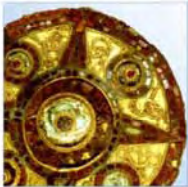


# Wind Road, Ystradgynlais, Powys: Archaeological Desk-Based Assessment

Project No: 30705

August 2010



ARCHAEOLOGY

HERITAGE

CONSERVATION



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# 1 INTRODUCTION

## 1.1 Project Background

- 1.1.1 AOC Archaeology has been commissioned by Tesco Property Services to undertake an archaeological desk-based assessment (DBA) for the site of proposed Tesco store development at Wind Road, Ystradgynlais, in the County of Powys, Wales.
- 1.1.2 The proposed development site is located in the township of Ystradgynlais, approximately 1.2km to the south-west of the town centre, on the northern side of Wind Road; NGR SN 776 092 (Figure 1).
- 1.1.3 The site currently comprises factory buildings and offices - partly occupied by Lyte Ladders & Towers and partly unoccupied. The original factory buildings were constructed in the late 1940s, and have later additions and extensions.
- 1.1.4 The site is roughly rectangular in shape and bound on the south by Wind Road; on the west by Gurnos Road and adjacent commercial premises; on the north by hardstanding car park areas (originally part of the factory site now outside the development site boundaries) and partly by the Woodlands Business Park; and on the east by a public footpath, beyond which lies residential development and the grounds of Maesydderwen Comprehensive School (Figure 2).
- 1.1.5 The proposed development scheme comprises the demolition of all existing buildings and the construction of a Tesco retail store, petrol station and associated car park and service yard across the majority of the site. A group commercial business unit, with separate car parking, is proposed in the north-west corner of the site (Figure 3).

## 1.2 Scope of the Assessment

- 1.2.1 The desk-based assessment (DBA) forms the first stage of archaeological and built heritage investigation. This report details the results of the assessment and will identify and map the nature of the archaeological and built heritage resource within the site and surrounding study area. Where possible, the DBA will assess the likely impact to the known and potential heritage resource of the site from the proposed development scheme.
- 1.2.2 This report will include recommendations for further archaeological or built heritage works where the archaeological potential of the site or value of the standing built heritage warrants, or where additional information on the site is required. Such works could include additional research, monitoring of geotechnical works, surveying, building appraisal and/or archaeological field evaluation. The results of any further studies can inform the scope and design of the proposed development and the nature of any subsequent mitigation measures, if necessary.
- 1.2.3 The information and conclusions presented in this baseline assessment are subject to the review and approval by Mr. Mark Walters, Development Control Archaeologist at the Clywd-Powys Archaeological Trust (CPAT), who act as archaeological advisors to the Local Planning Authority. The scope and extent of any further archaeological or built heritage works which may be required (either in advance of or following the planning submission and decision) and recommendation for planning approval and conditions, rest with the LPA and their archaeological advisors.
- 1.2.4 The CPAT Historic Environment Record (CPAT-HER) database of archaeological sites, finds, events, monuments, listed buildings and designations is the primary source of information concerning the current state of archaeological and architectural knowledge in the study area and has been used to assess the likely nature and extent of the archaeological and built heritage resource.

- 1.2.5 This information forms the description of the heritage baseline conditions, together with information attained from:
- Readily available archival, cartographic and documentary sources held at the National Library of Wales (Aberystwyth), Powys County Archives Office (Llandrindod Wells), The West Glamorgan Archive Service (Swansea) and the local studies section of Ystradgynlais Library (Ystradgynlais).
  - Review of available aerial photographic evidence held at the National Monuments Record of Wales (Aberystwyth);
  - An assessment of topographical, geological, archaeological and historical information from web based and in-house sources;
  - Ordnance Survey mapping evidence for the study area provided by the client;
  - An assessment of relevant published and unpublished archaeological sources;
  - A site-walk over; and
  - The published sources listed in Section 10.
- 1.2.6 The assessment has used the sources listed above to identify and map heritage assets and other relevant find spots or evidence. In terms of the archaeological resource, heritage assets can include designated assets (scheduled monuments, listed buildings etc.), standing, buried or submerged remains, historic buildings and structures, parks and gardens and areas, sites and landscapes - *whether designated or not and whether or not capable of designation.*
- 1.2.7 Where identified finds, features or assets from the CPAT Historic Environments Record appear within the text, the HER number is shown in round brackets e.g. (**CPATHER X**) and can be referenced back to the details held by Trust.
- 1.2.8 Occasionally, reference has been made to data from the Coflein database – the online database for the National Monuments Record of Wales (<http://www.coflein.gov.uk>) - and records held on the Archaeological Data Service's Archsearch online database (<http://ads.ahds.ac.uk/catalogue>). In such cases the identifying number appears in round brackets as (**NMRW X**) or (**ADS Record ID X**) and can be refaced back to the source material held on online.
- 1.2.9 References to published material are noted in the text using the Harvard style of referencing.

### 1.3 Consultation

- 1.3.1 Preliminary consultation was undertaken with Mr Mark Walters, Development Control Archaeologist at the Clywd-Powys Archaeological Trust (CPAT), on 21<sup>st</sup> July 2010.
- 1.3.2 It was agreed a site specific study radius of the CPAT HER would be sufficient and Mr Walters noted the current land use of the site and stated that the extant factories were 1946 or later in date and of a typical north-lit type common to the area and date.
- 1.3.3 Mr. Walters also highlighted the 'Gurnos Sconce', an unusually shaped plantation of tress located to the north of the site (CPATHER PRN3351); the shape of which is reminisce of a Civil War (1642 – 1651) style battery fort. It was stated that this feature is almost certainly just an unusual plantation and that during a site visit a number of years ago it was noted that it was partially built upon and that it is completely flat; there being no obvious earthworks relating to a Civil War battery style fort.

- 1.3.4 It was suggested that the assessment look into the origin of this sconce / plantation, which could be associated with a former estate. If no definite conclusion upon its origins could be found, and proposed development works were to extend over this area, Mr. Walter's indicated that an evaluation trench may be required across the location of the 'defences' to ascertain if there was ever a ditch and bank.
- 1.3.5 Mr. Walter's also advised that the data collation processes should include Ystradgynlais library, the CPAT HER, the National Library of Wales, RCAHMW (NMR of Wales) and Powys County Archives.
- 1.3.6 It was indicated that a report produced based upon this advice would comprises a sufficient assessment at this stage in the development process.

## 2 ASSESSMENT METHODOLOGY

### 2.1 Methodology

2.1.1 The assessment has been carried out in accordance with the Institute for Archaeologists' *Standard and Guidance for Desk-Based Assessment* (IfA 1990, rev. 2008) and with regard to relevant statutory requirements, national, regional and local planning policies, including:

- Ancient Monuments and Archaeological Areas Act, 1979;
- Planning (Listed Buildings and Conservation Areas) Act, 1990;
- Planning Policy Wales (Edition 3: July 2010): Chapter 6 Conserving the Historic Environment; and
- The Powys Unitary Development Plan

2.1.2 This report details the results of the assessment and aims to identify and map the nature of the archaeological and built heritage resource within the site and the surrounding study area. The evidence has been used to identify the nature of previous land use or activities within the site and determine the likely magnitude of any impact from such activities upon the built heritage and buried archaeological resource.

2.1.3 This has been used together with the nature of the identified archaeological and built heritage resource, the topographical, geological, cartographic and historical evidence, advice from CPAT archaeological officers and AOC Archaeology's in house expertise and knowledge, to determine the likely potential for archaeological evidence to survive within the proposed development site.

2.1.4 Where possible, the DBA will assess the likely impact to the known and potential heritage resource of the site from the proposed development scheme and will include recommendations for further archaeological or built heritage works, where required.

### 2.2 Assessment Criteria

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

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

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



- 2.2.3 Where potential or known heritage assets are identified, the heritage significance of such assets is determined by reference to existing designations where available. For previously unidentified sites where no designation has been assigned, an estimate has been made of the likely historic, artistic or archaeological importance of that resource based on professional knowledge and judgement.
- 2.2.4 Adjustments to the classification (Table 1, below) are occasionally made, where appropriate; for some types of finds or sites (e.g. Conservation Areas where there is no consistent value and the importance may vary from local to national. Levels of importance for any such areas are generally assigned on an individual basis, based on professional judgement and advice.

**Table 1: Assessing the Importance of a Cultural Heritage Site**

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

- 2.2.5 The likely magnitude of the impact of the proposed development is determined by identifying the level of effect from the proposed development upon the 'baseline' conditions of the site and the heritage resource identified in the assessment. This effect can be either adverse (negative) or beneficial (positive). The criteria for assessing the magnitude of impact are set out in Table 2 below.

Table 2: Criteria for Determining Magnitude of Impact

LEVEL OF MAGNITUDE	DEFINITION
<b>ADVERSE</b>	
<b>HIGH</b>	Major impacts fundamentally changing the baseline condition of the receptor, leading to total or considerable alteration of character or setting – e.g. complete or almost complete destruction of the archaeological resource; dramatic visual intrusion into a historic landscape; adverse change in the setting or visual amenity of the feature/site; significant increase in noise or changes in sound quality; extensive changes to use or access.
<b>MEDIUM</b>	Impacts changing the baseline condition of the receptor materially but not entirely, leading to partial alteration of character or setting – e.g. a large proportion of the archaeological resource damaged or destroyed; visual intrusion into key aspects of the historic landscape; and changes in noise levels or use of site that would result in detrimental changes to historic landscape character.
<b>LOW</b>	Detectable impacts which alter the baseline condition of the receptor to a small degree – e.g. a small proportion of the surviving archaeological resource is damaged or destroyed; minor severance from or change to a monument's setting; increase in noise; and limited encroachment into character of a historic landscape.
<b>NEGLIGIBLE</b>	Barely distinguishable adverse change from baseline conditions, where there would be very little appreciable effect on a known site, possibly because of distance from the development, method of construction or landscape or ecological planting, that will have no long term effect on the cultural value of a resource.
<b>BENEFICIAL</b>	
<b>NEGLIGIBLE</b>	Barely distinguishable beneficial change from baseline conditions, where there would be very little appreciable effect on a known site and little long term effect on the cultural value of a resource.
<b>LOW</b>	Minimal enhancement to key historic landscape elements, parcels or components, such as limited visual improvements or reduction in severance; slight changes in noise or sound quality; minor changes to use or access; resulting in a small improvement in historic landscape character.
<b>MEDIUM</b>	Changes to key historic elements resulting in welcome changes to historic landscape character. For example, a major reduction of severance or substantial reductions in noise or disturbance such that the value of known sites would be enhanced.
<b>HIGH</b>	Changes to most or all key historic landscape elements, parcels or components resulting in a significant enhancement of the historic environment. This can include wide scale restoration and improvement; the provision of greater protection of heritage assets; lessening the visual impact upon heritage assets and improving the view of the surrounding historic landscapes; significant decrease in noise or changes in sound quality; and changes to use or access which result in welcome changes to historic landscape character.

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

## 2.3 Limitations

- 2.3.1 It should be noted that the report has been prepared under the express instructions and solely for the use of Tesco Property Services and associated parties.
- 2.3.2 Measurements and distances referred to in the report are sourced from the interactive Multi-Agency Geographic Information for the Countryside service ([www.magic.gov.uk](http://www.magic.gov.uk)). These measurements should be taken as approximations only and should not be used for detailed planning or design purposes.
- 2.3.3 The locations, descriptions and designations of identified cultural heritage features (for example, the National Grid References) are provided from various secondary sources (e.g. CPAT-HER, Listed Buildings Online etc.) as referenced in the report text. Any inaccuracies with this data lie within the source material.
- 2.3.4 All the work carried out in this report is based upon AOC Archaeology's professional knowledge and understanding of current (August 2010) and relevant United Kingdom standards and codes, technology and legislation. Changes in these areas may occur in the future and result in changes to the conclusions, advice, recommendations or design given. AOC Archaeology does not accept responsibility for advising Tesco Property Services or associated parties of the facts or implications of any such changes in the future.

### 3 PLANNING, LEGISLATIVE FRAMEWORK AND GUIDANCE

#### 3.1 Planning Policy Wales (Edition 3: July 2010): Chapter 6 Conserving the Historic Environment

- 3.1.1 The PPW document contains current land use planning policy for Wales. It provides the policy framework to inform the preparation of local planning authorities' development plans, supplemented by Technical Advice Notes (TANs). Procedural guidance is given in Welsh Office / National Assembly for Wales / Welsh Assembly Government circulars.
- 3.1.2 Planning Policy Wales, the TANs and the circulars may be material to decisions on individual planning applications. They will be considered by the Welsh Ministers and Planning Inspectors in the determination of called-in planning applications and appeals (Welsh Assembly Government 2010).).
- 3.1.3 Chapter 6 of the PPW (Conserving the Historic Environment) is reproduced in Appendix A.

#### 3.2 The Powys Unitary Development Plan – Adopted March 2010

- 3.2.1 The current development plan for Powys (excluding the Brecon Beacons National Park (BBNP)) is The Powys Unitary Development Plan - Adopted March 2010. The following policies are relevant to the proposed development site:

##### 3.2.2 'POLICY ENV 16 - LANDSCAPES, PARKS AND GARDENS OF SPECIAL HISTORIC INTEREST

*Development proposals which would unacceptably adversely affect the character or appearance of historic parks and gardens and their setting will be opposed. During consideration of development proposals, the protection of the special historic interest of historic landscapes included in part 2 of the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales will be sought.'* (Powys County Council 2010)

##### 3.2.3 'POLICY ENV 17 - ANCIENT MONUMENTS AND ARCHAEOLOGICAL SITES

*Development which would unacceptably affect the site or setting of a scheduled ancient monument or of an archaeological site of national importance will not be permitted and other sites of archaeological importance will be safeguarded where possible.'* (Powys County Council 2010)

##### 3.2.4 'POLICY ENV 18 - DEVELOPMENT PROPOSALS AFFECTING ARCHAEOLOGICAL SITES

- *Where it appears that a proposed development may affect a site potentially containing important archaeological remains, the applicant will be requested to undertake an archaeological field evaluation before determining any planning application.*
- *In instances where archaeological remains of importance are revealed on development sites, their preservation in-situ should be carried out wherever possible.*
- *Where preservation in-situ is not possible but the council is convinced that the merits of the proposal mean that development should proceed, they will impose conditions on any planning consent or seek planning obligations to facilitate archaeological mitigation through such means as a site excavation, survey or a watching brief during the development and the observation and/or recording of remains of archaeological interest.'* (Powys County Council 2010)

## 4 BASELINE CONDITIONS

### 4.1 Heritage Assets & Key Planning Considerations

- 4.1.1 There are no designated heritage assets within the site boundaries.
- 4.1.2 There are no Conservation Areas, World Heritage Sites, Scheduled Monuments, Registered Park and Gardens or identified areas of archaeological importance (as designated by Powys County Council) within the site itself or in its immediate vicinity.

### 4.2 Historic Environments Record and National Monuments Record

- 4.2.1 A Search of the CPAT HER covering a 150m radius around the boundaries of the development site, identified only one entry - the Gurnos Sconce (CPATHER PRN3351), located to the immediate north of the development site (see Plate A, below). The HER record describes this feature as *'a possible civil war sconce showing as a tree plantation. no further details'*.
- 4.2.2 This is complimented by records for this feature held at the National Monuments Record of Wales (MNRW NARCARD-SN70NE/7) which in 1965 described the feature as *'Possible Civil War Sconce showing as tree plantation on OS 25'*. A 1981 the entry indicates *'This feature shown on OS plans at SN 7763 0943 is a plantation of mixed trees perhaps 100 years old. It falls in a level pasture field in a valley bottom. There is no trace of any earthworks and the plan of the plantation would appear to be purely ornamental'*
- 4.2.3 A search of the Colfien online database identified two recorded built heritage features within the site - Smith And Sons, Enfield Clock Factory, Gurnos Works (NMRW NPRN404168) at grid reference SN77570928 (Plate A) and the Anglo Celtic Watch Co, Gurnos Works (NMRW NPRN404169) at grid reference SN77670924.

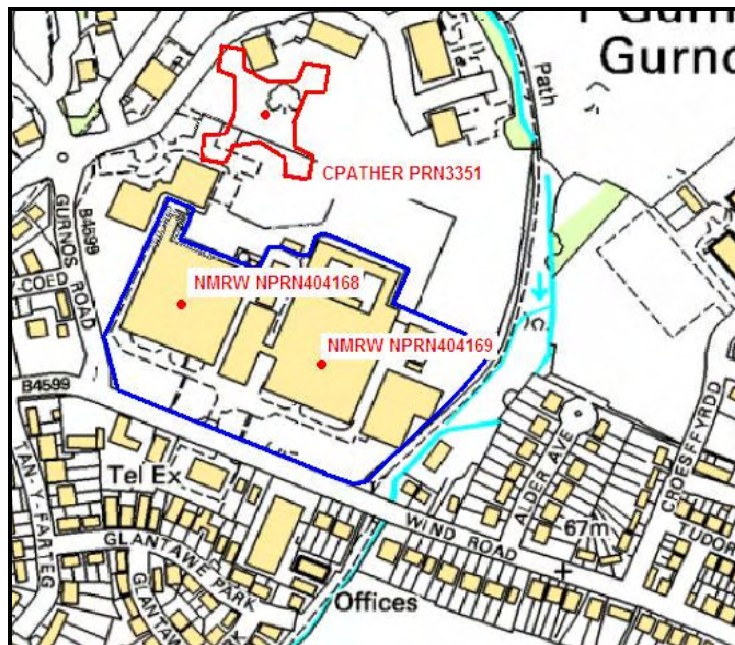


PLATE A: Adapted 2010 Ordnance Survey Map showing location of sites listed on the Historic Environments Record and National Monuments Record of Wales' database as located within or within immediate vicinity of the development site (outlined in blue). This includes the approximate location of the Gurnos Sconce (CPATHER PRN3351) north of the site.

- 4.2.4 Seven further entries recorded upon the Colfien database within 500m of the site; all of which are of post-medieval date, apart from a modern pill-box. These comprise

- The village of Ystalefera (NMRW NPRN268014) at Grid Reference SN772092
  - Ystalyfera Aqueduct And Weir, Swansea Canal (NMRW NPRN 109) – the largest aqueduct on the Swansea Canal (NMRW NPRN34376), spanning the Afon Twrch at Gurnos on a roughly east-west axis and built by Thomas Sheasby in 1794-98 Grid Reference SN77270924
  - Palleg Railway Or Tramroad, Cwm Twrch, Swansea Canal (NMRW NPRN405932) – a horse-worked railway constructed to the newly built Swansea Canal in 1797 in order to exploit the coal and iron-ore reserves of Cwm Twrch Grid Reference SN77530958
  - Gurnos Wharf Building, Palleg Railway, Swansea Canal (NMRW NPRN34493) - Small rectangular stone building, truncated, and much altered Grid Reference SN77520955
  - Gurnos Wharf Workshop, Bft 2.1 (NMRW NPRN80111) industrial workshop Grid Reference SN77540960
  - Pillbox (Type Fw3-24), Ystradgynlais (NMRW NPRN 270328) - Type 24 pillbox, demolished by Local Authority in 1994 - Grid Reference SN7730092; and
  - Ynys Cedwyn, Garden, Gurnos (NMRW NPRN86128) a country house garden depicted on the Ordnance Survey 25-inch map of Brecknockshire XLIII, sheet 14 (1870s and 1899). Grid Reference SN7782609655. Described as a complex estate nucleus with one certain pear-shaped kitchen garden, and greenhouses, footbridges, walks, a summer house, parkland, possibly a second small kitchen garden which is infilled with houses by 1899.
- 4.2.5 The Gurnos Sconce, identified on the HER lies within the Ynys cedwyn estate / garden and is described in the Colfien database as ‘A spectacular feature of the site is a tree clump in the shape of an eighteenth century fort.’ The development site appears to lie within the bounds of the Ynys Cedwyn estate, which are partially suggested by the shaded grey area shown on the 1899 Ordnance Survey mapping (Plate B.)



PLATE B: 1899 25" Ordnance Survey Map, presumed to show areas of the Ynyscedyn Estate shaded in grey. The approximate location of the development site is marked in blue and Ynyscedwyn House is located to the north-east.

