heritage policy)	The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance.
Designated heritage asset	A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.
Heritage asset	A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing).
Historic environment	All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.
Historic environment record	Information services that seek to provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.
Setting of a heritage asset	The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.
Significance (for heritage policy)	The value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting. For World Heritage Sites, the cultural value described within each site's Statement of Outstanding Universal Value forms part of its significance.

Chronology

Where referred to in the text, the main archaeological periods are broadly defined by the following date ranges:

Prehistoric		Historic	
Palaeolithic	970,000–9500 BC	Romano-British	AD 43–410
Early Post-glacial	9500–8500 BC	Saxon	AD 410–1066
Mesolithic	8500–4000 BC	Medieval	AD 1066–1500
Neolithic	4000–2400 BC	Post-medieval	AD 1500–1800
Bronze Age	2400–700 BC	19th century	AD 1800–1899
Iron Age	700 BC–AD 43	Modern	1900–present day



Appendix 2: Gazetteers

Designated Heritage Assets

Record Number	Name	Grade	Easting	Northing
FL004	Rhuddlan Castle	SAM	302437	377910
FL129	Part of Site of Norman Borough	SAM	302913	377600
FL018	Rhuddlan Bridge	SAM	302184	377997
FL068	Rhuddlan Town Banks	SAM	302915	377660
FL186	First World War Practice Trenches at Bodelwyddan Park	SAM	300041	374477
FL015	Twthill (Further and Additional Areas)	SAM	302639	377680
DE007	Tyddyn Bleiddyn Burial Chamber	SAM	300734	372458
14977	Rhuddlan Castle	I	30248900	37791300
240	Morfa Lodge	II*	29836200	37742400
1400	Church of Saint Mary	II*	30214200	37809800
1402	Rhuddlan Bridge	II*	30217900	37799100
18681	Coach-house and Stable Range at Kinmel with terrace walls, steps and archway to E	II*	29814000	37483600
18713	Hendre-fawr	II*	29634000	37690500
80742	Faenol Fawr Dovecote	II*	30007500	37639700
153	Plas Newydd	II*	30000100	37303800
1377	Church of St Margaret (The Marble Church)	II*	30039800	37546000
1382	Gwernigron Dovecote	II*	30252200	37516700
1383	Bodelwyddan Castle	II*	29992300	37483000
1356	Pengwern Hall (Pengwern College)	II	30191700	37661700
1362	Aberkinsey Farmhouse	II	30424400	38007000
1363	Belmont	II	30234300	37811200
1366	Parliament House	II	30235200	37812200
1367	Parliament House	II	30236900	37809600
1369	The Banquet House	II	30264200	37807600
1380	Fferm Farmhouse	II	30123300	37697600
1405	Rhydorddwy Goch Farmhouse	II	30385000	38099100
14978	Chest Tomb to NE of Church of Saint Mary	II	30216800	37812000
14979	1. Chest Tomb to SE of Church of Saint Mary	II	30216000	37807300
14980	2. Chest Tomb to SE of Church of Church of Saint Mary	II	30216000	37807200
14981	Churchyard Cross	II	30216000	37807600
14982	Lychgate to Churchyard	II	30221600	37810100
14983	Rhydorddwy Fawr Farmhouse	II	30388100	38133100
14984	Farmbuildings at Rhydorddwy Fawr Farm	II	30383100	38138200
14985	Detached outbuilding in the farmyard at Rhydorddwy Fawr Farm	II	30386700	38136500
14986	Rhyd-Wen Farmhouse	II	30327900	38138100



Record Number	Name	Grade	Easting	Northing
14987	Pont Faen Farmhouse	II	30331100	37889200
14988	Attached outbuildings to Pont Faen Farmhouse	II	30331800	37890100
14989	Detached Outbuilding at Pont Faen Farm	II	30333500	37889700
14990	Bryn Cwnin Farmhouse	II	30298400	37968000
14991	L-Plan Range of Farmbuildings at Bryn Cwnin Farm	II	30295100	37971200
14992	Clarence House (Old Vicarage)	II	30241300	37826800
14993	L-Plan range of farm-buildings at Aberkinsey Farm	II	30420000	37998100
80740	Coach House at Pengwern Hall with Outbuildings Range to W	II	30190000	37656900
80746	Garden Cottage at Pengwern Hall	II	30193800	37664700
80748	Georgian House (former Stables) at Pengwern Hall	II	30195400	37659800
1378	Barn to NW of Faenol-broper Farmhouse	II	30125500	37481700
1381	Gwernigron Farmhouse	II	30249000	37517000
1442	Southcroft including North Cottage	II	30234100	37390400
1443	Staverton	II	30232700	37391100
1444	Former Coach House, Stables & Outbuildings to Staverton & Southcroft	II	30231400	37391400
1495	Felin-y-gors	II	30083900	37500000
1507	Pydew Farmhouse	II	30463900	38166500
1508	North Range of Farm Buildings at Pydew Farm	II	30460400	38171000
19929	Pentre Meredydd	II	30111500	37300100
19941	Groesffordd Marli Chapel	II	30026800	37342400
25961	West Range of Farm Buildings at Pydew Farm	II	30460000	38168100
80736	Bodelwyddan Park Wall with entrances and cottages	II	30082300	37501500
80738	Bryn Celyn Lodge on Bodelwyddan Park Boundary	II	30052200	37393100
80750	Gors Mill Cottage	II	30084300	37501700
80752	Obelisk in Bodelwyddan Castle Garden	II	29981000	37464500
80757	Terrace wall of main front of Bodelwyddan Castle.	II	30000000	37482000
80758	Tyddyn-isaf	II	30120700	37519900
80983	East Range of Farm Buildings at Pydew Farm	II	30462800	38169300
80984	Old Farmhouse at Pydew Farm	II	30459200	38171500



Non-Designated Heritage Assets (HER search no. E6723)

