

LAND at KENFIG INDUSTRIAL ESTATE

MARGAM

PORT TALBOT

NEATH PORT TALBOT

Results of a Desk-Based Appraisal, Walkover Survey &
Historical Visual Impact Assessment



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Land at Kenfig Industrial Estate, Margam, Port Talbot

Results of a Desk-Based Appraisal, Walkover Survey & Historical Visual Impact Assessment

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Work undertaken by SWARCH for Infinite Renewables

SUMMARY

This report presents the results of a desk-based assessment, walkover survey and historic visual impact assessment (HVIA) carried out by South West Archaeology Ltd. on land at Kenfig Industrial Estate, Margam, Port Talbot, as part of the pre-planning submission for a proposed wind turbine (64.5m to hub, 100m to tip).

The proposed wind turbine would be located within the existing Kenfig Industrial Estate, a low-rise sprawl of steel portal-framed sheds, straight roads, and wide verges. A carbide factory was established here in 1940 due to the proximity of good rail connections, limestone, and coal. The factory closed in 1966 and the site became a generic industrial estate. Prior to this it had been an area of enclosed fields, some of medieval pedigree and others enclosed from the coastal lowlands. The archaeological potential of the site is deemed to be low.

There are 82 Listed Buildings or structures within 5km of the proposed site, and 17 Scheduled Monuments. Most of the high value assets are either churches, or gentry houses and associated structures, in particular the structures and designated landscapes associated Margam Castle, which incorporates medieval buildings and landscapes.

Most of the designated heritage assets in the wider area are located at such a distance as to minimise the impact of the proposed development, or else the contribution of setting to overall significance is less important than other factors. The landscape context of many of these buildings and monuments is such that they would be partly or wholly insulated from the effects of the proposed wind turbine by a combination of local blocking from trees or buildings, or that other modern intrusions have already impinged upon their settings. However, the impact on 13 of these assets was adjudged to be greater than negligible, with a likely appreciable effect on the historic landscapes here.

*With this in mind, the overall impact of the proposed development can be assessed as **minor to moderate adverse**. The impact of the development on the buried archaeological resource would be **negligible** but **permanent and irreversible**.*



February 2022

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1.0 INTRODUCTION

LOCATION:	LAND AT KENFIG INDUSTRIAL ESTATE
PARISH:	NEATH PORT TALBOT UNITARY (HISTORICALLY MARGAM PARISH)
COUNTY:	GLAMORGAN
NGR:	SS 79762 83494
SWARCH REF:	NPTM21

1.1 PROJECT BACKGROUND

This report presents the results of a desk-based assessment, walkover survey and historical visual impact assessment (HVIA) carried out by South West Archaeology Ltd. (SWARCH) on land at Kenfig Industrial Estate, Margam, Port Talbot (Figure 1). The work was commissioned by Infinite Renewables (the Client) in determine the potential visual impact of a proposed wind turbine, 64.5m to hub, 100m to tip.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The site is located within the Kenfig Industrial Estate, built in the angle between the South Wales Main Line, the Neath-Port Talbot railway, and the M4, south of the Eglwys Nunydd Reservoir. The proposed turbine would be located within a car park, at an altitude of c.12m AOD.

The soils of this area were characterised as *urban* by the Soil Survey of England and Wales (SSEW 1983) but were formerly on the border of the soils of the Tanvats and Wick 1 soil Associations. The former is characterised as a deep, stoneless fine and coarse silty and clayey soil where groundwater is controlled by ditches and pumps, the latter as a deep well-drained coarse loamy and sandy soil locally over gravel (SSEW 1983). These would have overlain superficial glacio-fluvial deposits and tidal flat deposits up to 17m thick (borehole data SS78SE25), with mudstones, siltstones and sandstones of the South Wales Middle and Lower Coal Measure Formations at depth (BGS 2022). The borehole data indicates a very high water table, which is in accordance with the historic OS maps which show marshy ground (below).

1.3 HISTORICAL BACKGROUND

The site lies within the ecclesiastical parish of Margam. An abbey was founded at Margam in AD1147. This was purchased by Sir Rice Mansell at the Dissolution who built a mansion on part of the Abbey site. The estate passed through the female line to the Talbot family. The harbour and coal mines of Margam parish enabled it to thrive during the industrial revolution, permitting the development of Port Talbot, named after the Talbot family. Kenfig Industrial Estate appears to have first been developed as a carbide factory to enable the production of sufficient quantities of acetone in Britain during WW2 (Jones 2022).

1.4 ARCHAEOLOGICAL BACKGROUND

Extensive industrial development has clearly taken place in and around the proposed site from WWII onwards. There is little evidence of archaeological work within close proximity to the site. The nearest monument recorded by the GGAT is *Morfa Bach Uchaf* post-medieval farm, to the south of the site. There are 82 Listed Buildings and 17 Scheduled Monuments located within 5km of the proposed site; the closest to the site are located either to the eastern side of the M4 or under the GWR railway line (*Morva Bach underbridge*).

1.5 METHODOLOGY

The desk-based assessment follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (ClfA 2014). The GGAT was consulted prior to undertaking this assessment and confirmed due to the nature of the site a full desk based assessment was not required in this instance. A full request for HER data was therefore not made as part of this research. The historic visual impact assessment follows the guidance outlined in: *Conservation Principles for the sustainable management of the historic environment in Wales* (CADW 2011), *Heritage Impact Assessment in Wales* (CADW 2017), *Setting of Heritage Assets in Wales* (CADW 2017), *Wind Energy and the Historic Environment* (English Heritage 2005), and with reference to *Visual Assessment of Wind farms: Best Practice* (University of Newcastle 2002), and *Guidelines for Landscape and Visual Impact Assessment* 3rd edition (Landscape Institute 2013).

1.6 CONSULTATION

Both Cadw and the Glamorgan-Gwent Archaeological Trust (GGAT) have commented on this application.

1.6.1 CADW COMMENTS

The designated historic assets (below) are located inside 3km of the proposed development with scheduled monuments GM042 Kenfig Castle & Medieval Town and GM179 Ty'n-y-Cellar Standing Stone along with the boundary of the registered Merthyr Mawr, Kenfig & Margam Burrows historic landscape of outstanding historic interest all being inside 1km. The turbine will have an impact on the settings of these designated historic assets but this has not been considered by an appropriate expert in the information submitted with the application. this is required.

We require an assessment of the impact of the proposed development on the setting of the scheduled monument to be prepared by a competent and qualified historic environment expert in accordance with the methodology outlined in the Welsh Government's best-practice guidance Setting of Historic Assets in Wales (2017).

Scheduled Monuments

GM005 Margam Abbey
GM011 Margam Inscribed & Sculptured Stones
GM036 Pyle Incised Stone
GM042 Kenfig Castle & Medieval Town
GM056 Danish Camp
GM057 Camp N of Tonmawr
GM090 Camp 530m E of Tonmawr
GM162 Mynydd y Castell Camp
GM163 Hen Eglwys
GM179 Ty'n-y-Cellar Standing Stone
GM240 Pen-y-Castell Camp
GM345 Sculptured Cross Llanmihangel Farm
GM449 Leat & Dam at Llanmihangel Mill
GM477 Half Moon Camp
GM488 Chain Home Low Radar Station, Margam
GM493 Bryndu Coke Ovens
GM545 Margam Medieval Bath House

Registered Parks and Gardens

PGW (Gm) 52(NEP) Margam Park (grade I)

Registered Historic Landscape:

HLW (MGI) 1 Merthyr Mawr, Kenfig & Margam Burrows **Historic Environment**

1.6.2 GGAT COMMENTS

Re: Erection of a single wind turbine 100m high to tip and installation of associated infrastructure; Land at Kenfig Industrial Estate, Margam, Port Talbot, SA13 2PE; Pl. App. No.: P2021/0838

Thank you for consulting us about this application; consequently we have reviewed the detailed information contained on your website. We have previously commented on a similar application for this site in 2014 and our understanding of the archaeological resource of the area remains unchanged. There are no known archaeological sites within the application area, although the proposal has the potential to impact on two Registered Historic Landscapes (Margam Mountain, as well as Merthyr Mawr, Kenfig and Margam Burrows). As a result a ASIDOHL has been previously been completed which concluded that the impact on the Landscapes is considered to be Low with a Slight reduction in their overall value. However, within the immediate area, the impact is more significant and that whilst the general setting has industrial and transport features, these are generally low lying, with the turbine being a taller feature. It is our opinion that the results of the ASIDOHL conclude the impact on the setting to be acceptable, although there are concerns regarding the impact on the immediate area of the application. Overall, as the archaeological advisors to your Members, we have no objections to the positive determination of this application. However, we recommend your Members consider the impact in the immediate vicinity of the turbine and whether the benefits of the development outweigh this impact. If you have any questions or require further advice on this matter please do not hesitate to contact us.



FIGURE 1: SITE LOCATION (CONTAINS OS DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2022).

2.0 DESK-BASED APPRAISAL AND CARTOGRAPHIC ANALYSIS

2.1 DOCUMENTARY BACKGROUND

The site lies on the southern edge of the ancient ecclesiastical parish of Margam, which are taken to reflect the principal medieval extent of the lands of Margam Abbey (founded AD1147). This may also have been the boundary between the parochiae of Margam and Llangynnd, and possibly the earlier secular cwmwd (commote) of Margam. At the Dissolution the Abbey site was purchased by Sir Rice Mansel who built a mansion on part of the site. The estate passed through the female line to the Talbot family in the mid-18th century. The harbour and coal mines of Margam parish were developed during the industrial revolution, with the creation of Port Talbot. Kenfig was a Norman borough with castle, established in the 1140s, c.0.8km to the south of the site on the banks of the River Kenfig. The borough and castle were attacked multiple times during the medieval period, but it was eventually overwhelmed by sand dunes and the settlement and church relocated to its current site. The Kenfig Industrial Estate was first developed as a carbide factory to enable the production of sufficient quantities of acetone in Britain during WWII; this closed in 1966 (Jones 2022).

2.2 CARTOGRAPHIC SOURCES

The first available map to show the site is the 1813 Ordnance Survey surveyor's draft map for the Bridgend area (Figure 2). This depicts a landscape broadly similar to the later and more accurate OS maps (below), with a series of cottages and/or smallholdings dispersed along the main north-south road (*Water Street*).



FIGURE 2: EXCERPT FROM 1813 SURVEYORS DRAFT MAP (BL); THE SITE IS INDICATED.