## 5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

### 5.1 The Prehistoric (c. 500,000 BC – AD 43) & Roman (AD 43 – AD 410) Periods

- 5.1.1 There is no recorded evidence of any prehistoric period activity from within the site or in the immediate vicinity recorded on the CPAT HER or the NMRW Colfien database.
- 5.1.2 Further afield, a search of the Archaeological Data Service database has identified one findspot of a Neolithic axe head, found at Ty Newydd Farm, located approximately 700m to the north of the site (- NMGW2004-4303).
- 5.1.3 Evidence for prehistoric activity in the surrounding vicinity is suggested by standing stones located c. 5km to the north-west of the site (ADS Record ID CPATSMR\_72108, Nant Gwys standing stone ADS Record ID CPATSMR\_19172; and Dorwen Standing Stone ADS Record ID CPATSMR\_5653), and through several possible Bronze Age Cairns or barrows located on the higher ground to the north-east (Carn Goch Cairn - ADS Record ID CPATSMR\_681; Mynydd y Drum Ring Cairn - ADS Record ID CPATSMR\_6186; Mynydd y Drum Cairn, ADS Record ID CPATSMR\_4592; Nant Helen Cairn, ADS Record ID CPATSMR\_6175 and Bryn Llechwen Cairn ADS Record ID CPATSMR\_682) – the closest being over 1km from the boundary of the site.
- 5.1.4 There is, however, no evidence to suggest any form of significant prehistoric activity within the bounds of the proposed development site
- 5.1.5 Similarly there is no recorded evidence of any Roman period activity from within the site or its immediate vicinity. Indeed the only evidence for Roman activity in the wider area comes in the form of a brief mention by John Marius Wilson in his *Imperial Gazetteer of England and Wales* (1870-72) of two inscribed stones, supposed to be Roman, located in Ystradgynlais Church (not proven)..

### 5.2 The Early Medieval (AD 410 – AD 1066) Medieval (AD 1066 – AD 1536) and Post-Medieval (AD 1536 – AD 1900) Periods

- 5.2.1 There is no recorded evidence of any early medieval or medieval period activity from within study area recorded on the CPAT HER or the NMRW Colfien database.
- 5.2.2 A search of the Archaeological Data Service database similarly identified no entries of these dates within 1km of the site.
- 5.2.3 It is likely that Ystradgynlais originated in the medieval, if not the early medieval period. The present day church, located c. 1.5 km to the north-east of the proposed development site, was constructed in 1861 but replaced a reputedly earlier Norman church located on a raised platform further to the north. Two early medieval stones are thought to have been preserved during the demolition of the earlier structure and are inscribed and set in the chancel wall of the present church (Haslam 1979 on CPAT 2007) - probably the 'roman' stones mentioned by Wilson – see 5.1,m above)
- 5.2.4 Haslam notes that there is no reference to Ystradgynlais in the Taxatio (a valuation of English and Welsh parish churches and pretends listed in the ecclesiastical taxation assessment of 1291-2), but an 'Estradguillos', worth £9 10s 7d, is recorded in the Valor Ecclesiasticus - a survey of the church's finances made in 1535 (Haslam 1979 on CPAT 2007).
- 5.2.5 The site itself appears to lie within the lands of the Ynyscedwyn Estate (see Plate B and later cartographic evidence in section 6). A Short History of Ynyscedwyn House was produced by R.G. Leyshon, a photocopy of which is available in Ystradgynlasi Library (the photocopy is undated and

- no date can be found on the internet;- however the book discusses the house's connection with the Anglo-Celtic Watch Works and Enfield Clock Company, so the book must post-date 1949).
- 5.2.6 Leyshon implies that the site of Ynyscedwyn House is that of the medieval manorial settlement stating that '*Much of the Story of Tsradgynlais since the 11<sup>th</sup> Century is that of Ynyscedwyn House itself, the owners of which were in possession of the greater part of the area around Ystradgynlais....*' (Leyshon undated, 5).
- 5.2.7 He states that Ynyscedwyn was at one time held by a Gruffydd Gwyr and by decent came to '*the Franklin's of Swansea*' (Leyshon undated, 5). He associated Gruffydd Gwyr with Gruffydd Uregh, the lord of Glantawe who led a rebellion in the 13<sup>th</sup> century. He claims that Ystradgynlays was known as 'Glyntawe' about 1493 and covered an area extending '*from the county of Carmarthen along the River Twrch, to its junction with the Tawe below Ynyscedwyn....on the north side it was bound by the Great Forest of Brecon within which was Glyntawe Mill, held, in 1651, by Thomas Aubrey of Ynyscedwyn....*' (Leyshon undated, 6)
- 5.2.8 Leyshon believes an Aubrey, married the heiress of a 'Jenkin Franklin of Ynyscedwyn' and therefore inherited the estate and house. He presents a lineage running from the Aubreys through various marriages to the owners of the house when the book was written – including the Goughs of Ynyscedwyn; who are recorded on the tithe map of the 1844 and are associated with the Ynyscedwyn Iron Works, which was formerly located c. 350 m to the east of the development site.
- 5.2.9 There was undoubtedly an Ynyscedwyn estate by the 18<sup>th</sup> century when estate maps were produced and it is likely that the estate dated from at least the 17<sup>th</sup> century. The earliest confirmed date produced by Leyshon comes from a return dated 1643 regarding an inquisition into the death of a Mr. Morgan Aubrey – it includes the line '*He was seized of one capital messuage with lands and ten. In the par. Of Ystradgynlais, Co. Brecon, called Kedwyn,....*' (Leyshon undated, 9).
- 5.2.10 Records from the Brecknock Society note that members of the Awbrey family of Ynyscedwyn filled the office of High Sherriff on Brecknockshire in 1616, 1727 and 1783, a post later filled by Richard Gough of Ynyscedwyn in 1800 (Davies 1972, 49).
- 5.2.11 Unfortunately Leyshon presents no evidence or references for his conclusions on the early medieval / medieval origins of the Ynyscedwyn Estate and the links to local folklore heroes etc. which he presents are tenuous at best.
- 5.2.12 The house itself is described in the Brecknock Society's journal 'Brycheiniog' Volume XVI (1972) as having no detail earlier than c.1800, although 'it may well have its beginnings in the seventeenth century' (Davies 1972, 49). The society's journals do not suggest any earlier origins of the estate.
- 5.2.13 This assessment has found no readily available evidence to confirm that the manor or estate of Ynyscedwyn existed during the medieval period and there is no previously recorded physical evidence for any kind of settlement (manorial or otherwise) located around the site of the later Ynyscedwyn House or immediate surrounding vicinity.
- 5.2.14 However, Ystradgynlais is thought to be medieval in origin and there is no reason why Ynyscedwyn, and similar surrounding hamlets / farmstead shown on 18<sup>th</sup> century estate maps and 19<sup>th</sup> century tithe maps, could not have medieval origins. The fact that Ynyscedwyn is a large estate by the 18<sup>th</sup> century *could* suggest an earlier manorial origin; however more detailed research would be needed to confirm such a hypothesis.
- 5.2.15 The proposed development site was undoubtedly located within the Ynyscedwyn estate and was within relatively close proximity to the 18<sup>th</sup> / 19<sup>th</sup> century house. There is currently no evidence to



confirm or suggest a location of medieval activity in the area of the later house. If there was medieval activity associated with the estate the proposed development site, located c. 350m to the south-east of the current house, is likely to have lain within the agricultural hinterland.

- 5.2.16 The most notable recorded evidence within the study area is of post-medieval date. The majority of post-medieval activity in the area is related to the mining industry and the iron works., The prosperous Iron Works is located at nearby Abercrave and Ystalyfera and the Ynyscedwyn Ironworks lie c. 350 m to the east of the site.
- 5.2.17 Records show a Mr Brunton of London constructed a furnace at Ynyscedwyn in 1628 and by 1717 the works were producing about 200 tons of iron each year, using local iron ore and limestone from the Cribarth (Powys Digital History Project 2002). In 1788 ironworks were leased to Joseph Parsons who developed the site by using coal brought up the valley instead of local charcoal. This increased production to 800 tons per year at the Ynyscedwyn forge. The ironworks also produced cannonballs for the armed forces (Powys Digital History Project 2002).
- 5.2.18 The iron works, and the local collieries which helped supply them, were the impetus for further development in the local area, including the construction of the Swansea Canal.
- 5.2.19 In 1837 the Iron Works at Ynyscedwyn developed a new style of blast furnace which could burn the local hard coal, called anthracite; revolutionising the smelting industry here and abroad (Powys Digital History Project 2002). Iron smelting continued at Ynyscedwyn until 1876 when the works were converted to making iron for other factories and later as the Welsh Tin Plate Company. The works closed briefly in 1903, before being re-opened and continuing until 1946. The majority of the buildings were dismantled though the tallest chimney stood until the 1970s (Powys Digital History Project 2002).
- 5.2.20 Whilst the area of the development site is connected to the Ynyscedwyn works through the name and ownership of the estate, there is no evidence of industrial activity associated with these works (or any other industries) within the development site.

### **5.3 The Modern Period (AD 1900 – Present)**

- 5.3.1 The site remained undeveloped until the construction of factories in the late 1940s. These were owned by the Ynyscedwyn estate and comprised S. Smith & Sons, clock manufacturers factory, opened in 1949 and the Anglo-Celtic Watch Company, opened in 1947. These were known locally as the 'Tick-Tock' (NMRW NPRN404168+9)

## 6 ADDITIONAL ARCHAEOLOGICAL AND HISTORICAL RESEARCH

### 6.1 Historic Map Regression

- 6.1.1 The earliest available cartographic evidence clearly detailing the development site dates to the late 18<sup>th</sup> century with Ordnance Survey maps providing detailed cartography from the late 19<sup>th</sup> century onwards. Relevant maps for the development site contribute to an understanding of land use and urban growth, providing indicators of what might be located subsurface. The following maps are referenced for the detail and information they provide on the development site.

**Extract from *Part of Ynyscedwyn Demesne in the Tenure of Mr. Carson and in the Parish of Ystradgynlais – Maps of the Ynyscedwyn Estate, 1797 - Surveyed by John Williams (Figure 4)***

- 6.1.2 The earliest available cartographic evidence of the area is a series of maps showing the Ynyscedwyn Estate made in 1797 as part of a survey for the Swansea Canal (constructed by the between 1794 and 1798).
- 6.1.3 The map suggests that at this time the present day route of Wind Road had not yet been formed (although some one had pencilled in the road at a later date) and the site lay within a large plot, which included land to the south of the modern day road. The plot is labelled as 'A1', which is named in the accompanying key as '*Gotre'r Gyrrnos*' - '*Gyrrnos*' being the older spelling for the hamlet of Gurnos, which is located to the west of the site and gives its name to several places in the surrounding landscape.
- 6.1.4 There are no features of note within the area of the site apart from two long avenues of trees – one crossing from east to west to the farm buildings marked 'A2' and the second crossing in a north-easterly direction.
- 6.1.5 The adjacent fields to the east and north of plot 'A1' are marked on an adjoining estate map entitled '*Part of the Demesne of Ynyscedwyn in the Tenure of Morgan Daniel and Parish of Ystradgynlais*' (see Plate C). The two adjacent plots not labelled on the *Carson* map are labelled on the key for the *Morgan Daniel* map as '14' – '*Cae Cenal*' and '15' – '*Gyrrnos*'. The approximate boundaries of the development site appear to extend into plot 14.
- 6.1.6 The *Morgan Daniel* map shows that the avenue of trees continue straight onto Ynyscedwyn House to the north-east. Roads are marked in other places on the map leading to the house - so this avenue of trees (which is drawn wider than any of the other roads shown) is not thought to show a main route to and from the house; although this cannot be completely discounted as the avenue shown running east to west does appear to be the only link shown link between the Gyrrnos village and the farm and road on the eastern side of the site.
- 6.1.7 If not a route way, the long avenue of trees leading to Ynyscedwyn House could be a landscaped garden feature. Apart from the avenue of trees, there are no other features marked on these maps and no sign of the Gurnos Sconce. If the Sconce was indeed a former civil war battlement, it would be expected that such a distinct feature would be shown on mapping of this detail.

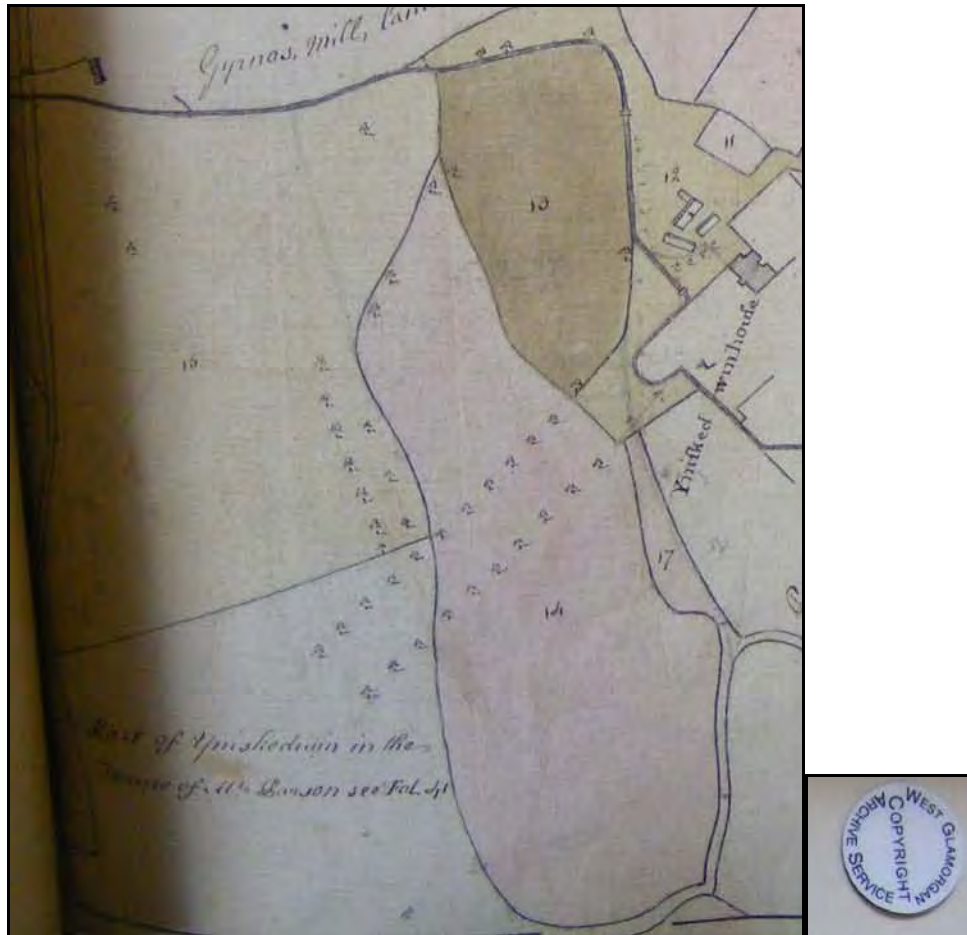


PLATE C: Extract from *Part of the Demesne of Ynyscedwyn in the Tenure of Morgan Daniel and Parish of Ystradgynlais* – Maps of the Ynyscedwyn Estate, 1797 - Surveyed by John Williams

**Extract from *Ynyscedwyn Demesne in the parish of Ystradgynlais, in the County of Brecon* - Maps of the Ynyscedwyn Estate – 1838, Surveyed by Phillip Thomas of Neath (Figure 5)**

- 6.1.8 The 1838 Estate plans show a much clearer picture of the area of the proposed development site, when compared to the similarly dated tithe map and later Ordnance survey mapping. By this time the Swansea Canal had been constructed to the north-west of the site and ran parallel; to a road leading to Ynyscedwyn House. Another road leading to the house is shown running adjacent the development site on the east.
- 6.1.9 This map, entitled '*Ynyscedwyn Demesne in the parish of Ystradgynlais, in the County of Brecon*', shows that by this point Wind Road had been fully formed, creating the southern boundary of the development site. The map shows that plot 'A1' on the '*Carson*' estate map and the adjacent plots '14' & '15' on the '*Morgan Daniel*' map, were by this date a large single plot of land – possibly indicating they are now under single tenure. This amalgamated plot of land is labelled as plot '9' and named in the accompanying key as '*Cae Gurnos*'. It is interesting to note that Plot 13, the farm to the east of the site, is now labelled in the key as '*Gotrer Gurnos & Garden*'.
- 6.1.10 There are no features or buildings marked within the area of the development site and the Gurnos Sconce is not shown to the north. As discussed above, if the sconce was civil war feature it would have been expected to have been shown on this map.

### Extract from Ystradgynlais Tithe Map – 1844 (Figure 6)

- 6.1.11 The Tithe map shows the area of the site towards the middle of the 19<sup>th</sup> century. Each plot of land is numbered on the map with the associated tithe award normally listing the landowners, occupiers, the name / description, state of cultivation and the size (measured in acres, roods and perches) of each numbered plot. The Ystradgynlais Tithe map does not list any states of cultivation.
- 6.1.12 Tithe maps as a whole are normally quite accurate in terms of the drawing of field patterns, the approximate size of each plot and the relative size, shape and location of the buildings and other features; - although it should be remembered that the map is not drawn to scale and small structures and features are not necessarily always shown. Any areas of land / buildings within the parish which were not titheable or for which the tithes had already been commuted, were not shown on the tithe maps or listed in the tithe awards.
- 6.1.13 The 1844 tithe map is very similar to the earlier 1838 estate map. The proposed development site lies within Plot 2378, which is recorded in the associated tithe award as under the ownership of *Richard Douglas Gough Esq.* (as are large parts of Ystradgynlais), and is also 'occupied' by *Richard Douglas Gough*. The plot is named as 'Cae'r Gurnos'.
- 6.1.14 The tithe award breaks the plots into separate estates / farms and the plot is listed under 'Ynyscedwyn'. This list included Ynyscedwyn House (Plot 2380) and the majority of the surrounding plots. This list is shown in Appendix B.
- 6.1.15 The Gurnos Sconce is not shown on this mapping. Surrounding areas of plantations, such as Plot 2323 to the south of Wind Road and Plot 2376 to the east (Plots 14 and 31 on the estate map), are shown as tree covered on both maps and labelled as plantations on the accompanying details. If the sconce, which first appears on the 1878 OS map (Figure 7), was indeed a creative landscaped plantation (and presuming such a feature would be shown the tithe and estate maps) this tithe map and the earlier 1838 estate map could begin to suggest a *terminus post quem* for its creation – e.g. some time after 1844 but before 1878.

### Ordnance Survey Maps of 1878 1:2,500 Scale (Figure 7)

- 6.1.16 The OS map of 1878 is the first detailed and measured survey of the area. The area of the site lies within the south of the large roughly oval shape plot of land shown on the earlier tithe and estate mapping; being bound by an east to west running road (Wind Road) in the south, a north to south running footpath (formerly the road leading to Ynyscedwyn House) in the east and a curved north to south running road in the west. There is no distinct northern boundary at this time.
- 6.1.17 The Gurnos Sconce is now shown to the north of the site (although Gurnos Sconce is a modern name and it is not labelled as such on this map). The distinctive shape is made up of a mixture of coniferous and non-coniferous trees.
- 6.1.18 The sconce has a separate reference number from the surrounding land and there are no braces indicating that it is associated with the plot comprising the development site.
- 6.1.19 Two features of possible note are two trees which are shown within small circular boundaries. Braces show that these are within the same reference as the field the proposed development site lies within (plot 1715). These are shown in the same way on the later 1899 OS map, but 1904 OS map (Figure 8) shows them as trees with no boundary. It is not known what these features represent, possibly small fence lines to protect growing trees, but the western most of the two falls within the north-west corner of the site.

6.1.20 The area surrounding the site is mainly occupied by open fields with generally little development excepting to the west and north-west of the site along the canal and the small settlement of *Gyrnos*. Railway lines run to the west of the canal and a *Smythy*, an *Old Lyme Kiln* and a public house named the *Aubrey Arms* are marked to the west of the site.

**Ordnance Survey Map of 1904, 1:2,500 Scale (Figure 8)**

6.1.21 The 1904 OS map shows some further development within the settlement to the west and north-west of the site; however within the site limits no significant changes are shown.

**Ordnance Survey Map of 1918, 1: 2, 500 Scale (Figure 9)**

6.1.22 There are no significant changes shown within the extent of the development site on the 1918 OS map. The Sconce to the north is still shown, although with less tree cover and the boundary is now marked as a dotted line.

6.1.23 Within the surrounding area there has been some further development to the west and north-west of the site and the Mae-y-dderwen Sports Field has now been created to the east of the site with residential development beyond this on the northern and southern sides of Wind Road.

