

# *Archaeology Wales*

## **Proposed Hotel at Parc Cybi Enterprise Zone, Holyhead, Anglesey**

### **Heritage Impact Assessment: Trefignath Burial Chamber (SAM AN011) & Ty-Mawr Standing Stone (SAM AN012)**



**Trefignath Burial Chamber**



**Ty-Mawr Standing Stone**

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Report No. 1589: Version 3

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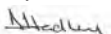


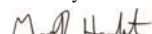
# Archaeology Wales

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### Heritage Impact Assessment: Trefignath Burial Chamber (SAM AN011) & Ty-Mawr Standing Stone (SAM AN012)

Prepared for Axis Planning Services

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## Heritage Impact Statement

*The impact assessment has been commissioned by Axis Planning Services following scoping in order to determine the likely significance of effect of a proposed hotel upon scheduled monuments located within Parc Cybi Enterprise Zone, Holyhead, Isle of Anglesey. The local planning authority is the Isle of Anglesey County Council. The assessment has been undertaken pre-planning.*

*The development will have a potential impact on the settings of two scheduled ancient monuments: Trefignath Burial Chamber (Cadw SAM: AN011) and Ty-Mawr Standing Stone (Cadw SAM: AN012). The Bronze Age stone and Neolithic burial chamber appear to line up, to within one degree, with the winter solstice sunrise viewed towards Holyhead Mountain.*

*There has been considerable development within the scheme area over the past few decades, notably the construction of the A55 North Wales Expressway along the eastern site boundary, and surrounding commercial development which includes the Parc Cybi Enterprise Zone. The cumulative effects on the settings of Ty-Mawr Standing Stone and Trefignath Burial Chamber represent at least a major adverse overall impact. However, this assessment has considered the proposed development against existing conditions, which include previous development as well as the proposals outlined in the master plan for Parc Cybi.*

*The design of the Parc Cybi incorporates a number of measures to mitigate against and offset potential adverse impacts. These significantly include maintaining the intervisibility of Ty-Mawr Standing Stone, Trefignath Burial Chamber and natural features in the landscape. The proposed 'green' corridor along the line of sight between Ty-Mawr Standing Stone and Trefignath Burial Chamber will have the effect of framing a significant view between these monuments, which is presently ill defined. This represents a moderate beneficial impact on the settings of both monuments. In addition, maintaining the principal views from both Ty-Mawr Standing Stone and Trefignath Chambered Tomb towards Holyhead Mountain will allow an increased appreciation of designed alignment with Holyhead Mountain. This represents a moderate beneficial impact.*

*Mitigation measures incorporated within the Parc Cybi master plan to reduce the visual impact of the proposed development on the historic landscape and heritage assets comprise a newly established belt of trees to the southeast of the application area. This is the principal mitigation measure associated with the development proposal (within the application area).*

*The existing woodland will screen the car parking and at least half of the hotel from the nearby standing stone. The overall impact of the hotel, in terms of scale, upon the extended setting of the stone would be moderate adverse. The visual impact on Trefignath Burial Chamber has been assessed as neutral.*

*The existing woodland screen, to the southeast of the proposed development, will reduce the potential impact of light pollution, noise pollution development and the intrusiveness of movement within the extended setting of Ty-Mawr Standing Stone; the impact of these factors arising from the development is considered to be negligible.*

*There is a potential negative aspect of the screening in that the woodland may, over time, obscure the view of Holyhead Mountain from the standing stone. The overall impact has been assessed as potentially moderate adverse, but there will be no impact if the woodland is maintained and, more generally, the effectiveness of screening incorporated in the Parc Cybi master plan is subject to periodic review.*

*In general, the impact on light pollution from Parc Cybi on the settings of the standing stone and burial chamber is considered to be negligible. The exceptions to this concern the views from and towards the monuments at dawn and late evening, and most importantly, the view from Trefignath towards Holyhead Mountain during the winter solstice sunrise. For the latter scenario, the visual impact of light pollution is considered to be major, resulting in a severe significance of effect (with the contributory impact of the proposed development being negligible).*

*Although the development is not located directly on the line of sight between the burial chamber and Holyhead Mountain, the proposed building may introduce a distinctive and uncharacteristic feature into the skyline. The visual impact of the development on this significant sightline has been assessed as moderate adverse.*

*Other offsetting measures include the presumed public access to Ty-Mawr Standing Stone. The works required for access may compromise the aesthetic and historical value of the asset, but the changes to allow public access will be balanced by increased communal values. There is an additional benefit resulting from change of use of the land, in that there is an opportunity to restore the eroded ground levels around Ty-Mawr Standing Stone in order to protect associated archaeological deposits. The change in land use is therefore likely to have a moderate beneficial impact. There is additional opportunity for offset measures at Parc Cybi to enhance the setting of the Ty-Mawr stone. These could include further screening of this monument from development unsympathetic to the setting of the standing stone, such as the adverse visual impact of the Road King truck stop and HGV parking. These additional mitigation measures would potentially represent a major beneficial impact, but are not directly associated with the development proposal. The mitigation associated with the proposed hotel, namely the woodland belt along the southeast boundary of the development site, will enhance the immediate setting of Ty-Mawr standing stone and compliment the general screening to be established as an offsetting measure within the master plan of Parc Cybi.*

## 1 Introduction

This impact assessment has been produced following scoping in order to determine the likely significance of effect of a proposed hotel upon scheduled monuments located within Parc Cybi Enterprise Zone, Holyhead, Isle of Anglesey, LL65 2YQ (Figures 1-4). The development will have a potential impact on the settings of two scheduled ancient monuments: Trefignath Burial Chamber (Cadw SAM: AN011) and Ty-Mawr Standing Stone (Cadw SAM: AN012). The impact assessment for the proposed hotel has been commissioned by Axis Planning Services (Wells House Barns, Chester Road, Bretton, Chester, CH4 0DH).

The local planning authority is the Isle of Anglesey County Council. The assessment has been undertaken pre-planning.

Scoping has included consultations with Cadw (Neil Maylan, Senior Historic Environment Planning Officer) and Gwynedd Archaeological Planning Service (Ashley Batten, Senior Planning Archaeologist).

The development proposals will have no ‘direct’ impact on the two scheduled monuments, which are to be retained within the enterprise park, with a green corridor following a sightline between the monuments. The purpose of the assessment is to consider ‘indirect’ effects on the scheduled ancient monuments. Changes to the settings of these monuments are necessary to meet an overriding need for commercial development. Where likely significant adverse effects have been identified, mitigation measures to prevent, reduce, or offset them are proposed, and likely residual effects remaining after mitigation have been determined.

The AW project number for the work is 2522 and the site code is PCA/17/HIA. The project details are summarised on the Archive Cover Sheet (Appendix III).

## 2 Topography and Geology

The proposed development is situated to the southeast of Holyhead (Caer Gybi), the principle town on Holy Island (Ynys Gybi), located off the western coast of Anglesey (Ynys Môn). The development site is positioned to the southwest of the A55 North Wales Expressway. The northwest site boundary is defined by the A5153 link road, which joins the A55 to the Parc Cybi Enterprise Zone via a high-level road bridge over a former track, now path, that defines the northern site perimeter. To the southwest there is an open space between the development site and Parc Cybi road. Open pasture fields are located to the southeast, with a field boundary, consisting of a drystone wall and belt of deciduous trees.

The development site is located at NGR 225250 381100 (SH 2525 8110) at an approximate altitude of 10-15m above Ordnance Datum (OD).

Trefignath Burial Chamber (Cadw SAM AN011) comprises a ruinous megalithic monument situated on a long and almost bare rocky ridge. The scheduled monument is located some 775m southeast of the development site. The burial chamber is located at NGR 225859 380553 (SH 2586 8055), at an approximate altitude of 20m OD.

Ty-Mawr Standing Stone (Cadw SAM AN012) comprises a Bronze Age megalith, which stands in a gently undulating field some 650m northwest of Trefignath burial chamber. The scheduled monument is located some 125m southeast of the development site. The stone is located at NGR 225396 380957 (SH 2540 8096), at an approximate altitude of 12m OD.

The regional geology as mapped by the British Geological Survey (1:50,000 scale) indicates that the bedrock geology is composed of mica schist and psammite of the New Harbour Group (underlying Trefignath Burial Chamber) and psammite and pelite of the South Stack Formation (underlying the development site and Ty-Mawr Standing Stone), both dating from the Ediacaran Period (*circa* 635 to 542 million years ago). The superficial geology consists of glacial deposits (boulder clay and gravels) of the Devensian Glacial Stage, the last Ice Age (116,000-12,000 BP). Like much of Holy Island, the topography of the study area is characterized by north-east to south-west aligned rocky ridges. This is particularly noticeable around the Trefignath Burial Chamber, where the bedrock outcrops as small crags and knolls.

### **3 Archaeological Background (Figures 5-11)**

Between November 2006 and February 2010, Gwynedd Archaeological Trust carried out a programme of archaeological work at Parc Cybi, Holyhead in advance of development at the site. Over 20 hectares were stripped of topsoil to reveal a landscape containing archaeological sites and finds ranging from the Mesolithic to the modern era, with most periods represented.

The major sites included a rectangular early Neolithic building of national and international importance (PRN 31570). This seems to have been aligned on the Trefignath Chambered tomb. Other early Neolithic settlement included a scatter pits and post-holes (PRN 31571). Extensive activity in this area continued into the mid and later Neolithic.

The Bronze Age was represented by a complex of ceremonial monuments, including a possible multiple-cist barrow (PRN 31589), the ring ditch of a barrow (PRN 31590) and a deep-ditched enclosure (PRN 31591); all located in the development area. Considered in relation to the Ty-Mawr standing stone in the middle of the site and the larger barrow excavated near Ty Mawr Farm to the north, this suggests a ritual landscape of national importance. The period was also represented by two burnt mounds and a timber roundhouse that was poorly dated but probably of Bronze Age date.

A settlement of stone roundhouses (PRN 14599) with complex stratigraphy was accompanied by several outlining roundhouses and other structures as well as (possibly contemporary) field boundaries. The extent and variety of Iron Age settlement on the site suggests this has a very high potential for studying all aspects of settlement development in this period. Settlement focus seems to have shifted in the Roman period but activity continued. A group of structures appear to have had industrial and storage functions (PRN 31596) and running from them was a trackway with associated traces of a field system (PRN 31597).

A small early medieval cemetery (PRN 31600) was found on top of a low hill, one of an important group on Holy Island. This cemetery is located between Ty-Mawr Standing Stone and Trefignath Burial Chamber.

The use of the site into the high medieval period may be indicated by the smithing activity within the area of the cemetery and possibly by several corn driers (PRN 31601-4).

Excavation evidence has extended the knowledge of the changing field boundaries of the area gained from the historic maps and suggests the historic field pattern might have a medieval or earlier origin (PRN 31608-11).

It appears that several small farms developed within this landscape in the 18<sup>th</sup> and 19<sup>th</sup> centuries. Three farmsteads were located in the vicinity of the standing stone and chambered tomb. Two farms were located to the northwest (PRN 31606) and northeast (PRN 13929) of the Neolithic tomb. The latter represents the original location of Trefignath farm (PRN 13929), which is first documented in 1625, but demolished before 1887. The subsequent farm, also known as Trefignath (PRN 31606)



was demolished in the 1970s. The farmstead Bon Deg (PRN 13928) was formerly located to the southeast of Ty-Mawr standing stone; the farm is shown on the 1817 estate map.

## 4 Legislative Policy and Guidance

Relevant protection, guidance and policies relating to the protection, maintenance and enhancement of archaeological sites and other aspects of the historic environment are as follows:

- The Ancient Monuments and Archaeological Areas Act (1979)
- Planning Policy Wales; Chapter 6: Conserving the Historic Environment (Welsh Government, Edition 9, November 2016)
- Historic Environment (Wales) Act (2016)
- Technical Advice Note 24: The Historic Environment (Welsh Government, May 2017)
- Conservation Principles for the sustainable management of the historic environment in Wales (Welsh Government / Cadw, 2011)
- Managing Historic Character in Wales (Welsh Government / Cadw, May 2017)
- Heritage Impact Assessment in Wales (Welsh Government / Cadw, May 2017)
- Setting of Historic Assets in Wales (Welsh Government / Cadw, May 2017)

The Gwynedd Council and the Isle of Anglesey County Council Joint Local Development Plan (JLDP) is the current local plan for the area.

## 5 Methodology for the Heritage Impact Assessment

### *Aims*

The primary objective of the study is to assess the impact of the development on the two scheduled monuments by means of desk-based research, a site visit and an analysis of settings. The aim will be to make full and effective use of existing information in establishing the significance of the settings of the scheduled monuments. The assessment aims to provide information of sufficient detail to allow informed planning decisions to be made which can reduce the harm to these designated assets.

An assessment of the impact of the development on the identified historic assets has been undertaken according to guidance laid out in *Heritage Impact Assessment in Wales (Welsh Government / Cadw, May 2017)*. The magnitude of impacts and resulting significance of effect of those impacts have been analysed and quantified according to the *Guidance on Heritage Impact Assessments for Cultural Heritage World Heritage Properties* issued by the *International Council on Monuments and Sites (ICOMOS, 2011)*. In assessing the extent of, and impact upon, the settings of the identified historic assets this Heritage Impact Assessment has utilised the guidance offered in the *Setting of Historic Assets in Wales (Welsh Government / Cadw, May 2017)*. The work has been undertaken in accordance with the *Standard and Guidance for Historic Environment Desk-Based Assessment* issued by the *Chartered Institute for Archaeologists (CIfA 2014)*.

### *Study Area*

The study area is confined to the settings of Trefignath Burial Chamber (SAM AN011) and Ty-Mawr Standing Stone (SAM AN012). These monuments are located up to 775m southeast of the proposed development site. The assessment also considers the extended settings of these monuments

in relation to the intervisibility of the chambered tomb and standing stone with heritage assets and natural features in the surrounding landscape.

### ***Resources***

Following consultations with Cadw and Gwynedd Archaeological Trust – Planning Services, the following sources have been consulted:

- Information from Cadw on designated archaeological sites;
- National Monuments Records held by the Royal Commission on the Ancient and Historical Monuments of Wales;
- Historic Environment Records held by Gwynedd Archaeological Trust;
- Assessment of all available and relevant excavation reports and archives including unpublished and unprocessed material;
- Assessment of aerial photographs (AP) and satellite imagery;
- Map regression analysis using all relevant cartographic sources e.g. all editions of the Ordnance Survey County Series, Tithe and early estate maps (as available);
- Place-name evidence.

### ***Site Visit***

The aims of the site survey were to assess the visual impact of the proposed scheme upon the settings of Trefignath Burial Chamber (SAM AN011) and Ty-Mawr Standing Stone (SAM AN012) and the intervisibility of the scheduled monuments with the development site, surrounding monuments and landscape features.

## **6 Methodology for an Analysis of Settings**

### ***Assessment Criteria***

The impact analysis has been undertaken according to the principles set out in *Technical Advice Note 24: The Historic Environment (Welsh Government, May 2017)* and the *Setting of Historic Assets in Wales (Welsh Government / Cadw, May 2017)*.

The criteria for assessing values has been based the *Guidance on Heritage Impact Assessments for Cultural Heritage World Heritage Properties* issued by the *International Council on Monuments and Sites (ICOMOS, 2011)*.

The ICOMOS tables are presented in full below, although only certain elements of the assessment tables are applicable to the two scheduled sites under consideration.

**Table 1: Criteria for defining the value of cultural heritage assets**

<b>Value / Sensitivity</b>	<b>Archaeological Remains</b>	<b>Built Heritage</b>	<b>Historic Landscapes</b>
<b>Very High</b>	<p>Sites of international importance, inscribed as a World Heritage Site</p> <p>Individual attributes that convey Outstanding Universal Value of a World Heritage Site</p> <p>Assets that can contribute significantly to international research objectives</p>	<p>Buildings or structures of acknowledged international importance, inscribed as a World Heritage Site</p> <p>Buildings or urban landscapes of recognised international importance</p>	<p>Landscapes inscribed as a World Heritage Site</p> <p>Undesignated landscapes of international importance</p>
<b>High</b>	<p>Scheduled Ancient Monuments</p> <p>Assets that can contribute significantly to national research objectives</p> <p>Undesignated sites of national importance</p>	<p>Scheduled Monuments with standing remains</p> <p>Grade I and Grade II* Listed Buildings</p> <p>Grade II listed buildings of exceptional importance</p> <p>Undesignated buildings with exceptional historical associations</p> <p>Conservation Areas containing very important buildings.</p> <p>Well-preserved historic townscapes with exceptional coherence.</p>	<p>Registered Parks and Gardens</p> <p>Registered Battlefields</p> <p>Nationally designated historic landscapes</p> <p>Undesignated landscapes of outstanding interest and national value</p> <p>Well-preserved historic landscapes with exceptional coherence</p>
<b>Medium</b>	<p>Assets that can contribute significantly to regional research objectives</p> <p>Undesignated sites of regional importance</p> <p>Archaeologically Sensitive Areas</p>	<p>Grade II listed buildings</p> <p>Undesignated buildings with exceptional qualities or historical associations</p> <p>Undesignated structures of regional importance</p> <p>Conservation Areas that contain buildings that contribute significantly to its historic character</p> <p>Townscapes or built-up areas with good historic integrity</p>	<p>Moderately well-preserved historic landscapes with reasonable coherence</p> <p>Townscapes with moderate historic integrity</p>

Low	<p>Undesignated sites of local importance</p> <p>Assets compromised by poor preservation and/or poor survival of contextual associations</p> <p>Assets with the potential to contribute to local research objectives</p>	<p>Locally Listed buildings</p> <p>Historic buildings of modest architectural or historic quality</p> <p>Historic buildings with modest historical associations</p> <p>Undesignated structures of local importance</p> <p>Townscapes with vernacular characteristics but limited historic integrity</p>	<p>Undesignated historic landscapes</p> <p>Landscapes of local importance</p> <p>Poorly preserved historic landscapes</p>
Negligible	<p>Assets with limited surviving archaeological interest</p>	<p>Historic buildings with no significant architectural or historic merit</p> <p>Townscapes with no historic integrity</p>	<p>Landscapes with little or no historic integrity</p>
No Impact			
Unknown	<p>Importance not ascertained</p>	<p>Buildings with some hidden potential for historic significance</p>	<p>Importance not ascertained</p>

***Assessment of the Significance of a Heritage Asset***

The value of the heritage assets have been defined using the following grades: Very High, High, Medium, Low, Negligible and Unknown. The criteria for defining the importance of an asset are shown in Table 1.