HER Ref	Name	Period From	Easting	Northing
35030	Rhuddlan bypass, Mesolithic activity	Mesolithic	301600	378610
81662	Rhuddlan, Gwindy Street (site D), Mesolithic activity	Mesolithic	302270	378270
57767	Rhuddlan Mesolithic settlement	Mesolithic	302000	377000
57739	Rhuddlan, Bryn Teg (site S), mesolithic activity	Mesolithic	302560	378090
33099	Rhyl foreshore (Splash Point) antler mattock	Mesolithic	302000	382500
102029	Ysgawen Stone Axe	Neolithic	302220	378460
140654	Prestatyn, finds	Neolithic	304945	382358
101936	Rhyl foreshore neolithic axes	Neolithic	302380	382470
58796	Rhyl foreshore macehead	Prehistoric	302380	382470
141401	Pydew farm enclosure	Prehistoric	304600	382299
17103	Rhyl foreshore submerged landscape	Prehistoric	302300	382400
57747	Rhuddlan, Gwindy Street, bronze age activity I	Bronze Age	302280	378220
57749	Rhuddlan, Gwindy Street, bronze age activity II	Bronze Age	302270	378250
101478	Cae Garnedd cairn	Bronze Age	300610	373340
102568	Cae Garreg Lwyd	Bronze Age	301500	374600
169411	Burbo Bank Extension Trench 1	Bronze Age	303722	382179
169412	Burbo Bank Extension Trench VIII	Bronze Age	304158	381475
169418	Burbo Bank Extension Trench XV	Bronze Age	304017	380418
101937	Rhyl Foreshore bronze chisel	Bronze Age	302380	382470
58845	Rhuddlan Bronze Age settlement	Bronze Age	302000	377000
101858	Pen-y-fford Enclosure	Iron Age	301700	379300
144311	Roman Road	Romano-British	301964	373929
38624	Bodelwyddan Roman metal detector finds	Romano-British	301000	375000
70799	Bodelwyddan, finds II	Romano-British	300600	375600
46828	St Asaph - Caerhun	Romano-British	301102	373912
46829	St Asaph - Caerhun	Romano-British	300970	373913
104607	Varae-Kanovium Roman Road RR67b	Romano-British	301670	373940
104608	Varae-Kanovium Roman Road RR67b	Romano-British	300350	373930
104609	Varae-Kanovium Roman Road RR67b	Romano-British	300000	373920
46826	St Asaph- Caerhun	Romano-British	302180	373910
46827	St Asaph- Caerhun	Romano-British	301660	373934
46830	St Asaph- Caerhun	Romano-British	300921	373915
46832	St Asaph- Caerhun	Romano-British	300152	373923
46833	St Asaph- Caerhun	Romano-British	299945	373914
46825	St Asaph- Caerhun	Romano-British	302263	373904
46831	St Asaph- Caerhun	Romano-British	300317	373926
102985	Wernglodd Y Palmant Fieldname	Romano-British	301750	374000
102650	Bryn Cwnin Cropmark	Romano-British	303300	379900
106448	Bryn Cwybr Roman Coin	Romano-British	302700	379200
57768	Rhuddlan Roman settlement	Romano-British	302000	377000



HER Ref	Name	Period From	Easting	Northing
102572	Rhuddlan, Hendre, Roman find	Romano-British	302700	378100
101754	Rhuddlan, Lôn Hylas, Roman ditch	Romano-British	302400	378020
102041	Rhuddlan Church (St Mary), cross	Early medieval	302119	378097
16374	Rhuddlan Church (St Mary), cross	Early medieval	302119	378097
169425	Burbo Bank Extension Trench XXXIX	Early medieval	302426	376461
164156	Rhuddlan, Lôn Hylas, ditch	Early medieval	302400	378020
143519	Groesffordd ridge and furrow I	Medieval	300770	373728
143520	Groesffordd ridge and furrow II	Medieval	300811	373664
143521	Groesffordd ridge and furrow III	Medieval	300675	373638
143522	Groesffordd ridge and furrow IV	Medieval	300736	373562
143526	Pentre-mawr ridge and furrow	Medieval	301004	373384
143532	Pentre-Meredydd ridge and furrow I	Medieval	301196	373255
143533	Pentre-Meredydd ridge and furrow II	Medieval	301101	373154
102569	Perth Saint	Medieval	301900	375100
34048	Hendy Farm ridge and furrow	Medieval	301350	372850
34047	Pentre bach ridge and furrow	Medieval	300830	373240
143524	Ty-cnap ridge and furrow	Medieval	301255	373850
143517	Ty-cnap ridge and furrow I	Medieval	300873	373829
143518	Ty-cnap ridge and furrow II	Medieval	300910	373805
143525	Waen-Meredydd ridge and furrow	Medieval	301173	373618
143527	Waen-Meredydd ridge and furrow I	Medieval	301119	373489
143528	Waen-Meredydd ridge and furrow II	Medieval	301172	373483
143529	Waen-Meredydd ridge and furrow III	Medieval	301268	373496
143530	Waen-Meredydd ridge and furrow IV	Medieval	301201	373423
143531	Waen-Meredydd ridge and furrow V	Medieval	301318	373593
143523	Pentre-cefn ridge and furrow	Medieval	300972	373562
101409	Croes Y Cefn Du	Medieval	301000	379000
102975	Croes-y-berllan Fieldname	Medieval	302430	378320
142445	Rhuddlan	Medieval	302000	378000
57771	Rhuddlan battle site, 1403	Medieval	302000	377000
17962	Rhuddlan Chantry (St John)	Medieval	302000	378000
16449	Rhuddlan Church (St Mary), yard	Medieval	302139	378111
102048	Rhuddlan Church (St Mary)	Medieval	302141	378096
39384	Rhuddlan Church (St Mary), old cross	Medieval	302150	378060
103606	Rhuddlan cross	Medieval	302210	378060