**Ordnance Survey Map of 1964: 10,560 Scale (Figure 10)**

6.1.24 The next available OS map dates to 1964. By this point the proposed development site had been redeveloped for industrial use with the two main factory buildings, constructed in the late 1940s, occupying the majority of the site, a smaller narrower building located between the two, and two further buildings on the east. 'Tks' indicates tanks in the north-east corner of the site.

6.1.25 The buildings are all surrounded by what is presumably car parking / yard areas whilst the southern and western areas fronting on to Wind Road and Gurnos Road area undeveloped.

6.1.26 The sconce is still shown to the north (still with a dotted line), although the southern part of it now falls within a plot of land attached to the factory buildings (but outside the limits of the development site) and has a separate reference number. There has been a great deal of new development to the south and east of the site, with new residential development in the area previously occupied by the sports ground and new industrial works on the south side of Wind Road.

**Ordnance Survey Map of 1978 and 1989, 1:2,500 Scale (Figures 11 & 12)**

6.1.27 There are no significant changes shown within the extent of the proposed development site on either the 1978 or 1989 Ordnance Survey mapping. The western factory is labelled as 'Car Accessory Factory' and the eastern factory as 'Watch Factory'.

6.1.28 Within the surrounding area, there had been further redevelopment and new development including new residential development south of Wind Road; a new round-a-bout is shown as being built to the north-west; Maesydderwen Comprehensive School had been constructed to the north-east; and Ynyscedwyn House was in use as council offices.

**Ordnance Survey Map of 1995, 1:2,500 Scale (Figure 13)**

6.1.29 The 1995 OS map shows no major changes within the site apart from the smaller building in the east of the site which has a different footprint – probably representing either extensions or demolition and replacement.

6.1.30 The most notable change is the Gurnos Sconce to the north of the site, which is no longer shown. The Wind Road Industrial Estate was being laid out to the north of this, and included new commercial development on the north-west boundary of the site.

### Ordnance Survey Map of 2010 1:10,000 Scale (Figure 16)

- 6.1.31 The 2010 OS map is the most up-to-date mapping available and shows the site and surrounding area as it largely appears today. This includes a second structure between the main two factory buildings and further development in the north-west corner of the site boundary.
- 6.1.32 The area to the north of the site is now labelled as Woodlands Business Park.

### 6.2 Aerial Photographic Evidence

- 6.2.1 A collection of aerial photographic images were obtained from the National Monuments Record of Wales.
- 6.2.2 Some possible field marks were noted to the north of the site from images dated to April 1947 and April 1955 (Plates D & E). The provenance of these marks could not be established and they were not apparent on the later photographs. They do not appear to conform to a particular type of feature and could just relate to animal or vehicle tracks or natural features.
- 6.2.3 No further identifiable archaeological features could be interpreted from the images either within the site or its immediate vicinity.



PLATE D: Extract from Vertical Aerial Photographic Image dated 13<sup>th</sup> April 1947. The print also shows the western factory within the site under construction. (C.P.E./UK/ 1997 – Frame 4465 – provided by National Monuments Record of Wales)



PLATE E: Extract from Vertical Aerial Photographic Image dated 14<sup>th</sup> April 1955. The print also shows the western factory within the site under construction. (F21 58/RAF/1715 – Frame 0307– provided by National Monuments Record of Wales)

### 6.3 Previous Archaeological Site Investigations

- 6.3.1 No previous archaeological investigations are known to have been undertaken within the site or within the immediate vicinity.

### 6.4 Previous Geotechnical Site Investigations

- 6.4.1 A limited programme of on-site geotechnical investigations were undertaken between the 9<sup>th</sup> and 13<sup>th</sup> August 2010 by Geotechnics Ltd on behalf of Delta-Simmons Ltd.. The investigations comprised the excavation of six cable percussion boreholes (BH2,3, 4, 6, 7 & 9) three rotary boreholes (R 3, 6 & 8,) four trial pits (SA 1, 2, 3, 4) and nine window sampler boreholes (WS 1, 2, 3, 4, 6, 7, 8, 10, 11); the locations of which are shown on Plate F, below. The draft results have been provided by Geotechnics Ltd.
- 6.4.2 The borehole investigations identified Made Ground deposits from a minimum depth of 0.40mbgl (below ground level) in BH7 to a maximum depth of 1.10mbgl in BH2. The made ground was generally identified as tarmac or concrete over a deposit of sandy gravel with brick, concrete and slag, underlain by a second made ground deposit of brown gravelly sand or sandy gravelly clay. These deposits were underlain by brown clayey gravelly sand or sandy gravelly clay, with medium to high boulder content of sub-rounded quartzite – presumed to be natural deposits.
- 6.4.3 The rotary boreholes, trial pits and Window samples identified similar sequence of deposits, with the most significant deposits of made ground encountered in WS8, WS7 and WS6 (1.80, 1.85 and 2.00mbgl) in the north-east corner of the site and WS2 and WS1 (1.90m and 1.50mbgl) in the north of the site; whilst the lowest deposits of made ground being encountered in SA4 (0.15mbgl), SA3

(0.80mbgl), SA2, SA1 and WS3 (0.20mbgl), and R8 (0.20mbgl), all of which were located along the southern strip of the site which had previously been left undeveloped. R6, adjacent SA1 in the south-west corner of the site, encountered made ground to 1.20m, and could relate to a build up of land in this area as noted in the site visit (see Plate G).

- 6.4.4 The investigations did not identify any deposits suggested to be of archaeological or geoarchaeological relevance (e.g. historic made ground or peat deposit). The full draft borehole logs are displayed in Appendix B.

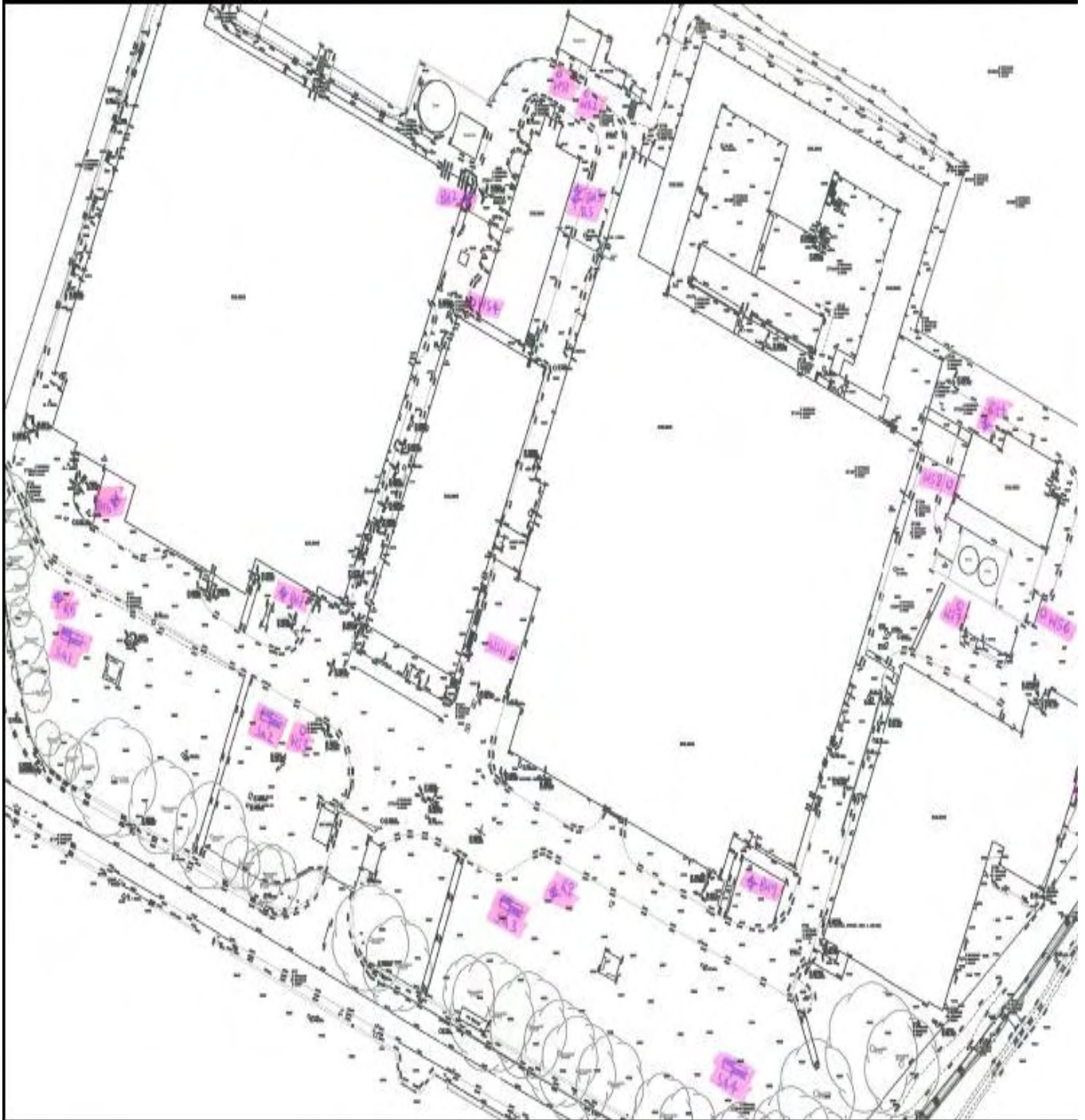


PLATE F: Location of Geotechnical Investigations (Draft copy supplied by Geotechnics Ltd.)



## 6.5 Site Walkover

- 6.5.1 A visit of the site was conducted on the 12<sup>th</sup> August 2010 to gain a greater understanding of existing land use and the potential for heritage constraints within the development site. A selection of photos taken during the site visit are displayed in Appendix C.
- 6.5.2 The site is occupied by the factories shown on the 2010 and earlier Ordnance Survey mapping. The bulk of the factory buildings still comprise the original 1940s construction; although several areas of new additions and extensions have altered, covered or replaced the original fabric. Where original features do survive, these are in a generally poor condition.
- 6.5.3 The majority of the ground surface, in and around the factory buildings, is a mixture of concrete and tarmac hardstanding. The southern part of the site is grass covered and appears to have escaped any major impact.
- 6.5.4 The site boundary is defined by a wire link fence around the west and north, with tree cover along the western boundary and overgrown vegetation along parts of the west and north-west. A boundary wall runs along the west and south of the site. The wall appears to be a mixture of style and date; although is not thought to be of any historic value.
- 6.5.5 The site visit noted the car park areas outside the site to the north and new commercial / industrial development of the Woodlands Business Centre. The area of the Gurnaos Sconce is not apparent and has been developed.

## 7 ASSESSMENT OF EVIDENCE

### 7.1 Heritage Assets

- 7.1.1 There are no designated heritage assets recorded within the boundaries of the development site.
- 7.1.2 The only features within the site identified from the available data are the Smith And Sons, Enfield Clock Factory, Gurnos Works (NMRW NPRN404168) and the Anglo Celtic Watch Co, Gurnos Works (NMRW NPRN404169) recorded on the National Monuments Record of Wales: Colfien online database. These buildings are not statutorily protected.

### 7.2 Past Impacts Within the Site Boundary

- 7.2.1 The available evidence has been assessed in an attempt to determine the nature and extent of any previous impacts upon any below ground archaeological deposits that may survive within the bounds of the proposed development site.
- 7.2.2 The evidence would suggest the site remains free of any substantial impacts until the construction of the existing factories in the late 1940s and any subsequent additions and extensions in the intervening years. Consultation with the current occupiers of the factory indicates that they do not contain any basement levels. Some contamination is likely in the north-east of the site where tanks area located.
- 7.2.3 Impact upon the site prior to this would have resulted from any agricultural activities (primarily arable) and possibly from any landscaping associated with Ynyscedwyn House and Gurnos Sconce; although apart from the avenues of trees shown crossing the approximate area of the site on the 1797 estate map, no such landscaping has been noted within the site boundary. It would be expected that the construction of the factory would have impacted and potentially removed any evidence of earlier agricultural / landscaping impacts.
- 7.2.4 The full nature of past impact across the site remains uncertain, however, it can be surmised that the highest magnitude of impact will be located within the footprint of the existing buildings, with a lesser degree of impact in the car parking and yard areas which would presumably have been stripped and levelled before construction. The geotechnical results suggest Made Ground varies across the site, with the deepest deposits located in the north-west corner (close to the area of the oil storage tanks) and a minimal deposits in the south – suggesting that there has been a low or no impact upon the strip of undeveloped grass covered land noted along the frontage of Wind Road and Gurnos Road.
- 7.2.5 Difference in ground level between the grass covered area fronting on to Gurnos Road and the adjacent areas of the factory buildings suggest some terracing or land build up in this area (see Plate G), as suggested from the geotech results (see R6). No terracing was apparent in the east of the site. The area of the factory development would have presumably been stripped and the gradient levelled before construction.



PLATE G: Views showing difference in ground level in west of the site

### 7.3 Assessment of Archaeological Potential

- 7.3.1 There is little physical evidence for substantial prehistoric, Roman, early-medieval or medieval human activity within the site and surrounding area; however the surrounding archaeological investigations have identified evidence for a utilization of the surrounding landscaping during the Prehistoric (Bronze Age) periods, whilst the settlement of Ystradgynlais is medieval (if not earlier) in origin and the surrounding area likely fell within its agricultural hinterland and that of smaller hamlets / farmsteads within its manor / parish.
- 7.3.2 One of these, Ynyscedwyn, was located to the north-west of the site and was in its own right a substantial estate by the late post-medieval period. The site almost definitely lay within part of the estate and was directly associated with the house at least by the mid – late 19<sup>th</sup> century possibly as part of the estate's grounds. There is, however, no direct evidence of landscaping within the site itself. The site may have also just been part of the estate agricultural lands, as suggested on the 1797 estate map.
- 7.3.3 The evidence suggests the the estate at Ynyscedwyn had its origins in the early 17<sup>th</sup> century although it has been suggested it may have been medieval or earlier origin (e.g. by Leyshon). This assessment identified no readily available evidence to support such a hypothesis and no evidence which would suggest any such activity within the area of the development site itself.
- 7.3.4 The extent of past impact across the site has not been major (e.g. no basement levels) however the construction of the factories and subsequent development would have likely removed any evidence for agricultural or other low focus activities within the site which may have dated to the post-medieval or earlier periods.
- 7.3.5 Based on the available evidence there is therefore considered to be a:
- **Low Potential** for the survival of evidence of significant activity dating from the **Prehistoric, Roman, early medieval and medieval periods**. If encountered, any substantial remains of these periods would be of Regional Importance due to their scarcity in the wider area; line with the criteria set out in Section 2.
  - **Low Potential** for the survival evidence of significant activity dating to the **post-medieval periods**. Any post-medieval activity which may be encountered is considered likely to comprise evidence of agricultural land-use or land management, which, if encountered, is considered likely to be of Local Importance, in line with the criteria set out in Section 2.

## **8 ASSESSMENT OF IMPACTS AND RECOMMENDATIONS FOR FURTHER WORK AND / OR MITIGATION**

### **8.1 Impacts of Proposed Development**

- 8.1.1 An archaeological resource can be affected by development in a number of ways: the removal of material during works; the destruction of sensitive deposits caused by heavy plant; and the alteration of stable ground conditions that may lead to degradation of the quality and survival of archaeological remains.
- 8.1.2 Equally, the built heritage can be affected by development, typically in the form of possible demolition or loss of part of a structure or its grounds; increased visual intrusion; effects from noise or vibration; changes in the original landscape; severance from linked features (gardens or outbuildings etc.); or through the loss of an amenity.
- 8.1.3 At the time of writing the full nature of the proposed development scheme (proposed foundation design, depth and methodology) is unknown. However, the proposed development scheme comprises the demolition of all existing buildings and structures within the site and the construction of a Tesco retail store in the north-central part of the site with service yard to the rear (north). Car parking will be created across the eastern and southern sections of the site, with a petrol station located to the south-west of the store.
- 8.1.4 A group commercial business units, with separate car parking, will be located in the north-west corner of the site and a new round-a-bout junction is proposed adjacent the site's south-west corner to provide access.
- 8.1.5 The likely magnitude of impact of development works upon the below ground deposits will vary; the greatest being in the location of the retail store and petrol station in locations already previously impacted by the existing factories. The area of lower impact in the south and west of the site is unlikely to be significantly impacted by the provision of the car parking and any landscaping / levelling which may be required. Such an impact is not considered to be significantly high.
- 8.1.6 Therefore based upon the scale of the development, the likely potential of the archaeological resource, and the areas of previous impact, it is considered that the proposed development will likely constitute a low to medium magnitude of impact, at most. Foundation designs and construction schemes will need to be finalised for this conclusion to be confirmed.
- 8.1.7 The demolition of the existing structures is considered to constitute a low magnitude impact. The buildings are not considered to be of great historic value or interest.

### **8.2 Further Works / Mitigations Recommendations**

#### **Archaeological**

- 8.2.1 Any recommended programmes of further archaeological works are all subject to review and approval of Mr. Mark Walters of the Clwyd-Powys Archaeological Trust, who acts as archaeological advisor to LPA.
- 8.2.2 There is little evidence of any archaeological potential within the site. Further on-site archaeological investigations at this stage, such as evaluation trenching, are not considered necessary.
- 8.2.3 Providing no apparent archaeological potential is noted from the final geotechnical works (only draft copies supplied so far), AOC Archaeology recommends that no further archaeology works will be required.

### **Built Heritage**

- 8.2.4 Any requirement for further built heritage work is subject to review and approval of Mr. Mark Walters of the Clwyd-Powys Archaeological Trust, who acts as archaeological advisor to LPA.
- 8.2.5 The form, type and condition of the existing structures within the site are not considered to be of significant historic value or merit. The photographic images of the buildings compiled in Appendix C, together with any historic photos or images held by the client or others, are considered to be a sufficient record of these structures.
- 8.2.6 Therefore, no further built heritage works are recommended.