***The Significance of the Setting of a Heritage Asset***

The setting of a heritage asset includes the surroundings in which it is understood, experienced and appreciated, embracing present and past relationships to the surrounding landscape. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive, negative or neutral contribution to the significance of an asset. Setting often extends beyond the property boundary of the asset into the surrounding landscape or townscape. The setting can include physical elements of its surroundings, but can also include less tangible elements. These may include function, sensory perceptions or historical, artistic, literary and scenic associations (*Setting of Historic Assets in Wales (Welsh Government / Cadw, May 2017)*).

**Table 2: Scale of values used in assessing the magnitude of impacts**

Magnitude of impact	Archaeological Remains	Historic Buildings	Historic Landscapes
Major	<p>Change to most or all key archaeological materials, such that the resource is totally altered</p> <p>Comprehensive changes to setting</p>	<p>Change to key historic building elements, such that the resource is totally altered</p> <p>Comprehensive changes to the setting</p>	<p>Change to most or all key historic landscape elements, parcels or components</p> <p>Extreme visual effects</p> <p>Gross change of noise or change to sound quality</p> <p>Fundamental changes to use or access resulting in total change to historic landscape character area</p>
Moderate	<p>Changes to many key archaeological materials, such that the resource is clearly modified</p> <p>Considerable changes to setting that affect the character of the asset</p>	<p>Change to many key historic building elements, such that the resource is significantly modified</p> <p>Changes to the setting of an historic building, such that it is significantly modified</p> <p>Considerable changes to a setting that affects the character of the asset</p>	<p>Changes to many key historic landscape elements, parcels or components</p> <p>Visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access resulting in moderate changes to historic landscape character</p>
Minor	<p>Changes to key archaeological materials, such that the asset is slightly altered</p> <p>Slight changes to setting</p>	<p>Change to key historic building elements, such that the asset is slightly different</p> <p>Change to setting of an historic building such that it is noticeably changed</p>	<p>Changes to few key historic landscape elements, parcels or components</p> <p>Slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality</p> <p>Slight changes to use or access resulting in limited changes to historic landscape character</p>
Negligible	<p>Very minor changes to archaeological materials, or setting</p>	<p>Slight changes to historic buildings elements or setting that hardly affect it</p>	<p>Very minor changes to key historic landscape elements, parcels or components</p> <p>Virtually unchanged visual effects, very slight changes in noise levels or sound quality, very slight changes to use or access resulting in a very small change to historic landscape character</p>
No Impact			

The value of setting for a heritage asset has been assessed by considering the importance of that asset, as defined by the criteria set out in Table 1. The degree to which the setting contributes to the understanding or appreciation of the asset has been determined according to the extent to which the surroundings complement the location and appearance of an asset. The overall value of the setting of an asset has been assessed as a function of the importance of an asset and the significance of its setting.

***Assessment of Impact of the Proposed Development***

Magnitude of effect is assessed using the guidelines set out in Table 2. The assessment will be made without regard to the value of the resource, so the total destruction of a low value site is considered as the same magnitude of effect as the destruction of a high value asset. The effect can be either ‘direct’ or ‘indirect’. A direct effect is where there is a physical impact on a heritage asset, typically during the construction phase. Indirect is when there is a visual effect on the asset or its setting. In the broadest terms, the setting of an asset comprises the conditions around it, and within which it is perceived; and in this sense all assets have settings. Not all settings, however, contribute to the value of the assets they encompass. The setting will be a combination of views, other historic features and their relationships to the asset, ambience (topography, vegetation, sound, and other sensual experiences) and context (what is known or thought about the asset, but not immediately experienced through the senses).

The scale and severity of impacts upon heritage assets have been ranked using the following grades: No Impact, Negligible Impact, Minor Impact, Moderate Impact and Major Impact.

**Table 3: Matrix to assess the overall impact on cultural heritage assets**

	VALUE OF HERITAGE ASSET				
	Very High	High	Medium	Low	Negligible
SEVERITY OF IMPACT	OVERALL IMPACT / SIGNIFICANCE OF EFFECT (AVERSE OR BENEFICIAL)				
Major Impact	Severe / Very High	Severe / Very High	Major	Moderate	Minor
Moderate Impact	Major	Major	Moderate	Minor	Negligible
Minor Impact	Moderate / Major	Moderate	Minor	Negligible	Negligible
Negligible Impact	Minor	Negligible	Negligible	Negligible	Negligible
No Impact	Neutral	Neutral	Neutral	Neutral	Neutral

***Assessment of the Significance of Effect***

The overall impact of the proposed development upon individual heritage assets has been assessed as a function of the importance of the asset and the scale of change to the asset or the setting of that asset. These assessments have been used to inform the professional judgement of the likely significance of the effect (or overall impact) of the development.

Table 2 presents the matrix that has been used as a guide to assess the significance of effect on assets and their settings. The significance of change on each asset has been ranked using an eleven-point scale: Very Highly Beneficial, Major Beneficial, Moderate Beneficial, Minor Beneficial, Negligible Beneficial, Neutral, Negligible Adverse, Minor Adverse, Moderate Adverse, Major Adverse and Severe Adverse.

## 7 Development Proposals (Figures 3 & 4)

The development comprises an 80-bedroom hotel with parking and access off Parc Cybi road. The proposed building will be four storeys tall, with an overall height of 13.15m. The footprint of the proposed hotel is approximately 988 square metres within an application site of 1.24 hectares (*circa* 3 acres). The design drawings indicate the construction materials will include natural stone/slate for the ground floor exterior and a full-height wall adjacent to the entrance. The upper floors will have an external render finish as well as timber cladding.

## 8 Significance of Ty-Mawr Standing Stone (Figures 12-14; Plates 1-5)

### *Description*

The monument comprises the remains of a standing stone, which probably dates to the Bronze Age (NPRN 302268; PRN 2501). The standing stone is designated as a Scheduled Ancient Monument (Cadw AN012).

The standing stone is not marked on the Penrhos estate map of *circa* 1817 (Figure 12), the Ordnance Survey 2 inch Drawing of 1818, the Ordnance Survey First Series 1 inch map of 1840, or the Holyhead tithe map (Figure 13) which also dates from 1840. On the tithe apportionment the enclosure within which the standing stone is known to be located is recorded as *Cae canol* ‘middle field’ (Enclosure 1277). The adjacent enclosure, to the west, is described as *Cae garreg*, ‘stone field’ (Enclosure 1276); possibly this name related to an originally much larger field prior to subdivision into smaller enclosures. The position of the standing stone is marked but not labeled on the first edition 25 inch survey of 1889, but is not marked on the 6 inch map of 1890-91 (Figure 14). This feature is simply annotated as a *Stone* on the second edition 25 inch and 6 inch maps of 1900 and 1901, respectively. This is described as a *Maen Hir* on the third edition inch 25 inch and 6 inch maps of 1924 and 1926, respectively. The *Standing Stone* is marked at this location on the 1:10,560 map of 1953, and all subsequent surveys.

The stone stands approximately 2.5m high, and is a maximum of 1.7m wide and 0.4m thick. This is a tall, very thin and quite narrow stone of schist. It has swirling bedding planes, and an almost anthropomorphic shape. One face points approximately to the northwest, to Holyhead Mountain, and its southeast face points approximately towards Trefignath Chambered Tomb (Cadw AN011)

The scheduled site comprises a circular area centred on the stone measuring 6m in diameter, within which related evidence may be expected to survive.

### *Significance of the Standing Stone*

The monument is of national importance for its potential to enhance our knowledge of prehistoric burial and ritual practices. The overall value of the monument has been assessed as high.

Ty-Mawr stone has high evidential value. The physical remains represent an important relic of a prehistory funerary and ritual landscape. The stone is highly representative of this class of monument. The monument also retains significant archaeological potential to identify when and how this monolith

was erected with a strong probability of the presence of intact burial or ritual deposits, together with environmental evidence.

The historical value of the stone is high. The monument illustrates a particular aspect of the Bronze Age. Although the standing stone is of moderate value in terms of rarity (as there are similar examples within Anglesey) the monument has high group value with other megaliths, and particularly Trefignath Burial Chamber. The stone has considerable coherence and high integrity in terms of the existing setting, which contributes to the significance of the monument: in particular, there is a possible conscious design in terms of alignment with Holyhead Mountain. Although the immediate setting of the stone is to be preserved within Parc Cybi Enterprise Zone, the surrounding landscape will have low articulation, and the significance of the extended setting will be suppressed by the proposed changes. The character and form will be preserved but the legibility of the surrounding landscape will be eroded and difficult to understand by the non-specialist.

The aesthetic value of Ty-Mawr stone has been assessed as high. The monument forms a minor landmark in the wider landscape. The stone has significant potential for sensory and intellectual stimulation derived from its form and setting, and in particular the possible alignment with Holyhead Mountain.

The standing stone has high communal value. The monument forms an historical landmark, and its age and significance affirms a sense of local identity and pride of place. For some this class of monument may be important in terms of spiritual beliefs. However, the amenity value has been assessed to be moderate to low, as currently there is no public access to the monument. The stone may have potential economic value as a source of tourist income when considered alongside other historic monuments located on Anglesey.

## 9 Significance of Trefignath Burial Chamber (Figures 12-14; Plates 9-16)

### *Description*

The monument comprises the remains of a chambered tomb, dating to the Neolithic period (NPRN 95535; PRN: 2500). The burial chamber is designated as a Scheduled Ancient Monument (Cadw AN011).

The burial chamber is not marked on the Penrhos Estate Map of *circa* 1817 (Figure 12), the Ordnance Survey 2 inch Drawing of 1818, the Ordnance Survey First Series 1 inch maps of 1840, or the Holyhead tithe map (Figure 13) which also dates from 1840. On the tithe apportionment the enclosure covering the tomb location is described as *Cae llechi* 'stone field' (Enclosure 1357). The chambered tomb is labeled as a *Cromlech* on the Ordnance Survey first and second edition 25 inch maps of 1889 and 1900, respectively. This feature is similarly marked on the 6 inch maps of 1890-91 (Figure 14) and 1901. The tomb is described as a *Cromlechau* on the third edition 25 inch and 6 inch maps of 1924 and 1926, respectively. A *Burial Chamber* is marked at this location on the 1:10,560 map of 1953, and all subsequent surveys.

Trefignath chambered tomb is a Neolithic ceremonial or funerary monument of some complexity. It was built in three separate stages from about 3750 to 3500 BC and may have been active until about 2250 BC. The monument is composed of local mica schist, and situated on a long and almost bare rocky ridge. The overall length of the monument is approximately 14m.

Trefignath Burial Chamber was assumed to be a gallery grave until excavation proved it to be much more complex. The burial chamber was totally excavated by Christopher Smith between 1977 and 1979. The excavations demonstrated that the tomb had three chambers, which were built in succession from west to east, with the cairn enlarged as each new chamber was built. The chambers denoted successive



periods of use, and were not used contemporaneously.

There was evidence found of occupation on this site before the construction of the burial chamber. Quantities of flint and chert artefacts including 22 scrapers, and a single leaf-shaped arrowhead were found along with the remains of at least 21 pottery vessels. The scatter of occupation debris was dated to about 3100 BC by radiocarbon determination.

The first stage of the monument was a small square chamber covered by a circular mound of stones (a cairn) up to 4m across. It opened to the north via a short passage. It is thought that this may be the remains of a passage grave.

The second chamber to be constructed was rectangular in shape and had two stones marking the entrance (portal stones) from a narrow forecourt. This larger chamber was built on the east side of the first stage. Over this, and the earlier chamber, a long, wedge-shaped mound was constructed, which formed a long cairn. The mound was edged with drystone walling.

A third chamber, at the eastern end, was added to the front of the central chamber. It was also constructed with large entrance stones (portal stones) and in the same style, but there was no longer any means of access to the central chamber. The long cairn was then extended to cover this chamber. The third chamber has provisionally been dated to the late Neolithic by pottery found at the entrance.

The burial chamber remained largely untouched until the 18<sup>th</sup> century. The site was first noted in 1655 or 1660 when visited by John Aubrey. The structure was greatly damaged in the last decade of the 18<sup>th</sup> century and the cairn that surrounded the stones was largely removed in 1870. 19<sup>th</sup> century references also mention the discovery of 'urns and bones'.

Trefignath Chambered Tomb was consolidated and restored in 1980 for public viewing.

The scheduled site comprises a rectangular area measuring some 40m by 25m around the monument itself. However, a larger area than this has been fenced off and is under Cadw guardianship.

### ***Significance of the Chambered Tomb***

The monument is of national importance for its potential to enhance our knowledge of prehistoric burial and ritual practices. The overall value of the monument has been assessed as high.

The chambered tomb has very high evidential value. The physical remains represent an important relic of a prehistory funerary and ritual landscape. The burial chamber represents an important example of this class of monument, with three phases of tombs dating from *circa* 3750 to *circa* 2250 BC. This monument has been fully excavated and restored for public display.

The historical value of Trefignath Chambered Tomb is high. The monument illustrates the development of a Neolithic burial chamber over time. The monument is therefore of high value in terms of rarity. The burial chamber has considerable coherence and high integrity in terms of the existing setting, which contributes to the significance of the monument. The tomb is approximately aligned to the east, as shown by construction of the third chamber on the same alignment as the second. The alignment is perhaps astronomical but could be towards a harbour at Beddmanerch Bay. Before draining, this point would have been the first 'dry' route along the coast. The monument also has high group value in terms of other megaliths, notably the possible Neolithic site at Trearddur (PRN 2504), to the south, beyond Parc Cybi, and the Early Neolithic building (PRN 31570) to the west, located within Parc Cybi Enterprise Zone. The latter is on the same approximate east-west alignment as the Trefignath burial chambers. In addition, there is a probable alignment to the Ty-Mawr Standing Stone; the stone and burial chamber line up, to within one degree, with the winter solstice sunrise viewed towards Holyhead Mountain. Although the immediate setting of the stone is to be preserved within Parc Cybi Enterprise Zone, the

legibility of the surrounding landscape will be eroded and difficult to understand by the non-specialist.

The aesthetic value of Trefignath Burial Chamber has been assessed as high. The monument forms a landmark in the wider landscape. The chambered tomb has significant potential for sensory and intellectual stimulation derived from its form and setting, and in particular the possible conscious design in terms of alignment with Ty Mawr Standing Stone and Holyhead Mountain, to the northwest and the Early Neolithic building (PRN 31570) identified within Parc Cybi Enterprise Zone, to the west of the Neolithic tomb. There is no clear view eastwards, towards Beddmanerch Bay.

The burial chamber has high communal value. The monument forms an historical landmark; its age and significance affirms a sense of local identity and pride of place. For some this class of monument may be important in terms of spiritual beliefs. The scheduled site also provides an important recreational resource as a place to enjoy views of the surrounding landscape. In addition, the monument also has a high amenity and educational value as there is good public access to the site, and there is an information panel explaining the phases of development of the burial chamber. For these reasons the monument may also be considered to have potential economic value as a source of tourist income when considered alongside other historic monuments located on Anglesey.

## **10 Assessment of Potential Impacts (Plates 1-4, 7-11 & 20-24)**

### ***Baseline Conditions***

There has been considerable development within the scheme area over the past few decades, notably the construction of the A55 North Wales Expressway (along the eastern site boundary) and the infrastructure laid out within Parc Cybi. Industrial and retail units have also been built on the eastern side of the A55. The cumulative effect on the settings of Ty-Mawr Standing Stone and Trefignath Burial Chamber represent at least a moderate adverse impact, resulting in a major adverse significance of effect. However, the assessment considers the proposed development against existing conditions, which include the development proposals outlined in the master plan for Parc Cybi Enterprise Zone.

As detailed in Sections 3, 8 and 9 above, Parc Cybi has been subject to extensive archaeological investigations. Excavations within the proposed development area have rendered the site archaeologically sterile. These investigations have proved extremely important in establishing the archaeological and historical context for the Ty-Mawr Standing Stone and Trefignath Burial Chamber, and therefore represent a major beneficial impact.

As the proposed scheme will have no direct (physical) impact on Ty-Mawr Standing Stone or Trefignath Burial Chamber, the impact of the development will therefore be restricted to an analysis of the indirect impact on the settings of the assets.

### ***Design of the Proposed Development***

The proposed hotel is of a contemporary design. The materials used for the exterior finish significantly include natural stone, timber cladding and render. These generally reflect generic vernacular building materials. The development is not out of keeping with the proposed built environment of the enterprise park, however details of finish and design are not considered in this assessment. It is important to note that innovative and contemporary design has the potential to make a positive contribution to the setting of heritage assets.

The proposed scheme is located some 125m northwest of Ty-Mawr Standing Stone. The development will have no impact on the immediate setting of the standing stone, however the density and massing of the hotel will have a potential moderate adverse visual impact on the wider setting of this asset; as the

scale of the building has the potential to damage the integrity of the landscape setting of this monument. The hotel building would have a long-term visual impact on this asset. The magnitude of impact is considered to be moderate rather than major due to baseline conditions; these include views of Morrisons Supermarket and retail units to the northeast, the A5153 road bridge to the northwest (this view will be blocked by the development) and the Road King truck stop and HGV parking to the southwest. The moderate adverse impact of the density and massing of the hotel indicates the significance of effect in terms of setting would be major adverse prior to mitigation.