HER Ref	Name	Period From	Easting	Northing
16943	Rhuddlan Church	Medieval	302119	378097
29439	Rhuddlan Medieval Town	Medieval	302150	378250
29440	Rhuddlan Medieval Town	Medieval	302250	378250
29441	Rhuddlan Medieval Town	Medieval	302150	378150
29414	Rhuddlan Medieval Town	Medieval	392459	377950
29442	Rhuddlan Medieval Town	Medieval	302250	378150
29443	Rhuddlan Medieval Town	Medieval	302350	378150
29444	Rhuddlan Medieval Town	Medieval	302450	378150
29445	Rhuddlan Medieval Town	Medieval	302150	378050
29446	Rhuddlan Medieval Town	Medieval	302250	378150
29447	Rhuddlan Medieval Town	Medieval	302350	378050
29448	Rhuddlan Medieval Town	Medieval	302450	378050
29449	Rhuddlan Medieval Town	Medieval	302750	378150
17791	Rhuddlan Medieval Town	Medieval	302000	377000
101949	Rhuddlan mint	Medieval	302000	378000
57770	Rhuddlan Edwardian borough	Medieval	302000	377000
57745	Rhuddlan, Gwindy Street, Edwardian borough defences	Medieval	302280	378220
58844	Rhuddlan, Princes Street, Edwardian borough defences	Medieval	302000	377000
101958	Rhuddlan, Princes Street, Edwardian borough defences	Medieval	302080	378170
57746	Rhuddlan, Gwindy Street, medieval well	Medieval	302280	378220
57769	Rhuddlan Norman borough	Medieval	302000	377000
102976	Rhuddlan pillory	Medieval	302620	378070
57742	Rhuddlan, Fairmead, medieval activity	Medieval	302500	378100
57750	Rhuddlan, Hendre, medieval finds	Medieval	302700	378100
57751	Rhuddlan, Hendre, medieval hospital	Medieval	302700	378100
164155	Rhuddlan, medieval ditch	Medieval	302460	378000
34044	Tyddyn Eos ridge and furrow	Medieval	300450	373300
117675	Cefnmeiriadog, Buckle	Medieval	302186	373565
123909	Bodelwyddan Castle park enclosure	Medieval	299953	374637
16694	Bodelwyddan Church (St Margaret), yard	Medieval	300400	375450
199322	Bodelwyddan Coin	Medieval	300500	375500



HER Ref	Name	Period From	Easting	Northing
57748	Rhuddlan, Gwindy Street, post medieval activity	Post-medieval	302280	378220
142070	Rhuddlan, National School (Girls)	Post-medieval	302188	378223
36146	Rhuddlan Church (St Mary), chest tomb to NE of Church	Post-medieval	302160	378100
42275	Rhuddlan Church (St Mary), chest tombs	Post-medieval	302160	378070
36147	Rhuddlan Church (St Mary), chest tombs to SE of Church	Post-medieval	302160	378070
36148	Rhuddlan Church (St Mary), churchyard cross	Post-medieval	302162	378085
36149	Rhuddlan Church (St Mary), lychgate	Post-medieval	302215	378098
102033	Rhuddlan Church (St Mary), sundial	Post-medieval	302170	378070
123340	Rhuddlan, Parc Edith, post-medieval activity	Post-medieval	302586	378215
57757	Rhuddlan, Parc Edith, post-medieval activity	Post-medieval	302574	378232
102032	Rhuddlan, Parliament House	Post-medieval	392572	378119
55758	Rhuddlan, Parliament Street, 19 th century activity	Post-medieval	302370	378090
83519	Rhuddlan, Phoenix Foundry, Warehouse	Post-medieval	302110	377960
103603	Rhuddlan, Phoenix Iron Foundry	Post-medieval	302120	377890
312792	Rhuddlan, Station Road, The Marsh Warden	Post-medieval	302049	377829
36158	Rhuddlan, Vicarage Lane Clarence House 3	Post-medieval	302413	378267
152733	Bodrhyddan Mausoleum, Rhuddlan	Post-medieval	302150	378110
142812	Bodelwyddan Park, ridge and furrow	Post-medieval	300478	373980
142832	Bodelwyddan Park, ridge and furrow	Post-medieval	300431	374015
99615	Bodelwyddan Park, Bryn Celyn Lodge	Post-medieval	300510	373930
125076	Bodelwyddan Park, ice house	Post-medieval	300667	374590
38625	Bodelwyddan Post medieval metal detector find	Post-medieval	301000	375000
141423	Bodelwyddan, musket ball	Post-medieval	301089	373817
58795	Rhyl foreshore post-medieval finds	Post-medieval	302380	382470
123322	Rhyl foreshore (Splash Point) structures	Post-medieval	302050	382470
103588	Rhyl Road Smithy	Post-medieval	302470	378230
34045	Cae Capel fieldname	Post-medieval	300720	373330
125171	Cae-llwyd, limekiln	Post-medieval	301238	372711
125172	Cae-llwyd, mine shaft	Post-medieval	301235	372641