## 9 BIBLIOGRAPHY

### 9.1 Documentary Sources

- **Archaeology Data Service**, *ArchSearch* downloaded from <http://ads.ahds.ac.uk/catalogue/index.cfm> on 17<sup>th</sup> August 2010
- **Davies D.J. (ed) 1972**, *Brycheiniog Volume XVI* The Brecknock Society
- **Haslam J. 1979**, *The Buildings of Wales: Powys* downloaded from CPAT 2007 [www.cpat.demon.co.uk/projects/longer/churches/brecon/16979.htm](http://www.cpat.demon.co.uk/projects/longer/churches/brecon/16979.htm)
- **Institute of Field Archaeologists (IFA), 1994**, *Standards and Guidance for Desk-Based Assessment* (rev. 2001 & 2008)
- **Leyshon R.G.(Undated)** *A Short History of Ynyscedwyn House*
- **Multi-Agency Geographic Information for the Countryside** downloaded from [www.magic.gov.uk](http://www.magic.gov.uk) 17<sup>th</sup> August 2010
- **Powys County Council 2010**, The Powys Unitary Development Plan – Adopted March 2010
- **Powys Digital History Project 2002**, Victoria *Ystradgynlais* downloaded from <http://history.powys.org.uk/school1/ystradgynlais/swanmenu.shtml>
- **Wilson J.M. 1870 – 1872**, *Imperial Gazetteer of England and Wales*
- **Welsh Assembly Government 2010**, Planning Policy Wales (Edition 3: July 2010): Chapter 6 Conserving the Historic Environment downloaded from <http://wales.gov.uk/topics/planning/policy/ppw2010/?lang=en> on 17<sup>th</sup> August 2010
- **Welsh Office Circular 61/96**, 'Planning and the Historic Environment: Historic Buildings and Conservation Areas'
- **Welsh Office Circular 1/98**, 'Planning and the Historic Environment: Directions by the Secretary of State for Wales'

### 9.2 Cartographic Sources

- Extract from Part of Ynyscedwyn Demesne in the Tenure of Mr. Carson and in the Parish of Ystradgynlais – Maps of the Ynyscedwyn Estate, 1797, Surveyed by John Williams (West Glamorgan Archives Service)
- Extract from Ynyscedwyn Demesne in the parish of Ystradgynlais, in the County of Breacon - Maps of the Ynyscedwyn Estate – 1838, Surveyed by Phillip Thomas of Neath (West Glamorgan Archives Service)
- Extract from Ystradgynlais Tithe Map – 1844 (National Library of Wales)
- Ordnance Survey Map of 1878, 1:2,500 Scale
- Ordnance Survey Map of 1904, 1:2,500 Scale
- Ordnance Survey Map of 1918, 1: 2, 500 Scale
- Ordnance Survey Map of 1964: 10,560 Scale
- Ordnance Survey Map of 1978, 1:1,250 Scale
- Ordnance Survey Map of 1989, 1:1,250 Scale
- Ordnance Survey Map of 1995, 1:1,250 Scale



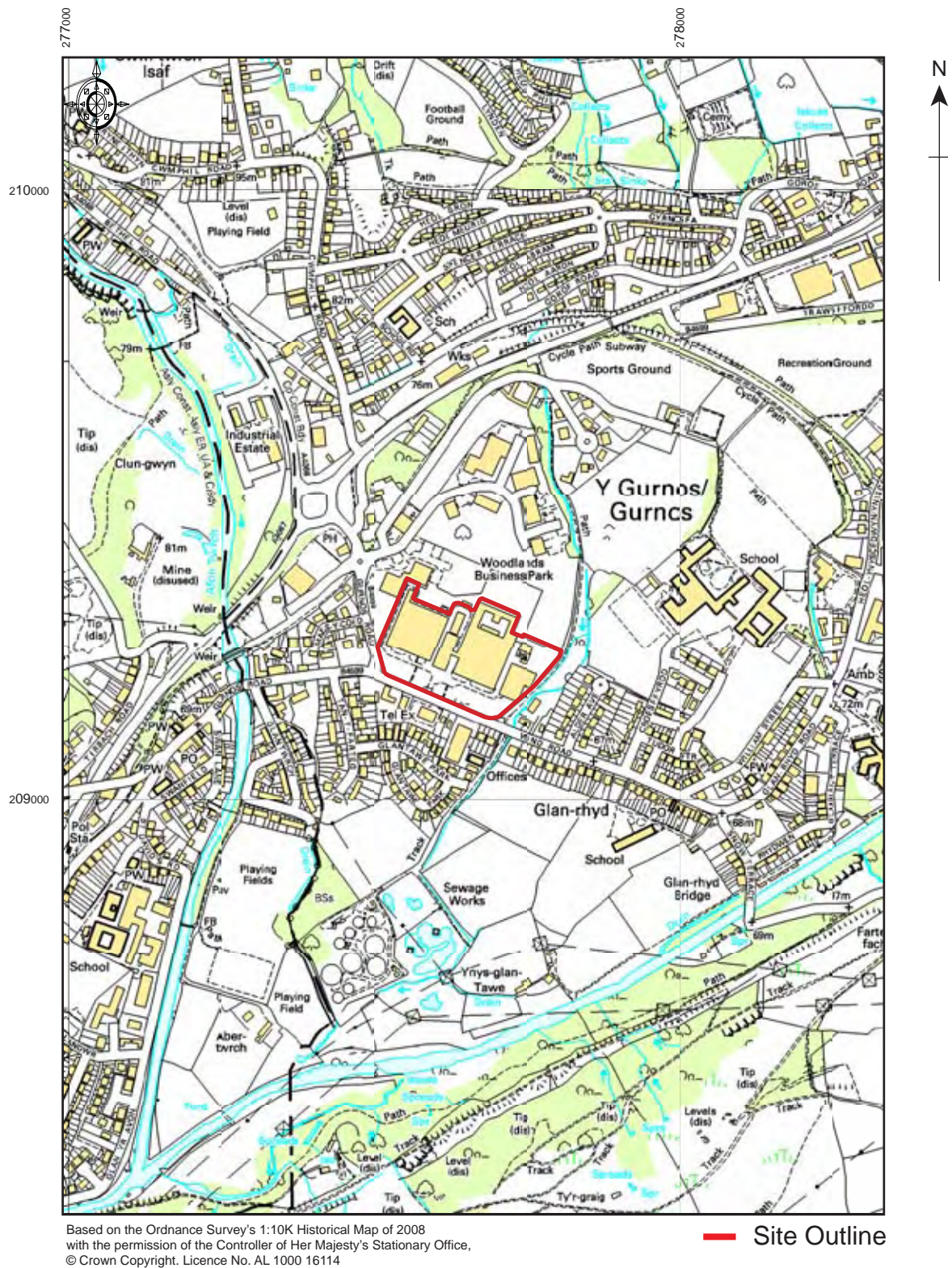


Figure 2: Detailed Site Location Plan



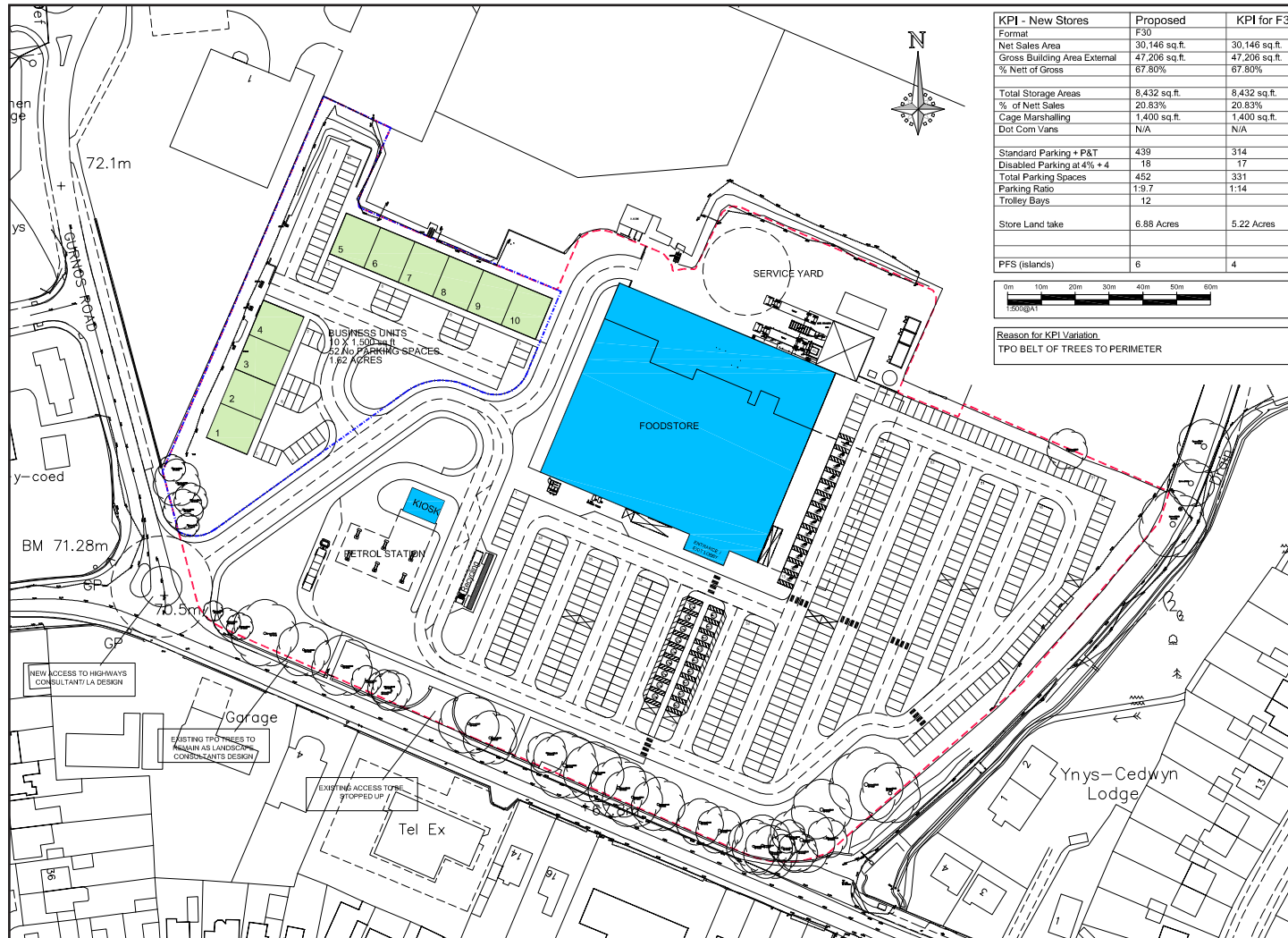


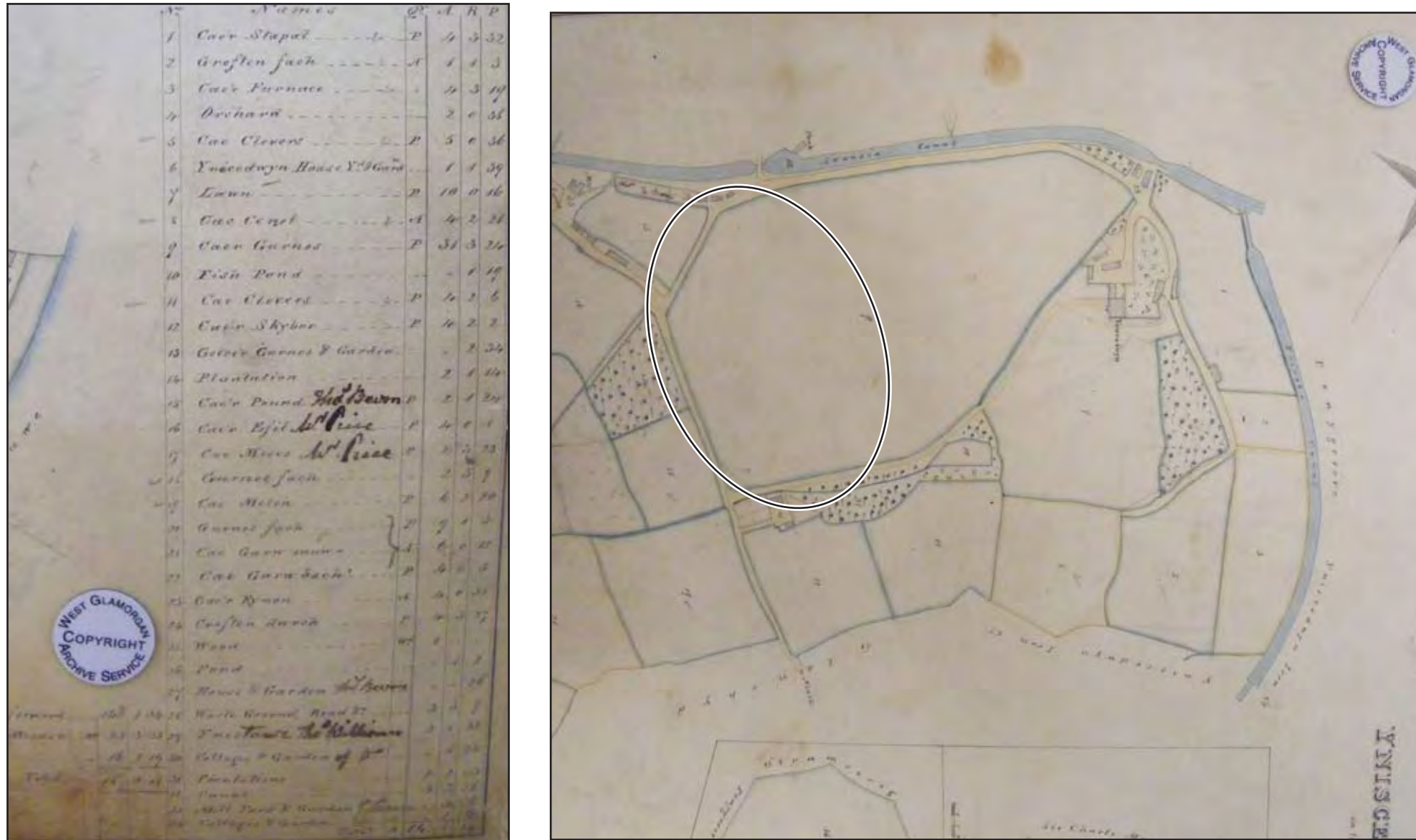
Figure 3: Development Proposal (based on drawing 06A by Inspire Design)

REFERENCES		
N <sup>o</sup>	Part of Yniseddwyn	Statute Meas
A		A R P
1	Goth's Gyrras .....	16 3 3
2	House, Gardens and Yard .....	0 0 39
3	Cae's Sgubor .....	4 0 2
4	Cae, Melyn bach .....	6 2 22
5	Cae's Card .....	1 2 16
6	Cae's Card .....	3 1 4
7	Cae's Bast .....	3 2 11
8	Croffen Dunch .....	5 0 14
9	Cae garu .....	11 3 21
10	Cae, Cam .....	4 2 16
11	Carreg yr Auon .....	1 0 18
		50 3 6
B	Rich <sup>d</sup> John Sewelpp's Tenem <sup>t</sup>	
1	Croffen Nisha .....	1 2 36
2	Croffen ycha .....	0 3 33
3	House and Gardens .....	0 0 15
		2 3 6
E	Mary Williams's Cot. and Garden ..	0 0 20



Not To Scale

**Figure 4:** Extract from Part of Yniseddwyn Demesne in the Tenure of Mr. Carson and in the Parish of Ystradgynlais - Maps of the Yniseddwyn Estate, 1797, surveyed by John Williams (West Glamorgan Archives Service)

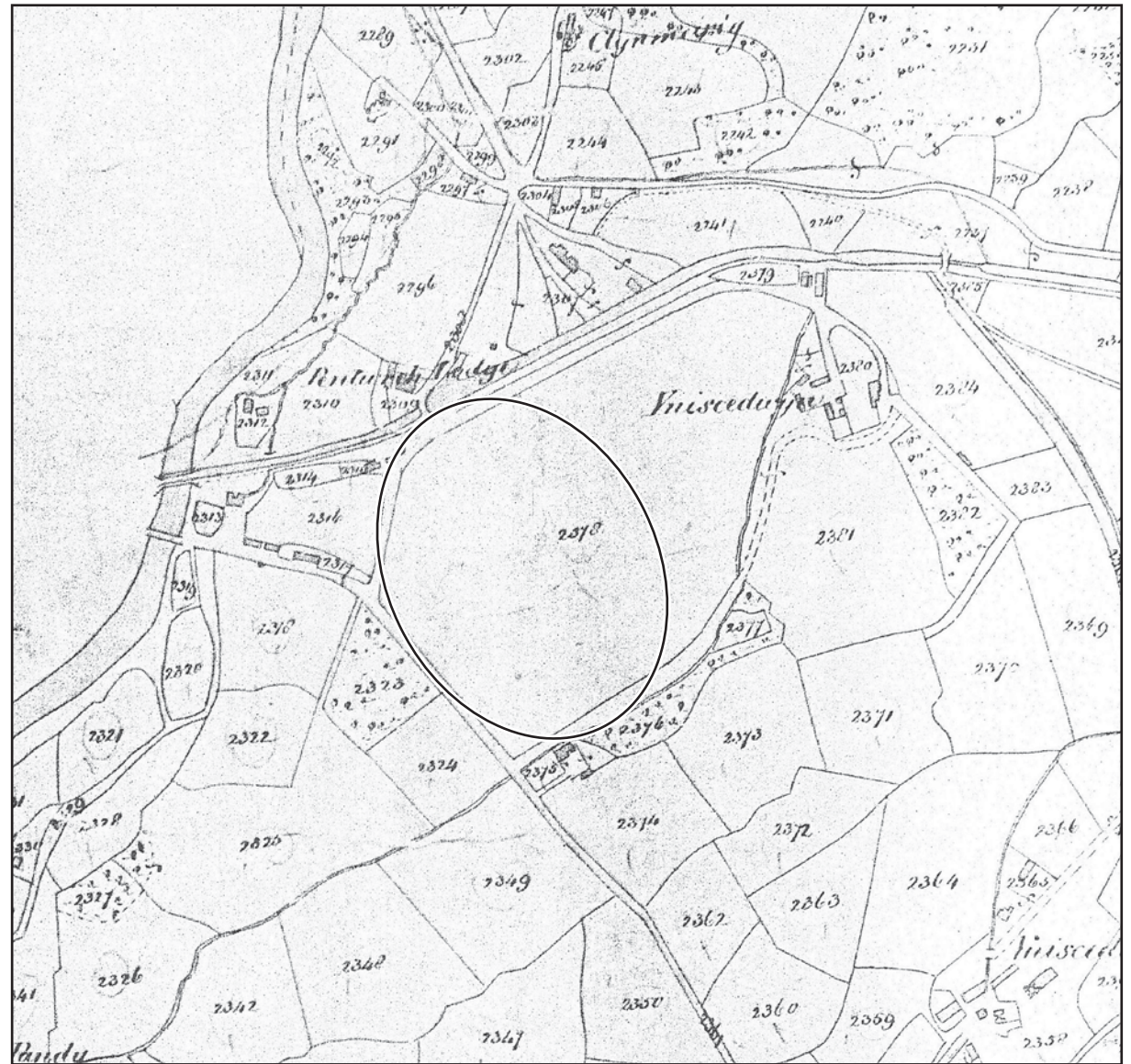


Not To Scale

Figure 5: Extract from Part of Ynisedwyn Demesne in the Parish of Ystradgynlais in the County of Brecon - Maps of the Ynisedwyn Estate, 1838, Surveyed by Phillip Thomas of Neath (West Glamorgan Archives Service)

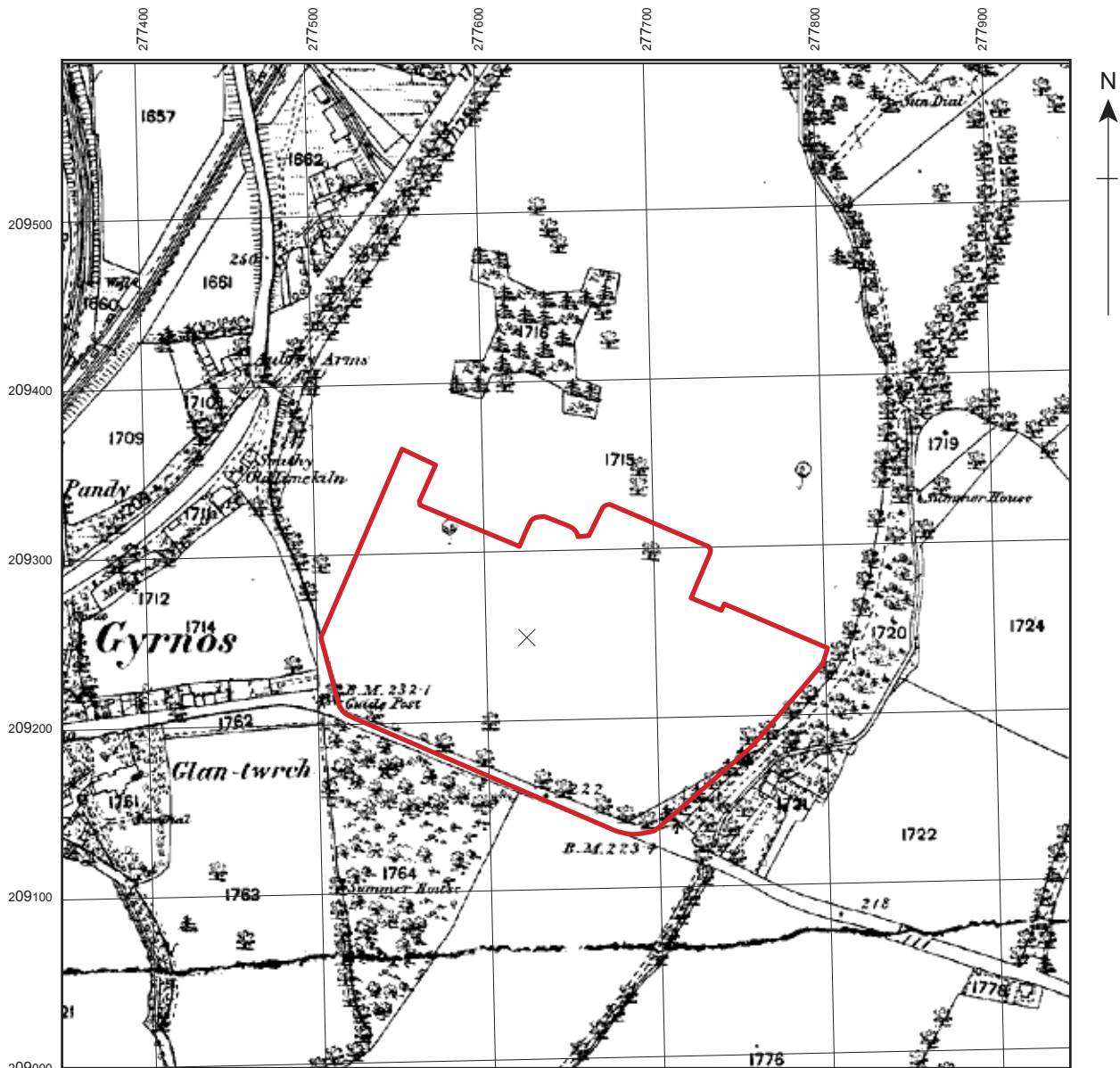
WIND ROAD, YSTRADGYNLAI, POWYS: ARCHAEOLOGICAL DESK-BASED ASSESSMENT

Numbers referring to the Plan.	NAME AND DESCRIPTION OF LANDS AND PREMISES.	STATE OF CULTIVATION.	QUANTITIES IN STATUTE MEASURE.			Acre approx. Total
			A.	R.	P.	
2334	Yniscedyrn					
2335	Cae stapal		1	3	32	
2336	Crofton fach		1	1	3	
2337	Cae fumace		1	3	19	
2338	Orchard		2		38	
2339	Cae clawers		5		36	
2340	Yniscedyrn House Garden &c		1	1	39	
2341	Lawn		10		16	
2342	Cae conol		1		18	
2343	Cae gurnon		31	3	24	
2344	Fish pond			1	19	
2345	Cae clawers		1	2	4	
2346	Cae sgyllor		1	2	2	
2347	Golau gurnon & Garden			2	34	
2348	Plantation		2	1	11	
2349	Cae pound		2	1	24	
2350	Cae spul		1	1	1	
2351	Cae Mavis		7	3	23	
2352	Gurnon fach		2	3	9	
2353	Cae melin		6	1	20	
2354	Gurnon fach		9	1	5	
2355	Cae gain maew		6		12	
2356	Cae gain bach		1	1	3	
2357	Cae synon		1		35	
2358	Crofton duoch		1	3	27	
2359	Hood			1		
2360	Sound			1	2	
2361	House & Garden				16	
2362	Waste Roads &c		3	3	9	
2363	Yniscedyrn		2	1	32	
2364	Collages & Gardens		1	1	24	
2365	Plantation		2	1	33	
2366	Mill Yard & Garden			3	36	
2367	Collages & Gardens			1	11	
2368	Glanthyd Meadows		23	3	38	
2369	Meadow		16	2	19	
			179	13	21	
	Glanthyd					
2370	Cae cam		5		11	
2371	Cae helling		1	2	5	
2372	Cae glas		1	1	33	
	Caeid forward		11		12	