The depiction of fields on these draft maps is rarely accurate, but here two long boundaries have been emphasized (darker lines). It may be that the surveyor was trying to indicate broader and more important divisions, perhaps fen banks defining successive intakes from the low-lying

coastal strip. The area between the two is shown stippled suggesting rough or marshy ground. A *Roman Monument* (presumably the *Pompeius Stone*, PRN00788w) is indicated to the north of the site, beyond of Kenfig House. The closest settlement is the smallholding labelled *Ty'nyseler* (Ty'n y Cellar) to the east, with Morfa Bach to the south. Ty'n y Cellar (NPRN413469) was listed in 1692 as *The Cellar* and has been linked to Margam Abbey (Cellar, from *cellarer*, the official responsible for running the secular interests of a monastic institution; alternatively, *cell* 'hermit's cell'?)). Morfa Bach (PRN08434w) was first documented in 1702 but was known as *Yorath's Land* or *Iorwerth's Tenement* as far back as 1651.

There is no tithe map for Margam parish as all the lands of the parish and the tithes were held by the Talbots of Margam; there is an 1814 estate map, but this map was not available to this study. Historic Ordnance Survey (OS) mapping demonstrate that until the early part of the 20th century the site lay within enclosed agricultural fields to the west of Ty'n-y cellar farm (Figure 2). The curving boundaries around the farmstead are indicative of plough strips, and it is likely the layout of the fields was ultimately based on the medieval layout of open strip fields either side of Water Street.

The 1883 1st edition 6" OS map (Figure 3) shows the landscape in more and accurate detail. The main addition is the Great Western Railway line opened in 1850 and visible to the south and west of the site. The proposed location of the turbine is stippled to indicate marsh. The 1900 2nd edition 6" OS map show the addition of the Port Talbot Railway (Vale of Ogmore branch) to the north of the site, which opened in c.1898 (Figure 4). The 1921 3rd revision OS map shows little change from c.1900. In 1940 the site had been developed for industrial purposes (carbide factory), with railway lines extending into the area which now comprises industrial estate, just to the south of the proposed development site. The factory was developed for use during WWII and closed in 1966.



FIGURE 3: EXTRACT FROM THE 1883 OS 1ST EDITION 6" MAP (SURVEYED 1876) (GLAMORGAN SHEET XXXIII.SE) (NLS); THE SITE IS INDICATED.



FIGURE 4: EXTRACT FROM THE 1900 OS 2ND EDITION 6" MAP (SURVEYED 1897) (GLAMORGAN SHEET XXXIII.SE) (NLS); THE SITE IS INDICATED.

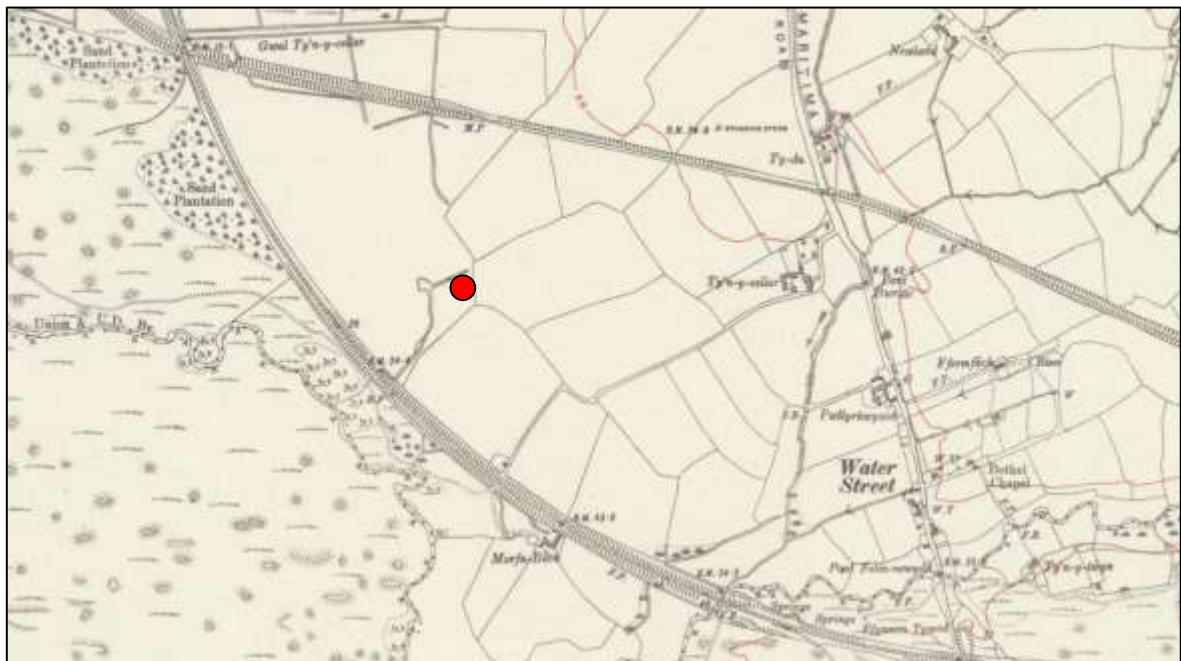


FIGURE 5: EXTRACT FROM THE 1921 OS EDITION 3RD REVISION 6" MAP (SURVEYED 1913-14) (GLAMORGAN SHEET XXXIII.SE) (NLS); THE SITE IS INDICATED.

3.0 ARCHAEOLOGICAL BACKGROUND

3.1 BASELINE DATA

Until 1940 this small area was relatively untouched by industrial development, despite being enveloped by railway lines. This changed in 1940 when the carbide factory was built, succeeded by the industrial estate in 1966. There is little evidence for archaeological work close to the site. The monuments listed on GGAT HER in closest proximity to the site are *modern industrial estate* (NPRN: 402654) and [site of] *Morva Back Uchaf* (PRN: GGAT08434w). Some of the buildings at Ty'n y Cellar Farm are Listed Grade II (19th century 'model' farm). Most of the other heritage assets identified lie along Water Street, now to the east of the M4, or to the south, around the site of Kenfig Castle (NPRN: 300455), former borough (NPRN: 15335), and a possible Roman fort site (NPRN: 410002). The *Merthyr Mawr, Kenfig and Margam Burrows* registered historic landscape lies to the south of the site, beyond the railway line.

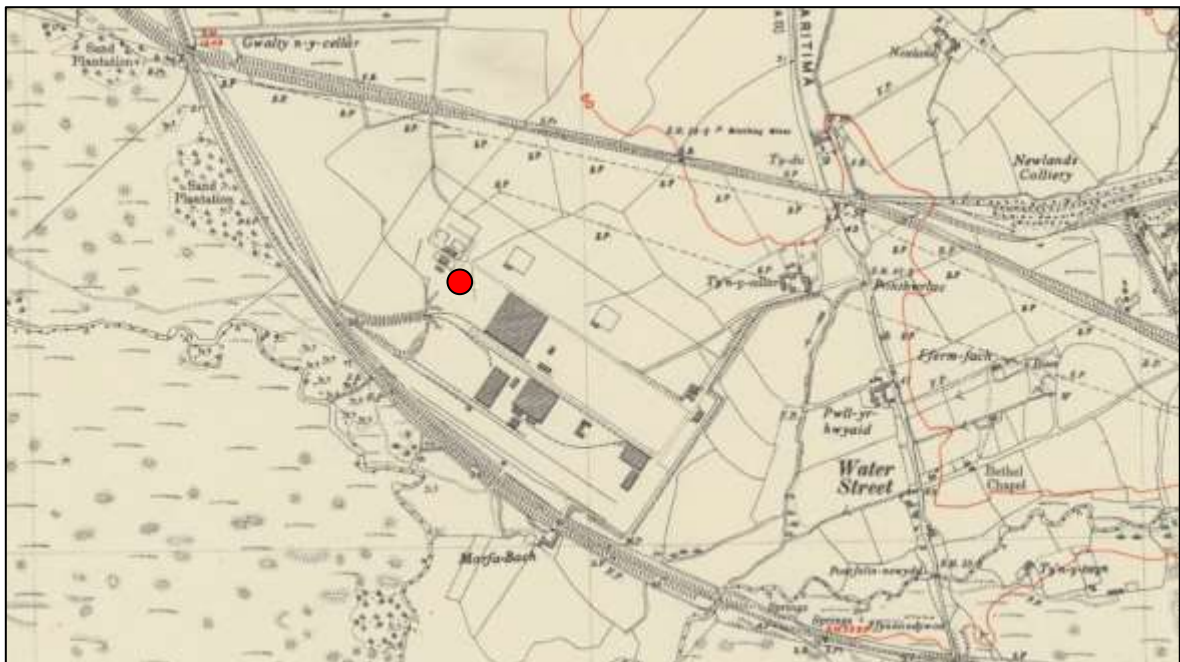


FIGURE 6: EXTRACT FROM THE 1952 OS 4TH REVISION 6" MAP (SURVEYED 1947) (GLAMORGAN SHEET XXXIII.SE) (NLS); THE SITE IS INDICATED.

3.2 WALKOVER SURVEY

The site was visited in January 2022 by E. Wapshott. The proposed turbine would be erected on an undeveloped plot between warehouses and factories on the mid-20th century Kenfig Industrial Estate, to the rear of the site at the end of the main road which enjoys long linear views through the estate and is bounded by mown grass verges. The industrial estate is accessed off the B4283 (Water Street) that runs between Pyle and Port Talbot. The M4 runs along the eastern edge of the estate, on a viaduct and embankment, and to the west are the freight and passenger railway lines. Both the M4 and the railway lines exert aural dominance. The south and west boundaries of the industrial estate are fenced with tall earthwork bunds and vegetation (presumably attempts to reduce the visibility of the structures) and some individual plots have palisade fencing, breaking up views. In general, the buildings on the site are older, quite low, with a fairly flat general profile and the site is dominated by the raised motorway that blocks all views to the east. To the south and west there are views out to the sand dunes of the Kenfig Nature Reserve, and intervisibility with the castle, deserted medieval town, barrows/pillow mounds, and the Church of St Mary Magdalene was confirmed. Intervisibility with the site at ground level was confirmed for the

Scheduled Monuments located on high ground to the north-east, albeit at a distance. The wider landscape setting is visually dominated by the Tata Steel works that lie to the north.

3.3 ARCHAEOLOGICAL POTENTIAL

The area has been extensively developed during the 20th century: a carbide factory with rail and road infrastructure developed in the 1940s, occupied until 1966 and thereafter used as an industrial estate. This was an area of former agricultural pasture, the wider agricultural landscape reclaimed from encroaching sand dunes or coastal lowlands. The borehole data for the data would suggest there are no buried peat or peaty deposits close to the proposed location. The meaningful below-ground impact of the proposed turbine would be limited to its foundations (an area of c.10×10m), and the construction and use of the industrial estate is highly likely to have disturbed or destroyed any archaeological remains, if present. On that basis, the archaeological potential of the site is assessed as *low to negligible*.