Trefignath Burial Chamber is situated some 775m southeast of the proposed development. The baseline conditions include elevated views from the scheduled monument (within an arc from the east to the northwest) of the aluminium works and associated chimney, masts and retail units. The Road King truck stop is also visible to the northwest. These represent moderate to major adverse impacts. The density and massing of the hotel is considered to have no impact on the extended setting of this monument. The resulting significance of effect has been assessed as neutral.

The principal views from both Ty-Mawr Standing Stone and Trefignath Chambered Tomb are towards Holyhead Mountain. These sightlines relate to the original character and function of the megaliths, and in particular these monuments appear to be aligned with the winter solstice sunrise. The height of the proposed development may detract from the ability to appreciate the functional relationship of the stones with Holyhead Mountain. The proposed development is located to the east of this line of sight, but is close enough to introduce a distinctive and uncharacteristic feature into the skyline, which could detract from these views. The magnitude of impact would be minor, with the resulting significance of effect assessed as moderate.

The second and third phases of Trefignath Burial Chamber are aligned east-west; there are potentially significant views from this monument eastwards towards Beddmanerch Bay and also westwards to an Early Neolithic building (PRN 31570) identified with Parc Cybi. The proposed development will have no impact on these principal views.

### ***Noise Pollution***

Existing baseline conditions indicate a moderate to high level of background noise for both monuments. The impact of noise pollution on Ty-Mawr Standing Stone derives from the often near continuous traffic noise from the A55 carriageway, as well as intermittent traffic noise from the A5153 link road and the Road King services and HGV park. The noise pollution affecting Trefignath Burial Chamber predominantly derives from the traffic noise from the A55 carriageway. For both monuments, the baseline impact is considered to be moderate, and the resulting significance of effect determined to be major. Additional development within Parc Cybi is likely to add to intermittent noise pollution. The proposed hotel will have a minor impact on the standing stone in terms of traffic and negligible impact on Trefignath burial chamber. The impact of the proposed development, in terms of additional noise pollution, on both monuments will most probably be negligible.

### ***Light Pollution***

Existing baseline conditions indicate a high level of light pollution for both monuments. This predominantly derives from high-level street lighting along Parc Cybi access road and also for the HGV parking. There is additional light pollution from the supermarket and retail park to the east of the A55 carriageway. There are also numerous residential properties in the surrounding landscape. At night, traffic along the A55 is also likely to represent a significant source of light pollution. Further development within Parc Cybi, in addition to the proposed hotel, is likely to add to this pollution. The impact of the development, in terms of additional light pollution, on both monuments will be negligible.

### **Table 4: Summary of setting and impacts**

	<b>Settings Aspect</b>	<b>Baseline Impact (prior to proposed development)</b>	<b>Impact of Proposed Development (prior to mitigation / offsetting)</b>	<b>Overall Significance of Effect</b>
<b>Ty-Mawr Standing Stone</b>	General views from the monument	Previous development – <i>Moderate adverse impact</i>	Density and massing of hotel (short & long term) – <i>Moderate adverse impact</i>	Major adverse
	Views of Holyhead Mountain		Intrusion into view – <i>Minor adverse impact</i>	Moderate adverse
	Sensory appreciation - noise	Background noise (principally roads) – <i>Moderate adverse impact</i>	Hotel noise, increased traffic - <i>Minor adverse impact - Negligible cumulative impact</i>	Negligible adverse
	Sensory appreciation - light	Light pollution – <i>Negligible impact, rising to Major adverse impact during winter solstice sunrise</i>	Hotel lights – <i>Minor adverse impact - Negligible cumulative impact</i>	Negligible adverse
	Visual appreciation - movement	Visually intrusive traffic – <i>Moderate adverse impact</i>	Additional intermittent movement – <i>Minor adverse impact Negligible cumulative impact</i>	Negligible adverse
	Inter-visibility		<i>No impact</i>	Neutral
	Accessibility	Farmland – <i>Minor adverse impact</i>	<i>No impact</i>	Neutral
	Condition	Animal erosion – <i>Minor adverse impact</i>	<i>No impact</i>	Neutral
<b>Trefignath Burial Chamber</b>	Archaeological context	Archaeological investigations in the vicinity – <i>Major beneficial impact</i>	<i>No impact</i>	Neutral
	General views from the monument	Previous development – <i>Moderate to major adverse impact</i>	<i>No impact</i>	Neutral
	Views of Holyhead Mountain		Intrusion into view – <i>Minor adverse impact</i>	Moderate adverse
	Views east (Beddmanerch Bay) and west (Neolithic building - PRN 31570)		<i>No impact</i>	Neutral
	Sensory appreciation - noise	Background noise (principally roads) – <i>Moderate adverse impact</i>	Hotel noise, increased traffic - <i>Minor adverse impact Negligible cumulative impact</i>	Negligible adverse
	Sensory appreciation - light	Light pollution – <i>Negligible impact, rising to Major adverse impact during winter solstice sunrise</i>	Hotel lights – <i>Minor adverse impact - Negligible cumulative impact</i>	Negligible adverse
	Visual appreciation - movement	Visually intrusive traffic – <i>Moderate adverse impact</i>	Additional intermittent movement – <i>Negligible adverse impact Negligible cumulative impact</i>	Negligible adverse
	Inter-visibility		<i>No impact</i>	Neutral
	Accessibility		<i>No impact</i>	Neutral
Condition		<i>No impact</i>	Neutral	
Archaeological context	Archaeological investigations in the vicinity – <i>Major beneficial impact</i>	<i>No impact</i>	Neutral	

In general, the impact on light pollution on the settings of the standing stone and burial chamber is considered to be negligible, as these monuments were seemingly not designed to be appreciated at night. The exceptions to this are the views from and towards the monuments at dawn and late evening, and most importantly, the view from Trefignath towards Holyhead Mountain during the winter solstice sunrise. For the latter scenario, the visual impact of light pollution from Parc Cybi is considered to be major, resulting in a severe significance of effect (although the impact of the development will be negligible).

### *The Effects of Movement*

Existing baseline conditions indicate a moderate level of movement within the settings of Ty-Mawr Standing Stone and Trefignath Burial Chamber. Traffic along the A55 and A5153 link road represents the most visually intrusive element in the landscape surrounding the two scheduled monuments. Additional development within Parc Cybi is likely to add to intermittent movement of traffic and people. The proposed hotel will have a negligible impact in terms of traffic on Ty-Mawr stone and Trefignath burial chamber.

## **11 Measures to Mitigate Potential Adverse Impacts**

### *Associated with the Parc Cybi Master Plan*

#### *General Design of the Enterprise Zone*

Mitigation measures have been incorporated within the Parc Cybi master plan, some of which have already been put in place. These significantly include the newly established belt of trees to the southeast of the application area, which is of particular relevance to the proposed development.

The design of Parc Cybi, and therefore subsequent development, incorporates a 'green' corridor (land left undeveloped) along the line of sight between Ty-Mawr Standing Stone and Trefignath Burial Chamber. This design will frame the significant view between these monuments, which is presently ill defined. This measure will both mitigate against the loss of this inter-visibility, but is also designed to offset the adverse impact of development within Parc Cybi. This represents a minor beneficial impact, with the significance of effect assessed as moderate beneficial. The development of commercial units near these monuments is nonetheless likely to alter the perception of the monument to the public and possibly how they value a place.

The principal views from both Ty-Mawr Standing Stone and Trefignath Chambered Tomb are towards Holyhead Mountain. Although this sightline is preserved within the business park, there remains a potential for the screen planting to obscure the view of Holyhead Mountain from the standing stone. This would represent a minor adverse impact on setting, with a resulting moderate adverse significance of effect. It should be noted that the existing woodland screening appears to comprise deciduous species, so will be less effective in the winter, affording only partial screening. It is also presumed that the effectiveness of the screening will be reviewed periodically as part of the Parc Cybi master plan.

#### *Additional Screening*

Potentially there is provision for additional landscaping measures within the subsequent development of Parc Cybi to enhance the setting of the Ty-Mawr stone. These could include further screening of this monument from development unsympathetic to the setting of the asset. This could significantly include screening the standing stone from the adverse visual impact of the Road King truck stop and HGV parking by means of trees and/or earth bank, whilst maintaining the open space between the standing stone and Trefignath Chambered Tomb. The impact on the setting of the stone would be major

beneficial, resulting in a very high significance of effect. It should be noted that this mitigation relates to existing development within the enterprise zone; the proposed hotel is not located on the same line of sight between the standing stone and the Road King services.

### ***Associated with the Development Proposal***

#### *Density and Mass in relation to the Intervisibility of the Scheduled Monuments*

Although the proposed hotel is a large building, it is noteworthy that this is considerably smaller than the existing retail and industrial units on the eastern side of A55 that are visible within the business park. This corner plot of Parc Cybi, at the junction of the A5153 link road with the A55, most probably has a high capacity to absorb a large building without the erosion of the key characteristics of the Parc Cybi master plan. In the context of the business park, density and massing will have no significant impact on the settings of Ty-Mawr Standing Stone and Trefignath Burial Chamber. These factors are likely to have a far greater significance within other parts of the business park, and particularly adjacent to the corridor between the standing stone and burial chamber.

#### *Height in relation to the Intervisibility of the Scheduled Monuments with the Natural Landscape*

The proposed hotel has no impact on the line of sight between the monuments. Although the development is not located directly on the line of sight between the burial chamber and Holyhead Mountain, the proposed building may introduce a distinctive and uncharacteristic feature into the skyline. No additional measures are proposed to mitigate against the potential change in this view. The impact has been assessed as moderate adverse.

#### *Woodland Screening*

The existing woodland belt to the southeast of the proposed development will screen the car parking and at least half of the hotel from the nearby Ty-Mawr standing stone. With this mitigation already in place, the magnitude of impact of the hotel, in terms of scale, upon the extended setting of the stone would be minor, in that only one view is affected. The residual impact would be moderate adverse. The visual impact on Trefignath Burial chamber would remain as neutral.

The existing woodland screening would also reduce the potential impact of light pollution, noise pollution and the intrusiveness of movement within the extended setting of Ty-Mawr Standing Stone; although the cumulative impact of these factors arising from the development is considered to be negligible.

## **12 Offsetting Measures**

### ***Associated with the Parc Cybi Master Plan***

#### *Intervisibility of Scheduled Monuments and the Natural Landscape*

The design of Parc Cybi incorporates a 'green' corridor along the line of sight between Ty-Mawr Standing Stone and Trefignath Burial Chamber. This design will frame the significant view between these monuments, which is presently ill defined. The creation of a corridor between the two scheduled monuments represents a moderate beneficial impact. This forms the principal measure designed to offset the adverse impact of development within Parc Cybi.

The principal views from both Ty-Mawr Standing Stone and Trefignath Chambered Tomb are towards Holyhead Mountain. The Parc Cybi master plan would increase the communal and aesthetic values of

these monuments allowing an increased appreciation of the designed alignment with Holyhead Mountain. This represents a moderate beneficial impact.

#### *Public Access to the Standing Stone*

It is understood that the master plan for Parc Cybi will afford public access to Ty-Mawr Standing Stone. Some form of works will be necessary to improve physical access, which may alter the setting of the stone. This may compromise the aesthetic and historical value of the asset, but the changes to allow public access will be balanced by increased communal values. This has the potential to represent a moderate beneficial impact.

#### *Conservation of the Standing Stone*

Ty-Mawr Stone stands in a slight hollow caused by livestock eroding the ground around it, and this has exposed the packing stones around the base of the monolith. The change in land-use from pasture field to 'green' space within Parc Cybi will allow the ground to be restored around Ty-Mawr Standing Stone in order to protect associated archaeological deposits. The change in land use is therefore likely to have a moderate beneficial impact.

#### *Associated with the Development Proposal*

The existing woodland belt to the southeast of the proposed development will enhance the immediate setting of Ty-Mawr standing stone and compliment the screening to be established as an offsetting measure within the master plan of Parc Cybi.

## **13 Summary of Residual Impacts**

#### *Associated with the Parc Cybi Master Plan*

##### *General Design of the Enterprise Zone*

Mitigation measures have been incorporated within the Parc Cybi master plan. The newly established belt of trees to the southeast of the application area is of particular relevance to the proposed development. Other measures include retaining a line of sight between Ty-Mawr Standing Stone and Trefignath Burial Chamber. It has been presumed that the effectiveness of all mitigation incorporated in to the design of Parc Cybi will be reviewed periodically and forms part of the master plan.

##### *Impact of Mitigation Measures*

There is a potential negative aspect of the screening to the southeast of the proposed hotel in that the woodland may, over time, obscure the view of Holyhead Mountain from the standing stone. The potential impact has been assessed as moderate adverse.

#### *Associated with the Development Proposal*

##### *Design of the Proposed Development*

Existing woodland will screen the car parking and at least half of the hotel from the nearby standing stone. The overall impact of the hotel, in terms of scale, upon the extended setting of the stone would be moderate adverse. The visual impact on Trefignath Burial chamber has been assessed as neutral.

**Table 5: Summary of mitigation / offsetting and residual impacts**

	<b>Settings Aspect</b>	<b>Mitigation</b>	<b>Offsetting</b>	<b>Residual Impact</b>
<b>Ty-Mawr Standing Stone</b>	General views from the monument	<ul style="list-style-type: none"> <li>Pre-existing woodland screening</li> <li>Suggested provision of additional screening</li> </ul> <i>Major beneficial impact</i>		Reduced to Moderate adverse
	Views of Holyhead Mountain	<ul style="list-style-type: none"> <li>Pre-existing woodland screening</li> </ul> <i>Minor adverse impact</i>	<ul style="list-style-type: none"> <li>Subsequent Parc Cybi development design - increased ability to appreciate conscious design</li> </ul> <i>Minor beneficial impact</i>	Remain Moderate adverse
	Sensory appreciation - noise	<ul style="list-style-type: none"> <li>Pre-existing woodland screening</li> </ul> <i>Minor beneficial impact</i>		Remain Negligible
	Sensory appreciation - light	<ul style="list-style-type: none"> <li>Pre-existing woodland screening</li> </ul> <i>Minor beneficial impact</i>		Remain Negligible
	Visual appreciation - movement	<ul style="list-style-type: none"> <li>Pre-existing woodland screening</li> </ul> <i>Minor beneficial impact</i>		Remain Negligible
	Inter-visibility		<ul style="list-style-type: none"> <li>Subsequent Parc Cybi development design - framing view</li> </ul> <i>Minor beneficial impact</i>	Improved to Moderate beneficial
	Accessibility		<ul style="list-style-type: none"> <li>Subsequent Parc Cybi development design - improving public access</li> </ul> <i>Moderate beneficial impact</i>	Improved to Moderate beneficial
	Condition		<ul style="list-style-type: none"> <li>Subsequent Parc Cybi development design - 'green' space and ground restoration</li> </ul> <i>Minor beneficial impact</i>	Improved to Moderate beneficial
	Archaeological context			Remain neutral
<b>Trefignath Burial Chamber</b>	General views from the monument	<ul style="list-style-type: none"> <li>Pre-existing woodland screening</li> </ul>		Remain neutral
	Views of Holyhead Mountain	<ul style="list-style-type: none"> <li>Pre-existing woodland screening</li> </ul> <i>Minor adverse impact</i>		Remain moderate adverse
	Views east (Beddmanerch Bay) and west (Neolithic building - PRN 31570)			Remain neutral
	Sensory appreciation - noise			Remain negligible
	Sensory appreciation - light			Remain negligible



	Visual appreciation - movement			Remain negligible
	Inter-visibility		<ul style="list-style-type: none"> <li>Subsequent Parc Cybi development design - framing view</li> </ul> <i>Minor beneficial impact</i>	Improved to Moderate beneficial
	Accessibility			Remain neutral
	Condition			Remain neutral
	Archaeological context			Remain neutral

Although the development is not located directly on the line of sight between the burial chamber and Holyhead Mountain, the proposed building may introduce a distinctive and uncharacteristic feature into the skyline. No additional measures are proposed to mitigate against the potential change in this view. The residual impact would therefore remain as moderate adverse.

*Noise and Light Pollution from the Development*

Existing woodland screening will reduce the potential impact of light pollution, noise pollution from the development and the intrusiveness of movement within the extended setting of Ty-Mawr Standing Stone; although, the cumulative impact of these factors arising from the development is considered to be negligible.

In general, the impact on light pollution on the settings of the standing stone and burial chamber is considered to negligible, as these are not presently intended to be appreciated at night (although the original use of these monuments is not fully understood). The exceptions to this are the views from and towards the monuments at dawn and late evening, and most importantly, the view from Trefignath towards Holyhead Mountain during the winter solstice sunrise. For the latter scenario, the cumulative visual impact of light pollution from Parc Cybi is considered to be major, resulting in a severe significance of effect. The impact of these factors arising from the development is considered to be negligible.

*Movement Resulting from the Development*

Existing woodland screening will reduce the potential impact of the intrusiveness of movement within the extended setting of Ty-Mawr Standing Stone. The impact of these factors arising from the proposed development is considered to be negligible.