Not To Scale

Figure 6: Extract from Ystradgynlais Tithe Map - 1844 (National Library of Wales)



Based on the Ordnance Survey's 1:2,500 Historical Map of 1878 with the permission of the Controller of Her Majesty's Stationary Office, © Crown Copyright. Licence No. AL 1000 16114

— Site Outline

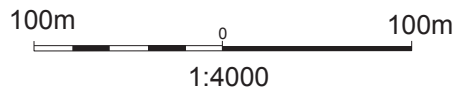
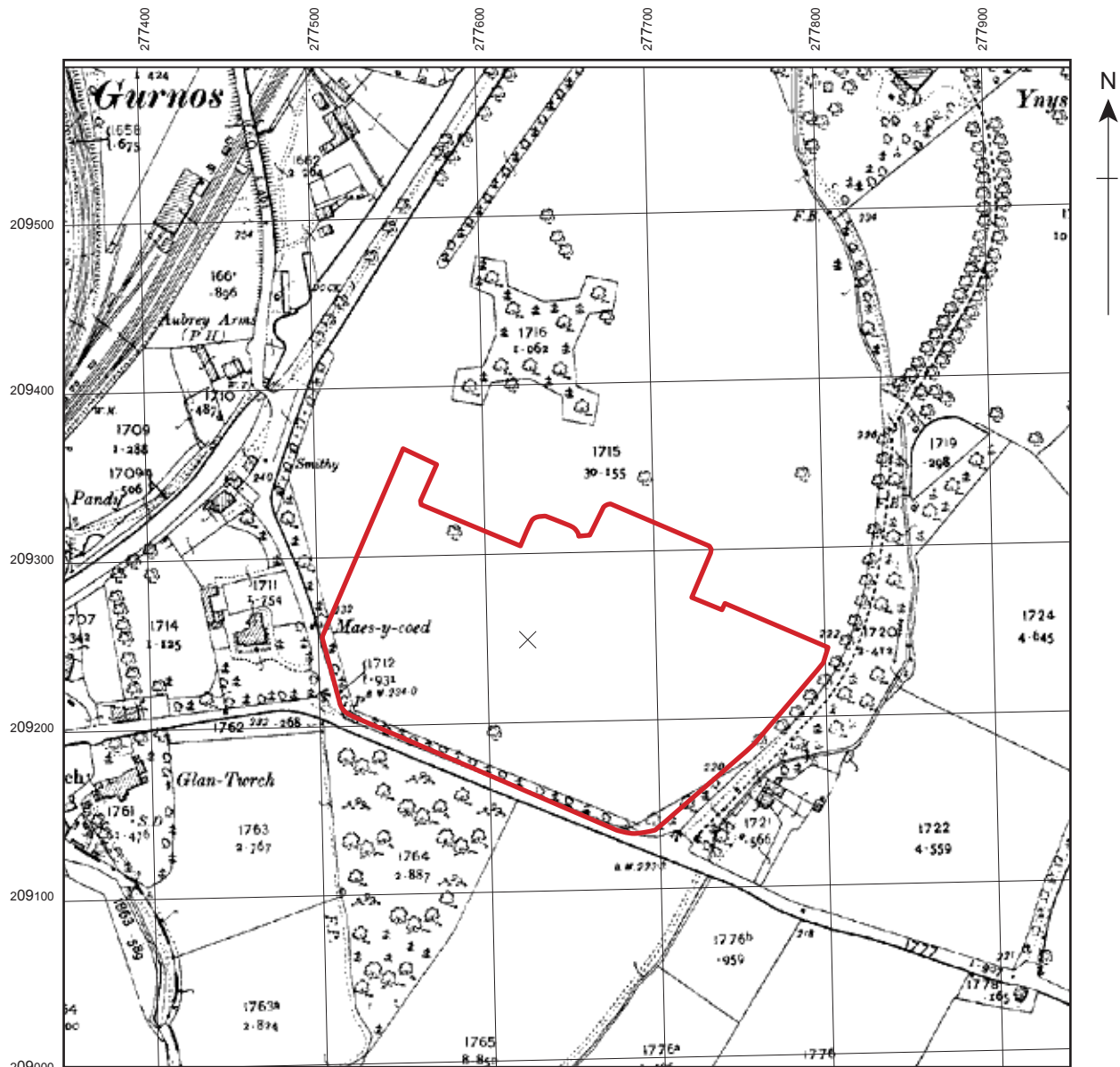


Figure 7: Ordnance Survey Map of 1878, 1:2,500 Scale



Based on the Ordnance Survey's 1:2,500 Historical Map of 1904 with the permission of the Controller of Her Majesty's Stationary Office, © Crown Copyright. Licence No. AL 1000 16114

— Site Outline

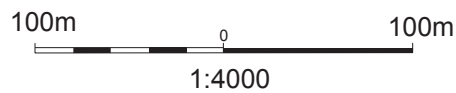
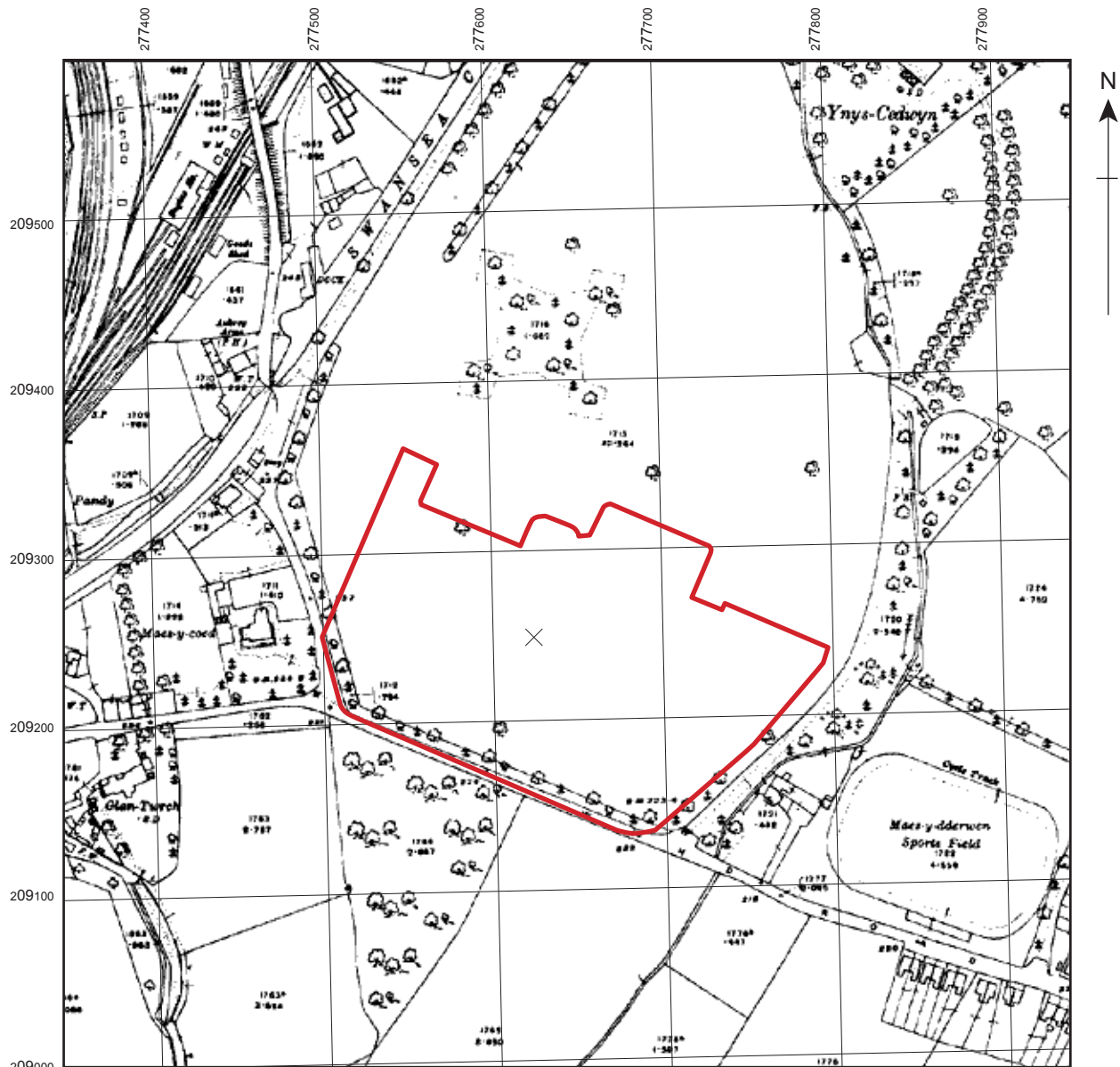


Figure 8: Ordnance Survey Map of 1904, 1:2,500 Scale



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— Site Outline

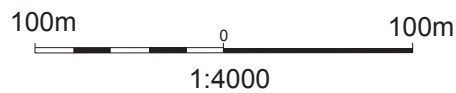
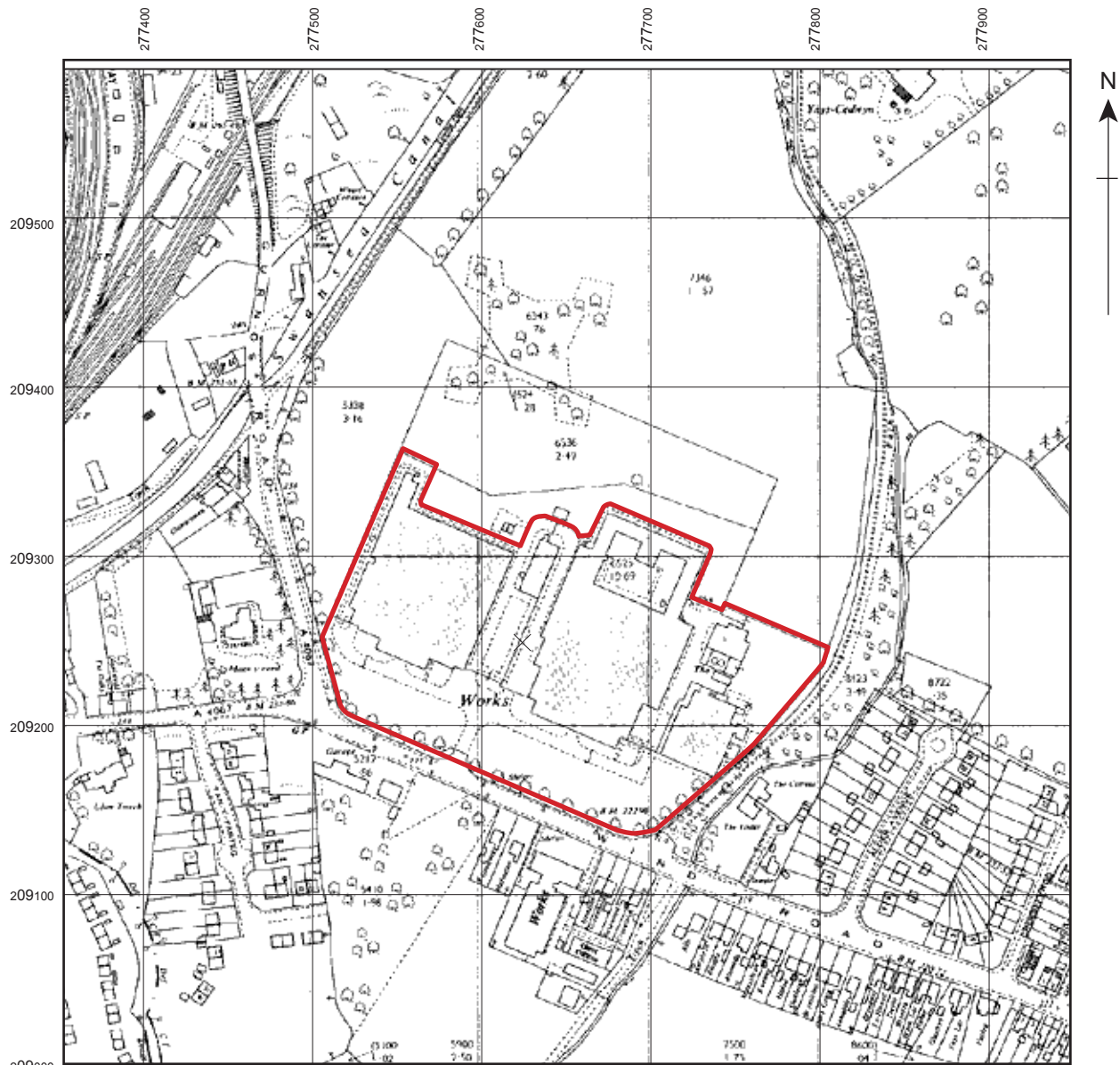
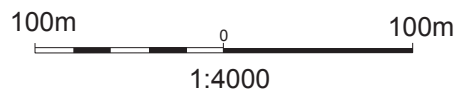


Figure 9: Ordnance Survey Map of 1918, 1:2,500 Scale



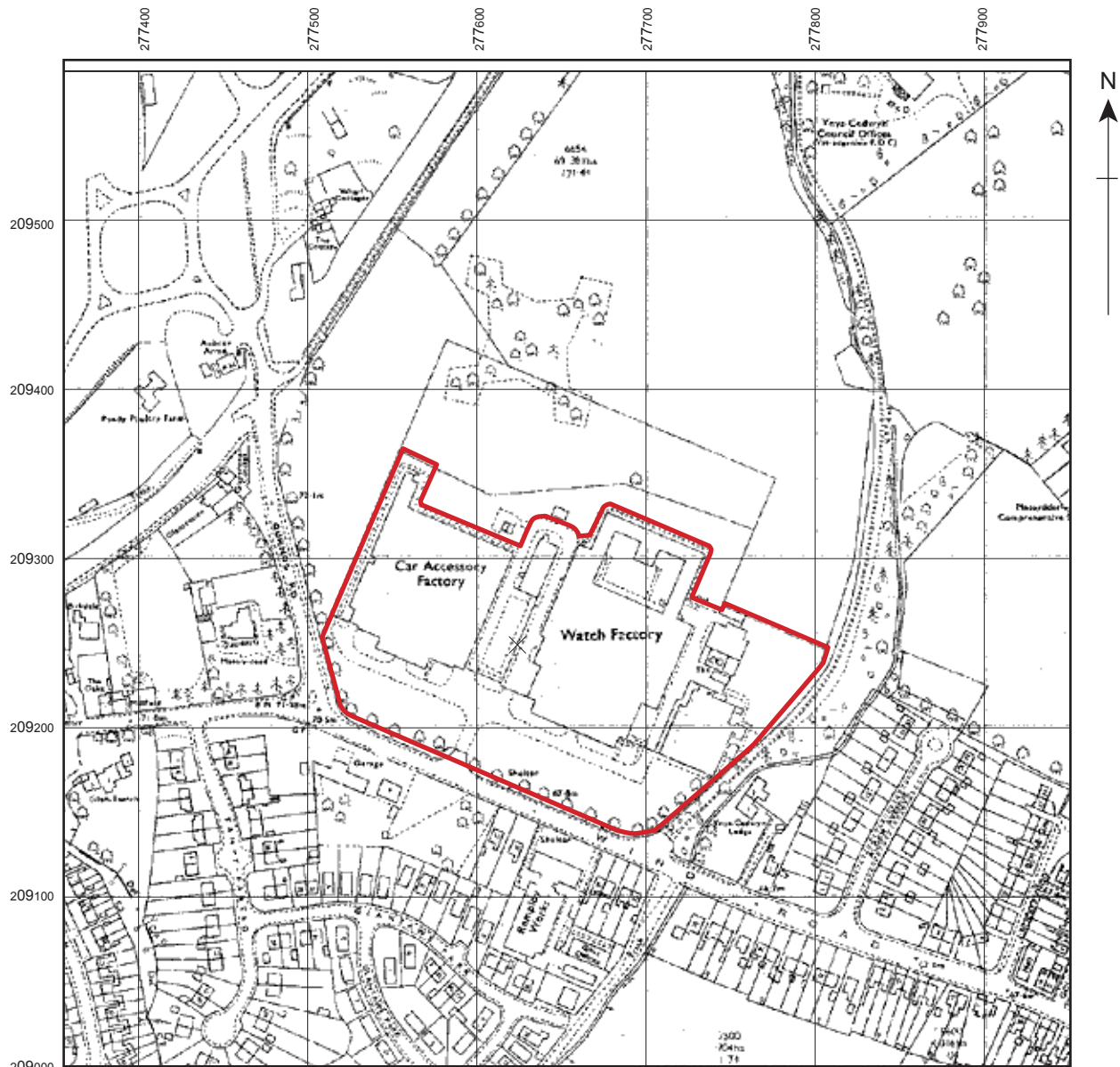
Based on the Ordnance Survey's 1:2,500 Historical Map of 1964 with the permission of the Controller of Her Majesty's Stationary Office, © Crown Copyright. Licence No. AL 1000 16114