FIGURE 7: THE SITE OF THE PROPOSED TURBINE ON THE KENFIG INDUSTRIAL ESTATE; VIEWED FROM THE SOUTH-WEST.

4.0 HISTORIC VISUAL IMPACT ASSESSMENT

4.1 VISUAL IMPACT ASSESSMENT – OVERVIEW

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonably practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area or archaeological monument (the ‘heritage asset’). Secondly, to assess the likely effect of a proposed development on the setting of nearby heritage assets (indirect impact). The methodology employed in this assessment is based on the staged approach advocated in *The Setting of historic assets in Wales* (Cadw 2017), used in conjunction with the ICOMOS (2011) and National Highways (DMRB) guidance. Section 4.2 discusses policy; Sections 4.3-4.5 covered the structure of assessment and the zone of theoretical visibility (ZTV) used; Section 4.6 details the individual assessments.

4.2 NATIONAL POLICY

General policy and guidance for the conservation of the historic environment are now contained within *Planning Policy Wales* (Welsh Government 2021). The relevant guidance is reproduced below:

Paragraph 6.1.7 It is important that the planning system looks to protect, conserve and enhance the significance of historic assets. This will include consideration of the setting of an historic asset which might extend beyond its curtilage. Any change that impacts on an historic asset or its setting should be managed in a sensitive and sustainable way.

Paragraph 6.1.9 Any decisions made through the planning system must fully consider the impact on the historic environment and on the significance and heritage values of individual historic assets and their contribution to the character of place.

Paragraph 6.1.10 There should be a general presumption in favour of the preservation or enhancement of a listed building and its setting, which might extend beyond its curtilage. For any development proposal affecting 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, its setting or any features of special architectural or historic interest which it possesses.

A further key document is Technical Advice Note 24: The Historic Environment (Welsh Government 2017) which states:

Paragraph 1.15

Heritage impact assessment is a structured process that enables the significance of a designated asset to be taken into account when considering proposals for change.¹² Heritage impact assessments should be proportionate both to the significance of the historic asset and to the degree of change proposed, and should include sufficient information to enable both the significance of the asset and the impact of change to be understood. The results of the heritage impact assessment should be summarised in a heritage impact statement which must form part of any listed building consent, conservation area consent and, when requested, scheduled monument consent applications.

4.3 THE STRUCTURE OF ASSESSMENT

For the purposes of this assessment, the *indirect effect* of a development is taken to be its effect on the wider historic environment. The principal focus of such an assessment falls upon identified

designated heritage assets like Listed buildings or Scheduled Monuments. Depending on the nature of the heritage asset concerned, and the size, character and design of a development, its effect – and principally its visual effect – can impact on designated assets up to 20km away.

The methodology adopted in this document is based on that outlined in *The Setting of Heritage Assets* (GPA3 Historic England 2015), with reference to ICOMOS (2011) and National Highways (DMRB) guidance. The assessment of effect at this stage of a development is an essentially subjective one, but one based on the experience and professional judgement of the authors. Appendix 2 details the methodology employed.

This report follows the staged approach to proportionate decision making outlined in the *Setting of Historic Assets in Wales* (Cadw 2017, 5-9). *Step one* is to identify the designated heritage assets that might be affected by the development. The first stage of that process is to determine an appropriate search radius, and this would vary according to the height, size and/or prominence of the proposed development. For instance, the search radius for a wind turbine, as determined by its height and dynamic character, would be much larger than for a single house plot or small agricultural building. The second stage in the process is to look at the heritage assets within the search radius and assign to one of three categories:

- Category #1 assets: Where proximity to the proposed development, the significance of the heritage asset concerned, or the likely magnitude of impact, demands detailed consideration.
- Category #2 assets: Assets where location and current setting would indicate that the impact of the proposed development is likely to be limited, but some uncertainty remains
- Category #3 assets: Assets where location, current setting, significance would strongly indicate the impact would be no higher than negligible and detailed consideration both unnecessary and disproportionate. These assets are still listed in the impact summary table.

For *Step two* and *Step three*, and with an emphasis on practicality and proportionality, this assessment then groups and initially discusses heritage assets by category (e.g. churches, historic settlements, funerary remains etc.) to avoid repetitious narrative; each site is then discussed individually, and the particulars of each site teased out. The initial discussion establishes the baseline sensitivity of a given category of monument or building to the potential effect, the individual entry elaborates on local circumstance and site-specific factors. The individual assessments should be read in conjunction with the overall discussion, as the impact assessment is a reflection of both.

4.4 QUANTIFICATION

The character, size and topographical location of the proposed development would indicate a search radius of 5km is sufficient to identify those designated heritage assets where an appreciable effect might be experienced.

There are 17 Scheduled Monuments with the 5km radius, of which two (Margam medieval bath house and the least and dam at Llanmihangel Mill) fall entirely outside the ZTV. There are 82 Listed buildings (some duplicate SAMs), comprising eight Grade I, 13 Grade II*, and 61 Grade II buildings or structures, with a marked concentration of heritage assets in Margam Park. There is one Grade I Registered Park, at Margam Castle.

- Category #1 assets: Margam Orangery (GI) and Terrace (GII*); Margam Castle (GI) and Terrace (GII*); Margam Abbey (GI); Tyn'r-u-Selar standing stone (SAM); Pyle incised stone (SAM); Kenfig Castle and Town (SAM); Mynydd-y-Castell hillfort (SAM); Camp 530 east Tonmawr (SAM); Moel Ton-Mawr hillfort (SAM).

- Category #2 assets: Church of St James (GI); Sker House (GI); Beulah Calvinistic Methodist Chapel (GII*); Church of St Mary Magdalen (GII*); Hen Eglwys (SAM; GII*); Llanmihangel (GII*); Llanmihangel Mill (GII*); Margam Crematorium (GII*); Monastic baths (GII*); Old Park (GII*); Pyle Calvinistic Methodist Chapel (GII*); The Hall Farm (GII*); Barn at Eglwys Nunydd (GII); Bridge near Llanmihangel Mill (GII); multiple assets at Ty'n y Cellar (all GII); multiple assets at Twyn yr Hydd (all GII); house and gateway at Ty Maen (both GII); Marlas House (GII); Marlas Overbridge (GII); Morfa Back Underbridge, east and west (both GII); Pool Farmhouse (GII); Prince of Wales Inn (GII); Pyle Overbridge (GII); Chain Home Lowe Radar Station (SAM); Danish Camp (SAM); Half Moon Camp (SAM); Leat and dam at Llanmihangel Mill (SAM); Pen-y-Castell hillfort (SAM); sculptured cross at Llanmihangel Farm.
- Category #3 assets: all the remaining GII structures, buildings and monuments/grave slabs in the various churchyards.

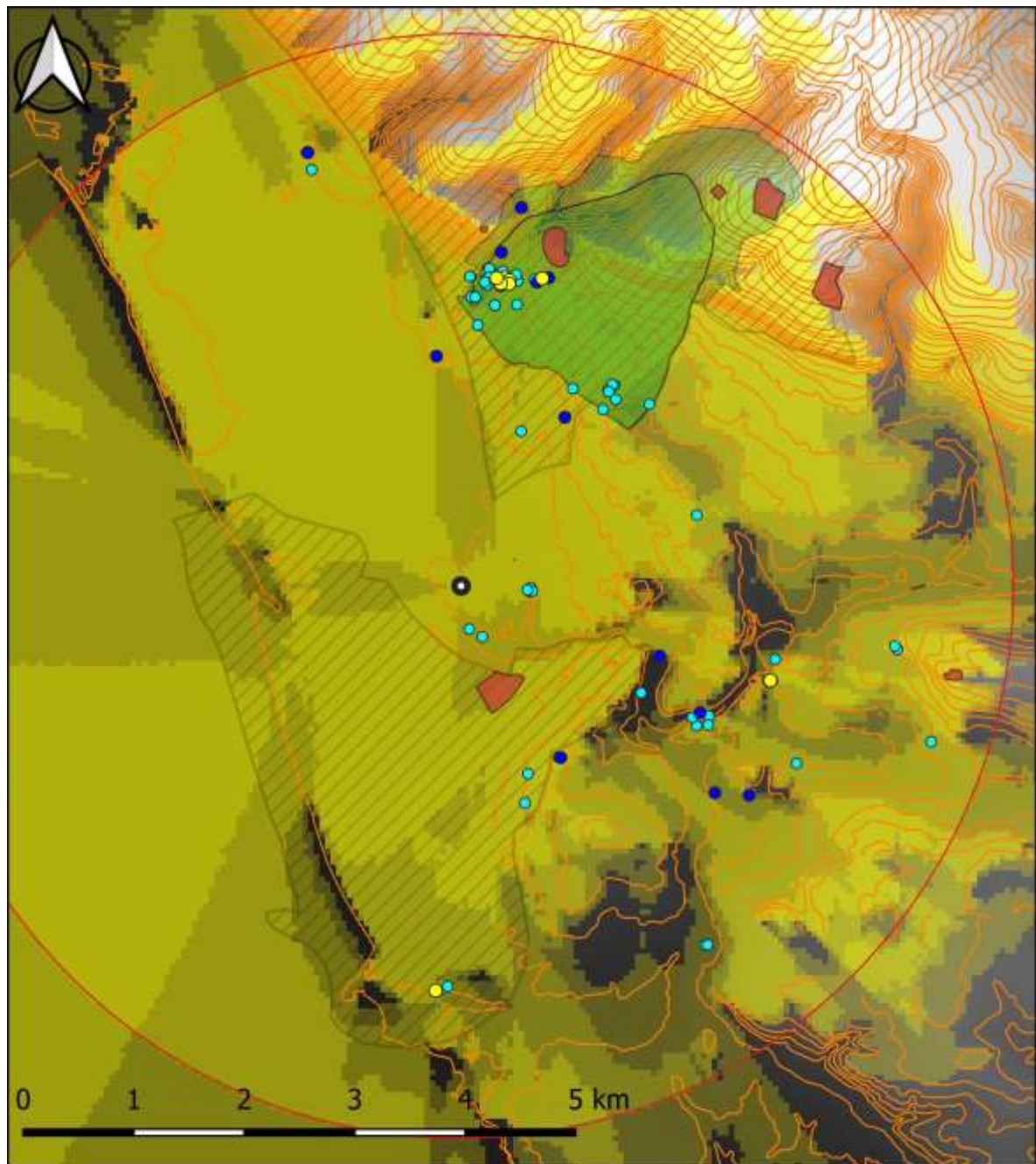
4.5 ASSESSMENT OF THE ZTV

The ZTV supplied by the agent, and the ZTVs generated in-house, have determined the theoretical bare-earth extent of the viewshed to be very extensive. The proposed site is located on a flat coastal plain with high or higher ground to the north-east, east, and south-east. There are relatively few areas within 5km where some part of the turbine would *not* be visible in a bare-earth scenario, although as many as nine assets fall outside the ZTV altogether or are borderline. There are some mitigating factors here, in that within relatively flat landscapes the role of local blocking and the screening provided by buildings, hedgerows, embankments and trees close to the receptor is much enhanced (albeit elements of seasonal variation here), and thus the impact of the turbine within this landscape would be less pronounced than the ZTV would suggest. Similarly, while the more elevated facing areas to the east would have better and more extensive views across this landscape, which would include the proposed turbine, the scale of these landscapes serves to diminish the visual impact of a turbine, despite its kinetic character. The relative importance of *aspect* over *prospect* will also vary between different classes of structure or monument.