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Cynefin: The Tithe Maps of Wales  
<http://cynefin.archiveswales.org.uk/> (Accessed 1/6/17 – 6/6/17)

Geology of Britain Viewer (British Geological Survey)  
<http://mapapps.bgs.ac.uk/geologyofbritain/> (Accessed 1/6/17 – 6/6/17)

Gwynedd Archaeological Trust Historic Environment Record (Archwilio):  
<http://www.cofiadurcahcymru.org.uk/arch/gat/> (Accessed 1/6/17 – 6/6/17)

Landmap (Historic Landscapes):  
<http://landmap-maps.naturalresources.wales/> (Accessed 1/6/17 – 6/6/17)

Museum of Wales:  
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### **Estate Maps**

Penrhos Estate Map *circa* 1817 Ref: Penrhos II 804

### **Tithe Maps**

Tithe Map & Apportionment of Holyhead 1840 *Cynefin: The Tithe Maps of Wales*

### **Ordnance Survey Maps**

Ordnance Survey 1818 Surveyor's Drawing of Holyhead (by Robert Dawson)  
Scale: 2 inches to 1 mile (1:31,680). *British Library: OSD 317*

Ordnance Survey	1840	First Series Map, Sheet 78 Scale: 1 inch to 1 mile (1:63,360). <i>A Vision of Britain Through Time</i>
Ordnance Survey	1889	Scale: 1:2,500 (25 inches to 1 mile). <i>Promap</i>
Ordnance Survey	1890-91	Scale: 1:10,560 (6 inches to 1 mile). <i>Promap</i>
Ordnance Survey	1900	Scale: 1:2,500 (25 inches to 1 mile). <i>Promap</i>
Ordnance Survey	1901	Scale: 1:10,560 (6 inches to 1 mile). <i>Promap</i>
Ordnance Survey	1924	Scale: 1:2,500 (25 inches to 1 mile). <i>Promap</i>
Ordnance Survey	1926	Scale: 1:10,560 (6 inches to 1 mile). <i>Promap</i>
Ordnance Survey	1953	Scale: 1:10,560 (6 inches to 1 mile). <i>Promap</i>
Ordnance Survey	1963	Scale: 1:10,560 (6 inches to 1 mile). <i>Promap</i>
Ordnance Survey	1969	Scale: 1:2,500. <i>Promap</i>
Ordnance Survey	1971	Scale: 1:10,000. <i>Promap</i>
Ordnance Survey	1994	Scale: 1:10,000. <i>Promap</i>

***Photographs of Trefignath Burial Chamber (RCAHMW)***

5487	Department of Environment	Undated
5490	Department of Environment	Undated
17793	No Description	Dated <i>circa</i> 1915
534934	Cadw	Dated 1976
551772	RCAHMW	Dated before 1960
551773	RCAHMW	Dated before 1960
551774	RCAHMW	Dated before 1960
576526	Cadw	Undated
576580	Cadw	Undated
578692	Cadw	Undated
579633	Cadw	Undated
622574	Leonard Monroe	Dated 1949-1951

***Photographs of Ty-Mawr Standing Stone (RCAHMW)***

412402	John Rowlands	Undated
520900	John Rowlands	Undated
520901	John Rowlands	Undated
520902	John Rowlands	Undated
520903	John Rowlands	Undated
551771	RCAHMW	Dated before 1960
576541	Cadw	Undated
576542	Cadw	Undated
576543	Cadw	Undated
622977	Leonard Monroe	Dated 1949

***Aerial Photographs of Trefignath Burial Chamber (RCAHMW)***

5489	Department of Environment	Dated 01/01/73
819978	RCAHMW	Dated 28/04/99
819979	RCAHMW	Dated 28/04/99
821548	RCAHMW	Dated 28/04/99
839918	RCAHMW	Dated 20/03/05
839919	RCAHMW	Dated 20/03/05
842001	RCAHMW	Dated 03/08/03
842002	RCAHMW	Dated 03/08/03
842168	RCAHMW	Dated 03/08/03
842169	RCAHMW	Dated 03/08/03
842200	RCAHMW	Dated 03/08/03
901350	RCAHMW	Dated 13/06/08

***Aerial Photographs of Ty-Mawr Standing Stone (RCAHMW)***

839916	RCAHMW	Dated 20/03/05
842000	RCAHMW	Dated 03/08/03
901348	RCAHMW	Dated 13/06/08

***Aerial Photographs Online (Central Register of Air Photography for Wales)***

Welsh Government Aerial Photography Unit Online:  
<http://aerialphotos.wales.gov.uk/>  
(Accessed 8/8/16)

***Aerial Photographs (Digital Imagery)***

Bing Maps © Microsoft Corporation, 2016  
<http://www.bing.com/maps/> (Accessed 1/6/17 – 6/6/17)

Google Maps © Bluesky, Infoterra Ltd, COWI A/S, DigitalGlobe, Getmapping Plc, 2016  
<https://maps.google.co.uk/maps/> (Accessed 1/6/17 – 6/6/17)

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## **Appendix I**

### **Figures**

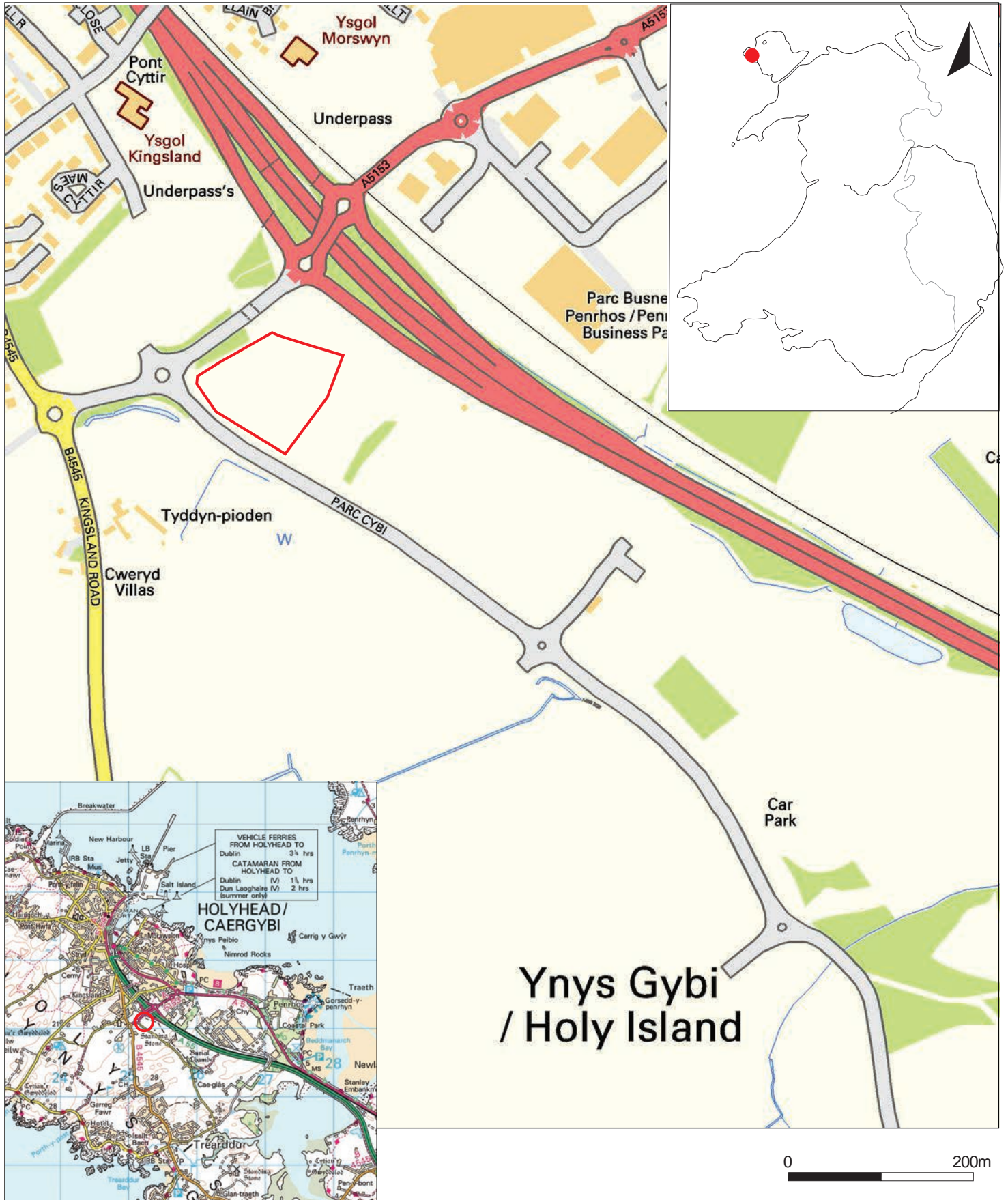


Figure 1. Location of Site

— Location of the proposed development site

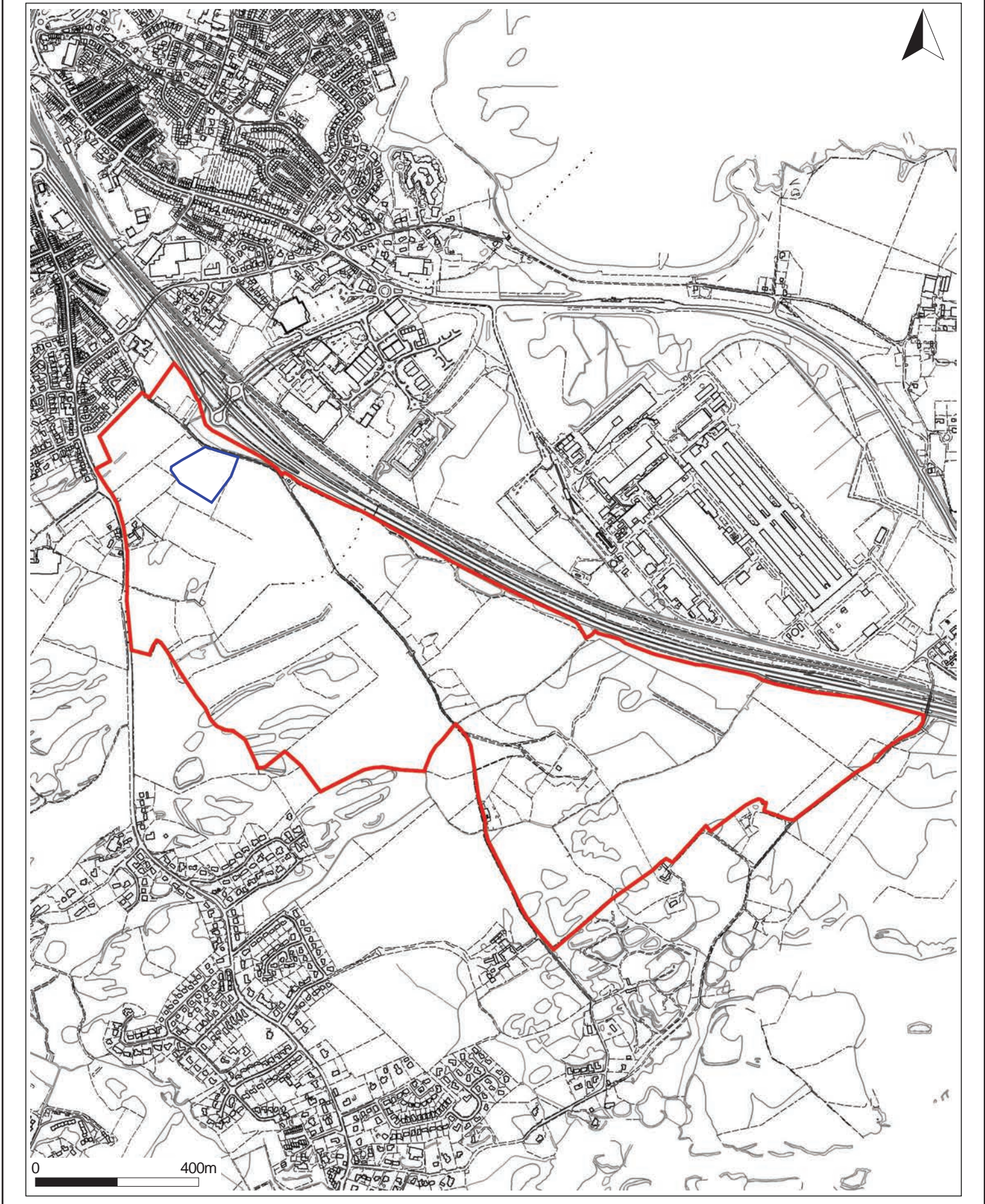


Figure 2. Boundary map of Parc Cybi Enterprise Zone (after Business Wales, Welsh Government)

- Site Boundary
- Development Site



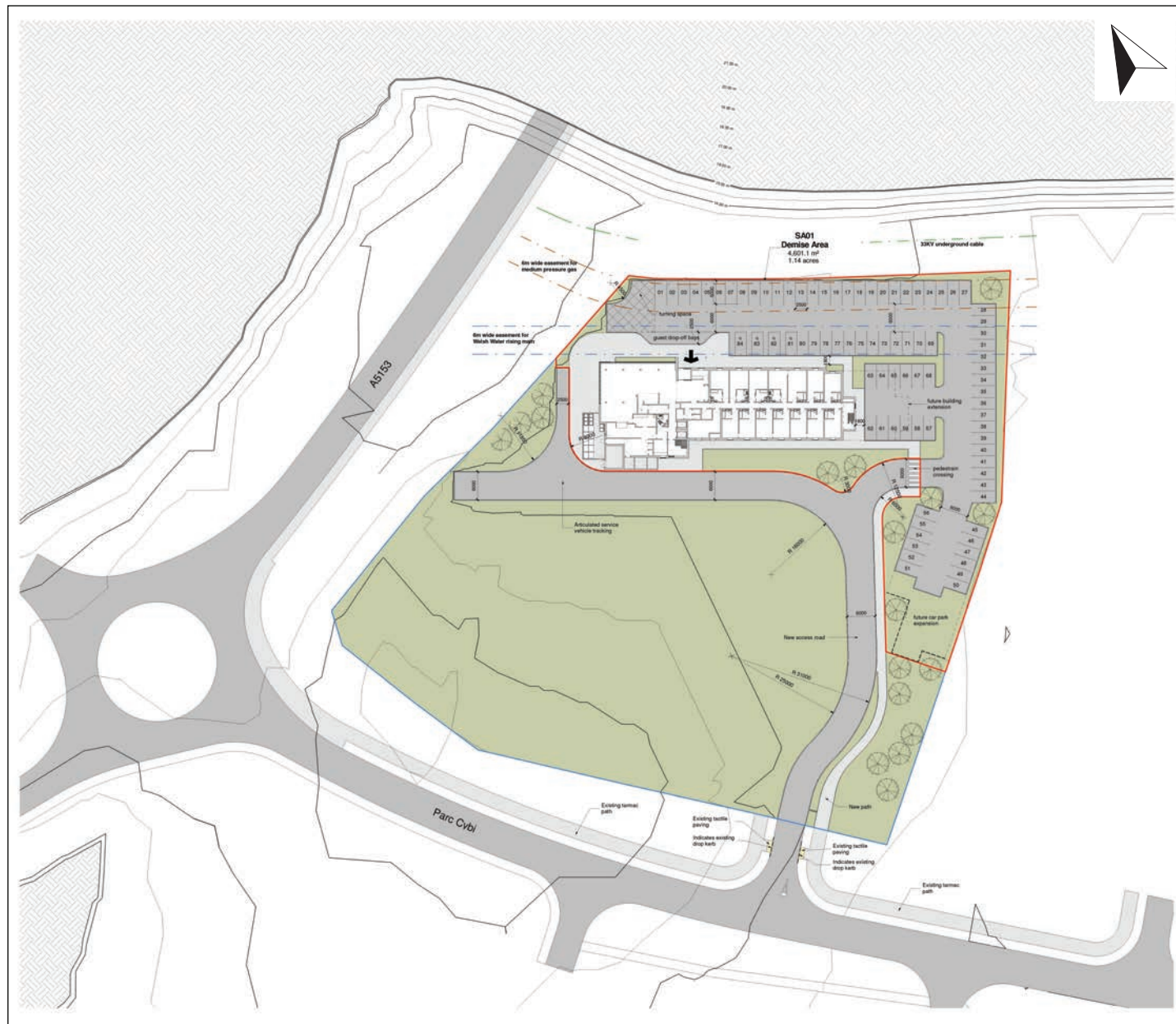


Figure 3.  
 Plan of the proposed  
 development (after C4  
 Consulting, Drawing  
 C4C-BB-ZZ-A1- 01-DR-  
 LL-001-A)



3D View 1 - South West



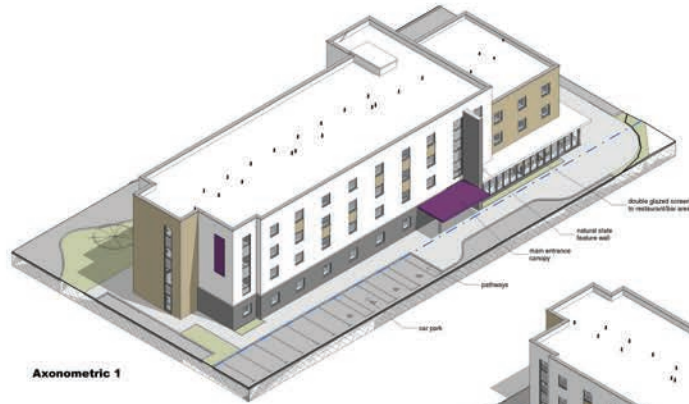
3D View 2 - North West



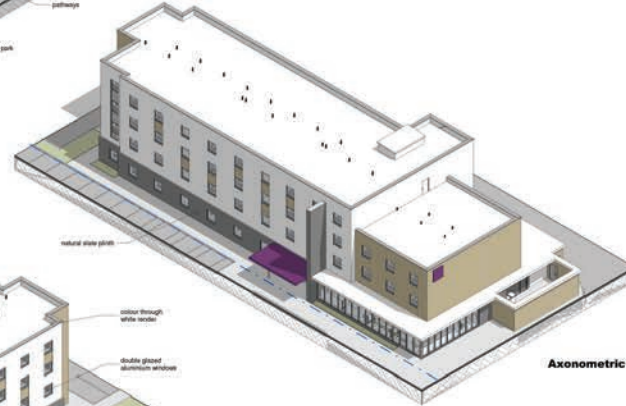
3D View 3 - North East



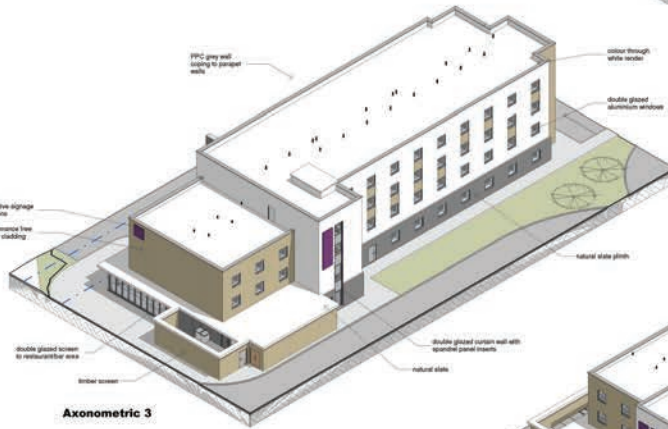
3D View 4 - South East



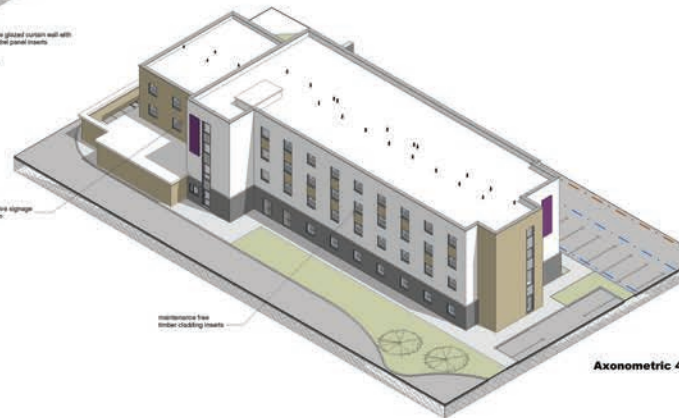
Axonometric 1



Axonometric 2



Axonometric 3



Axonometric 4

Figure 4. Three-dimensional views of the development proposal (after C4 Consulting, Drawing C4C-B1-Z1-A1-20-VS-LL-001-B)