— Site Outline



**Figure 10:** Ordnance Survey Map of 1964, 1:2,500 Scale





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— Site Outline

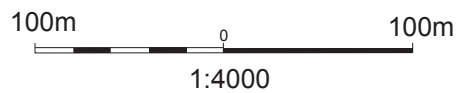
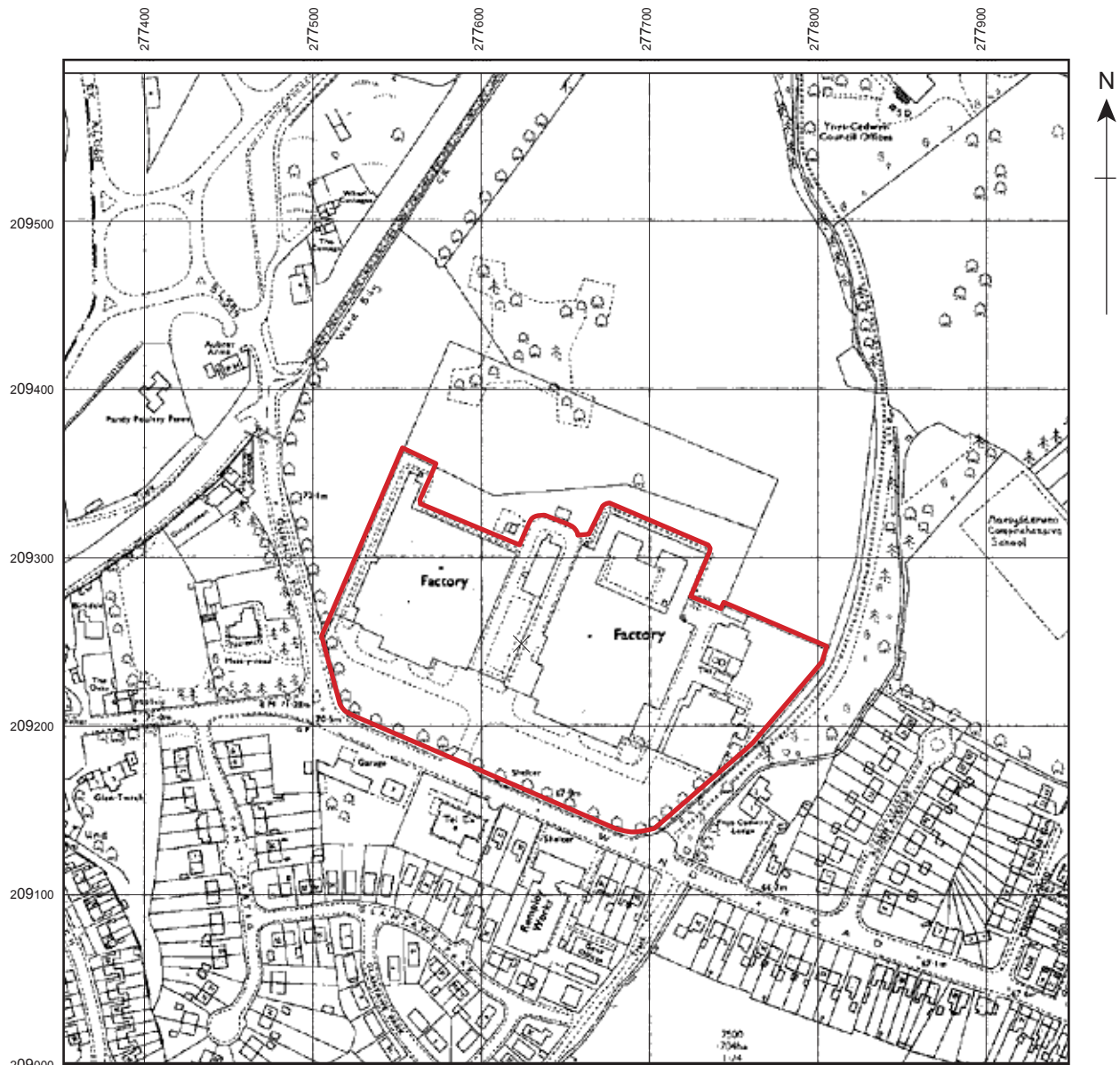


Figure 11: Ordnance Survey Map of 1978, 1:1,250 Scale



— Site Outline

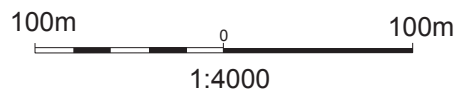
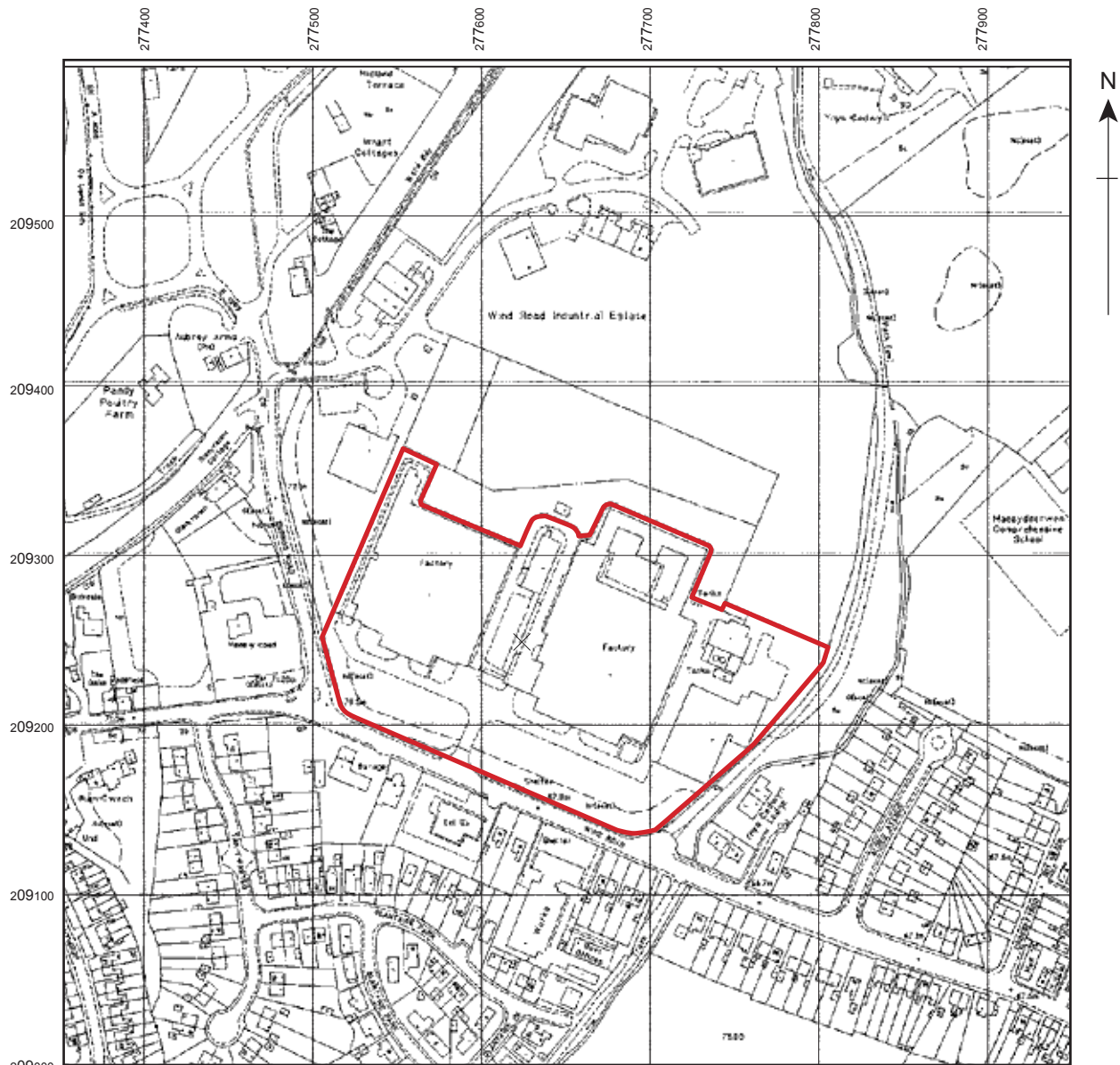
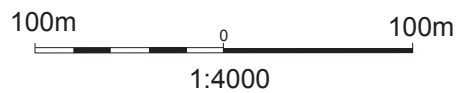


Figure 12: Ordnance Survey Map of 1989, 1:1,250 Scale



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— Site Outline



**Figure 13:** Ordnance Survey Map of 1995, 1:1,250 Scale

## Appendices

## **APPENDIX A: Planning Policy Wales (Edition 3: July 2010): Chapter 6 Conserving the Historic Environment**

### **OBJECTIVES**

It is important that the historic environment- encompassing archaeology and ancient monuments, listed buildings, conservation areas and historic parks, gardens and landscapes - is protected. The Assembly Government's objectives in this field are to:

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

Local planning authorities have an important role in securing the conservation of the historic environment while ensuring that it accommodates and remains responsive to present day needs. This is a key aspect of local authorities' wider sustainable development responsibilities which should be taken into account in both the formulation of planning policies and the exercise of development control functions.

### **WORKING WITH OTHERS**

Local planning authorities must work with Government and other agencies having particular responsibilities and powers in respect of the conservation of the historic environment. The Assembly Government's historic environment division, Cadw, has responsibility for protecting, conserving and promoting an appreciation of the historic environment of Wales. The Assembly Government has a duty to compile lists of buildings of special architectural or historic interest. Listing ensures that the special interest of these buildings is recognised and that works which would affect them are brought within statutory control. It may schedule ancient monuments considered to be of national importance and has responsibilities for determining applications for consent to works affecting scheduled monuments. The Assembly Government also has to be notified by local authorities of certain applications for listed building consent, so that it can consider whether the application should be called in for its determination. Applications by local planning authorities for works in their area affecting listed buildings and the demolition of buildings in conservation areas are determined by the Welsh Ministers.

The Royal Commission on the Ancient and Historical Monuments of Wales is the national body of survey and record. It compiles and makes available a comprehensive archive and national database of ancient monuments and historic buildings in Wales (the National Monuments Record) for use by individuals and bodies concerned with understanding, conserving and managing the built environment. The Royal Commission must be notified by local planning authorities of all proposals to demolish listed buildings. The four Welsh Archaeological Trusts maintain the Historic Environment Record and implement schemes to mitigate adverse development impacts on archaeological remains. They also provide archaeological advice to local planning authorities and should be contacted, as appropriate, in the exercise of plan preparation and development control functions.

## **DESIGNATING CONSERVATION AREAS**

Conservation area designation is the main instrument available to local planning authorities to give effect to conservation policies for a particular neighbourhood or area. They must designate as a conservation area any 'area of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance'. Authorities should advise Cadw when conservation areas are designated.

Local planning authorities are required to formulate and publish proposals for the preservation or enhancement of conservation areas. The positive management of conservation areas is necessary if their character or appearance is to be protected and enhanced. Authorities should establish consistent criteria against which existing and/or new conservation areas and their boundaries should be reviewed. Cancellation of designation should be considered where an area, or part of an area, is no longer considered to possess the special interest which led to its designation.

The preparation of townscape audits and conservation area character appraisals can assist planning authorities in the exercise of their planning and development control functions.

## **DEVELOPMENT PLANS AND THE HISTORIC ENVIRONMENT**

Development plans should reflect national policies for the preservation and enhancement of the historic environment. Development plans should also set out proposals for re-use or new development affecting historic areas and buildings, which may assist in achieving the Assembly Government's objectives for urban regeneration.

Development plans should reflect national policies for the protection and enhancement of sites of archaeological interest and their settings. Archaeological remains scheduled as being of national importance should be identified for preservation. Not all nationally important remains meriting preservation will necessarily be scheduled. Such remains and, in appropriate circumstances, other unscheduled archaeological remains of more local importance, and their settings, may also be identified in development plans as particularly worthy of preservation.

Local planning authorities should not include in their development plans policies requiring developers to finance archaeological works in return for the grant of planning permission. Developers should not expect to obtain planning permission for archaeologically damaging development merely because they arrange for the recording of sites whose physical preservation in situ is both desirable (because of their level of importance) and feasible.

Development plans should include locally-specific policies for the conservation of the built environment that are relevant to development control decisions and which should be taken into consideration in the determination of applications for both listed building consent and conservation area consent.

Development plans should include locally-specific policies for works of demolition, alteration, extension or re-use of listed buildings and their curtilages, outlining any criteria that will be applied to development proposals and which could affect an authority's decision on a related application for planning permission.

Development plan policies should make it clear that development proposals will be judged for their effect on the character and appearance of conservation areas, as identified in the assessment and proposal document, to ensure that any new development is in accord with the area's special architectural and historic interest. While the character or appearance of conservation areas must be a major consideration, it cannot prevent all new development.

Development plans should clearly indicate how detailed assessment documents and statements of proposals for individual conservation areas relate to the plan and what weight will be given to them in decisions on planning applications. The development plan should not include policies for the designation of new

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conservation areas or extensions to existing conservation areas, nor should it include detailed statements or proposals for existing conservation areas. The process of assessment, detailed definition or revision of boundaries and formulation of proposals for individual conservation areas should be pursued separately from the development plan.

Although no additional statutory controls follow from the inclusion of a site in the World Heritage List, such World Heritage Sites have been inscribed because of their outstanding international importance. Development plan policies should reflect this, emphasising the need to protect both the sites and their settings for future generations.

The non-statutory 'Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales'<sup>16</sup> has been prepared in two parts. The first part, consisting of seven volumes, covers parks and gardens, by unitary authority and former county council areas, while the second is divided into two volumes, covering 'outstanding' and 'special' historic landscapes throughout Wales. Local planning authorities should take both parts of the Register into account in preparing their development plans

The development plan should show the boundaries of areas of protection on the Proposals Map. These boundaries have been fixed under other powers and representations should not be invited on them.

## **DEVELOPMENT CONTROL AND THE HISTORIC ENVIRONMENT**

### **Archaeological remains**

The desirability of preserving an ancient monument and its setting is a material consideration in determining a planning application, whether that monument is scheduled or unscheduled. Where nationally important archaeological remains, whether scheduled or not, and their settings are likely to be affected by proposed development, there should be a presumption in favour of their physical preservation in situ. In cases involving lesser archaeological remains, local planning authorities will need to weigh the relative importance of archaeology against other factors, including the need for the proposed development.

The needs of archaeology and development can be reconciled, and potential conflict very much reduced, if developers discuss their proposals for development with the local planning authority at an early stage. Archaeological assessments commissioned by developers (sometimes as part of a wider Environmental Impact Assessment) can help to provide information on the archaeological sensitivity of a site before submitting a planning application. If important remains are thought to exist at a development site, the planning authority should request the prospective developer to arrange for an archaeological field evaluation to be carried out before any decision on the planning application is taken.. The results of any assessment and/or field evaluation should be provided as part of a planning application. If this information is not provided, authorities should consider whether it is appropriate to direct the applicant to supply further information, or whether to refuse permission for inadequately documented proposals.

Where local planning authorities decide that physical preservation in situ of archaeological remains is not justified in the circumstances of the case, and that development resulting in the destruction of the archaeological remains should proceed, before granting planning permission the authority needs to be satisfied that the developer has made appropriate and satisfactory provision for the archaeological investigation and subsequent recording of the remains and the publication of the results. Archaeological investigations should be carried out before development commences, working to a project brief prepared by the planning authority.

Local planning authorities may impose conditions to protect a monument and require that an archaeological watching brief is carried out. In order to secure the provision of an appropriate archaeological investigation and subsequent recording of remains, a negative condition may be imposed prohibiting the carrying out of

the development until such time as works or other action (for example, an excavation), have been carried out by a third party.

Archaeological remains may only become apparent when development has commenced. Where such remains are deemed by the Assembly Government to be of national importance, the remains may be scheduled. In these circumstances, developers would need to seek separate Scheduled Monument Consent before continuing work. The local planning authority or the Assembly Government may revoke planning consent if deemed necessary.

Local planning authorities are required to consult the Assembly Government on any development proposal that is likely to affect the site of a scheduled ancient monument. Scheduled monument consent must be sought from the Assembly Government for any proposed works to a scheduled ancient monument. Consent can only be granted for detailed proposals, and planning permission alone is insufficient to authorise the works. Scheduled Ancient Monuments are exempt from conservation area control; however, where buildings are both scheduled and listed, ancient monument legislation takes precedence and scheduled monument consent, rather than listed building consent, is required for works. In these cases, when considering applications for demolition the Assembly Government will have regard to the need to explore alternative uses. Where alterations are proposed, regard will be had to the retention of important features.

### **Listed buildings**

There is no statutory requirement to have regard to the provisions of the development plan when considering applications for listed building consent, since in these cases the Courts have accepted that Section 54A of the Town and Country Planning Act 1990 (superseded by section 38(6) of the Planning and Compulsory Purchase Act 2004) does not apply.

There should be a general presumption in favour of the preservation of listed buildings. The continuation or reinstatement of the original use should generally be the first option when the future of a listed building is considered. However, not all original uses will now be viable or necessarily appropriate. The application of development and listed building controls should recognise the need for flexibility where new uses have to be considered to secure a building's survival. The aim should be to identify the optimum viable use that is compatible with the character and setting of an historic building.

Where a development proposal affects a listed building or its setting, the primary material consideration is the statutory requirement to have special regard to the desirability of preserving the building, or its setting, or any features of special architectural or historic interest which it possesses.

Applicants for listed building consent must be able to justify their proposals, show why alteration or demolition of a listed building is desirable or necessary. It is generally preferable for both the applicant and the planning authority if related applications for planning permission and listed building consent are considered concurrently. Consideration of proposals for a listed building should be made on the basis of a full, rather than an outline planning consent. Planning permission alone is insufficient to authorise works to a listed building.

Planning authorities must, unless directed otherwise, notify the Assembly Government before listed building consent is granted. Once a building is listed (or is the subject of a building preservation notice) consent is required for its total or partial demolition and for any works of alteration or extension which would affect its character as a building of special architectural or historic interest. Controls apply to all works, both external and internal, that would affect a building's special interest.

While it is an objective of Assembly Government policy to secure the conservation and sustainable use of historic buildings, there will very occasionally be cases where demolition is unavoidable. Listed building controls ensure that proposals for demolition are fully scrutinised and justified before any decision is

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reached. The demolition of any Grade I or Grade II\* listed building should be wholly exceptional and require the strongest justification. In determining applications for total or substantial demolition of listed buildings, authorities should take into account the condition of the building, the cost of repairing and maintaining it in relation to its importance and to the value derived from its continued use, the adequacy of efforts made to retain the building in use and the merits of alternative proposals for the site. The Assembly Government would not expect consent to be given without convincing evidence that all reasonable efforts have been made to sustain existing uses, or to find viable new uses, and that these efforts have failed; that preservation in some form of charitable or community ownership is not possible or suitable; or that redevelopment would produce substantial benefits for the community which would decisively outweigh the loss resulting from demolition. Authorities should not authorise demolition of an historic building to make way for new development, unless it is certain that the new development will proceed. This requirement can be secured by condition. Conditions may also be used to require the preservation of particular features and/or to require works to be carried out in a certain way.

The Royal Commission on the Ancient and Historical Monuments of Wales must be notified of all proposals to demolish listed buildings and is allowed access to buildings which it wishes to record before demolition takes place. Local planning authorities should consider, in all cases of alteration or demolition, whether it is appropriate to make the recording of features that would be destroyed by the works, a condition of planning consent. Authorities should not, however, require applicants to finance recording programmes in return for the granting of consent and applicants should not be expected to be granted consent because they have arranged suitable programmes.

The objectives of listed building designation can generally be met through a planning authority's development planning and development control functions. In exceptional circumstances, where there is a real and specific threat, Article 4 Directions bringing certain categories of permitted development within planning control can be made by local authorities without the need for approval by the Assembly Government. Directions must relate solely to a listed building or to development within the curtilage of a listed building, provided that they do not affect the carrying out of development by a statutory undertaker.

Local planning authorities have the power to serve Building Preservation Notices in respect of buildings which are not listed, but which they consider are of special architectural or historic interest and in danger of demolition or alteration in such a way as to affect their character as buildings of such interest. A Notice applies a majority of the Act's provisions relating to listed buildings to the building concerned and takes effect immediately it is served.

### **Conservation areas**

There is no statutory requirement to have regard to the provisions of the development plan when considering applications for conservation area consent, since in these cases the Courts have accepted that Section 54A of the Town and Country Planning Act 1990 (superseded by section 38(6) of the Planning and Compulsory Purchase Act 2004) does not apply.

Should any proposed development conflict with the objective of preserving or enhancing the character or appearance of a conservation area, or its setting, there will be a strong presumption against the grant of planning permission. In exceptional cases the presumption may be overridden in favour of development deemed desirable on the grounds of some other public interest. The Courts have held that the objective of preservation can be achieved either by development which makes a positive contribution to an area's character or appearance, or by development which leaves character and appearance unharmed.