The distances quoted are predicated on clear visibility, and local weather conditions would have a marked impact on the visibility of any given turbine. Work by Bishop (2002), undertaken with computer simulations and using a turbine 63m to tip, noted the following:

- The most significant drop in recognition rates occurred at 8-12km (clear air) and 7-9km (light haze)
- Visual impact drops rapidly at 4km and is at <10% at 6km in clear air
- Visual impact drops rapidly at 4km and is at <10% at 5km in light haze
- Low contrast in light haze reduces the distance threshold by 20%
- High contrast can dramatically increase the potential impact of white towers
- Ratings were highly sensitive to changing atmospheric conditions

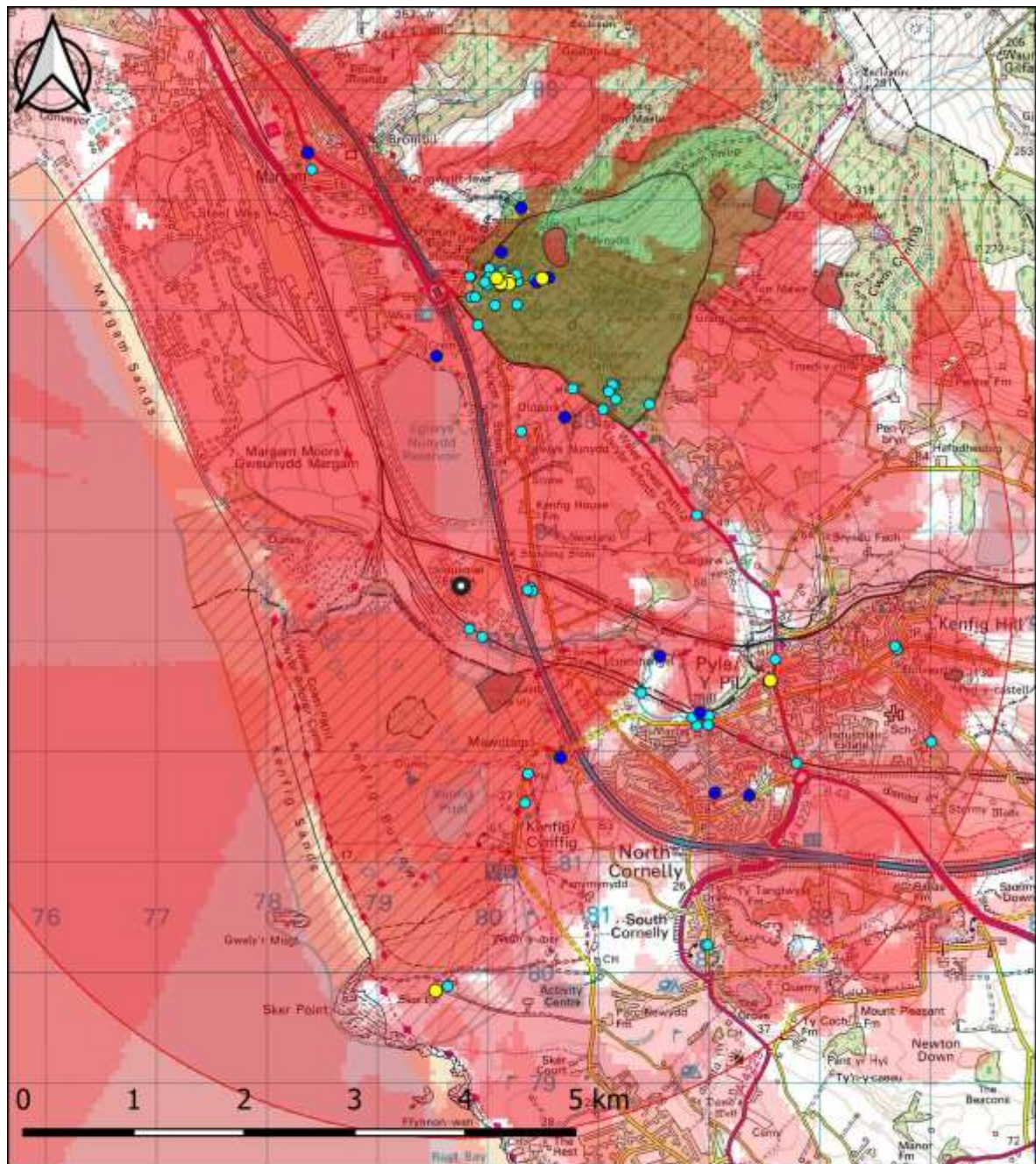
On the whole, the ZTV mapping was found to be a fairly accurate representation of the likely intervisibility between the proposed wind turbine and the surrounding landscape out to 5km, with all the heritage assets that landscape encompasses. While it was clear that, for some designated heritage assets, there would be an appreciable visual effect, for the most part screening from trees, hedgebanks, and other buildings plays an important role, or else the complex modern visual landscape reduces its overall visual effect.



LEGEND

- GI Listed
- GII* Listed
- GII Listed
- SAMs
- RPGs
- RPG setting
- Historic Landscapes

FIGURE 8: DISTRIBUTION OF DESIGNATED HERITAGE ASSETS WITHIN OF THE PROPOSED TURBINE WITHIN 5KM, WITH A BARE-EARTH ZTV BASED ON AN OBSERVER HEIGHT OF 1.8M. CONTOURS AT 10M INTERVALS; PANORAMA ASCII FILE WITH COLOUR RAMP DARK (LOWEST) TO LIGHT (HIGHEST). THE ZTV IS SHADED YELLOW: THE DARKER THE YELLOW, THE GREATER THE THEORETICAL VISIBILITY OF THE TURBINE (I.E. (GROUND LEVEL/BASE OF ROTOR SWEEP/HUB/BLADE TIP) (ZTV WAS PRODUCED BY SWARCH USING QGIS V.3.16 WITH PLUGIN VISIBILITY ANALYSIS V.1.7, WITH OS PANORAMA DIGITAL TERRAIN DATA). (CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2022. © CADW, GIS DATA CONTAINED IN THIS MATERIAL WAS OBTAINED ON 06.06.22; EXCEPT FOR RPG DATA, WHICH IS NOT CURRENTLY AVAILABLE AND LEGACY 2016 INFORMATION USED INSTEAD).



LEGEND

- GI Listed
- GII* Listed
- GII Listed
- SAMs
- RPGs
- RPG setting
- Historic Landscapes

FIGURE 9: DISTRIBUTION OF DESIGNATED HERITAGE ASSETS WITHIN OF THE PROPOSED TURBINE WITHIN 5KM, WITH A BARE-EARTH ZTV BASED ON AN OBSERVER HEIGHT OF 1.8M. THE ZTV IS SHADED RED: THE DARKER THE RED, THE GREATER THE THEORETICAL VISIBILITY OF THE TURBINE (I.E. (GROUND LEVEL/BASE OF ROTOR SWEEP/HUB/BLADE TIP) (ZTV WAS PRODUCED BY SWARCH USING QGIS v.3.16 WITH PLUGIN VISIBILITY ANALYSIS v.1.7, WITH OS PANORAMA DIGITAL TERRAIN DATA). (CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2022. © CADW, GIS DATA CONTAINED IN THIS MATERIAL WAS OBTAINED ON 06.06.22; EXCEPT FOR RPG DATA, WHICH IS NOT CURRENTLY AVAILABLE AND LEGACY 2016 INFORMATION USED INSTEAD).

4.6 CUMULATIVE CONSIDERATIONS

The landscape into which the proposed turbine would be inserted could hardly be described as pristine: the proposed site lies at the southern tip of an operational (and post-operational) highly industrialised landscape. The Tata (former British Steel) Steelworks dominates the coastal littoral, and other clearly modern intrusive elements are present: the M4 corridor, the reservoir, and the high voltage overhead power lines carried on pylons that approach the plant from the south-east. There are also 11 operational wind turbines and 1 consented wind turbine in this area: Newlands Farm (1×77m); Mynydd Brombil Farm (4×100m); ABP Land (1×25m); Stormy Farm (1×26m); Cenin Site (1×105m); Parc Stormy Down [consented] (1×125m); Newton Down (2×125m); and Haregrove Farm (1×45m).

4.7 ASSESSMENT BY CLASS OF MONUMENT OR STRUCTURE

4.7.1 FARMHOUSE AND FARM BUILDINGS

Listed farmhouses with Listed agricultural buildings and/or Curtilage; some may have elements of formal planning/model farm layout

These have been designated for the completeness of the wider group of buildings or the age or survival of historical or architectural features. The significance of all of these buildings lies within the farmyard itself, the former historic function of the buildings and how they relate to each other. For example, the spatial and functional relationships between the stables that housed the cart horses, the linnhay in which the carts were stored, the lofts used for hay, the threshing barn to which the horses brought the harvest, or to the roundhouse that would have enclosed a horse engine and powered the threshing machine. Many of these buildings were also used for other mechanical agricultural processes, the structural elements of which are now lost or rare, such as apple pressing for cider or hand threshing, and may hold separate significance for this reason. The farmhouse is often listed for its architectural features, usually displaying a historic vernacular style of value; they may also retain associated buildings linked to the farmyard, such as a dairy or bake house, and their value is taken as being part of the wider group as well as the separate structures.