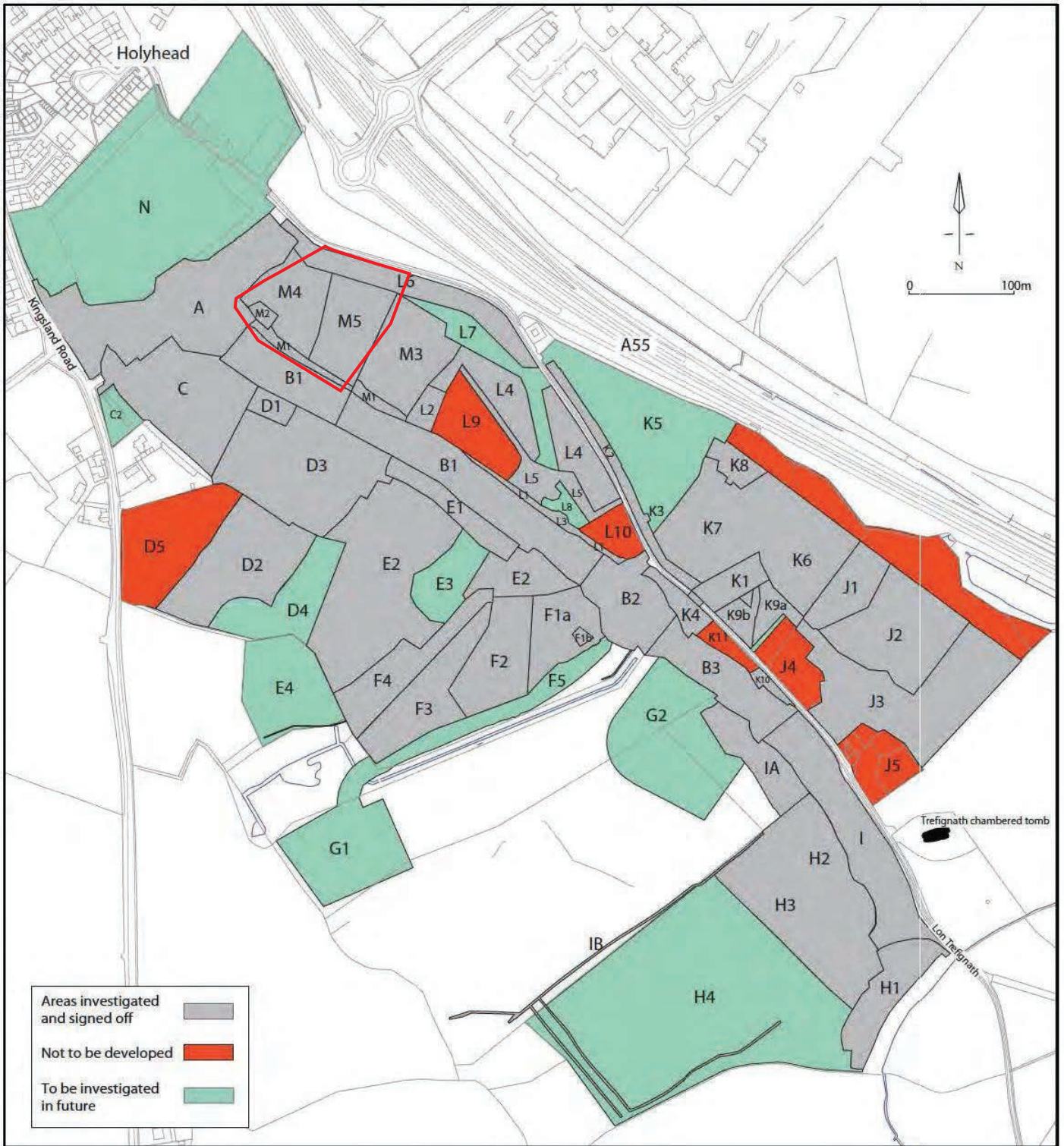
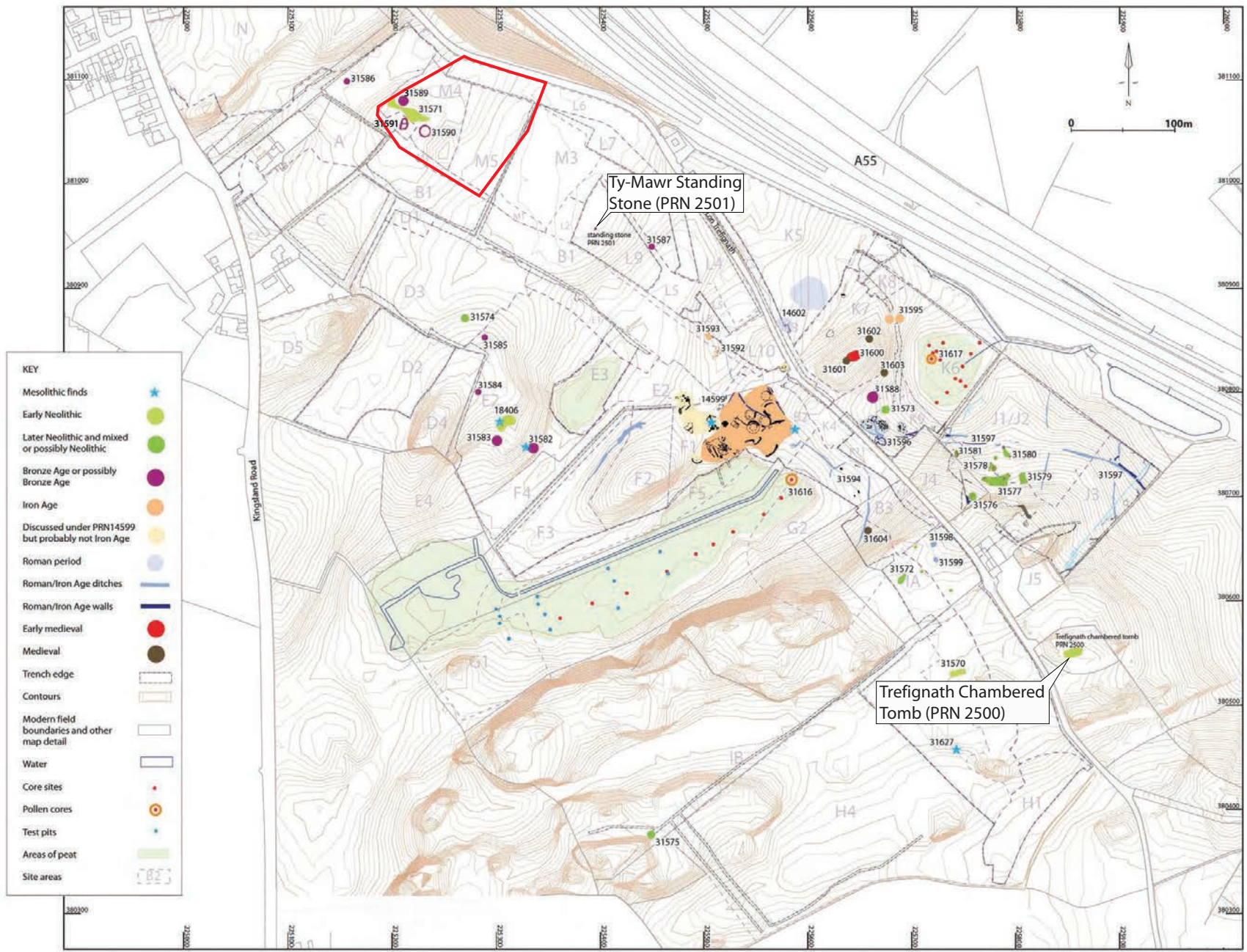


Figure 5. Plan of previous archaeological work undertaken at Parc Cybi, by area and status

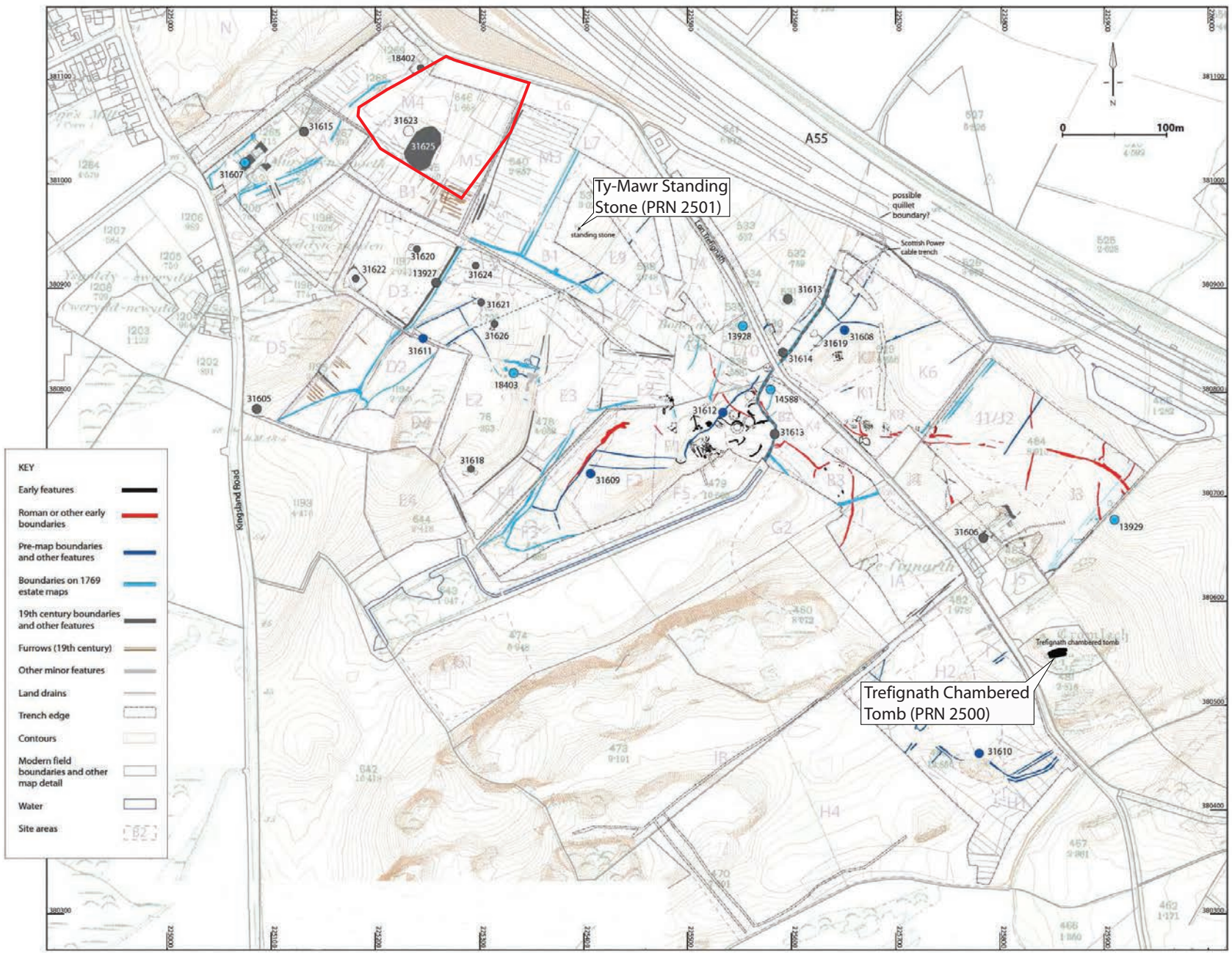
— Location of the proposed development site



— Location of the proposed development site

Sites are labelled by the Primary Reference Number (PRN) from the Gwynedd Archaeological Trust Historic Environment Record

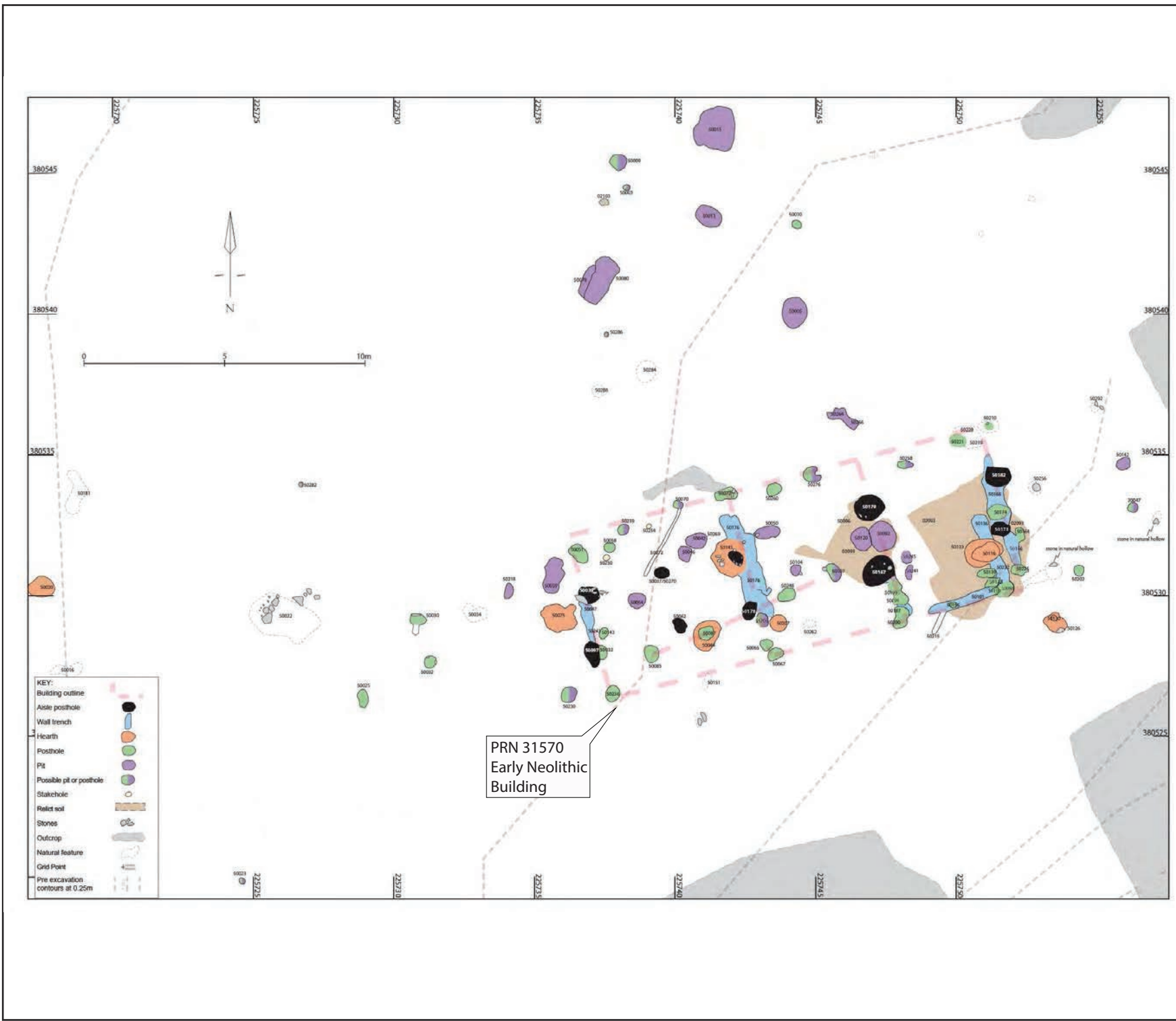
Figure 6. Location plan of prehistoric, Roman and medieval sites at Parc Cybi (after GAT, 2011, fig.3)