HER Ref	Name	Period From	Easting	Northing
18046	Coed Celyn	Post-medieval	301300	372600
26128	Faenolbroper, barn to NW of Faenolbroper farmhouse	Post-medieval	301255	374818
193912	Faenol-bropor farm	Post-medieval	301273	374806
195457	Faenol-bropor farm, farm building	Post-medieval	301273	374846
195458	Faenol-bropor farm, farm building	Post-medieval	301287	374781
195459	Faenol-bropor farm, farm building	Post-medieval	301260	374781
195460	Faenol-bropor farm, farm building	Post-medieval	301270	374770
195461	Faenol-bropor farm, farm building	Post-medieval	301279	374767
103103	Felin Y Gors Mill	Post-medieval	300842	375018
99625	Gors Mill Cottage	Post-medieval	300830	375010
125075	Gors-uchaf, farmstead	Post-medieval	300607	374661
143514	Groesffordd well	Post-medieval	300710	373621
125169	Pen-y-cefn, mine shaft	Post-medieval	301223	372477
99661	Pentre Meredydd	Post-medieval	301120	373000
143513	Pentre-mawr limekiln	Post-medieval	300852	373336
143516	Pentre-mawr quarry	Post-medieval	300807	373326
46827	St Asaph - Caerhun	Post-medieval	301660	373934
46830	St Asaph - Caerhun	Post-medieval	300921	373915
102566	Gwernigron Dovecote	Post-medieval	302519	375165
193915	Gwernigron Farm	Post-medieval	302476	375159
93630	Gwernigron Farm Pond I	Post-medieval	302102	375210
93631	Gwernigron Farm Pond II	Post-medieval	302129	375208
195470	Gwernigron farm, farm building	Post-medieval	302447	375176
195471	Gwernigron farm, farm building	Post-medieval	302494	375184
195472	Gwernigron farm, farm building	Post-medieval	302452	375128
195473	Gwernigron farm, farm building	Post-medieval	302436	375139
195474	Gwernigron farm, farm building	Post-medieval	302462	375177
195475	Gwernigron farm, farm building	Post-medieval	302433	375160
195476	Gwernigron farm, farm building	Post-medieval	302439	375176
195477	Gwernigron farm, farm building	Post-medieval	302483	375186
195478	Gwernigron farm, farm building	Post-medieval	302489	375185
195479	Gwernigron farm, farm building	Post-medieval	302442	375135
195480	Gwernigron farm, farm building	Post-medieval	302430	375142
195481	Gwernigron farm, farm building	Post-medieval	302463	375152
195482	Gwernigron farm, farm building	Post-medieval	302477	375183
195483	Gwernigron farm, farm building	Post-medieval	302454	375176
195484	Gwernigron farm, farm building	Post-medieval	302459	375139
102054	Gwernigron House	Post-medieval	302488	375170



HER Ref	Name	Period From	Easting	Northing
193774	Hafod-llwyn farm	Post-medieval	301316	377894
194979	Hafod-llwyn farm, farm building	Post-medieval	301316	377916
193980	Hen-dy farm	Post-medieval	301236	372923
195705	Hen-dy farm, farm building	Post-medieval	301239	372916
195706	Hen-dy farm, farm building	Post-medieval	301249	372925
193978	Isfryn farm	Post-medieval	301408	372546
195700	Isfryn farm, farm building	Post-medieval	301397	372556
193992	Maes farm	Post-medieval	300401	372785
195741	Maes farm, farm building	Post-medieval	300397	372786
193989	Marli farm	Post-medieval	300248	373570
195726	Marli farm, farm building	Post-medieval	300244	373572
195727	Marli farm, farm building	Post-medieval	300246	373551
195728	Marli farm, farm building	Post-medieval	300245	373594
195729	Marli farm, farm building	Post-medieval	300259	373586
143534	Ty-cnap milestone	Post-medieval	301035	373895
99631	Tyddyn-isaf	Post-medieval	301210	375200
193913	Tyddyn-isaf farm	Post-medieval	301211	375220
195462	Tyddyn-isaf, farm building	Post-medieval	301211	375232
195463	Tyddyn-isaf, farm building	Post-medieval	301238	375220
195464	Tyddyn-isaf, farm building	Post-medieval	301197	375212
195465	Tyddyn-isaf, farm building	Post-medieval	301190	375227
193983	Waen Meredydd farm	Post-medieval	301240	373663
195709	Waen Meredydd farm, farm building	Post-medieval	301240	373667
195710	Waen Meredydd farm, farm building	Post-medieval	301231	373661
195711	Waen Meredydd farm, farm building	Post-medieval	301245	373662
193742	Ynys farm	Post-medieval	301584	379320
194864	Ynys farm, farm building	Post-medieval	301578	379316
194865	Ynys farm, farm building	Post-medieval	301585	379322
194866	Ynys farm, farm building	Post-medieval	301595	379326
142788	Bodelwyddan Park, field boundary	Post-medieval	300428	373993
142790	Bodelwyddan Park, field boundary	Post-medieval	300388	374021
142819	Bodelwyddan Park, field boundary	Post-medieval	300312	373982
123557	Bodelwyddan, finds	Post-medieval	301800	376400
105800	Bodelwyddan	Post-medieval	300500	375500
129903	Bodelwyddan Castle Park, mine shaft	Post-medieval	300287	375156
129904	Bodelwyddan Castle Park, mine shaft	Post-medieval	300365	375222
22926	Bodelwyddan Castle, garden	Post-medieval	299900	374500
72130	Bodelwyddan Castle, house	Post-medieval	299900	374500
99630	Bodelwyddan Castle, main front terrace wall	Post-medieval	300000	374820
103528	Bodelwyddan Lead level	Post-medieval	300470	375050