The setting of the farmhouse is in relation to its buildings or its internal or structural features; farmhouses were rarely built for their views, but were practical places of work, developed when the farm was profitable and neglected when times were hard. In some instances, model farms were designed to be viewed and experienced, and the assessment would reflect this. Historic farm buildings are usually surrounded by modern industrial farm buildings, and if not, have been converted to residential use, affecting the original setting.

What is important and why

Farmhouses and buildings are expressions of the local vernacular (evidential) and working farms retain functional interrelationships (historical/associational). Farms are an important part of the rural landscape, and may exhibit levels of formal planning with some designed elements (aesthetic/designed but more often aesthetic/fortuitous). Working farms are rarely aesthetically attractive places, and often resemble little more than small industrial estates. The trend towards the conversion of historic farm buildings and the creation of larger farm units severely impacts on historical/associational value.



FIGURE 10: TYN-Y-CELLAR FARM, FRAMED BY FIELDS TO THE NORTH AND SOUTH, ENCLOSED BY THE RAISED M4 CORRIDOR TO THE WEST AND THE BUSY B4283 TO THE EAST; THE TURBINE WOULD STAND DIRECTLY BEHIND THE FARM IN THIS VIEW. VIEWED FROM THE SOUTH-EAST.

Asset Name: Tyn-y-cellar Farm; farmhouse and adjoining barn, granary, cart shed, stable and cow house, former cow house	
<i>Community:</i> Margam	<i>Value:</i> Medium
<i>Designation:</i> GII (all buildings individually listed)	<i>Distance to Development:</i> 0.6km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine	
<i>Summary:</i> Well preserved and restored farmstead grouping, now a farm B&B and holiday cottage business, retaining some land as a small holding. All of the buildings now have a commercial converted character, but care has been taken to retain their historic appearance. The name 'Cellar' is taken to refer to the estate manager at the monastery and this may be related to such a previous person; documentary reference of 1692 to the farm. It is otherwise included on the 1814 estate survey and by that stage was owned by the Margam estate. The original linear range of farmhouse and barn were added to in the 19 th century by two or three phases of building, creating the substantial farmyard to the west.	
<i>Conservation Value:</i> The farm is well restored and aesthetically pleasing, traditional and rustic. It is historically valuable and interesting for its connection to the earlier monastic landscape, via the estate manager and may suggest medieval origins, despite first documentation in the 17 th century. The buildings have been comprehensively modernised but the site is expected to hold high archaeological evidential value, as a potential monastic farm, and therefore the buildings may also contain earlier remains. There is no communal value historically but one of the barns was converted some time ago to a community hall and is used extensively by the locals, including support groups, local meetings, bands and musicians and for parties and events.	
<i>Authenticity and Integrity:</i> Whilst now a B&B business the farm retains some land and there are still animals in the pasture fields; it is authentically a complex mixed-function rural business, and all of the buildings seem structurally complete although there will be expected loss internally of original features/integrity from conversion.	
<i>Setting:</i> The farm sits in a large block of farmland which once bordered the Kenfig sand dunes – it was cut off from this landscape in the 20 th century by the building of the M4 which sits up on a raised bank to the west and spans the valley to the east on a concrete viaduct. The M4 completely dominates the setting visually and aurally but to compound this there is also a line of pylons that follows the route of the road. Immediate setting is still fields, with views out to other small farms, most laid to pasture with animals, cows, and sheep grazing. The track to the farm was extended in the 20 th century under the road to provide access to the mid-20 th century Kenfig industrial estate which lies beyond the road, the junction to the road by the farm is therefore large with a lot of signage and lighting and markings – very much encroaching on the setting of the farm. The aural intrusion on setting from the road affects the experience of the farm	
<i>Contribution of Setting to the Significance of the Asset:</i> The farm is understood within the farmed landscape in which it still sits and in its geographical proximity to Margam Park, which may be significant in its distant past; this is unchanged and positively contributes. The busy nature of the B4283 and large road junction, street lighting and traffic passing to the industrial estate all hem in and enclose the farm with modern visual impacts and both this road and the M4 affects the experience of the farm with aural intrusion and light pollution, negatively affecting the significance of the building through indirect effects on setting.	
<i>Magnitude of Effect:</i> The wind turbine will stand above but beyond the M4; from the farmhouse and yard the blades and part of the hub may be visible but the M4 will do much to screen it. However the visual effects of flicker from the M4 which was noted during the visit, shadow flicker from the blades may exacerbate this and affect the experience of	

moving around the site. From the approach along the road to the farm and in views across the fields the turbine will dominate its immediate landscape, drawing the eye away from the farmstead. It will also cumulatively add to the modern encroachment on this ancient farmstead; the M4, the B4283, the Pylons. It is considered this is potentially the step too far point at which this asset will be affected beyond what is reasonable (views east across the fields are already dominated by a large turbine). No direct impact but clear effect on setting and views.

Magnitude of Impact: Medium value and Minor change = Slight effect

Overall Impact Assessment: Minor Adverse



FIGURE 11: THE LISTED BARN (INDICATED) AT EGLWYS NUNYDD, NOW ENCLOSED IN A MODERN HOUSING ESTATE; VIEWED FROM THE SOUTH-WEST.

Asset Name: Barn and Model farm at Eglwys Nunydd	
Community: Margam	Value: Medium
Designation: GII	Distance to Development: 1.5km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
Summary: 17 th century barn containing substantial medieval surviving fabric, part of a monastic grange on the site purchased separately by Sir Rice Mansel in 1543. There is a collection of 18 th and 19 th century buildings to the south-west, part of a later model farm complex. All the farm buildings have been converted to housing and a large housing estate of historic pastiche dwellings has been built around them, creating a sense of suburbia.	
Conservation Value: The barn is Listed for its age and surviving medieval and 17 th century fabric. It was not built with aesthetics in mind but is a pleasingly rustic stone building. It may have had evidential value but that is expected to have been lost upon conversion. It has historical value as it is associated with a monastic grange.	
Authenticity and Integrity: The barn is now converted into a dwelling and stands amongst a large housing estate. There is expected to be considerable loss of historic fabric and features due to its conversion.	
Setting: The barn is now a dwelling but even more damaging the entire farm site – a former monastic grange – has been redeveloped as a modern housing estate. This housing estate wildly mixes styles between mock-Tudor, Arts and Crafts and mock-Georgian, creating a sense of suburbia around this asset and the other historic but unlisted barns. To the east and north the housing estate backs onto the fields of Old Park farm but the aural intrusion from the M4, A48 and B4283 and lighting is also an issue for setting.	
Contribution of Setting to the Significance of the Asset: The current setting in a housing estate of damaging mixed historic pastiche, poorly executed, combined with the aural intrusion, totally subverts our understanding of this as a barn and even as a historic building. Due to the choice of historic pastiche and current pristine converted nature of the asset it is not clear at first if it is not itself a mock-barn style build. It should stay Listed for protective purposes to conserve what structure survives but its other values have been totally undermined by its setting.	
Magnitude of Effect: The turbine would be visible from the barn over the roofscape of the other houses in the development; they may in fact block views. Generally, on the approach to the housing estate along the B4283 it will be visible and when walking around the estate it will be concealed and revealed at different stages in the gaps between the large, detached homes. The negative impacts of the change in immediate setting are so overwhelming it is not felt the turbine, standing outside of this landscape, can have much more effect.	
Magnitude of Impact: Medium value and Negligible change = Neutral/Slight effect	
Overall Impact Assessment: Negligible Adverse	



FIGURE 12: OLD PARK VIEWED ACROSS ITS FIELDS AND BEHIND ITS MODERN FARM BUILDINGS; VIEWED FROM THE NORTH-EAST.

Asset Name: Old Park	
Community: Margam	Value: High
Designation: GII*	Distance to Development: 1.8km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
Summary: 17th century house incorporating medieval fabric, presumed to be a site associated with Margam Abbey, possible once a grange. Of particular interest is a medieval broken vault and a good late 17th century stair, said to have been removed from Margam House before its 18th century demolition, other fine features such as carved doorways etc are also expected to have been introduced to a lower status building in the 18th century aggrandising it to a gentry farmstead.	
Conservation Value: The building has a very interesting aesthetic with a mix of styles due to potential introduced elements from Margam Abbey and the later Tudor house. It is very high in historical and evidential value for the same reasons and in its earlier medieval grange origins. It has no communal value, being a private farmstead.	
Authenticity and Integrity: The site is authentically still an estate farm, the house is enclosed by trees and a yard of buildings, with newer farm buildings to the north and to the south-east beyond the trees. There appears to be a small airfield on the land to the south. Further along the drive there are workers cottages at the entrance to the main road. Although only viewed at a distance it looks structurally complete and the Listing suggests good integrity of structure.	
Setting: The farm sits in an elongated wedge-shaped block of farmland between historic B4283, Water Street and the enlarged A48 road. The exterior fences are estate metal railings, but inner fields are divided by hedges or modern post and rail and post and wire fences. There is a large clump of trees, clearly estate planting, which screens the house from the road and encloses it to the east and south. It appears there was a second historic driveway which ran out to Eglwys Nunydd, now just a farm track and blocked at the new development.	
Contribution of Setting to the Significance of the Asset: The farmland setting allows us to appreciate this as an ancient farmstead which has adapted and changed with the times, like the estate itself. Its setting is working agricultural and makes a positive contribution to our experience of this asset. The sheer scale of some of the large new barns may be a little visually dominant but it does reflect continuation of use.	
Magnitude of Effect: The turbine will be visible to the west and will stand within the only open views the house has. Between the turbine and the house is the new housing estate at Eglwys Nunydd and the B4283 and the M4 and a line of pylons but the turbine will cumulatively impact the views by adding to them, with its very large scale it will become the dominant feature; it will detract from any views out to the dunes, although these are now already restricted. No effect on setting but altered views and general cumulative impact.	
Magnitude of Impact: High value and Minor change = Moderate/Slight effect	
Overall Impact Assessment: Minor Adverse	



FIGURE 13: LLANMIHANGEL FARM, VIEWED FROM THE EAST. THE TURBINE MIGHT BE VISIBLE OVER THE TREES TO THE RIGHT.