— Location of the proposed development site

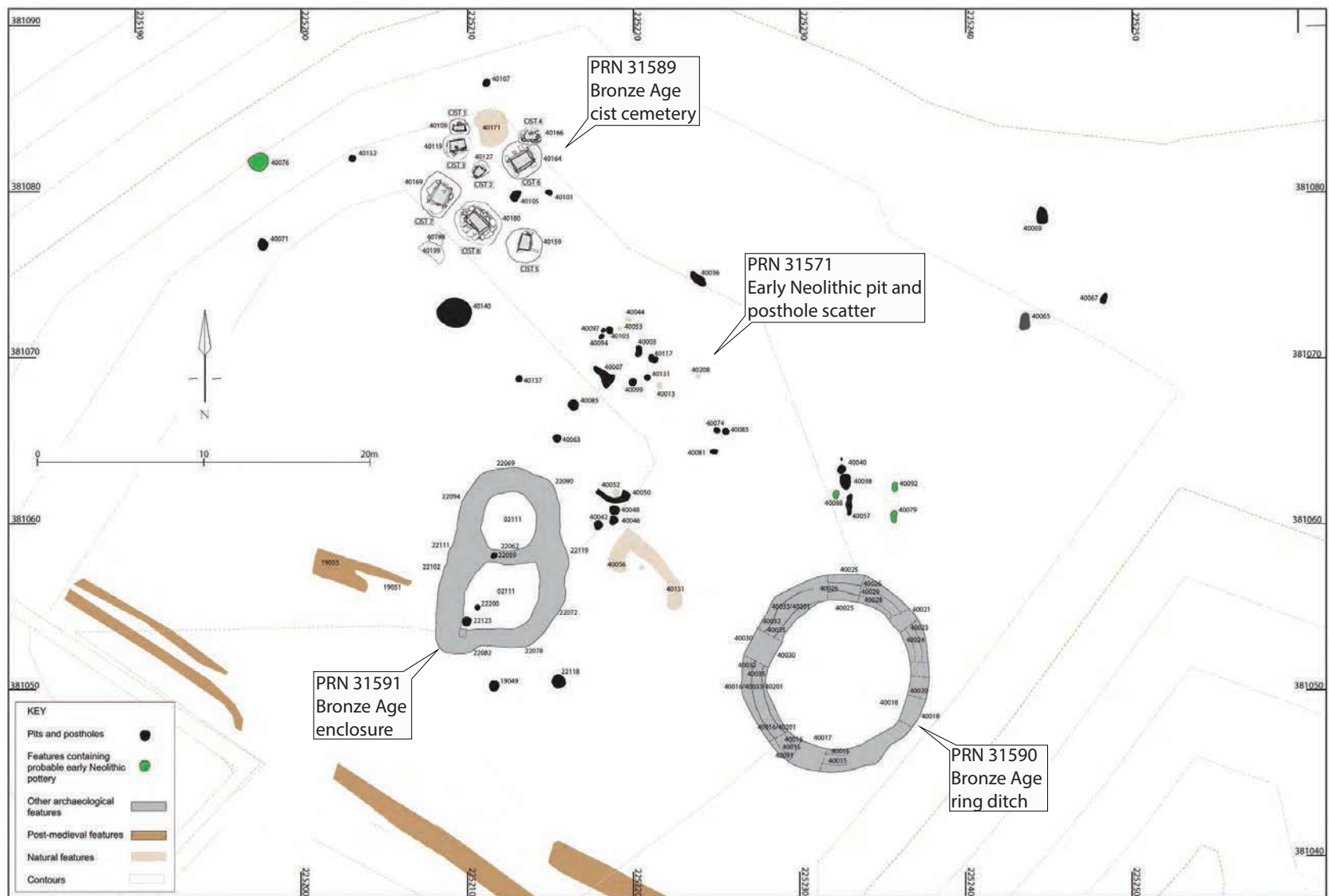
Sites are labelled by the Primary Reference Number (PRN) from the Gwynedd Archaeological Trust Historic Environment Record

Figure 7. Location plan of post-medieval sites at Parc Cybi (after GAT, 2011, fig.4)



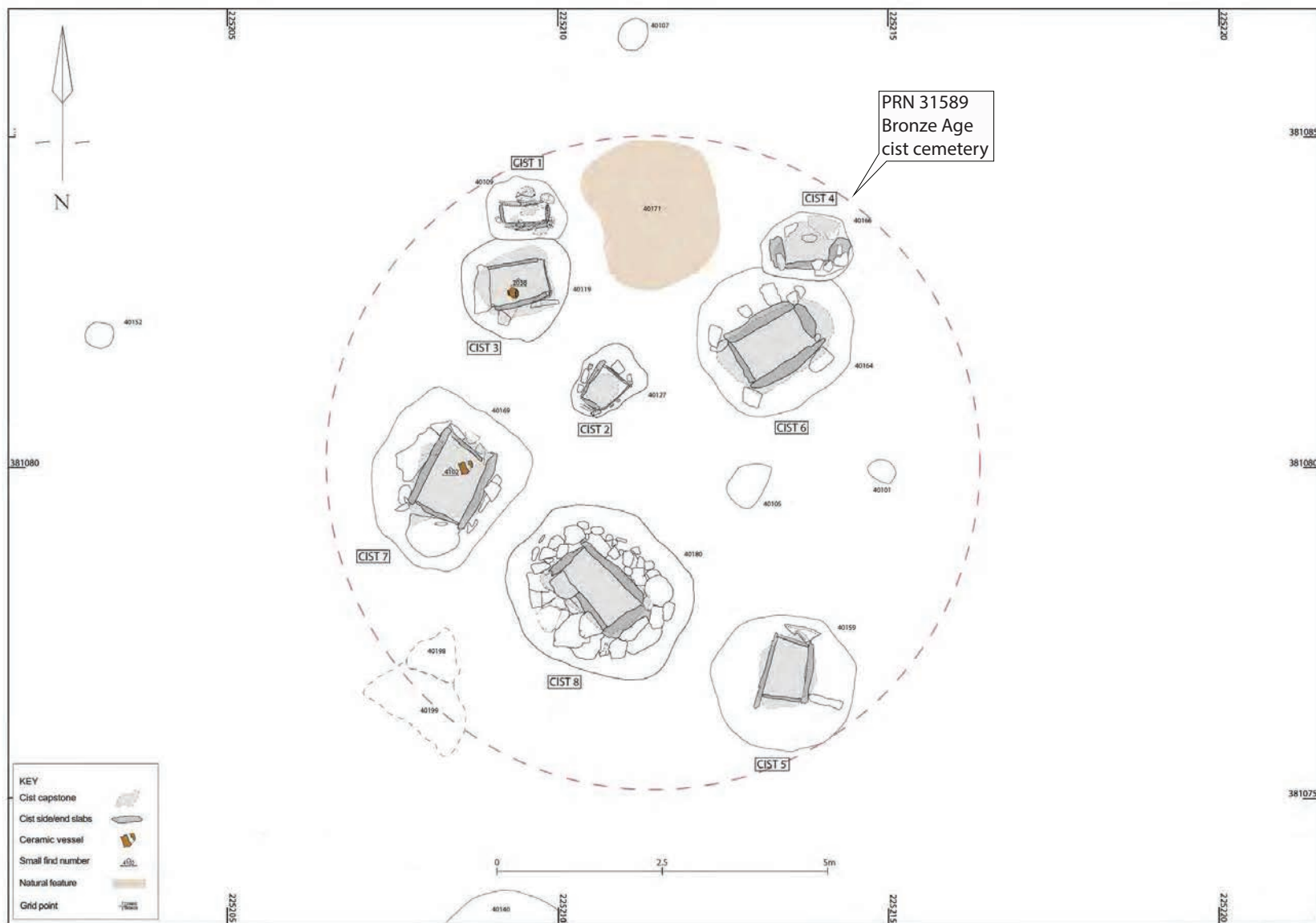
Sites are labelled by the Primary Reference Number (PRN) from the Gwynedd Archaeological Trust Historic Environment Record. Features are labelled by context number allotted during excavation.

Figure 8. Plan of the Early Neolithic building at Parc Cybi, Area H2 (after GAT, 2011, fig.5)



Sites are labelled by the Primary Reference Number (PRN) from the Gwynedd Archaeological Trust Historic Environment Record. Features are labelled by context number allotted during excavation.

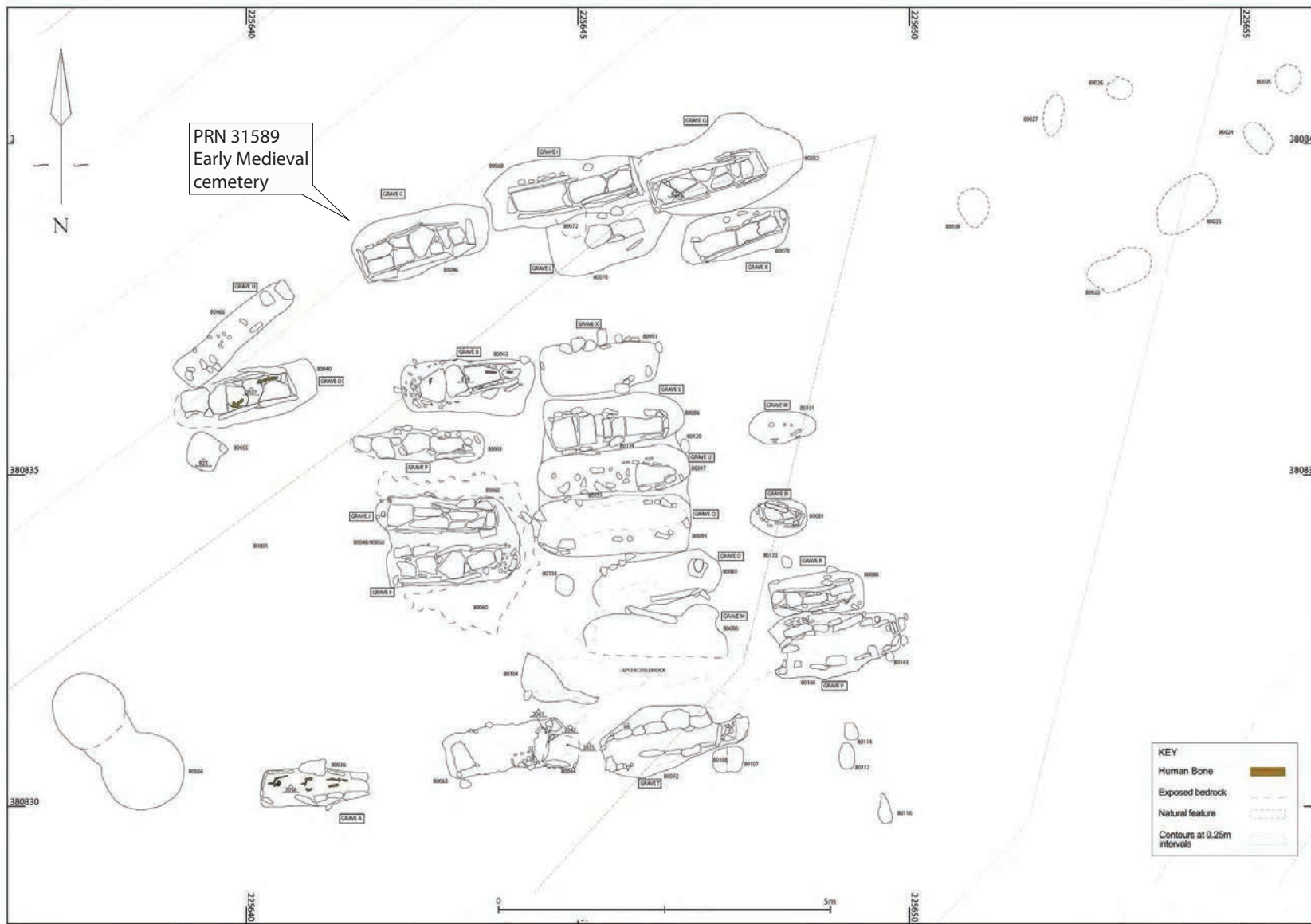
Figure 9. General plan of archaeological features excavated within the development site, Parc Cybi Areas M2 & M4 (after GAT, 2011, fig.7)



Sites are labelled by the Primary Reference Number (PRN) from the Gwynedd Archaeological Trust Historic Environment Record. Features are labelled by context number allotted during excavation.

Figure 10. Plan of the Bronze Age cemetery excavated within the development site, Parc Cybi Area M4 (after GAT, 2011, fig.13)





PRN 31589  
Early Medieval  
cemetery

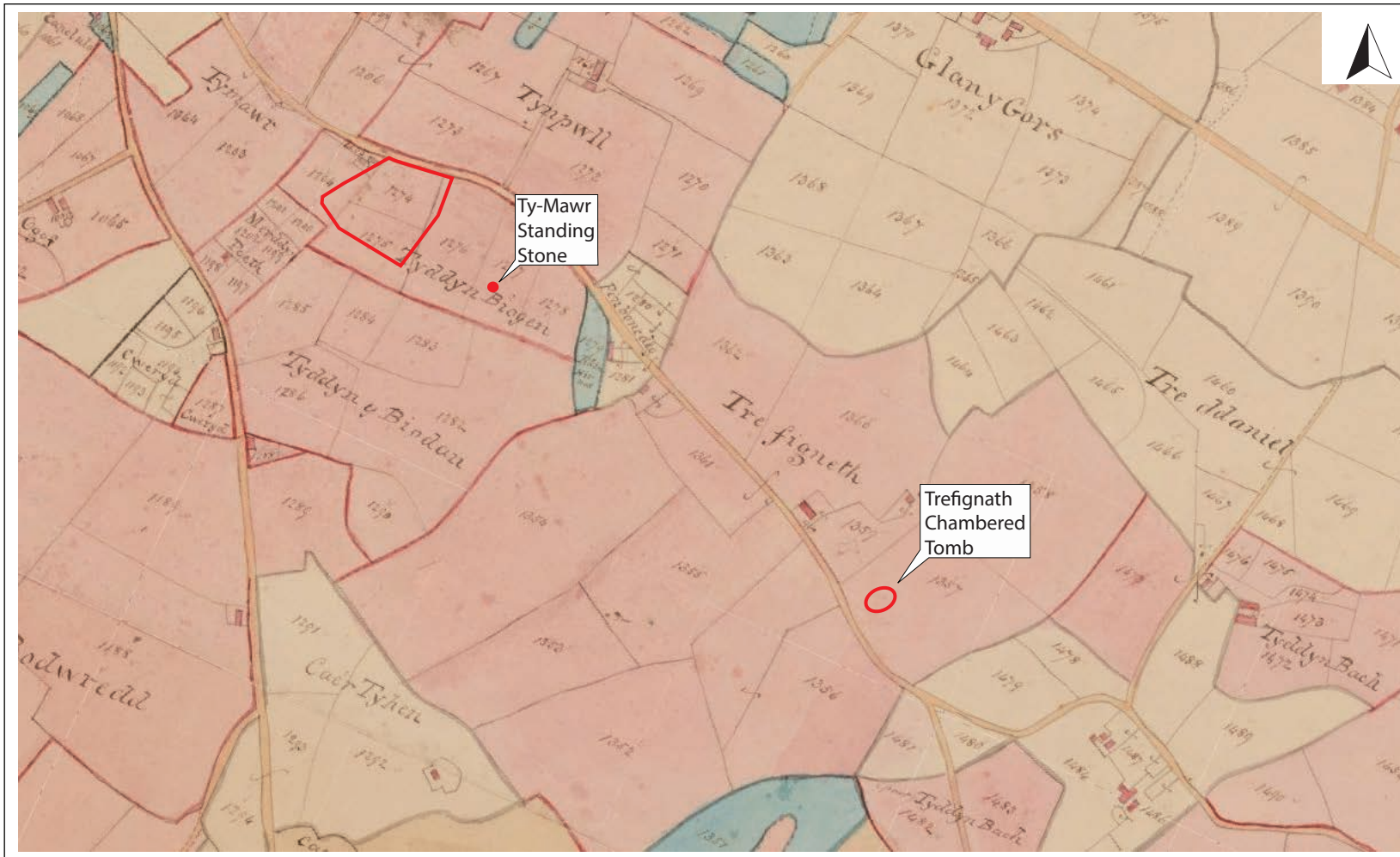
Sites are labelled by the Primary Reference Number (PRN) from the Gwynedd Archaeological Trust Historic Environment Record. Features are labelled by context number allotted during excavation.