HER Ref	Name	Period From	Easting	Northing
129907	Bodelwyddan Park	Post-medieval	300150	374680
125073	Bodelwyddan Park, monument	Post-medieval	299820	374237
126074	Bodelwyddan Park, summer house	Post-medieval	299811	374229
70796	Bodelwyddan, finds I	Post-medieval	300600	375600
36155	Bryn Cwnin Farm, house	Post-medieval	302984	379680
36156	Bryn Cwnin Farm, L-plan range	Post-medieval	302940	379698
193744	Bryn-cwnin farm	Post-medieval	302972	379710
194873	Bryn-cwnin farm, farm building	Post-medieval	302951	379708
194874	Bryn-cwnin farm, farm building	Post-medieval	302946	379691
194875	Bryn-cwnin farm, farm building	Post-medieval	302950	379685
194876	Bryn-cwnin farm, farm building	Post-medieval	302974	379709
194877	Bryn-cwnin farm, farm building	Post-medieval	302986	379701
66132	Bryn-carog, farmstead	Post-medieval	301172	376805
66134	Bryn-carog, trackway I	Post-medieval	300650	377252
66135	Bryn-carog, trackway II	Post-medieval	300697	376974
66136	Bryn-carog, trackway III	Post-medieval	300988	376822
66133	Bryn-carog, well	Post-medieval	301129	376840
119871	St Asaph, coin	Post-medieval	302422	375515
32234	St Asaph, Glascoed Road 'Southcroft'	Post-medieval	302338	373906
32235	St Asaph, Glascoed Road 'Staverton'	Post-medieval	302326	373914
32236	St Asaph, Glascoed Road, former coach house	Post-medieval	302312	373909
193741	Tan-y-bryn farm	Post-medieval	301360	379533
193977	Tan-y-bryn farm	Post-medieval	301704	372736
194858	Tan-y-bryn farm, farm building	Post-medieval	301350	379524
194859	Tan-y-bryn farm, farm building	Post-medieval	301348	379536
194860	Tan-y-bryn farm, farm building	Post-medieval	301351	379543
194861	Tan-y-bryn farm, farm building	Post-medieval	301357	379544
194862	Tan-y-bryn farm, farm building	Post-medieval	301364	379544
194863	Tan-y-bryn farm, farm building	Post-medieval	301370	379545
195698	Tan-y-bryn farm, farm building	Post-medieval	301714	372723
195699	Tan-y-bryn farm, farm building	Post-medieval	301691	372746
193920	The Cottage farm	Post-medieval	302321	373917
37878	Cottage Covert fishpond	Post-medieval	303466	380292
102565	Cwybr Mawr	Post-medieval	302351	379363
42195	NO 4, (PARLIAMENT HOUSE) PARLIAMENT STREET SW SIDE	Post-medieval	302389	378084
193739	Pen-y-bryn farm	Post-medieval	301575	379820
194851	Pen-y-bryn farm, farm building	Post-medieval	301588	379834
194852	Pen-y-bryn farm, farm building	Post-medieval	301545	379831
194853	Pen-y-bryn farm, farm building	Post-medieval	301585	379801
194854	Pen-y-bryn farm, farm building	Post-medieval	301605	379806
194855	Pen-y-bryn farm, farm building	Post-medieval	301581	379833
194856	Pen-y-bryn farm, farm building	Post-medieval	301573	379830



HER Ref	Name	Period From	Easting	Northing
103539	Faenol Boundary Marker II	Post-medieval	299940	378110
103540	Faenol Boundary Marker III	Post-medieval	299980	378160
103544	Faenol Boundary Marker III	Post-medieval	299940	378000
66137	Faenol-fawr, boundary stone I	Post-medieval	300519	376670
66130	Faenol-fawr, pond	Post-medieval	300372	376944
102967	Fferm farmhouse	Post-medieval	301229	376975
66131	Fferm, pond	Post-medieval	301207	376944
193805	Fferm farm	Post-medieval	301249	376977
103581	Ffrith Beach Golf Course boundary stone	Post-medieval	303705	382818
103580	Green Lanes Boundary Stone	Post-medieval	303785	382526
37704	Ffordd Penrhwylyfa well	Post-medieval	305272	382235
193743	Glan'r-afon Nursery Farm	Post-medieval	301060	379433
194867	Glan'r Nursery Farm, farm building	Post-medieval	301049	379467
194868	Glan'r Nursery Farm, farm building	Post-medieval	301042	379476
194869	Glan'r Nursery Farm, farm building	Post-medieval	301046	379476
194870	Glan'r Nursery Farm, farm building	Post-medieval	301044	379474
194871	Glan'r Nursery Farm, farm building	Post-medieval	301049	379473
194872	Glan'r Nursery Farm, farm building	Post-medieval	301048	379476
103601	Marsh Road Foundry	Post-medieval	301840	377990
103605	Marsh Road Tannery	Post-medieval	301860	378090
103600	Meadow Brook Farm Boundary Stone	Post-medieval	301910	376940
193986	Groesffordd Farm	Post-medieval	300647	373397
195717	Groesffordd Farm, farm building	Post-medieval	300653	373397
195718	Groesffordd Farm, farm building	Post-medieval	300643	373406
195719	Groesffordd Farm, farm building	Post-medieval	300649	373385
99660	Groesffordd Marli Chapel	Post-medieval	300280	373420
66129	Pen-lan, outbuilding	Post-medieval	300459	376570
103543	Pengwern Boundary Marker	Post-medieval	301730	377000
59255	Pengwern Hall	Post-medieval	301932	376588
93676	Pengwern Hall parkland	Post-medieval	301752	376676
99617	Pengwern Hall, coach house with outbuildings range to west	Post-medieval	301900	376570
99621	Pengwern Hall, Garden Cottage	Post-medieval	301940	376640
99623	Pengwern Hall, Georgian House (former stables)	Post-medieval	301950	376590
131031	Pengwern Hall, greenhouse	Post-medieval	301818	376584
106455	Pengwern Hall, grotto	Post-medieval	301700	376550
103542	Pengwern Hall, ice house	Post-medieval	301748	376588
131029	Pengwern Hall, pond I	Post-medieval	301838	376442
131030	Pengwern Hall, pond II	Post-medieval	301710	376581
99633	Pengwern Hall, Woodwork Block (former Coach House)	Post-medieval	301940	376660