Asset Name: Llanmihangel Farm; Sculptured Cross in wall at Llanmihangel Farm	
<i>Community:</i> Margam	<i>Value:</i> High
<i>Designation:</i> GII*/SAM	<i>Distance to Development:</i> 1.9km
<i>Within bare-earth ZTV?</i> No	
<i>Summary:</i> Outstanding example of a middle-status renaissance house built c.1600 by the Margam estate which had been taken over by Sir Rice Mansel from the dissolved monastery. The site was originally occupied by a grange, which is recorded in the 12th century, and it is possible the house and its outbuildings may contain traces of medieval fabric. This house, which is a farmhouse, is of T-shaped plan and has a good symmetrical frontage, with lobby-entry plan of hall and chambers, the kitchen block to the rear. It is framed by walled gardens and walled kitchen garden. Barns to the north-east and north are a mixture of 18th and 19th century, forming a scattered farmstead. There is an early Christian sculptured cross with incised carving built into a garden wall behind the house.	
<i>Conservation Value:</i> The highest conservation value for this building is its aesthetics and architectural quality. The building has associational historical value for its links to Margam Estate and as a former monastic grange. The Listing is quite detailed but a building of this age inevitably holds high evidential value, with layers of plaster concealing phases of change and alteration, blocked fireplaces etc. There is no communal value.	
<i>Authenticity and Integrity:</i> The house sits within pasture fields, framed by its polite walled gardens and the farmstead is now a horse-stud, so still agricultural in character if a little more pristine than the average farm. The building has pleasingly not been overly aggrandised and still reads as a large farmhouse – it appears well restored and maintained, with expected high integrity.	
<i>Setting:</i> The farmstead sits within the twisting valley of the Afon Cynffig river, flanked by undulating pastoral hills to the south and south-east, between it and Pyle. To the west is the encroaching dune landscape of Kenfig Burrows, with particularly towering dunes between Llanmihangel and Glasfryn, where the railway cutting has created steep banks. To the north the farm is enclosed by scrubby woodland called Llanmihangel Wood and looks across to more pasture fields and farmland, where the turbine at Newlands interrupts views to the uplands and more importantly, stands now between Llanmihangel and Margam Park.	
<i>Contribution of Setting to the Significance of the Asset:</i> The surviving agricultural landscape around the farm is vitally important to our understanding of this site both in the 1500s and 1600s but also in the 12th century when the whole landscape was farmed and the dunes had not yet encroached. The farm being set further inland and receiving such an investment in the later 16th century shows confidence from the Margam Estate that the dunes would not come any further or could be contained – that this farmland was worth developing and would bring in revenue. This farm and its setting and relationship to the dunes therefore demarcates the frontier between farmed and abandoned landscapes in this post-medieval period, vitally important to the wider narrative of this area. Visually the continuation of the farm as a whole site and its agricultural-related function allow a retention of character and sense of authenticity which enhances the experience and therefore value of the site.	

Magnitude of Effect: From ground level any view to the turbine is expected to be blocked by the tall sand dunes of the adjacent reserve and the scrub and trees of the woodland which are now growing out onto them, increasing the screening. From the top of the house any rear windows may therefore catch glimpses of the turbine blades over and above or around the towering profiles of the dunes. On the approach to the farm down the long track from the south from Pyle the turbine will stand in the landscape behind and to the left of that at Whitmoor. This will most certainly have a cumulative effect and draw the eye up and out of the valley and will impact the intended approach experience to the farmstead, but due to the softening effect of Llanmihangel woods it will not directly frame the farmhouse in any wider views. Wider views from Pyle and Kenfig Hill will include the farmhouse and turbine and the cumulative impact of this turbine being added to that at Whitmoor will mean once prominent buildings like Llanmihangel which created the farmstead pattern in the landscape will become visually recessive. The landscape dominated by the two large turbines, complicated further by the backdrop of the steelworks. The effect is therefore indirect and on landscape setting – no direct impact or views.

Magnitude of Impact: High value and Negligible change = Slight effect

Overall Impact Assessment: Negligible Adverse



FIGURE 14: POOL FARMHOUSE, ENCLOSED BY A GARDEN WALL AND WITH 19TH CENTURY BARNs TO THE NORTH; VIEWED FROM THE SOUTH-WEST.

Asset Name: Pool Farmhouse	
Community: Cornelly	Value: Medium
Designation: GII	Distance to Development: 2km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
Summary: 17 th century lobby entry house of two cells, with gable end stacks, with an 18 th century dairy to the rear and a yard of 19 th century barns adjacent to the north which enclose the house. It also stands in a walled garden plot. The last thatched building in this ancient village. Steep pitch and brief description of roof trusses, suggests good survival internally.	
Conservation Value: This is an aesthetically pleasing traditional farmhouse, of good rustic visuals, particularly with its thatched roof. It will have high evidential value as it has not been described internally. There is no known historical association and no communal value.	
Authenticity and Integrity: The house now appears to be residential, no longer a farmhouse – the 19 th century farmyard of buildings to the north is also now converted to housing and clearly in separate ownership. All the buildings on the site however look to be in very good condition and fairly recently restored/converted, substantially complete.	
Setting: The farmhouse stands to the east of a long north-south road within the ribbon development village of Kenfig. A number of other farms, of earlier date, lie in the same parallel arrangement with the road but are perpendicular – whereas Pool farmhouse faces west out across the Kenfig Burrows. To the east behind the farmhouse and other village buildings the land is divided into fields, with tall hedges between, a surviving pocket of farmed landscape. To the west the sand dunes have dominated the landscape from the medieval period onwards, now a valuable and protected SSSI. The views to the west, south-west and north-west are wide open and exposed, empty of built form but for the nature reserve offices and visitor centre. To the north-north-west the Tata steelworks are very visible.	

Contribution of Setting to the Significance of the Asset: The farmed landscape to the rear provides a correct context for the farmhouse and the dunes landscape provides a historical sense of place, having previously been farmland and explaining the reason for the creation of this later settlement, i.e. abandonment of original Kenfig. These are positive elements and enhance the value of the house. The busy road and second-hand traffic noise from the M4 does however dominate this landscape and is a detracting element.

Magnitude of Effect: The turbine would stand to the north, and within the visual of the approach along the road in the village from the south it will be dominant. Its moving blades and scale will detract from all the houses facing and perpendicular to the road, which are by their historic nature low-lying in profile. The principal views west across the walled garden of the farmhouse will not be affected and it must be remembered that views are not of consideration to farmhouses which are functional buildings. However, the turbine will have a significant effect on the character of the setting – the Tata steelworks are a negative visual, noise, light, and pollution influence in this landscape but the village is rather insulated from this by the dunes. The turbine will bring that modern industrialised form much closer and within the wider landscape setting of this asset, disconnected from the rest of the landscape by the M4.

Indirect impact on setting and limited impact on the experience of the asset on the approach from some directions.

Magnitude of Impact: Medium value and Minor change = Slight effect

Overall Impact Assessment: **Minor Adverse**



FIGURE 15: MARLAS HOUSE, WITH 19TH CENTURY FARM BUILDINGS TO RIGHT. VIEWED FROM THE NORTH-WEST.

Asset Name: Marlas House

Community: Cornelly

Value: Medium

Designation: GII

Distance to Development: 2.5km

Within bare-earth ZTV? Partial, theoretical intervisibility to hub of turbine

Summary: Farmhouse of Y-shaped plan, with hall and parlour within a lobby entry wing, and kitchen block/bake house to rear now attached to the house. Framed by several ranges of 18th and 19th century barns this house in the Listing is ascribed a date of c.1600 with 18th century alterations but is likely to be much older, with medieval origins. The main range of the house faces south, with a walled yard enclosing it with an entrance onto a narrow road to the north.

Conservation Value: This building is largely Listed for its age and completeness. It is not particularly aesthetically pleasing but is striking in its late medieval form and strong historic character. It will have exceptionally high evidential value as it was never fully accessed and such access is likely to confirm an early origin, judging by the steep roof pitch, it may retain original trusses which could be dated. It has no communal value and but will have historical value.

Authenticity and Integrity: It still appears to be associated with some land in the valley to the north and is very much of working character, little modernised in recent times. The building seems to survive largely complete, including the later barns and walled yard.

Setting: The house is now left detached from the rest of the landscape on a small wedge-shaped plot, between two roads and the railway line which cuts in to the east. Wider afield the tightly packed council house estates of Pyle have been built on the farmland and completely enclose the house to the south-east and south. To the west is a modern private housing estate. The owners of the house have planted trees and hedges around it to screen it from road noise and aural and light intrusion.

Contribution of Setting to the Significance of the Asset: The current setting completely undermines the value of this heritage asset, and the complexity and volume of traffic on the roads means it is easily overlooked. The negative impacts of noise, light, physical encroachment and social issues in Pyle have clearly made this building unattractive to buyers, which would otherwise be of some recognised status and of a certain value, as a desirable historic former farmhouse. It is in need of renovation and restoration, but the level of investment would not be supported by many prospective owners because of its setting. This creates real risk of deterioration and even eventual loss for this house, as is happening nearby at Hall Farm, also in Pyle.

Magnitude of Effect: The noise, movement and light pollution from the setting which encloses the house is so overwhelming that a turbine some distance away is unlikely to have much further effect. The house also has small windows, not built for views but in a functional capacity. Where it has primary rooms the windows face south, the north wing blocking views, as does the yard wall. Standing in the yard and on the road next to the house, looking across the valley to the north and its fields you are likely to see the turbine, where it would be framed on the skyline by the smoking towers of the Tata steelworks. This would have a minor cumulative effect on this asset which predates almost everything else in its vicinity. No direct effect and no change on immediate (damaging) setting, a change in distant views – some minor cumulative effect.

Magnitude of Impact: Medium value and Minor change = Slight effect

Overall Impact Assessment: **Negligible Adverse**



FIGURE 16: LANMIHANGEL MILL, LEAT AND DAM; VIEWED FROM THE SOUTH-EAST.

Asset Name: Llanmihangel Mill; Bridge to Llanmihangel Mill and leat and dam at Llanmihangel Mill	
Community: Margam	Value: High
Designation: GII* (mill), GII (bridge) SAM (leat and dam)	Distance to Development: 2.4km
Within bare-earth ZTV? No	
<i>Summary:</i> The Mill is a 17th century building altered in the 18th and 19th centuries, when it was rebuilt to grind corn but has its origins in a medieval grist mill, as part of the Llanmihangel grange, part of the ecclesiastical estate of Margam Abbey. The bridge is a post-medieval (17th century) bridge of humpback form, with some interesting details like alternate projecting voussoirs. Some work has been done to alter this and include a culvert. The whole is addressed by a leat that approaches from the north-east.	
<i>Conservation Value:</i> The mill is a good example of a traditional agricultural building. It was not built with aesthetics in mind but is pleasingly rustic. It does not have any communal value but will have high inherent evidential value as it is not clear which elements survive from which period and it is unlikely it was totally rebuilt, more likely adapted. It has high historical value as there are 12th century documentary records and for the association with the Abbey. In 1814 the estate steward for Margam Park was resident at the mill, so it was a place of some local renown. The bridge is of traditional form and is a well-built example, aesthetics have been considered but it has no known historical value, other than its possible association with the adjacent mill, of local importance. It is not of communal	

value but will contain evidential value in its form and in the banks relating to its construction.