Conservation area designation introduces control over the total or substantial demolition<sup>27</sup> of unlisted buildings within conservation areas. Partial demolition of an unlisted building within a conservation area does

not require conservation area consent. Procedures for conservation area consent are essentially the same as for listed building consent. In exercising controls, account should be taken of the part played in the architectural or historic interest of the area by the building for which demolition is proposed, in particular of the wider effects of demolition on the building's surroundings and on the conservation area as a whole. Consideration should also be given to replacement structures. The general presumption should be in favour of retaining buildings which make a positive contribution to the character or appearance of a conservation area.

When considering planning applications for advertisements in conservation areas, local planning authorities should pay special attention to the desirability of preserving or enhancing the character or appearance of the area.

Authorities should take into account the visual, historic and amenity contribution of trees in conservation areas. New planting or replanting may be appropriate where consistent with the character and appearance of the area. Special provisions apply for trees in conservation areas which are not the subject of Tree Preservation Orders.

The objectives of conservation area designation can generally be met through a planning authority's development planning and development control functions. The General Permitted Development Order requires planning applications for certain types of development in conservation areas which outside these areas would be classified as permitted development. In exceptional circumstances, to help to protect features that are key elements of the character and appearance of particular conservation areas and where there is a real and specific threat, local planning authorities can also withdraw specific permitted development rights through the use of Article 4 Directions. The designation of a conservation area does not in itself automatically justify making an Article 4 Direction.

Article 4(2) Directions can be made in relation to dwelling houses in conservation areas where the permitted development would front a highway, waterway or open space. The Welsh Ministers' approval is not required, but authorities must notify residents and take account of local views before confirming such a Direction. With the exception of those circumstances identified in Article 5(1), the withdrawal of permitted development rights outside these specified categories continues, to require Article 4(1) Directions for which the Welsh Ministers' approval is needed before they can become effective. The Welsh Ministers will consider approval where the Direction is backed by a clear assessment of an area's special architectural and historic interest, where the importance to the special interest of the features in question is established, where the Direction involves the minimum withdrawal of permitted development rights necessary to achieve its objectives, and where the planning authority can demonstrate local support.

It is generally preferable, for both the applicant and the planning authority, for related applications for planning permission and conservation area consent to be considered concurrently. Consideration of proposals for development in a conservation area should be made on the basis of a full, rather than an outline, consent.

### **World heritage sites and historic landscapes, parks and garden**

World Heritage Sites are a material consideration to be taken into account by local planning authorities in the determination of planning applications, and by the Assembly Government in determining cases on appeal or following call-in. The impact of development proposals on both the sites and their settings should be carefully considered.

Local planning authorities should protect parks and gardens and their settings included in the first part of the 'Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales'. Cadw should be consulted on planning applications affecting grade 1 and II\* sites and the Garden History Society should be

consulted on all parks and gardens on the Register. Information on the historic landscapes in the second part of the Register should be taken into account by local planning authorities in considering the implications of developments which are of such a scale that they would have a more than local impact on an area on the Register (see para 6.4.9). The effect of proposed development on a park or garden contained in the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales, or on the setting of such a park or garden, may be a material consideration in the determination of a planning application.

**APPENDIX B: DRAFT GEOTECHNICAL INVESTIGATION RESULTS**  
**(Geotechnics Ltd. 2010)**

# BOREHOLE RECORD - Cable Percussion

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

BH2 PC104311

Client TESCO STORES LIMITED

Ground Level 69.62 m OD

Sampling			Properties			Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT	Description	Depth	Legend	Level m OD	
0.30- 0.60	B					Tarmacadam. [MADE GROUND]	G.L. 0.10		69.62 69.52	
0.80- 1.10	B					Dark greyish brown sandy gravel with a high cobble content of subangular brick, concrete and slag. Gravel is angular to subrounded fine to coarse brick, concrete, ash, flint, slag and occasional clinker. [MADE GROUND]	0.80		68.82	
0.80	D						1.10		68.52	
1.20- 1.30	B					Brown gravelly SAND with a medium cobble content of subrounded quartzite and sandstone. Gravel is subangular to subrounded fine to coarse quartzite, sandstone, mudstone and occasional carbonaceous material. [POSSIBLE MADE GROUND]				
1.20- 1.46		1.20 (DRY)			C52/108					
1.60- 1.63		(DRY)			C50*/27					
						Brown slightly clayey very gravelly SAND with a high cobble and boulder content of subrounded quartzite. Gravel is subrounded fine to coarse quartzite, occasional sandstone and rare carbonaceous material.				
End of Borehole										

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.I.			11/08/10	08:00						None encountered during boring.
1.60	0.20	Cable Percussion	GW/MW	1.60	1.20	DRY	11/08/10	18:00						

**Remarks** Inspection pit hand excavated to 1.20m depth. No further progress possible due to high cobble and boulder content. Chiselling: 1.30-1.60m for 60 minutes.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
Figure 1 of 1  
23/08/2010

# BOREHOLE RECORD - Cable Percussion

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

BH3 PC104311

Client TESCO STORES LIMITED

Ground Level 68.33 m OD

Sampling			Properties			Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT	Description	Depth	Legend	Level m OD	
0.40- 0.70	B					Concrete. [MADE GROUND]	G.L. 0.10		68.33 68.23	
0.80- 1.10	B					Brown slightly clayey gravelly sand with a medium to high cobble content of subrounded quartzite. Gravel is subangular to subrounded fine to coarse quartzite, sandstone, mudstone and occasional carbonaceous material. [MADE GROUND]	0.70		67.63	
1.20- 1.40	B									
1.20- 1.46		1.20 (DRY)			C53/110					
1.60- 1.66		1.60 (DRY)			C50*/56	Brown slightly clayey sandy GRAVEL with a high cobble and boulder content of subrounded quartzite. Gravel is subangular to subrounded fine to coarse quartzite, sandstone and mudstone.	1.66		66.67	
End of Borehole										

DRAFT

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.I.			10/08/10	08:00						None encountered during boring.
1.66	0.20	Cable Percussion	GW/MW	1.60	1.40	DRY	10/08/10	18:00						

**Remarks** Inspection pit hand excavated to 1.20m depth. No further progress possible due to high cobble and boulder content. Chiselling: 1.30-1.60m for 60 minutes.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF

Figure 1 of 1  
23/08/2010

# BOREHOLE RECORD - Cable Percussion and Rotary

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

BH4 PC104311

Client TESCO STORES LIMITED

Ground Level 68.22 m OD

Sampling			Properties			Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT	Description	Depth	Legend	Level m OD		
0.20- 0.40	B					Tarmacadam. [MADE GROUND]	G.L. 0.10		68.22 68.12		
0.50- 0.80 0.50	B D					Grey sandy gravel with a medium cobble content of subangular concrete. Gravel is subangular fine to coarse concrete, sandstone, occasional flint brick and mudstone. [MADE GROUND]	0.50		67.72		
0.90- 1.10	B					Soft to firm brown occasionally orangish brown mottled slightly sandy slightly gravelly clay with pockets up to coarse gravel size of carbonaceous material. Gravel is angular to subrounded fine to medium sandstone, quartzite and rare concrete. [MADE GROUND]	0.90		67.32		
1.20- 1.70 1.20- 1.65 1.50	B D	1.20 (DRY)			C8	Firm orangish brown occasionally greyish brown mottled slightly gravelly sandy CLAY with a medium cobble content of subrounded quartzite. Gravel is subangular to subrounded fine to coarse sandstone and quartzite.	1.40 1.60		66.82 66.62		
2.00- 2.22		2.00 (DRY)			C50/68	Soft orangish brown and greyish brown mottled silty CLAY.					
2.30- 2.36		2.00 (DRY)			C50*/57	Brown slightly clayey gravelly SAND with a high cobble and boulder content of subrounded quartzite and occasional pockets up to coarse gravel size of carbonaceous material. Gravel is subangular to subrounded fine to coarse quartzite and sandstone.					
Core Run Core Dia	Depth Cased	TCR/SCR %	Length Max/Min	RQD %		Continued by Rotary techniques General					
						Sandy GRAVEL**.	6.20		62.02		

Boring				Progress					Groundwater					
Depth	Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.I.			11/08/10	08:00	7.50	7.50				
2.36	0.20	Cable Percussion	GW/MW	2.30	2.00	DRY	11/08/10	18:00						
10.30	0.11	Rotary Odex	CJ/MS	2.30 10.30	10.30	DRY	13/08/10	08:00						
							13/08/10	18:00						

**Remarks**  
 Inspection pit hand excavated to 1.20m depth.  
 \*\* Drillers description.  
 A 50mm standpipe was installed to 10.30m with a geowrapped slotted section from 1.00m to 10.30m with flush lockable protective cover. Detail as follows from base of hole: gravel filter up to 1.00m, bentonite seal up to 0.30m, concrete up to ground level.  
 Chiselling: 1.80-2.00m for 30 minutes and 2.00-2.30m for 60 minutes.

Logged by DF  
 Figure 1 of 2  
 23/08/2010

**geotechnics**

All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

# BOREHOLE RECORD - Cable Percussion and Rotary

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

BH4 PC104311

Client TESCO STORES LIMITED

Ground Level 68.22 m OD

Drilling		Properties/Sampling				Strata		Scale 1:50		
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	SPT	Description General	Description Detail	Depth	Legend	Level m OD
						End of Borehole		10.30		57.92

DRAFT

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF

Figure 2 of 2  
23/08/2010



# BOREHOLE RECORD - Cable Percussion

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

BH6 PC104311

Client TESCO STORES LIMITED

Ground Level 69.55 m OD

Sampling			Properties			Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT	Description	Depth	Legend	Level m OD	
0.10- 0.30	B					Brown clayey sandy gravel with a medium to high cobble content of subangular to subrounded brick and concrete. Gravel is angular to subrounded fine to coarse brick, concrete, quartzite and slag. [MADE GROUND]	G.L.		69.55	
0.40- 0.60	B				0.40		69.15			
0.80- 1.10	B					Dark greyish brown slightly clayey sandy gravel with a low cobble content of subangular slag. Gravel is angular to subrounded fine to coarse flint, mudstone, ash, slag and occasional quartzite and concrete. [MADE GROUND]	0.60		68.95	
1.20- 1.60	B	1.20 (DRY)			C51		1.85		67.70	
1.20- 1.65						Brown clayey gravelly SAND with a medium to high cobble and boulder content of subrounded quartzite. Gravel is subrounded to rounded fine to coarse quartzite and occasional sandstone.				
1.70- 1.85		(DRY)			C57/70					
End of Borehole										

DRAFT

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.I.			09/08/10	08:00						None encountered during excavation.
1.85	0.20	Cable Percussion	GW/MW	1.70		DRY	09/08/10	18:00						

**Remarks** Inspection pit hand excavated to 1.20m depth. No further progress possible due to high cobble and boulder content. Chiselling: 1.60-1.70m for 60 minutes.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
Figure 1 of 1  
23/08/2010

# BOREHOLE RECORD - Cable Percussion

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

BH7 PC104311

Client TESCO STORES LIMITED

Ground Level 69.14 m OD

Sampling			Properties			Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT	Description	Depth	Legend	Level m OD	
0.20- 0.40	B					Soft dark brown slightly sandy clay with occasional rootlets. [MADE GROUND]	G.L.		69.14	
0.50- 0.70	B					Soft brown slightly gravelly sandy clay with occasional rootlets and with a medium cobble content of subrounded to rounded quartzite. Gravel is subangular to subrounded fine to coarse quartzite. [MADE GROUND]	0.20		68.94	
0.50	D						0.40		68.74	
0.80- 1.00	B					Firm brown slightly sandy gravelly CLAY with a medium to high cobble and boulder content of subrounded quartzite. Gravel is subangular to rounded fine to coarse quartzite mudstone and sandstone.	0.70		68.44	
1.20- 1.30	B									
1.20- 1.39		1.20 (DRY)			C50/43	Brown clayey gravelly SAND with a high cobble and boulder content of subrounded to rounded quartzite. Gravel is subangular to subrounded fine to coarse quartzite occasional mudstone and sandstone.	1.56		67.58	
1.50- 1.56		1.20 (DRY)			C50*/63					
End of Borehole										

DRAFT

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.I.			09/08/10	08:00						None encountered during excavation.
1.56	0.20	Cable Percussion	GW/MW	1.50	1.20	DRY	09/08/10	18:00						

**Remarks** Inspection pit hand excavated to 1.20m depth.  
 No further progress possible due to high cobble and boulder content.  
 Chiselling: 1.30-1.50m for 60 minutes and 1.50m for 60 minutes.

Symbols and abbreviations are explained on the accompanying key sheet.  
 All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 1  
 23/08/2010

# BOREHOLE RECORD - Cable Percussion and Rotary

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

BH9 PC104311

Client TESCO STORES LIMITED

Ground Level 67.85 m OD

Sampling			Properties			Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT	Description	Depth	Legend	Level m OD	
0.30- 0.60	B					Dark brown sandy clay with occasional rootlets. [MADE GROUND]	G.L.		67.85	
0.70	D					Soft brown sandy gravelly clay with a medium cobble and boulder content of subangular brick, quartzite and slag. Gravel is subangular to subrounded fine to coarse brick, concrete, slag and quartzite. [MADE GROUND]	0.20		67.65	
0.80- 1.00	B						0.70		67.15	
1.20- 1.60	B	1.20 (DRY)			C63	Orangish brown gravelly very clayey SAND with a high cobble and boulder content of subrounded quartzite. Gravel is subangular to subrounded fine to coarse quartzite and occasional sandstone.				
1.20- 1.65	B									
1.80- 4.00	D	(DRY)			C50*/68					
2.00- 2.07	D									
Core Run	Depth Cased	TCR/SCR %	Length Max/Min	RQD %		Continued by Rotary techniques				
Core Dia						General	Detail			
4.00- 7.00	D					Below 4.00m, recovered as dark brown gravelly sand.				
4.50- 4.64	4.50 (DRY)				C76/85					
7.00-10.00	D					Brown slightly clayey sandy GRAVEL. Gravel is subangular to rounded fine to coarse quartzite, sandstone and mudstone.	6.00		61.85	
7.50- 7.95	7.50 (7.50)				C38					

Boring				Progress					Ground water					
Depth	Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.I.			10/08/10	08:00	7.50	7.50				
2.00	0.20	Cable Percussion	GW/MW	2.00		DRY	10/08/10	18:00						
10.89	0.11	Rotary Odex	CJ/MS	2.00		DRY	13/08/10	08:00						
				4.50	4.50	DRY	13/08/10	18:00						
				4.50		DRY	16/08/10	08:00						
				10.50	10.50		16/08/10	18:00						

**Remarks**  
 Inspection pit hand excavated to 1.20m depth.  
 A 50mm standpipe was installed to 10.50m with a geowrapped slotted section from 1.00m to 10.50m with flush lockable protective cover. Detail as follows from base of hole: gravel filter up to 1.00m, bentonite seal up to 0.30m, concrete up to ground level.  
 Chiselling: 1.60-2.00m for 60 minutes.

Logged by DF  
 Figure 1 of 2  
 23/08/2010

geotechnics

All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

# BOREHOLE RECORD - Cable Percussion and Rotary

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

BH9 PC104311

Client TESCO STORES LIMITED

Ground Level 67.85 m OD

Drilling		Properties/Sampling				Strata		Scale 1:50		
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	SPT	Description General	Description Detail	Depth	Legend	Level m OD
10.50-10.89	10.50 (7.50)				C93/235			10.89		56.96
						End of Borehole				

DRAFT

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF


Figure 2 of 2  
23/08/2010

# BOREHOLE RECORD - Rotary Odex

Project WIND ROAD, YSTRADGYNLAIS Engineer PINNACLE CONSULTING ENGINEERS LTD Borehole Project No R3 PC104311  
 Client TESCO STORES LIMITED Ground Level 68.33 m OD

Drilling		Properties/Sampling				Strata		Scale 1:50		
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	SPT	Description General	Description Detail	Depth	Legend	Level m OD
1.20- 4.00	D					Concrete. [MADE GROUND]		G.L. 0.10		68.33 68.23
						Brown slightly clayey gravelly sand with a medium to high cobble content of subrounded quartzite. Gravel is subangular to subrounded fine to coarse quartzite, sandstone, mudstone and occasional carbonaceous material. [PROBABLE MADE GROUND]		0.70		67.63
4.00- 7.00	D					Brown slightly clayey sandy GRAVEL with a high cobble and boulder content of subrounded quartzite.				
4.50- 4.95	4.50 (DRY)				C40		At 4.50m, dense			
7.00-10.00	D									
7.50- 7.95	7.50 (7.50)				C13			7.50		60.83
10.00-13.00	D					Medium dense dark brown slightly gravelly SAND. Gravel is angular to subrounded fine to coarse quartzite, sandstone and mudstone.				

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	CJ/MS	G.I.			11/08/10	08:00						
16.50	0.11	Rotary Odex	CJ/MS	4.50	4.50	DRY	11/08/10	18:00	7.50	7.50				
17.50	0.07	Rotary Core	CJ/MS	4.50	4.50	DRY	12/08/10	08:00						
30.00	0.07	Rotary Open Hole	CJ/MS	30.00	16.50	DRY	12/08/10	18:00						

**Remarks**  Inspection pit hand excavated to 1.20m depth. **AGS\*\*** Drillers description.


A 50mm standpipe was installed to 11.70m with a geowrapped slotted section from 1.00m to 11.70m with flush lockable protective cover. Detail as follows from base of hole: bentonite seal up to 11.70m, gravel filter up to 1.00m, bentonite seal up to 0.30m, concrete up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 3  
 23/08/2010



# BOREHOLE RECORD - Rotary Odex

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No


R3 PC104311

Client **TESCO STORES LIMITED**

Ground Level 68.33 m OD

Drilling		Properties/Sampling				Strata		Scale 1:50		
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	SPT	Description General	Description Detail	Depth	Legend	Level m OD
10.50-10.95	10.50 (7.50)				C19					
13.00-16.00	D									
13.50-13.95	13.50 (DRY)				C35	Stiff to very stiff dark grey slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse mudstone, sandstone and occasional quartzite.		13.20		55.13
16.50-17.50	16.50 (DRY)	27								

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks 


Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by **DF**

Figure **2 of 3**  
23/08/2010



# BOREHOLE RECORD - Rotary Odex

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No


R3 PC104311

Client TESCO STORES LIMITED

Ground Level 68.33 m OD

Drilling		Properties/Sampling				Strata				Scale 1:50		
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	SPT	Description General	Description Detail	Depth	Legend	Level m OD		
						Grey SANDSTONE**.		26.60		41.73		
						End of Drillhole		30.00		38.33		

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater


Remarks 

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by **DF**

Figure 3 of 3  
23/08/2010



# BOREHOLE RECORD - Rotary Odex

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

R6 PC104311

Client TESCO STORES LIMITED

Ground Level 70.20 m OD

Drilling		Properties/Sampling			Strata		Scale 1:50		
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	Description General	Description Detail	Depth	Legend	Level m OD
					Soft brown clay with a high cobble and boulder content**. [POSSIBLE MADE GROUND]		G.L.		70.20
					Clay and boulders**.		1.20		69.00
					Sandy gravel with occasional clay bands**.		7.10		63.10

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	CJ/MS	G.I.	10.50	8.00	16/08/10	08:00	8.00	8.00				
10.50	0.11	Rotary Odex	CJ/MS				16/08/10	18:00						

**Remarks** Inspection pit hand excavated to 1.20m depth. \*\* Drillers description.

A 50mm standpipe was installed to 10.50m with a geowrapped slotted section from 1.00m to 10.50m with flush lockable protective cover. Detail as follows from base of hole: gravel filter up to 1.00m, bentonite seal up to 0.30m, concrete up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
Figure 1 of 2  
23/08/2010



# BOREHOLE RECORD - Rotary Odex

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

R6 PC104311

Client TESCO STORES LIMITED

Ground Level 70.20 m OD

Drilling		Properties/Sampling			Strata		Scale 1:50		
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	Description General	Description Detail	Depth	Legend	Level m OD
					End of Drillhole		10.50		59.70

DRAFT

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF

Figure 2 of 2  
23/08/2010

# BOREHOLE RECORD - Rotary Odex

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

R8 PC104311

Client **TESCO STORES LIMITED**

Drilling		Properties/Sampling			Strata		Scale 1:50		
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	Description General	Description Detail	Depth	Legend	
					Brown clay with cobbles**. [MADE GROUND]		G.L.		
					Dark brown clay with boulders**.		0.20		
					Brown sandy gravel**.		4.50		

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20	0.11	Inspection Pit	CJ/MS	G.I.	20.50	8.00	10/08/01	08:00	8.00	8.00				
20.50		Rotary Odex	CJ/MS				10/08/01	18:00						

**Remarks** Inspection pit hand excavated to 1.20m depth. \*\* Drillers description.

No further progress possible due to difficulty in progressing casing. A 50mm standpipe was installed to 11.20m with a geowrapped slotted section from 1.00m to 11.20m with flush lockable protective cover. Detail as follows from base of hole: bentonite seal up to 11.20m, gravel filter up to 1.00m, bentonite seal up to 0.30m, concrete up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by **DF**

Figure **1 of 3**  
23/08/2010

# BOREHOLE RECORD - Rotary Odex

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD


Borehole Project No

R8 PC104311

Client **TESCO STORES LIMITED**

Drilling		Properties/Sampling			Strata				Scale 1:50	
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	Description General	Description Detail	Depth	Legend		
					Red sandy gravel**.		12.20			
					Brown sandy gravel**.		14.20			
					Red sandy gravel with occasional boulders**.		15.20			

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks 


Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by **DF**

Figure **2 of 3**  
23/08/2010



# BOREHOLE RECORD - Rotary Odex

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

R8 PC104311

Client TESCO STORES LIMITED

Drilling		Properties/Sampling			Strata				Scale 1:50	
Core Run/Depth (Core Dia)	Depth Cased & (to Water)	Type TCR/SCR%	Length Max/Min	RQD %	Description General		Description Detail	Depth	Legend	
					End of Drillhole			20.50		

DRAFT

Drilling				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
Figure 3 of 3  
23/08/2010

# TRIAL PIT RECORD

# Trial Pit

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Trial Pit Project No

SA1 PC104311

Client TESCO STORES LIMITED

Samples and Tests				Strata		Scale 1:50	
Depth	Type	Stratum No	Results	Description	Depth	Legend	
				Dark brown slightly clayey gravelly sand. Gravel is subangular fine to coarse quartzite. [MADE GROUND]	G.L.		
0.90	B			Brown slightly clayey very gravelly SAND with a high cobble and boulder content of quartzite. Gravel is subrounded to subangular fine to coarse quartzite.	0.20		
2.30	B			End of Excavation	2.30		

Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.90	Depth Observed	Depth of Pit	Details
Date	19/08/2010	Length (C)	2.10			None encountered during excavation.
Shoring	None.	Date Backfilled	11/08/2010			
Stability	Unstable below 0.80m.					