HER Ref	Name	Period From	Easting	Northing
102053	Pengwern Hall	Post-medieval	301918	376618
103604	Pentre Mill	Post-medieval	303210	379360
37703	Plas Bruton Covert gravel pit	Post-medieval	303101	380550
59278	Pydew Farm	Post-medieval	304639	381661
193911	Bryn-celyn farm	Post-medieval	300122	373935
195452	Bryn-celyn farm, farm building	Post-medieval	300099	373919
195453	Bryn-celyn farm, farm building	Post-medieval	300117	373935
195454	Bryn-celyn farm, farm building	Post-medieval	300130	373951
195455	Bryn-celyn farm, farm building	Post-medieval	300146	373946
195456	Bryn-celyn farm, farm building	Post-medieval	300118	373947
12156	Rhuddlan culvert	Post-medieval	302080	378090
34301	Rhuddlan quay	Post-medieval	302000	378200
35189	Rhuddlan quay trackway	Post-medieval	302000	378130
83515	Rhuddlan quay	Post-medieval	302170	378030
83524	Rhuddlan Quay building	Post-medieval	302190	378030
83527	Rhuddlan quay structure I	Post-medieval	302150	378047
83517	Rhuddlan warehouse	Post-medieval	301980	378140
83525	Rhuddlan wharf II	Post-medieval	301830	378250
83526	Rhuddlan wharf III	Post-medieval	301870	378186
83518	Rhuddlan wharf IV	Post-medieval	302000	378010
102034	Rhuddlan Bridge	Post-medieval	302183	377997
102047	Rhuddlan, Banquet House	Post-medieval	302641	378075
1001745	Rhuddlan, Castle Street, National School (boys)	Post-medieval	302344	378020
102573	Rhuddlan, Hendre, kiln	Post-medieval	302700	378100
26118	Rhuddlan, High Street 'Belmont'	Post-medieval	302343	378108
123601	Rhuddlan, High Street, Bryn Awel and Fondella Building	Post-medieval	302389	378153
142071	Rhuddlan, King's Head Public House	Post-medieval	302426	378169
123340	Rhuddlan, Parc Edith, post medieval activity	Post-medieval	302585	378215
57757	Rhuddlan, Parc Edith, post medieval activity	Post-medieval	302573	378232
102032	Rhuddlan, Parliament House	Post-medieval	302352	378119
57758	Rhuddlan, Parliament Street, 19th century activity	Post-medieval	302370	378090
83519	Rhuddlan, Phoenix Foundry, warehouse	Post-medieval	302110	377960
103603	Rhuddlan, Phoenix Iron Foundry	Post-medieval	302120	377890
132792	Rhuddlan, Station Road, The Marsh Warden	Post-medieval	302049	377829
36158	Rhuddlan, Vicarage Lane Clarence House 3, (Old Vicarage)	Post-medieval	302413	378267
36152	Rhyd-wen Farmhouse	Post-medieval	303308	381416
193719	Rhydorddwy-wen farm	Post-medieval	303284	381392
194779	Rhydorddwy-wen farm, farm building	Post-medieval	303278	381401
193780	Rhydorddwy-wen farm, farm building	Post-medieval	303272	381378
194781	Rhydorddwy-wen farm, farm building	Post-medieval	303286	381406
194782	Rhydorddwy-wen farm, farm building	Post-medieval	303267	381393



HER Ref	Name	Period From	Easting	Northing
194783	Rhydorddwy-wen farm, farm building	Post-medieval	303295	381414
194784	Rhydorddwy-wen farm, farm building	Post-medieval	303287	381386
194785	Rhydorddwy-wen farm, farm building	Post-medieval	303306	381394
36151	Rhydorddwy Fawr Farm	Post-medieval	303867	381365
36150	Rhydorddwy Fawr Farm, house	Post-medieval	303880	381333
36174	Rhydorddwy Fawr Farm, outbuildings	Post-medieval	303843	381393
194793	Rhydorddwy Fawr Farm, farm building	Post-medieval	303846	381355
194794	Rhydorddwy Fawr Farm, farm building	Post-medieval	303841	381363
194795	Rhydorddwy Fawr Farm, farm building	Post-medieval	303844	381395
194796	Rhydorddwy Fawr Farm, farm building	Post-medieval	303858	381402
194797	Rhydorddwy Fawr Farm, farm building	Post-medieval	303872	381382
194798	Rhydorddwy Fawr Farm, farm building	Post-medieval	303837	381371
194799	Rhydorddwy Fawr Farm, farm building	Post-medieval	303831	381384
26139	Rhydorddwy Goch Farmhouse	Post-medieval	303850	380989
103596	Rhydorddwy Goch Farm Boundary Stone	Post-medieval	304390	380600
193721	Rhydorddwy Goch Farm	Post-medieval	303862	380965
194792	Rhydorddwy Goch Farm, farm building	Post-medieval	303856	380960
193745	Pentre Farm	Post-medieval	303261	379289
194878	Pentre Farm, farm building	Post-medieval	303266	379302
194879	Pentre Farm, farm building	Post-medieval	303275	379284
194880	Pentre Farm, farm building	Post-medieval	303251	379276
194881	Pentre Farm, farm building	Post-medieval	303254	379303
193981	Pentre Meredydd farm	Post-medieval	301116	372999
193984	Pentre-bach farm	Post-medieval	300911	373233
195712	Pentre-bach farm, farm building	Post-medieval	300917	373234
193985	Pentre-mawr farm	Post-medieval	300883	373302
195713	Pentre-mawr farm, farm building	Post-medieval	300896	373313
195714	Pentre-mawr farm, farm building	Post-medieval	300877	373291
195715	Pentre-mawr farm, farm building	Post-medieval	300867	373305
195716	Pentre-mawr farm, farm building	Post-medieval	300870	373311
68960	Plas Newydd, building I	Post-medieval	300037	373114
68963	Plas Newydd, building II	Post-medieval	300168	372990
68959	Plas Newydd, limekiln	Post-medieval	300079	373238
125168	Plas Newydd, quarry	Post-medieval	300109	373215
195731	Plas-newydd farm, farm building	Post-medieval	300046	373001
195732	Plas-newydd farm, farm building	Post-medieval	300037	373031
195733	Plas-newydd farm, farm building	Post-medieval	300031	373027
36154	Pont Faen Farm, cow house	Post-medieval	303335	378897
36153	Pont Faen Farm, house	Post-medieval	303308	378891
42276	Pont Faen, outbuildings	Post-medieval	303318	378901
193746	Pont-faen farm	Post-medieval	303320	378898