The archaeological features in and around the mill like the leat and dam appear to survive in overgrown and altered state. These are ground surface features and relate only to their immediate setting and the functioning of the former mill. The value lies in their evidential value and the contribution to knowledge about the mill and its narrative.

Authenticity and Integrity: The mill is still very much an authentic agricultural-related historic building but no longer functioning as a business. It appears substantially complete though two of its outbuildings appear to have been converted into holiday accommodation. The bridge is very authentic and still in use, giving access to the mill and farm and it may be possible to tie in its construction to their phases of aggrandisement in the late 16th/17th century. It appears complete but has had some modern intervention and there is a concrete culvert.

Setting: The bridge still spans the Afon Cynfig river in a steep valley, further enclosed to the west by the tall embankments of the railway line. The valley is wooded on the steep slopes, with some further trees lining the water way but it retains open pasture in the valley bottom – at the widest point to the west – framed by the railway embankments is the Mill. This valley is the landscape context in which the bridge is experienced, and its presence and setting is fairly intimate – it is not particularly visible even from further along the valley bottom. The ground rises steeply to the north and north-east, the mill is tucked into a hollow in a bend in the river.

Contribution of Setting to the Significance of the Asset: The mill is understood through its processing function by its close relationship with the river and associated leats. The valley location immediately identifies this as a potential mill of some kind. This enhances the experience of the asset, as this small pocket in the valley is fairly unspoilt and protected by a lot of tree screening. The bridge retains its function carrying farm and mill traffic across the river, the unspoilt character of this valley despite all of the building on the higher ground to the south and east means the bridge can be experienced as intended and a key view across the bridge – looking towards the Mill – is retained.

Magnitude of Effect: The turbine might be glimpsed across the fields beyond the valley to the north-west. It is possible from the back of the mill and mill 'garden' there may be glimpses to the turbine, but the extant Whitmoor turbine is much closer in these views, the new turbine blades just visible over the dunes in comparison. The principal views along the valley, from mill to bridge and bridge to Mill will be intact, protected by topography, railway bank and trees. No impact on setting, minor to negligible impact on views.

Magnitude of Impact: High value group and Negligible change = Slight effect

Overall Impact Assessment: Negligible Adverse



FIGURE 17: THE HALL FARM (INDICATED), SUBSUMED WITHIN THE COUNCIL HOUSES OF PYLE; VIEWED FROM THE SSW.

Asset Name: The Hall Farm	
Community: Cornelly	Value: High
Designation: GII*	Distance to Development: 2.9km
Within bare-earth ZTV? Partial, theoretical intervisibility to hub of turbine	
Summary: This is a remarkable 16 th and 17 th century house incorporates a medieval tower house. The Listing suggests substantial survival of important features in the main range and the presence of a large rear block of later date. There	

are other outbuildings which cluster the house to the east but are ruined, with a newer house to the south-east which may represent further converted outbuilding or barns. The gardens appear to be walled to the north, enclosing the house. This building has an interesting connection to Sker house as the same family seem to have owned both plots in the 16th century and may have lived here and first aggrandised it before moving onto Sker house. It appears, however, that this building may be abandoned, or in poor condition with a broken/boarded window to the front and from the rear it appears to be very overgrown.

Conservation Value: The value of this house lies in its age and surviving medieval fabric and in the fact its origins are of a rare type of building, a tower house. It has a certain medieval aesthetic and is obviously very historic in character, if not exactly generally focused on aesthetics, its south front has a smart gabled wing clearly intended to impress. The house will have high evidential value, as it is clear the structural phasing may have more information to give. The house is historically important for its links to the Turbeville/Turbevil family, who also owned Sker House. No communal value.

Authenticity and Integrity: The house itself appears to be very authentic in appearance at a distance but is no longer a farm as its entire estate has been built on, creating the extensive council estates of Pyle Community, as well as a modern primary school to the west. The house is therefore now sat on a tiny plot between terraced streets. It looks structurally complete but the potential boarded windows and therefore poor condition could suggest concerns for deterioration and integrity.

Setting: The farm is completely enclosed within a series of large housing estates both public and private, with Cornelly Primary School to the west. The plot is wedge shaped and contains only the farm and a small bungalow which may be built around the remains of an outbuilding. The house is hardly visible from public roads, glimpsed only between buildings, along the narrow hedge-bound track and across garages from the rear. The land drops away to the north and the house which sits on the brow of the hill will have views over the roofscape of Pyle on this side.

Contribution of Setting to the Significance of the Asset: The setting of the farm has been completely altered, its fields built upon by houses on all sides and a primary school. The building is now totally enclosed in a landscape of concrete, render and tarmac roads. This is a significant detraction from a very important building with medieval origins. It cannot be experienced or understood properly.

Magnitude of Effect: The turbine would be visible across the roofs of the surrounding houses to the north-west, this will lie behind and to the side of the Whitmoor turbine and will have a minor cumulative impact, although this is negligible in light of the immediate impacts of the housing estates.

Magnitude of Impact: High value and Negligible change = Slight effect

Overall Impact Assessment: **Negligible Adverse**

4.7.2 INDUSTRIAL BUILDINGS AND INFRASTRUCTURE

A range of industrial and extractive structures, often exhibiting elements of formal planning, rarely with a view to aesthetics

A whole range of structures relating to a whole range of industries falls under this broad category, and include ruined, standing and functioning buildings. This might include: bridges, canals, capstans, clay-drying facilities, engine houses, fish cellars, gunpowder mills, railways, warehouses and so forth. However, in most instances industrial buildings were not built with aesthetics in mind, despite the elements of formal planning that would often be present. The sensitivity of these structures to the visual intrusion of a wind turbine depends on type, age and location.

It is usually the abandoned and ruined structures, now overgrown and 'wild', that are most sensitive to intrusive new visual elements; wind turbines in the immediate vicinity could compete for attention.

What is important and why

This is a very heterogeneous group, though all buildings and associated structures retain some evidential value, which ranges with the degree of preservation. Some structures are iconic (e.g. Luxulyan viaduct) and quite often others are, due to the rapid intensification of industry in the 18th and 19th centuries, innovative in both design and application (historical/illustrative). Some may survive as working examples – in which case the associational value is maintained – but many are ruinous or converted (historical/associational). All were designed, and many conform to a particular template (e.g. engine houses) although incremental development through use-life and subsequent decrepitude may conceal this. Fortuitous development may then lead to ruinous or deserted structures or building complexes taking on the air of a romantic ruin (e.g. Kennall Vale gunpowder works), imagery quite at odds with the bustle and industry of their former function.

Some of the more spectacular or well-preserved structures may become symbolic (e.g. South Crofty Mine), but communal value tends to be low, especially where public access is not possible.

Asset Name: Morfa Bach Access Underbridge (West); Morfa Bach Access Underbridge (East)	
<i>Community:</i> Cornelly	<i>Value:</i> Medium
<i>Designation:</i> GII (both individually Listed)	<i>Distance to Development:</i> 0.4km and 0.5km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility with base of turbine	
<i>Summary:</i> Pair of bridges constructed in the mid-19 th century as part of the South Wales Main Line which was constructed from 1844-1850 by GWR and whose lead engineer was Brunel, although there is no evidence he was directly involved in the design and actual work. These bridges are of stone and carry the railway over a lane from Ty-y-Cellar farm and Morfa Back farm (which was demolished for the M4). These retained a link between the farmed fields and seaward dune landscape for the grazing of animals and for the farms to have access to Kenfig village.	
<i>Conservation Value:</i> They are Listed as part of the early railway line's historical importance to South Wales and for their architectural value. There is no real communal value as they are now unused. There may be evidential value in both the structures and the embankments, documenting their construction.	
<i>Authenticity and Integrity:</i> They are authentically still performing the same role, although the lanes are now unused. The can only been seen from quite a distance but presumably are maintained by the railway company or network rail.	
<i>Setting:</i> They are located down in the cutting/sunken valley setting of the railway, under the railway; these are ground level and lower structures. Their setting is limited and immediate due to the nature of the assets.	
<i>Contribution of Setting to the Significance of the Asset:</i> The railway is the reason for their construction and defines their function and form. The continued use of the railway and their continued performance of their role is testament to the quality of build.	
<i>Magnitude of Effect:</i> The turbine would be located in the industrial estate immediately to the north, but over the bund and fences and across the industrial estate. There are no views from the bridges and no intervisibility. The bridges are part of the first stage of industrialisation of this landscape, of which the turbine is a continuation. No change to setting and no change to views.	
<i>Magnitude of Impact:</i> Medium value and No Change = Neutral effect	
<i>Overall Impact Assessment:</i> Neutral	

Asset Name: Marlas Road Overbridge	
<i>Community:</i> Margam/Cornelly	<i>Value:</i> Medium
<i>Designation:</i> GII	<i>Distance to Development:</i> 2.5km
<i>Within bare-earth ZTV?</i> Partial, theoretical intervisibility to base of rotor sweep	
<i>Summary:</i> Part of the South Wales Main Line, built by GWR in 1844, this is a grandiose neo-classical structure, an unusual flying-arch engineering achievement, with good architectural details like a stepped string course and segmental arch and dressed coping stones to the raised walls. The bridge is built of rusticated ashlar and may be influenced by the main engineer on the line, Isambard Kingdom Brunel.	
<i>Conservation Value:</i> This is a 'better than usual' example and has aesthetic value, executed with accomplishment. It is historically very interesting for its links to the first South Wales Railway and potentially the famous engineer Brunel (or his design and drafting team). It has no defined communal value. There may be interesting evidential value in the structure itself and in the banks relating to its construction.	
<i>Authenticity and Integrity:</i> The bridge is very authentic and still in use carrying the road over the deep cutting. It appears substantially complete apart from a few obvious repairs to coping and the upper walls, which appear to have been completed sensitively.	
<i>Setting:</i> The bridge sits on the line of Marlas Road, an old route which runs up Kenfig Hill and into historic Pyle. It spans a deep cutting, which has a lot of associated trees and scrub planting which reduce views and noise for the town.	
<i>Contribution of Setting to the Significance of the Asset:</i> Its immediate setting has few if any views out – just up and down the railway line which defines its function. This building is designed to be looked at only within the railway space and to be functional above, carrying traffic across. The few changes to the railway line enhance our understanding of this asset. It has understandably been modernised with electric signal and health and safety requirements, such as metal security fencing on its flanks, but these are connected to its ongoing function so are not considered as particularly detracting as they could be on the surface from a visual standpoint.	
<i>Magnitude of Effect:</i> The turbine may be glimpsed in winter through the bare trees of the lefthand bank, if pedestrians stand on the new metal bridge which lies just south of the 1840s bridge. However this crossing is so loud and busy, the surrounding landscape, with traffic lights etc and tightly packed housing that the current setting is overwhelming and a turbine at a distance, while another skyline impact, is likely to be noted but dismissed. Cars approaching the bridge and waiting at the traffic lights from the north side may also get glimpses.	
<i>Magnitude of Impact:</i> Medium value and Negligible change = Neutral/Slight effect	
<i>Overall Impact Assessment:</i> Negligible Adverse	



FIGURE 18: PYLE ROAD OVERBRIDGE; VIEWED FROM THE WSW.