Figure 11. Plan of the Early medieval cemetery excavated at Parc Cybi, Area K7 (after GAT, 2011, fig.27)



— Location of the proposed development site

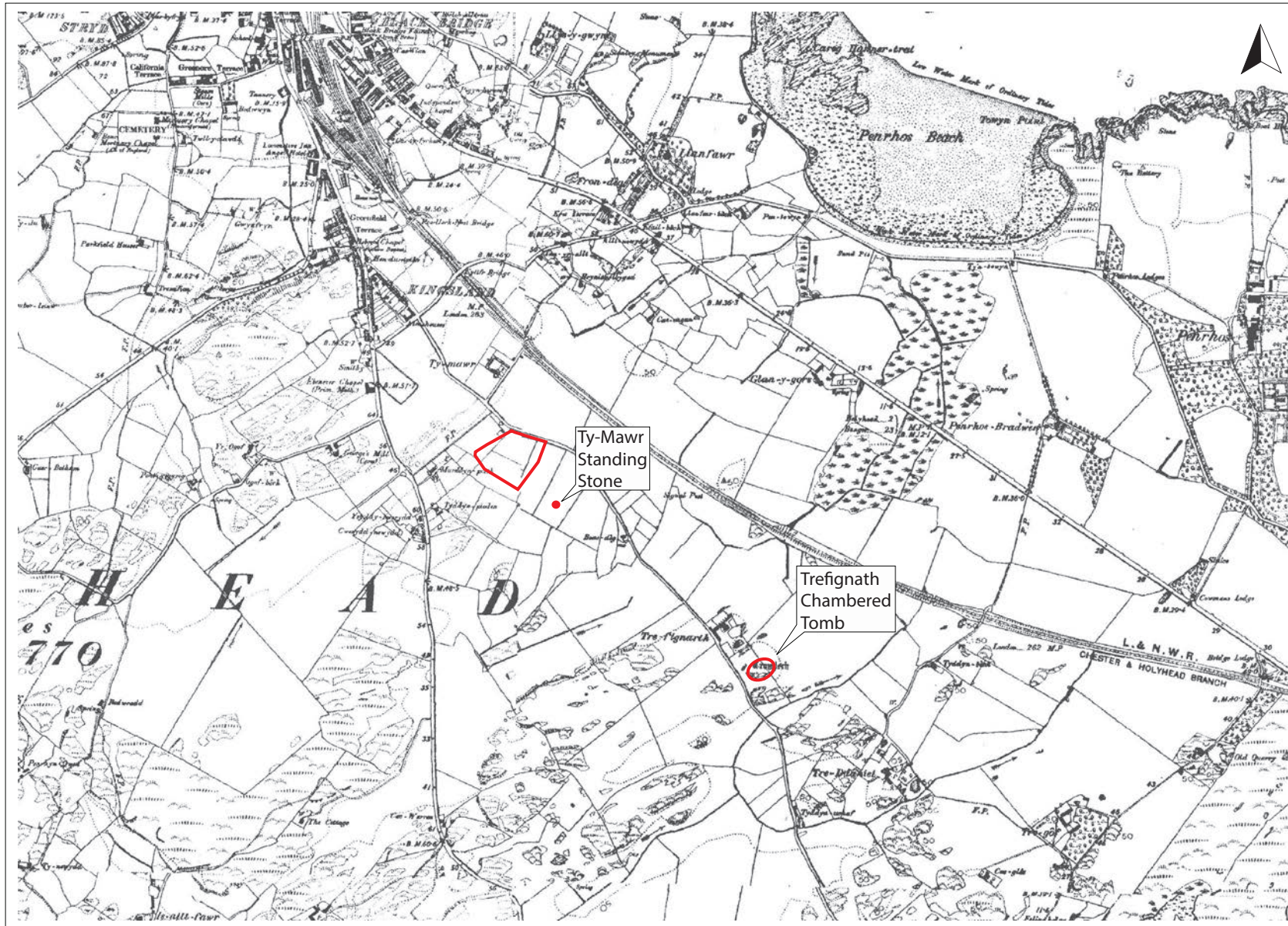
Figure 12. Extract of the Penrhos estate map c.1817 (After Kenney, 2000,fig.4)



— Location of the proposed development site



Figure 13. Extract of the Holyhead tithe map of 1840



— Location of the proposed development site

Figure 14. Extract of the Ordnance Survey map of 1890-91

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## **Appendix II**

### **Plates**

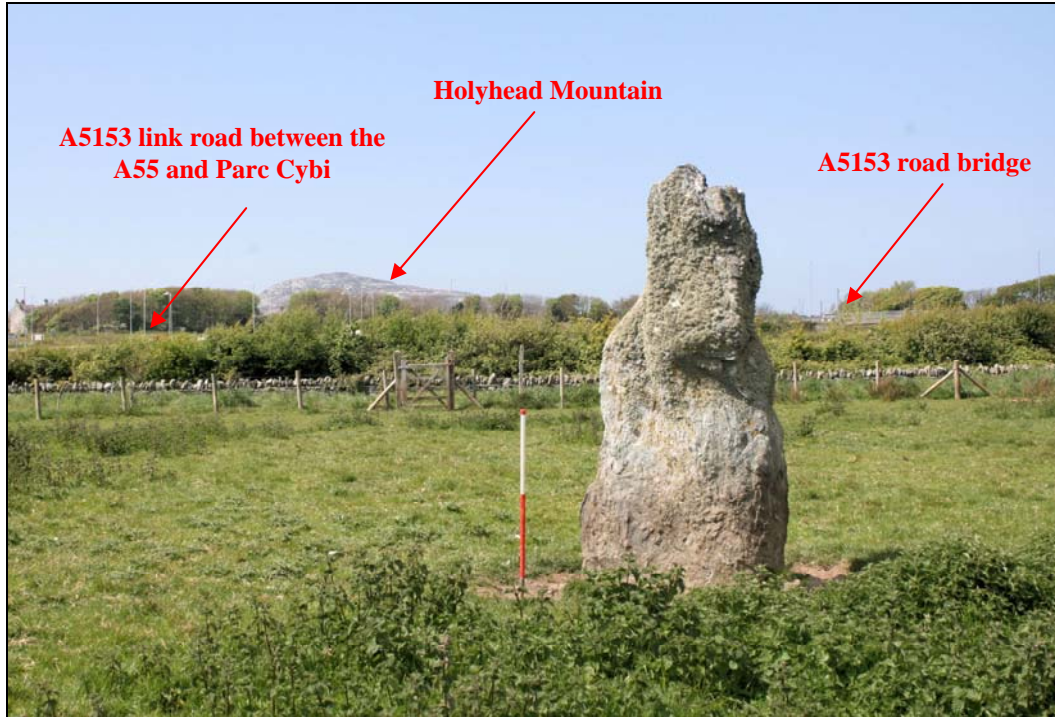


Plate 1. View of Ty-Mawr Standing Stone (AN012) from the southeast. Looking (northwest) towards Holyhead Mountain.

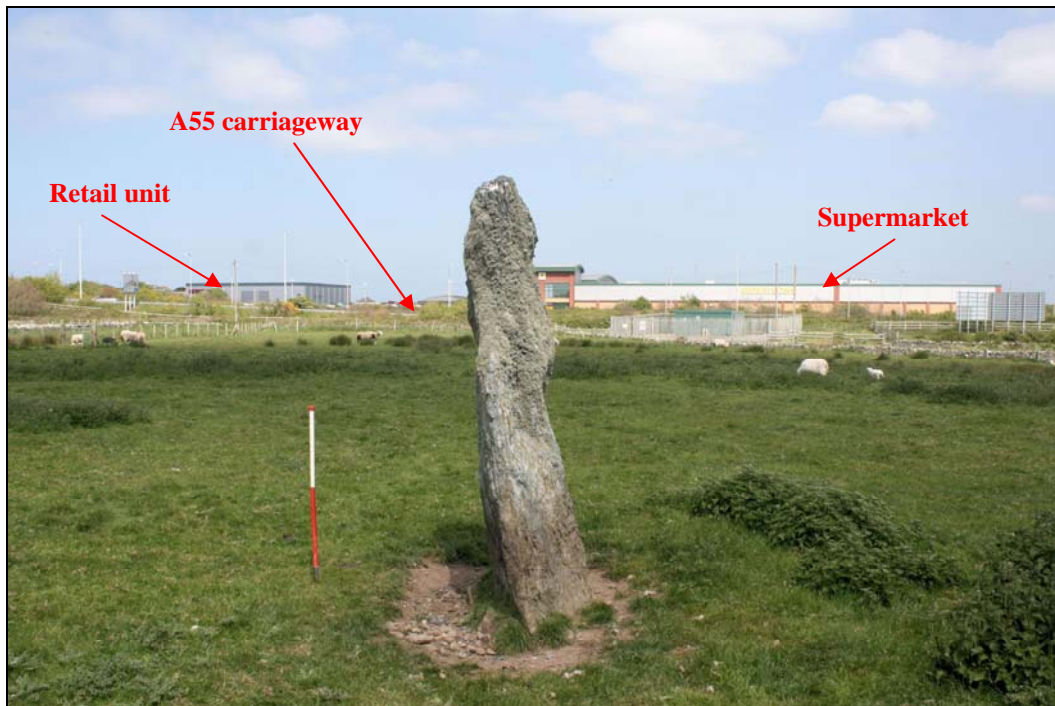


Plate 2. View of Ty-Mawr Standing Stone (AN012) from the southwest. Looking (northeast) across the A55 carriageway towards retail units (with Morrisons supermarket in the background).

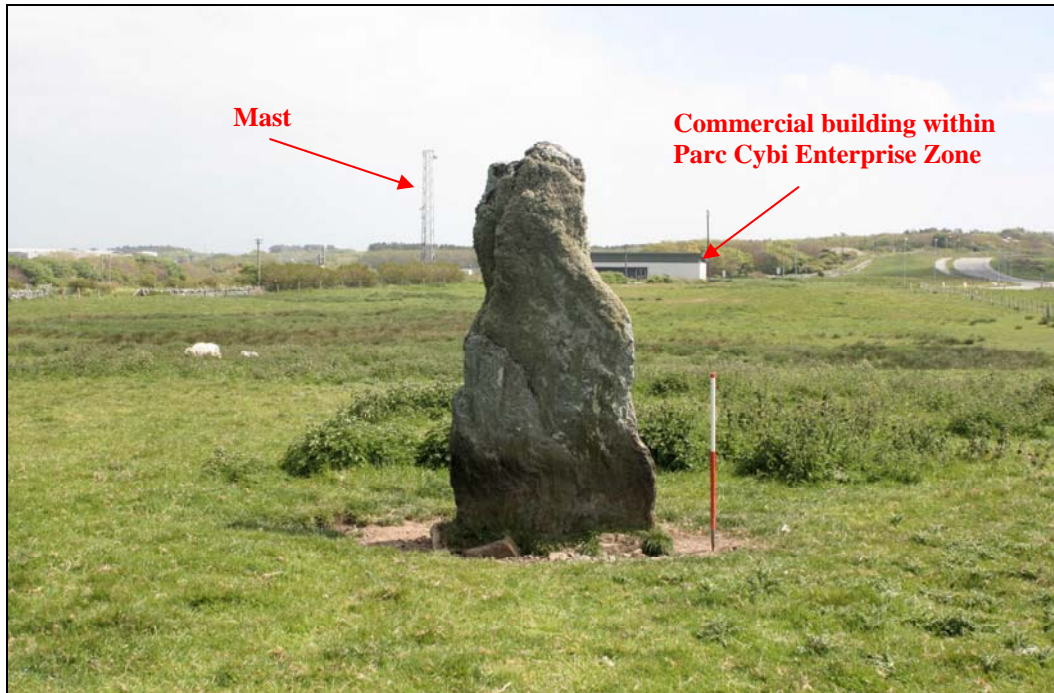


Plate 3. View of Ty-Mawr Standing Stone (AN012) from the northwest. Looking (southeast) across the Parc Cybi Enterprise Zone.



Plate 4. View of Ty-Mawr Standing Stone (AN012) from the northeast. Looking (southwest) towards the Road King Truckstop and HGV parking.



Plate 5. Picture of Ty-Mawr Stone (AN012) taken before 1960 (RCAHMW C551771). Looking west-northwest towards Holyhead Mountain.



Plate 6. Oblique aerial photograph of Ty-Mawr Stone (AN012) taken 20<sup>th</sup> March 2005 (RCAHMW C839916).



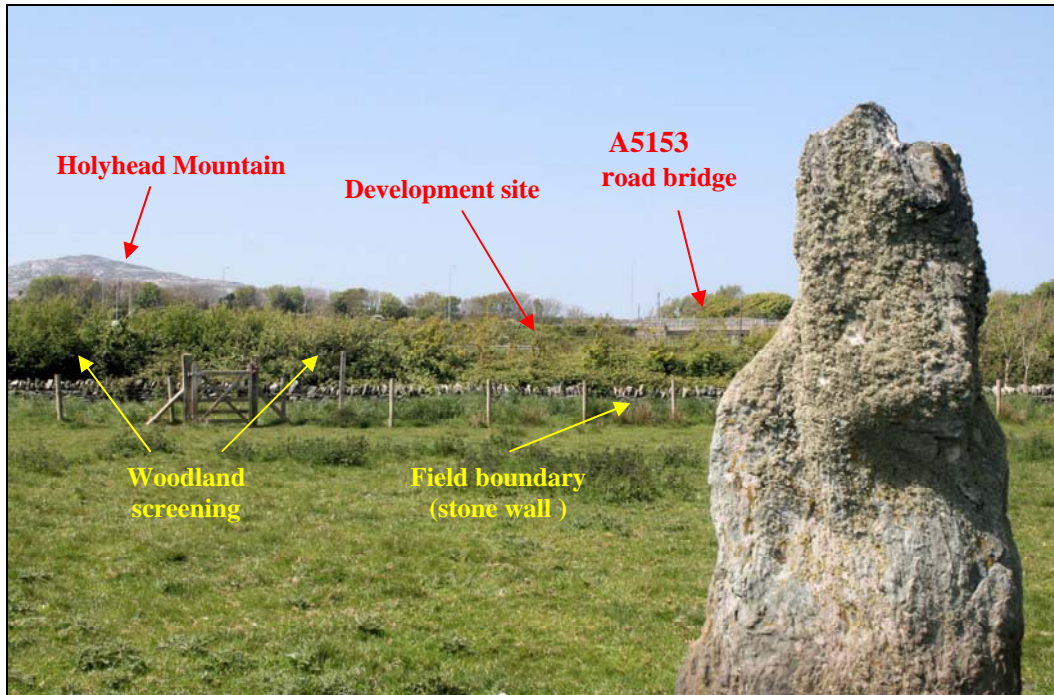


Plate 7. View from Ty-Mawr Standing Stone (AN012) towards the development site, with woodland screening in the foreground and the A513 road bridge in the background. Looking northwest.

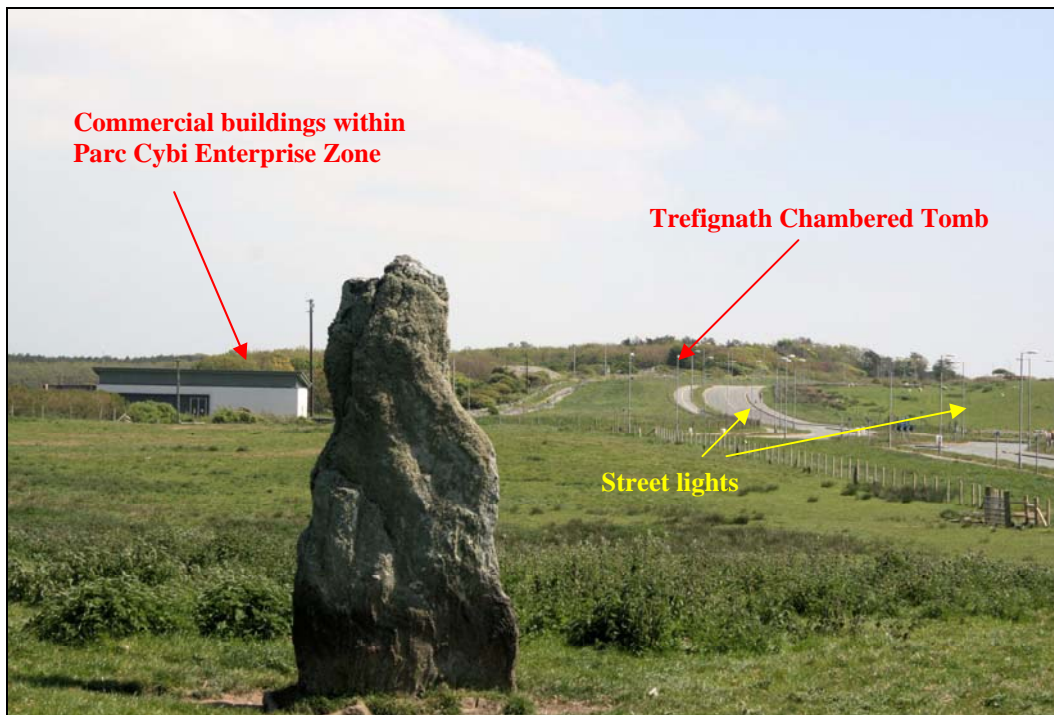


Plate 8. View from Ty-Mawr Stone (AN012) across Parc Cybi towards Trefignath Chambered Tomb (AN011). Looking southeast.

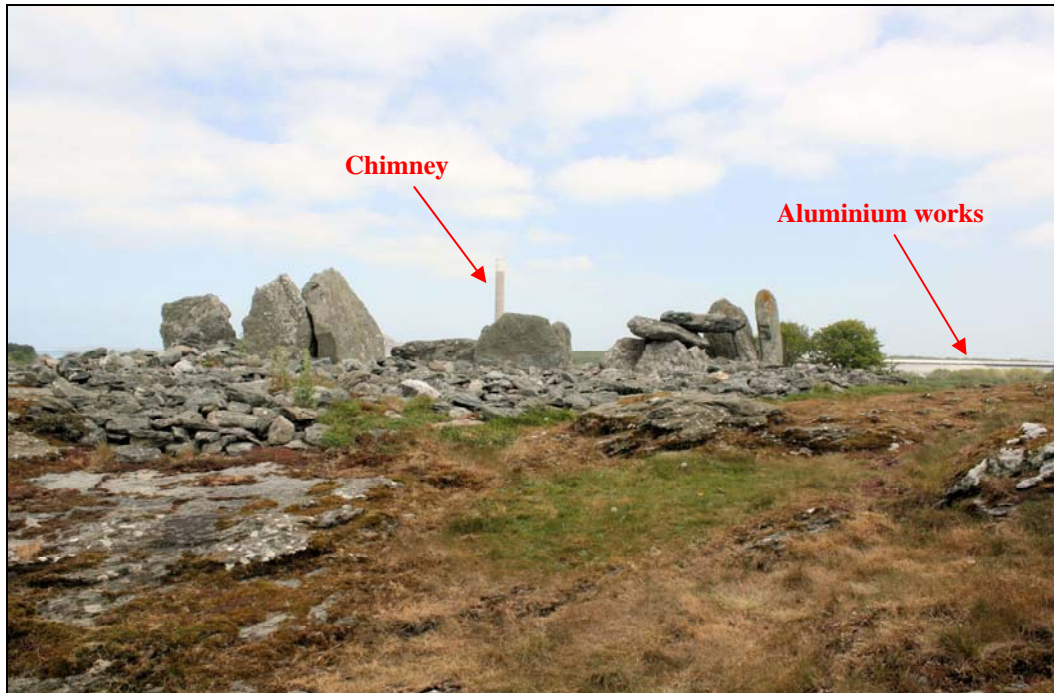


Plate 9. General view of Trefignath Chambered Tomb (AN011), with Holyhead aluminium works evident in the background. Looking northeast.