**Remarks** The Trial Pit was terminated at a depth of 2.30m due to instability of the pit sides and collapse back to 2.25m.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by NG

Figure 1 of 1  
23/08/2010

# TRIAL PIT RECORD

# Trial Pit

Project WIND ROAD, YSTRADGYNLAIS

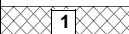
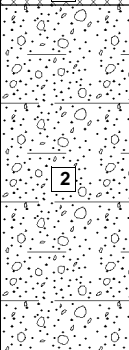
Engineer

PINNACLE CONSULTING ENGINEERS LTD


Trial Pit Project No

SA2 PC104311

Client TESCO STORES LIMITED

Samples and Tests				Strata		Scale 1:50	
Depth	Type	Stratum No	Results	Description	Depth	Legend	
				Greyish brown slightly clayey slightly gravelly sand. Gravel is subangular fine to coarse quartzite. [MADE GROUND]	G.L.		
				Brown slightly clayey very gravelly SAND with a high cobble and boulder content of quartzite. Gravel is subrounded to subangular fine to coarse quartzite.	0.20		
				End of Excavation	2.50		

Excavation				Groundwater		
Plant	JCB 3CX.	Width (B)	1.00	Depth Observed	Depth of Pit	Details
Date	19/08/2010	Length (C)	2.20			None encountered during excavation.
Shoring	None.	Date Backfilled	10/08/2010			
Stability	Unstable below 0.20m.					

Remarks  The Trial Pit was terminated at a depth of 2.50m due to instability of the pit sides and collapse back to 2.10m.


Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by NG

Figure 1 of 1  
23/08/2010



# TRIAL PIT RECORD

# Trial Pit

Project WIND ROAD, YSTRADGYNLAIS



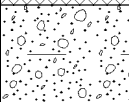
Engineer

PINNACLE CONSULTING ENGINEERS LTD


Trial Pit Project No

SA3 PC104311

Client TESCO STORES LIMITED


Samples and Tests				Strata	Scale 1:50	
Depth	Type	Stratum No	Results	Description	Depth	Legend
				Dark brown slightly clayey slightly gravelly sand. Gravel is subangular fine to coarse quartzite. [MADE GROUND]	G.L.	
				Brown slightly clayey very gravelly sand with a high cobble and boulder content of quartzite and many roots and rootlets. Gravel is subrounded to subangular fine to coarse quartzite and rare concrete. [MADE GROUND]	0.20	
				Brown slightly clayey very gravelly SAND with a high cobble and boulder content of quartzite. Gravel is subrounded to subangular fine to coarse quartzite.	0.80	
				End of Excavation	2.40	

Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	1.10	Depth Observed	Depth of Pit	Details
Date	19/08/2010	Length (C)	2.15			None encountered during excavation.
Shoring	None.	Date Backfilled	10/08/2010			
Stability	Unstable below 0.80m.					

Remarks  The Trial Pit was terminated at a depth of 2.40m due to instability of the pit sides. Logged by NG

Symbols and abbreviations are explained on the accompanying key sheet. Figure 1 of 1 23/08/2010

All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999



# TRIAL PIT RECORD

# Trial Pit

Project WIND ROAD, YSTRADGYNLAIS


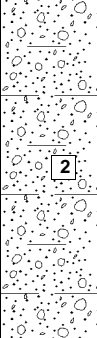
Engineer

PINNACLE CONSULTING ENGINEERS LTD


Trial Pit Project No

SA4 PC104311

Client **TESCO STORES LIMITED**


Samples and Tests				Strata		Scale 1:50	
Depth	Type	Stratum No	Results	Description	Depth	Legend	
				Dark brown slightly clayey gravelly sand with many roots and rootlets. Gravel is subrounded to subangular quartzite. [MADE GROUND]	G.L. 0.15		
1.00	B			Brown slightly clayey very gravelly SAND with a high cobble and boulder content of quartzite. Gravel is subrounded to subangular fine to coarse quartzite.			
2.40	B			End of Excavation	2.40		

Excavation				Groundwater		
Plant	JCB 3CX.	Width (B)	1.00	Depth Observed	Depth of Pit	Details
Date	19/08/2010	Length (C)	2.00			None encountered during excavation.
Shoring	None.	Date Backfilled	11/08/2010			
Stability	Unstable below 0.50m.					

Remarks  The Trial Pit was terminated at a depth of 2.40m due to instability of the pit sides. Logged by NG

Symbols and abbreviations are explained on the accompanying key sheet. Figure 1 of 1  
23/08/2010

All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999





# BOREHOLE RECORD - Window Sampler

Project WIND ROAD, YSTRADGYNLAIS

Engineer

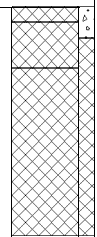
PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

WS1 PC104311

Client TESCO STORES LIMITED

Ground Level 66.80 m OD

Sampling			Properties		Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description		Depth	Legend	Level m OD
1.00- 1.20	B				Tarmacadam. [MADE GROUND]		G.L.		66.80
					Dark greyish brown to black gravelly sand. Gravel is angular to subangular fine to coarse clinker, slag, ash and tarmac fragments. [MADE GROUND]		0.10		66.70
					Brown clayey gravelly sand with a medium to high cobble content of subrounded sandstone, quartzite and slag. Gravel is angular to subrounded fine to coarse flint, slag, quartzite, occasional clinker, ironstone and mudstone. [MADE GROUND]		0.40		66.40
					End of Borehole		1.50		65.30


DRAFT

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	SR/MJ	G.I.			11/08/10	08:00						None encountered during boring.
1.50	0.08	Window Sampler	SR/MJ	1.50		DRY	11/08/10	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth.  
 No further progress possible due to high cobble and boulder content.

Symbols and abbreviations are explained on the accompanying key sheet.  
 All dimensions are in metres.

Logged by DF  
 Figure 1 of 1  
 23/08/2010



Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

# BOREHOLE RECORD - Window Sampler

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

WS2 PC104311

Client TESCO STORES LIMITED

Ground Level 68.60 m OD

Sampling			Properties		Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description			Depth	Legend	Level m OD
					Tarmacadam. [MADE GROUND]			G.L. 0.10		68.60 68.50
					Dark greyish brown gravelly sand with a low to medium cobble and boulder content of subangular to subrounded quartzite, slag and concrete. Gravel is angular to subangular fine to coarse slag, occasional clinker and quartzite. [MADE GROUND]			0.70		67.90
					Greyish brown slightly clayey gravelly SAND with a medium cobble and boulder content of subrounded quartzite and occasional sandstone. Gravel is subangular to subrounded fine to coarse sandstone, quartzite and ironstone. [POSSIBLE MADE GROUND]			1.90		66.70
End of Borehole										

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	SR/MJ	G.I.			11/08/10	08:00						None encountered during boring.
1.90	0.08	Window Sampler	SR/MJ	1.90		DRY	11/08/10	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth.  
 No further progress possible due to high cobble and boulder content.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 1  
 23/08/2010

# BOREHOLE RECORD - Window Sampler

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

WS3 PC104311

Client TESCO STORES LIMITED

Ground Level 69.02 m OD

Sampling			Properties		Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description			Depth	Legend	Level m OD
0.30- 0.50	B				Soft to firm dark brown slightly sandy clay with frequent rootlets. [MADE GROUND]			G.L.		69.02
0.70- 0.90	B				Soft to firm brown sandy gravelly CLAY with a medium cobble content of subrounded to rounded quartzite. Gravel is angular to subrounded fine to coarse quartzite, occasional mudstone and sandstone.			0.20		68.82
					Dark orangish brown sandy very clayey GRAVEL with a high cobble and boulder content of subrounded quartzite. Gravel is subangular to subrounded fine coarse quartzite and sandstone.			0.70		68.32
					End of Borehole			0.90		68.12

DRAFT

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
0.90		Inspection Pit	SR/MJ	G.I. 0.90		DRY	12/08/10 12/08/10	08:00 18:00						None encountered during excavation.

Remarks **AB** Inspection pit terminated at 0.90m due to high boulder content.  
**AB** No further progress possible due to high cobble and boulder content.

Symbols and abbreviations are explained on the accompanying key sheet.  
 All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 1  
 23/08/2010

# BOREHOLE RECORD - Windowless Sampler

Project WIND ROAD, YSTRADGYNLAIS Engineer PINNACLE CONSULTING ENGINEERS LTD Borehole Project No WS4 PC104311  
 Client TESCO STORES LIMITED Ground Level 69.64 m OD


Sampling			Properties		Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description			Depth	Legend	Level m OD
					Tarmacadam. [MADE GROUND]			G.L.		69.64
					Dark greyish brown clayey gravelly sand with a medium cobble content of subrounded quartzite. Gravel is subangular to subrounded fine to coarse quartzite, mudstone, occasional brick, concrete, glass, tile fragments, clinker and slag. [MADE GROUND]			0.03		69.61
					Greyish brown occasionally orangish brown mottled sandy very clayey gravel with a low to medium cobble content of subrounded quartzite. Gravel is angular to subrounded fine to coarse flint, quartzite, slag and occasional concrete. [MADE GROUND]			0.40		69.24
					Brown clayey gravelly sand with a medium to high cobble and boulder content of subrounded quartzite. Gravel is subangular to subrounded fine to coarse mudstone, quartzite and occasional sandstone. [POSSIBLE MADE GROUND] At 1.45m, frequent black staining.			0.60		69.04
					End of Borehole			1.60		68.04

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	SR/MJ	G.I.			11/08/10	08:00						None encountered during boring.
1.60	0.09	Windowless Sampler	SR/MJ	1.60		DRY	11/08/10	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth.  
 No further progress possible due to high cobble and boulder content.

Symbols and abbreviations are explained on the accompanying key sheet.  
 All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 1  
 23/08/2010



# BOREHOLE RECORD - Window Sampler

Project WIND ROAD, YSTRADGYNLAIS Engineer PINNACLE CONSULTING ENGINEERS LTD Borehole Project No WS6 PC104311  
 Client TESCO STORES LIMITED Ground Level 67.82 m OD

Sampling			Properties		Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description			Depth	Legend	Level m OD
0.10- 0.25	B				Tarmacadam. [MADE GROUND]			G.L. 0.10 0.25		67.82 67.72 67.57
0.60- 1.00	B			Dark brown gravelly sand with a medium cobble content of subrounded sandstone, quartzite and brick. Gravel is subangular to subrounded fine to coarse quartzite, brick, occasional concrete, ash and sandstone. [MADE GROUND]			0.57	67.25		
				Soft to firm dark greyish brown slightly organic slightly gravelly sandy clay. Gravel is subangular to subrounded fine to medium quartzite and carbonaceous material. [MADE GROUND]			2.00	65.82		
					Firm orangish brown slightly gravelly sandy CLAY with a medium cobble and boulder content of subrounded quartzite and sandstone and with occasional pockets up to coarse gravel size of carbonaceous material. Gravel is subangular to subrounded fine to coarse quartzite occasional mudstone and sandstone. [POSSIBLE MADE GROUND]					
End of Borehole										

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	SR/MJ	G.I.			12/08/10	08:00						None encountered during boring.
2.00	0.08	Window Sampler	SR/MJ	2.00		DRY	12/08/10	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth.  
 No further progress possible due to high cobble and boulder content.

Symbols and abbreviations are explained on the accompanying key sheet.  
 All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 1  
 23/08/2010

# BOREHOLE RECORD - Window Sampler

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

WS7 PC104311

Client TESCO STORES LIMITED

Ground Level 67.85 m OD

Sampling			Properties		Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description		Depth	Legend	Level m OD
					Tarmacadam. [MADE GROUND]		G.L.		67.85
					Dark grey to black sandy gravel with a moderate hydrocarbon odour. Gravel is angular to subangular fine to coarse various igneous lithologies. [MADE GROUND]		0.10		67.75
					Soft to firm orangish brown slightly sandy slightly gravelly clay with a low to medium cobble and boulder content of subangular to subrounded sandstone and quartzite and with occasional pockets up to medium gravel size of carbonaceous material. Gravel is subangular to subrounded fine to coarse sandstone, quartzite and occasional ironstone. [PROBABLE MADE GROUND] Below 0.60m, becoming sandy.		0.35		67.50
					End of Borehole		1.85		66.00


Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	SR/MJ	G.I.			12/08/10	08:00						None encountered during boring.
1.85	0.08	Window Sampler	SR/MJ	1.85		DRY	12/08/10	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth.  
 No further progress possible due to high cobble and boulder content.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 1  
 23/08/2010



# BOREHOLE RECORD - Windowless Sampler

Project WIND ROAD, YSTRADGYNLAIS Engineer PINNACLE CONSULTING ENGINEERS LTD Borehole Project No WS8 PC104311  
 Client TESCO STORES LIMITED Ground Level 68.14 m OD Scale 1:50


Sampling			Properties		Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description			Depth	Legend	Level m OD
0.20- 0.40	B				Tarmacadam. [MADE GROUND]			G.L.		68.14
					Dark greyish brown to black sandy gravel. [MADE GROUND]			0.05		68.09
								0.10		68.04
0.80- 1.20	B				Firm greyish brown and brown mottled slightly sandy gravelly clay with frequent pockets up to medium gravel size of carbonaceous material. Gravel is subrounded fine to coarse quartzite and occasional sandstone. [MADE GROUND]			0.65		67.49
					Greyish brown slightly clayey gravelly sand with a low to medium cobble and boulder content of subrounded quartzite and sandstone. Gravel is subangular to subrounded fine to coarse quartzite, sandstone, coal and occasional ironstone. [PROBABLE MADE GROUND]			1.80		66.34
					Between 1.60-1.80m, clayey.					
					End of Borehole					

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	SR/MJ	G.I.			12/08/10	08:00						None encountered during boring.
1.60	0.09	Windowless Sampler	SR/MJ	1.60		DRY	12/08/10	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth.  
 No further progress possible due to high cobble and boulder content.

Symbols and abbreviations are explained on the accompanying key sheet.  
 All dimensions are in metres. Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 1  
 23/08/2010



# BOREHOLE RECORD - Window Sampler

Project WIND ROAD, YSTRADGYNLAIS

Engineer

PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

WS10 PC104311

Client TESCO STORES LIMITED

Ground Level 67.84 m OD

Sampling			Properties		Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description			Depth	Legend	Level m OD
1.80- 2.00	D				Tarmacadam. [MADE GROUND]			G.L.		67.84
					Dark grey sandy gravel. Gravel is angular to subangular fine to coarse sandstone, shale, occasional concrete and various igneous lithologies. [MADE GROUND]			0.03		67.81
					Dark greyish brown sandy gravel with a low to medium cobble and boulder content of subangular to subrounded quartzite and sandstone. Gravel is subangular to subrounded fine to coarse brick, quartzite, sandstone, occasional plastic and metal fragments. [MADE GROUND]			0.60		67.24
					Firm brown slightly gravelly sandy clay with a low cobble and boulder content of subangular to subrounded quartzite and occasional brick. Gravel is subangular to subrounded fine to coarse quartzite, brick, concrete, occasional sandstone and carbonaceous material. [MADE GROUND]			1.30		66.54
					Soft to firm dark orangish brown slightly sandy slightly gravelly CLAY with a medium cobble content of subrounded quartzite and with frequent pockets up to coarse gravel size of carbonaceous material. Gravel is subrounded fine to coarse quartzite.			2.20		65.64
End of Borehole										

Boring				Progress					Groundwater						
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater	
1.20	0.08	Inspection Pit Window Sampler	SR/MJ	G.I.			12/08/10	08:00						None encountered during boring.	
2.20			SR/MJ	2.20		DRY	12/08/10	18:00							

Remarks  Inspection pit hand excavated to 1.20m depth.  
 No further progress possible due to high cobble and boulder content.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

Logged by DF  
 Figure 1 of 1  
 23/08/2010



# BOREHOLE RECORD - Window Sampler

Project WIND ROAD, YSTRADGYNLAIS

Engineer




PINNACLE CONSULTING ENGINEERS LTD

Borehole Project No

WS11 PC104311


Client TESCO STORES LIMITED

Ground Level 68.36 m OD

Sampling			Properties		Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	Description			Depth	Legend	Level m OD
					Tarmacadam. [MADE GROUND]			G.L.		68.36
					Concrete. [MADE GROUND]			0.10		68.26
					End of Borehole			0.20		68.16

DRAFT

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
0.20		Inspection Pit	SR/MJ	G.I. 0.20		DRY	11/08/10 11/08/10	08:00 18:00						None encountered during excavation.

Remarks  Inspection pit terminated at 0.20m due to hard breaking out.

Logged by DF

Symbols and abbreviations are explained on the accompanying key sheet.

Figure 1 of 1  
23/08/2010

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999



## APPENDIX C: SELECTION OF SITE PHOTOS



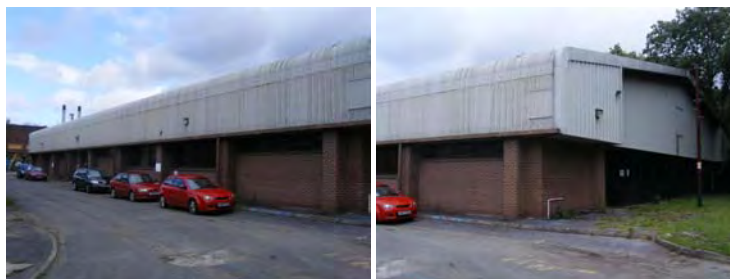
View from the south-east corner of the site looking north / north-west at existing factory buildings



View looking west across southern elevation of the eastern factory



View of the 1940s southern elevation of the western factory



1990s new build factory / ware house building



Original 1940s eastern elevation of the eastern factory



Storage tanks and associated building in the north-east corner of the site



View looking south at the rear of 1990s factory / warehouse, from the north-east corner of the site



View of the 1940s southern elevation of the western factory (above and below)



1990s addition located in-between the two 1940s factories



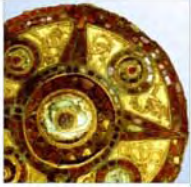
Views of the western elevation of the building in-between the two main factories – located to the rear of the late 1990s addition



Gairdhouse at the entrance to the factory site



Views of the extant stone wall around the south and south-west of the development site



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