HER Ref	Name	Period From	Easting	Northing
132172	Prestatyn, Warrington Summer Camp	Post-medieval	30485	383150
37702	Pydew Bungalow stone	Post-medieval	304167	381420
99822	Pydew Farm, east range of farm buildings	Post-medieval	304628	381693
194808	Pydew farm, farm building	Post-medieval	304595	381697
194809	Pydew farm, farm building	Post-medieval	304597	381688
194810	Pydew farm, farm building	Post-medieval	304600	381681
194811	Pydew farm, farm building	Post-medieval	304602	381676
194812	Pydew farm, farm building	Post-medieval	304598	381668
194813	Pydew farm, farm building	Post-medieval	304603	381672
31278	Pydew Farm, house	Post-medieval	304639	381661
99827	Pydew Farm, old farmhouse	Post-medieval	304590	381710
31279	Pydew Farm, outbuildings	Post-medieval	304590	381704
99833	Pydew Farm, west range of farm buildings	Post-medieval	304600	381680
193804	Ty-isaf farm	Post-medieval	301591	376750
195072	Ty-isaf farm, farm building	Post-medieval	301579	376773
195073	Ty-isaf farm, farm building	Post-medieval	301569	376768
195074	Ty-isaf farm, farm building	Post-medieval	301606	376751
195075	Ty-isaf farm, farm building	Post-medieval	301588	376767
195076	Ty-isaf farm, farm building	Post-medieval	301598	376723
195077	Ty-isaf farm, farm building	Post-medieval	300846	376753
193914	Ty-mawr farm	Post-medieval	300836	375355
195466	Ty-mawr farm, farm building	Post-medieval	300825	375328
195467	Ty-mawr farm, farm building	Post-medieval	300827	375347
195468	Ty-mawr farm, farm building	Post-medieval	300828	375335
195469	Ty-mawr farm, farm building	Post-medieval	300370	375360
34049	Tyddyn Eos Limekiln I	Post-medieval	300370	373350
34050	Tyddyn Eos Limekiln II	Post-medieval	300370	373350
193982	Tyddyn Meredydd farm	Post-medieval	301108	373062
195707	Tyddyn Meredydd farm, farm building	Post-medieval	301099	373060
195708	Tyddyn Meredydd farm, farm building	Post-medieval	301106	373072
193987	Tyddyn-eos farm	Post-medieval	300467	373368
195720	Tyddyn-eos farm, farm building	Post-medieval	300466	373355
195721	Tyddyn-eos farm, farm building	Post-medieval	300459	373372
195722	Tyddyn-eos farm, farm building	Post-medieval	300475	373374
143515	Tyddyn-eos quarry	Post-medieval	300367	373324
37700	Rhyl, Volunteers' rifle range	Post-medieval	302788	382579
101571	Sam, trackway	Post-medieval	300890	376580
26117	Aberkinsey Farm, house	Post-medieval	304244	380070
36159	Aberkinsey Farm, L-plan range of farm-buildings	Post-medieval	304189	379994
67208	Aberkinsey Farm, orchard	Post-medieval	304160	380030
193988	Cae-cogau farm	Post-medieval	300352	373407
195723	Cae-cogau farm, farm building	Post-medieval	300353	373403



HER Ref	Name	Period From	Easting	Northing
195724	Cae-cogau farm, farm building	Post-medieval	300349	373391
195725	Cae-cogau farm, farm building	Post-medieval	300351	373421
193979	Cae-llwyd farm	Post-medieval	301110	372790
195701	Cae-llwyd farm, farm building	Post-medieval	301117	372782
195702	Cae-llwyd farm, farm building	Post-medieval	301104	372773
195703	Cae-llwyd farm, farm building	Post-medieval	301097	372794
195704	Cae-llwyd farm, farm building	Post-medieval	301095	372799
193747	Cwybr-bach farm	Post-medieval	302526	379334
194882	Cwybr-bach farm, farm building	Post-medieval	302506	379333
194883	Cwybr-bach farm, farm building	Post-medieval	302506	379316
194884	Cwybr-bach farm, farm building	Post-medieval	302520	379320
194885	Cwybr-bach farm, farm building	Post-medieval	302530	379327
193748	Cwybr-uchaf farm	Post-medieval	302010	379124
194886	Cwybr-uchaf farm, farm building	Post-medieval	301989	379116
194887	Cwybr-uchaf farm, farm building	Post-medieval	302011	379123
194888	Cwybr-uchaf farm, farm building	Post-medieval	302019	379134
103589	Dyserth Road Smithy	Post-medieval	302999	381286
37701	Dyserth Road Smithy, pond	Post-medieval	302964	381224
48777	Bryn-carog, farm building	19th century	301141	376833
130277	DE HAVILLAND VAMPIRE FB5 WA417	Modern	301000	373000
142813	Bodelwyddan practice trenches, communication trench	Modern	300356	374051
132201	Pengwern, PoW camp	Modern	301700	376200
143535	Pentre Chapel	Modern	300706	373357
132162	St Asaph, Gwernigron, army camp	Modern	302000	375000
152248	St. Asaph ROC Post	Modern	302010	375170
129616	Bodelwyddan Castle Park, "Bursar's Bungalow"/Kinmel Park Camp huts	Modern	300782	375189
16717	Bodelwyddan Church	Modern	300400	375450
142943	Bodelwyddan Practice trenches, crater	Modern	295404	284421
142087	Bodelwyddan Prisoner of War camp	Modern	300500	375500
23082	Bodelwyddan WWI practice trenches and command post	Modern	299900	374200
142780	Bodelwyddan practice trenches, "D" head recess	Modern	300385	373968
142779	Bodelwyddan practice trenches, communication trench	Modern	300368	373969
142782	Bodelwyddan practice trenches, communication trench	Modern	300380	373989
142783	Bodelwyddan practice trenches, communication trench	Modern	300340	373941
142785	Bodelwyddan practice trenches, communication trench	Modern	300379	374024
142789	Bodelwyddan practice trenches, communication trench	Modern	300367	374015