Plate 10. General view of Trefignath Chambered Tomb (AN011), with Holyhead aluminium works evident in the background and vegetation to the south of the scheduled area. Looking east.

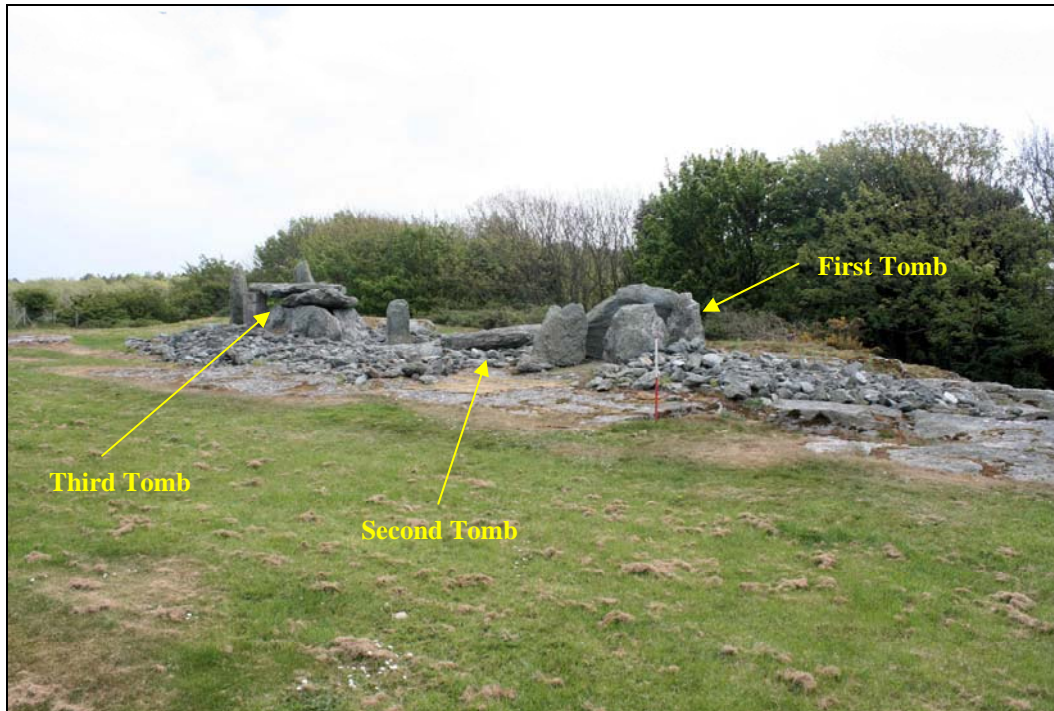


Plate 11. General view of Trefignath Burial Chamber (AN011), showing three phases of tombs. Note also the trees and shrubs to the south of the scheduled area. Looking southeast.



Plate 12. Detail of Trefignath first burial chamber (AN011). Looking south.



Plate 13. Detail of Trefignath second burial chamber (AN011). Looking south.



Plate 14. General view of the third tomb at Trefignath Burial Chamber (AN011). Looking west-northwest.



Plate 15. Detail of Trefignath third burial chamber (AN011). Looking west.

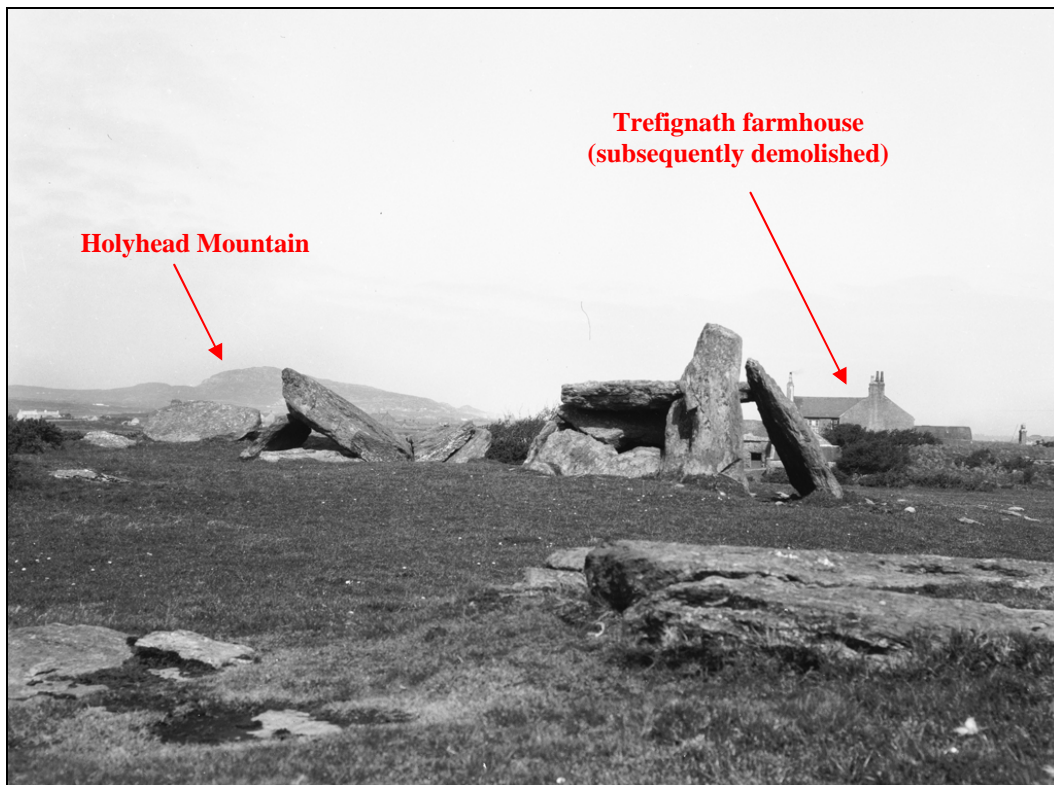


Plate 16. Photograph of Trefignath Chambered Tomb (AN011) taken before 1960 (RCAHMW C551773). Looking northwest.



Plate 17. Oblique aerial photograph of Trefignath Chambered Tomb (AN011) taken 1<sup>st</sup> January 1973 (RCAHMW C5489). Looking southwest.



Plate 18. Oblique aerial photograph of Trefignath Chambered Tomb (AN011) taken 20<sup>th</sup> March 2005 (RCAHMW C839919). Looking southwest.

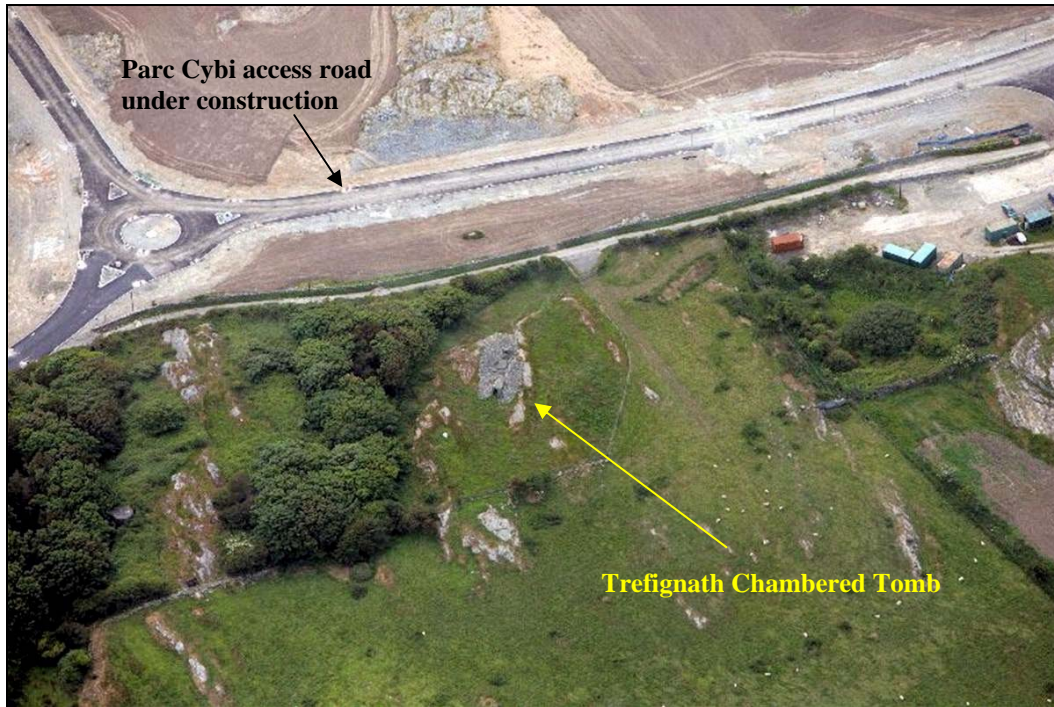


Plate 19. Oblique aerial photograph showing groundworks to the west of Trefignath Burial Chamber (AN011) for Parc Cybi. Photograph taken 13<sup>th</sup> June 2008 (RCAHMW C901350). Looking southwest.

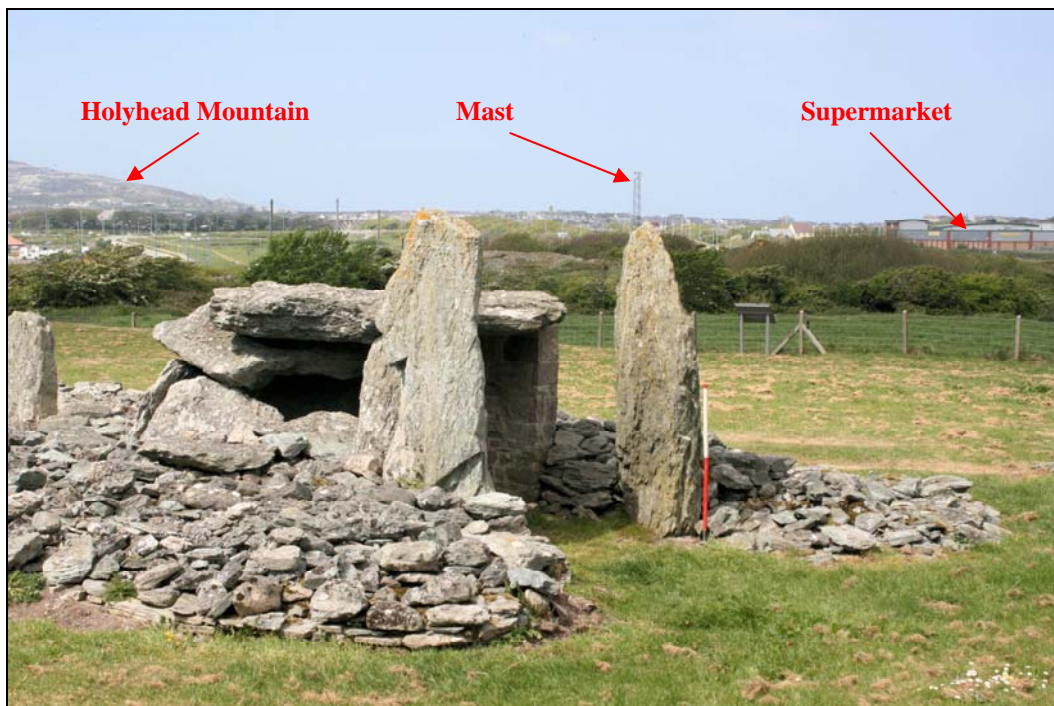


Plate 20. General view north-northwest across the third tomb of Trefignath Burial Chamber (AN011).

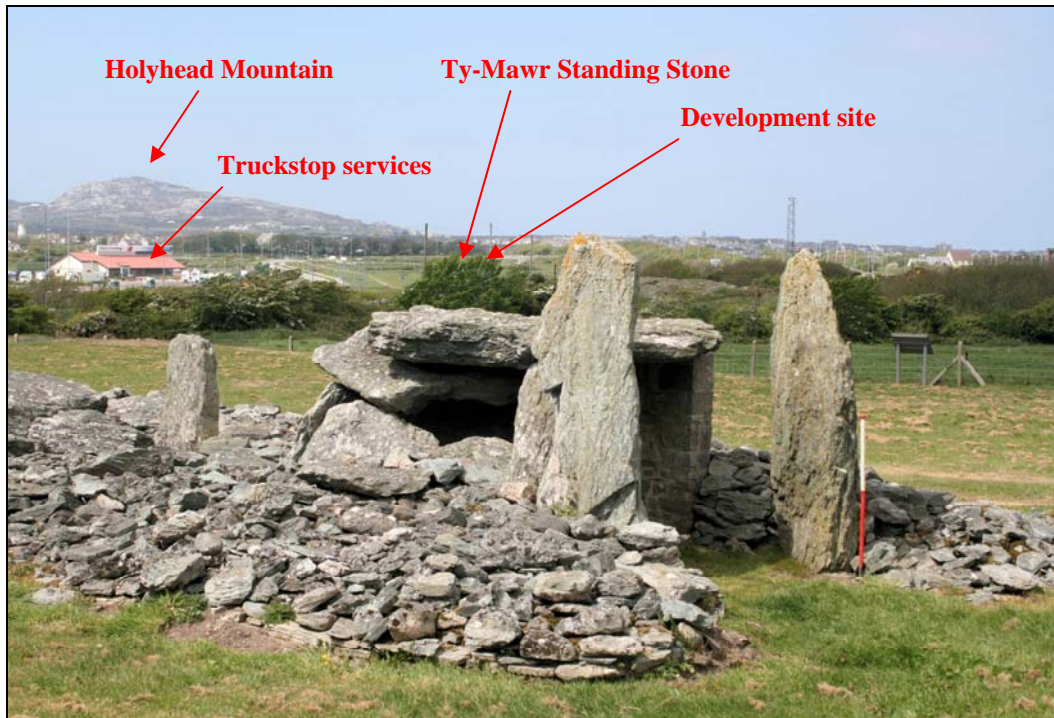


Plate 21. General view northwest across the third tomb of Trefignath Burial Chamber (AN011).



Plate 22. View northwest across the first and second tombs of Trefignath Burial Chamber (AN011).





Plate 23. Shot, using slight camera zoom, towards Ty-Mawr Standing Stone (AN012) and the development site, viewed from Trefignath Chambered Tomb (AN011). Looking northwest.

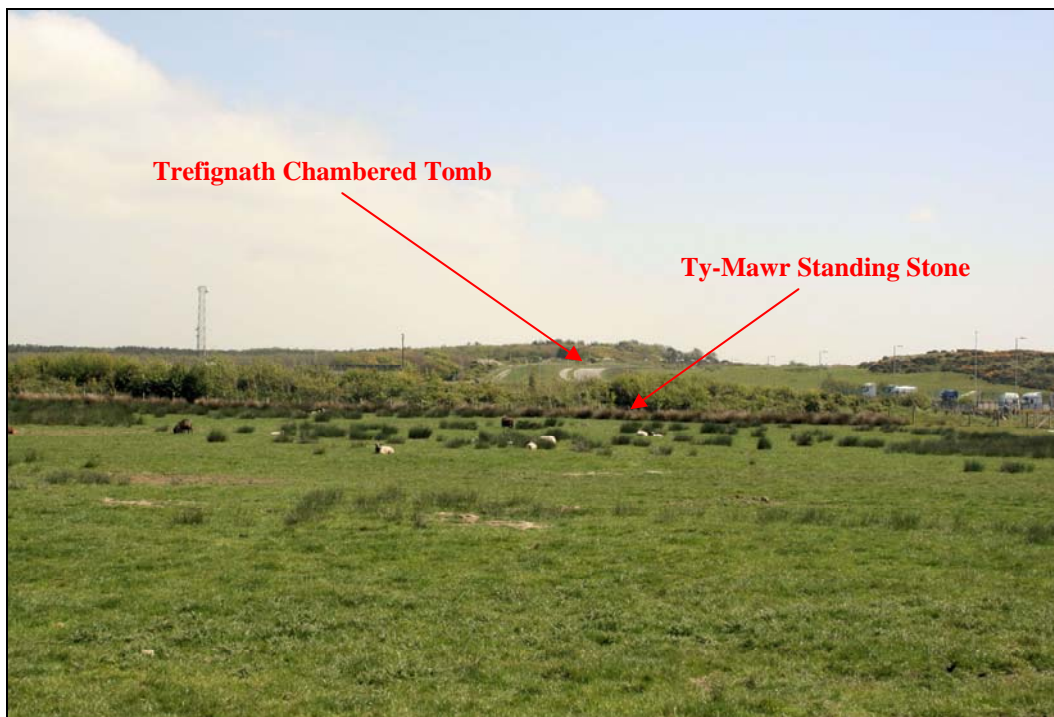


Plate 24. View from the development site towards Trefignath Chambered Tomb (AN011), with Ty-Mawr Standing Stone (AN012) in the middle-ground obscured by trees. Looking southeast.

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## **Appendix III**

### **Archive Cover Sheet**

## ARCHIVE COVER SHEET

### Parc Cybi Enterprise Zone, Holyhead, Isle of Anglesey

Site Name:	Parc Cybi
Site Code:	PCA/17/HIA
SAM:	AN011 (Trefignath Burial Chamber) AN012 (Ty-Mawr Standing Stone)
NPRN:	95535 (Trefignath Burial Chamber) 302268 (Ty-Mawr Standing Stone)
PRN:	2500 (Trefignath Burial Chamber) 2501 (Ty-Mawr Standing Stone)
NGR:	225250 381100 (SH 2525 8110)
Site Type:	Greenfield
Project Type:	Historic Impact Assessment
Project Manager:	Mark Houliston
Project Dates:	May – June 2017
Categories Present:	Mesolithic - Modern
Location of Original Archive:	AW
Location of Duplicate Archives:	RCAHMW / GAT
Number of Finds Boxes:	None
Location of Finds:	N/A
Museum Reference:	N/A
Copyright:	AW
Restrictions to Access:	None

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