HER Ref	Name	Period From	Easting	Northing
142791	Bodelwyddan practice trenches, communication trench	Modern	300352	373989
142792	Bodelwyddan practice trenches, communication trench	Modern	300345	373994
142799	Bodelwyddan practice trenches, communication trench	Modern	300411	374006
142808	Bodelwyddan practice trenches, communication trench	Modern	300378	373963
143371	Bodelwyddan practice trenches, communication trench	Modern	300355	373982
142802	Bodelwyddan practice trenches, dugout	Modern	300331	373945
142803	Bodelwyddan practice trenches, dugout	Modern	300340	373946
142804	Bodelwyddan practice trenches, dugout	Modern	300348	373945
142806	Bodelwyddan practice trenches, dugout	Modern	300360	373957
142807	Bodelwyddan practice trenches, dugout	Modern	300365	373954
142810	Bodelwyddan practice trenches, dugout	Modern	300343	373975
142811	Bodelwyddan practice trenches, dugout	Modern	300351	373995
142830	Bodelwyddan practice trenches, dugout	Modern	300341	373938
143473	Bodelwyddan practice trenches, dugout	Modern	300367	373960
142805	Bodelwyddan practice trenches, dugout	Modern	300356	373950
142809	Bodelwyddan practice trenches, dugout	Modern	300363	373978
142771	Bodelwyddan practice trenches, fire trench	Modern	300397	373953
142784	Bodelwyddan practice trenches, fire trench	Modern	300342	374018
142786	Bodelwyddan practice trenches, fire trench	Modern	300400	374014
142800	Bodelwyddan practice trenches, fire trench	Modern	300433	373951
142801	Bodelwyddan practice trenches, fire trench	Modern	300365	373959
142781	Bodelwyddan practice trenches, island traverse	Modern	300336	374051
143484	Bodelwyddan practice trenches, slit trench	Modern	300368	374020
142787	Bodelwyddan practice trenches, trench	Modern	300382	373985
143372	Bodelwyddan practice trenches, trench	Modern	300346	374036
143425	Bodelwyddan practice trenches, trench	Modern	300338	374031



HER Ref	Name	Period From	Easting	Northing
144785	Ffynnongroyw, Ffynnongroyw And Penyfford, war memorial	Modern	302001	378001
66139	Gypsy Lane, structure I	Modern	300089	377877
66140	Gypsy Lane, structure II	Modern	300178	377674
130268	MILES MASTER I N7937	Modern	303000	381000
131032	Pengwern College, Art Building	Modern	301747	376598
132201	Pengwern, PoW camp	Modern	301700	376200
132183	Vale of Clwyd, drill ground	Modern	300000	378000
143535	Pentre Chapel	Modern	300706	373357
130982	RAF Rhuddlan, radar station	Modern	301000	376000
144688	Rhuddlan C Shipley War Memorial	Modern	302201	378101
144762	Rhuddlan Dr Vaughan War Memorial	Modern	302201	378101
144769	Rhuddlan, Ebenezer Chapel, WW1, War Memorial	Modern	302401	378101
144770	Rhuddlan, Ebenezer Chapel, WW2 War Memorial	Modern	302401	378101
144806	Rhuddlan, G S Rowley Conwy, War Memorial	Modern	302201	378101
57759	Rhuddlan, Princes Road, modern activity	Modern	302646	378101
145070	Rhuddlan, Rhuddlan Parish WW1 and WW2, war memorial	Modern	302401	378101
145071	Rhuddlan, Rhuddlan Royal British Legion Board WW1 And WW2, war memorial	Modern	302401	378101
145072	Rhuddlan, Rhuddlan War Memorial Club, war memorial	Modern	302401	378101
145156	Rhuddlan, St Marys Church Tablet WW2, war memorial	Modern	302201	378101
145177	Rhuddlan, St. Mary's Church - Window, war memorial	Modern	302142	378103
122659	Rhyl Golf Course FSA reservoir	Modern	302810	382930
132094	SUPERMARINE SPITFIRE I K9994	Modern	305566	383929
167004	WW2 radio mast, two concrete bases	Modern	300854	376408
141424	Rhyl, wood and metal object	Undated	302500	382600
142213	Bodelwyddan enclosure	Undated	300470	375270
214262	Bodelwyddan, weir	Undated	300563	374669
214263	Bodelwyddan, weir	Undated	300574	374674
168413	Burbo Bank Extension, trench IX	Undated	304197	381370
169414	Burbo Bank Extension, trench X	Undated	304202	381200
169415	Burbo Bank Extension, trench XI	Undated	304169	381078
169416	Burbo Bank Extension, trench XIII	Undated	304096	380686
169417	Burbo Bank Extension, trench XIV	Undated	304051	380537
169419	Burbo Bank Extension, trench XVI	Undated	303951	380096
169420	Burbo Bank Extension, trench XVIII	Undated	303917	379964
169421	Burbo Bank Extension, trench XXI	Undated	303742	379357
169426	Burbo Bank Extension, trench XXXXI	Undated	302452	376002
214273	Rhuddlan, sluice	Undated	301611	378255
214282	Rhuddlan, sluice	Undated	302251	377854
214574	Rhuddlan, sluice	Undated	301386	378729



HER Ref	Name	Period From	Easting	Northing
214278	Rhuddlan, weir	Undated	302062	378865
152294	Wrexham, Bridge Street, brewery	Undated	303650	382500

Foreshore Walkover Observations (Figure 5) (Plates 18-24)

Context No.	Description	Easting	Northing
5001	Peat layer, above clay layer	302542	381579
5002	Peat layer, above clay layer	302736	382558
5003	Peat layer, tree roots	303129	382608
5004	Concrete sheets and pillars, extends to east	303356	382701
5005	Peat layer	303448	382861
5006	Tree stump and log (>2m) both in situ. Peat and clay eroded around them, appeared to be below peat level	303445	382861
5007	Tree stump, peat and clay eroded away	303436	382855
5008	Log (>1.5m) peat and clay eroded away	303417	382838



RWE Renewables UK
Swindon Limited

Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire SN5 6PB
T +44 (0)8456 720 090
www.rwe.com

Registered office:
RWE Renewables UK
Swindon Limited
Windmill Hill Business Park
Whitehill Way
Swindon