Asset Name: Pyle Road Overbridge	
Community: Cornelly	Value: Medium
Designation: GII	Distance to Development: 3.4km
Within bare-earth ZTV? Partial, theoretical intervisibility to base of rotor sweep	
Summary: Part of the South Wales Main Line, built by GWR, in 1844-1850, this is a grandiose neo-classical structure, an unusual flying-arch, an engineering achievement, with good architectural details like a stepped string course and segmental arch and dressed coping stones to the raised walls. The bridge is built of rusticated ashlar and may be influenced by the main engineer on the line Isambard Kingdom Brunel. This matches that on Marlas road, further up the line.	
Conservation Value: This is a 'better than usual' example and has aesthetic value, executed with accomplishment. It is historically very interesting for its links to the first South Wales Railway and potentially famous engineer Brunel (or his design and drafting team). It has no defined communal value; there may be interesting evidential value in the structure itself and in the banks relating to its construction.	
Authenticity and Integrity: The bridge is very authentic and still in use carrying the road over the shallow railway cutting. It appears substantially complete apart from a few obvious repairs and modernisations.	
Setting: The bridge sits on the line of Pyle Road, running out to Cornelly. It spans a shallow railway cutting which has a lot of associated trees and scrub planting to reduce views and noise for the town.	
Contribution of Setting to the Significance of the Asset: Its immediate setting is more open than the Marlas example but is now dominated by modern housing estates and other roads. Formally the bridge itself has few, if any views out – just up and down the railway line, defining its function. This building is designed to be looked at only within the railway space and to be functional above, carrying traffic across. The few changes to the railway line enhance our understanding of this asset. It has understandably been modernised with electric signal and health and safety requirements, such as metal security fencing on its flanks, but these are connected to its ongoing function so are not considered as detracting as they could be on the surface from a visual standpoint.	
Magnitude of Effect: The turbine may be glimpsed across the roofscape of Pyle and up the railway line to the north-west as it will stand just to the right of the railway line, within the linear view. However the modern crossing and setting in intensely rebuilt Pyle is so loud, clustered, and busy, the surrounding landscape, with traffic lights etc. and tightly packed housing that the current setting is overwhelming and a turbine at a distance, while another skyline impact, is likely to be noted but dismissed.	
Magnitude of Impact: Medium value and Negligible change = Neutral/Slight effect	
Overall Impact Assessment: Negligible Adverse	

Asset Name: Bryndu Coke Ovens	
Community: Cornelly	Value: High
Designation: SAM	Distance to Development: 4.1km

<i>Within bare-earth ZTV?</i> Partial, theoretical intervisibility to hub of turbine
<i>Summary:</i> The monument consists of a group of coke ovens dating to the 19th century. The ovens are part of a large coking complex built in the 1840s as part of a co-ordinated development of collieries and ironworks, and continued in use to supply the Cefn Cwsc Ironworks with coke. At least eight of the ovens are complete with their stone and brick vaults, parts of their firebrick linings, coke caked walls, and flues. Many more are likely to be intact below the undergrowth and infill. They are of the stop-ended type, with barrel vaults, originally some 5m long, and dampers at the stop end. The monument is of national importance for its potential to enhance our knowledge of the early nineteenth century coal mining industry. The structure may be expected to contain archaeological information in regard to chronology, building techniques and functional detail. A coke oven may be part of a larger cluster of industrial monuments and their importance can further enhanced by their group value.
<i>Conservation Value:</i> The monument has clear historical and evidential value. Aesthetic value is limited, but depending on what survives beneath the trees, the patina of age combined with the appeal of a ruin may lend it some value.
<i>Authenticity and Integrity:</i> The area appears largely untouched by modern development. The buried elements will survive relatively intact; the elements visible above surface will be deteriorating.
<i>Setting:</i> The ovens are located within an area of open ground (public open space?) with straggling copses of young trees, above a railway line with high voltage power lines running above carried on pylons. Immediately to the south and west is a recent housing estate of undistinguished houses.
<i>Contribution of Setting to the Significance of the Asset:</i> Minimal. The value of the asset lies in its structural history and development.
<i>Magnitude of Effect:</i> The monument is largely concealed beneath trees on a slope that faces north with comprehensive screening provided by trees along the valley.
<i>Magnitude of Impact:</i> High value and No Change = Neutral effect
<i>Overall Impact Assessment:</i> Neutral

4.7.3 MILITARY FEATURES

In most instances military structures were not built with aesthetics in mind, despite the elements of formal planning that would often be present. They are likely to conform to a particular architectural template, and may be associated with an architect of note; they may or may not retain their original function, which will have a bearing on associational value (historical/associational). The sensitivity of these structures to the visual intrusion of a wind turbine depends on type, age and location. It is usually the abandoned and ruined structures, now overgrown and 'wild', that are most sensitive to intrusive new visual elements; in particular, wind turbines would compete for attention with taller structures (control towers or water towers). The impact on these buildings could be significant. Where they occur in clusters – as they often do – the impact of an isolated wind turbine is lessened, but the group value of the heritage asset is enhanced.

What is important and why

Military structures usually possess a wide range of surviving or related structural elements (evidential), and are usually associated with a particular conflict (historical/associational). Most have little aesthetic value, but they retain communal value, which can in some instances be quasi-spiritual (commemorative).

Asset Name: Chain Home Low Radar Station	
<i>Community:</i> Margam	<i>Value:</i> High
<i>Designation:</i> SAM	<i>Distance to Development:</i> 3.5km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine	
<i>Summary:</i> WWII concrete and steel emplacement, for anti-aircraft radar coastal defences. The framework still survives and is visually prominent on the hillside.	
<i>Conservation Value:</i> The value of this asset does not lie in its aesthetics but in its inclusion in the coastal defences group from WWII and in that historical importance. It will have a lot of evidential value on its construction in and around the structure and its immediate setting. It has no communal value.	
<i>Authenticity and Integrity:</i> This is an immensely authentic structure as it is a rare survival with the steel frame substantially intact.	
<i>Setting:</i> The concrete pad sits on the top of the steep hillside directly above the Tata steel works. It is flanked by fields to the north and east, of rolling undulating character. To the west and south the steep slopes are heavily wooded. On the next hillside is the Brombil windfarm.	
<i>Contribution of Setting to the Significance of the Asset:</i> The high exposed setting on the break of slope provides the clearest and widest views along the coast, vital for the radar defences function. The difficult topography and the isolation of this spot has also directly led to the survival of these structures.	

<i>Magnitude of Effect:</i> There will be intervisibility between the radar station and the turbine but those views are across the Tata steel works, M4, and railway lines, making the addition of another modern feature a minor cumulative issue.
<i>Magnitude of Impact:</i> High value and Negligible change = Slight effect
<i>Overall Impact Assessment:</i> Negligible Adverse



FIGURE 19: THE CHAIN HOME LOW RADAR STATION SITE (INDICATED); VIEWED FROM THE WEST.

4.7.4 LESSER GENTRY SEATS

Older houses with an element of formal planning; may survive as farmhouses

These structures have much in common with the greater Houses, but are more usually Grade II Listed structures. There were many more minor landed gentry and thus a great number of minor Houses. Not all landed families prospered; for those that did, they built Houses with architectural pretensions with elements of formal planning. The sensitivity of those structures to the visual impact of a development would be commensurable to those of the great Houses, albeit on a more restricted scale. For those families that did not prosper, or those who owned multiple gentry residences, their former gentry seat may survive as farmhouse within a curtilage of later farm buildings. In these instances, traces of former grandeur may be in evidence, as may be elements of landscape planning; however, subsequent developments will often have concealed or removed most of the evidence. Therefore the sensitivity of these sites to the visual impact of a development is less pronounced.

What is important and why

The lesser houses are examples of regional or national architectural trends, as realised through the local vernacular (evidential value); this value can vary with the state of preservation. They were typically built by gentry or prosperous merchants, could stage historically important events, and could be depicted in art and painting; they are typically associated with a range of other ancillary structures and gardens/parks (historical/associational). However, the lesser status of these dwellings means the likelihood of important historical links is much reduced. They are examples of designed structures, often within a designed landscape (aesthetic/design); however, the financial limitation of gentry or merchant families means that design and extent is usually less ambitious than for the great houses. Survival may also be patchy, and smaller dwellings are more

vulnerable to piecemeal development or subdivision. The 'patina of age' can improve such a dwelling, but usually degrades it, sometimes to the point of destruction. There is limited communal value, unless the modern use extends to a nursing home etc.



FIGURE 20: TWYN YR HYDD, ENCLOSED WITHIN WALLS AND BANKS, FRAMED BY TREES IN ITS OWN PARKLAND SETTING WITHIN THE WIDER MARGAM ESTATE, FROM ACROSS THE FARM PARK. VIEWED FROM THE NORTH.

Asset Name: Twyn-yr-Hydd; Entrance and Flanking walls; Garden wall; Farm building; Kitchen garden wall and glass house	
<i>Community:</i> Margam	<i>Value:</i> Medium
<i>Designation:</i> GII (all buildings individually listed)	<i>Distance to Development:</i> 2.0-2.3km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine	
<i>Summary:</i> Grandiose Victorian-Gothic house built by Emily Talbot in the 1890s for the estate manager Edward Knox, her new land agent/steward. It stands amongst its own farm buildings and walled gardens and has a separate entrance; being a mini-estate within an estate as such.	
<i>Conservation Value:</i> The house is an accomplished architectural structure of high aesthetic value, 'the best money could buy in the period' but is of low evidential value, all built in one extensive phase of construction. It has historical value as Knox became a JP and leader of the council, and when Sir Evans-Bevan bought the estate in the 1940s he lived in this house, not the castle. There is no communal value. This house is defined by its relationships with the privileged and the gentry estate of Margam Park.	
<i>Authenticity and Integrity:</i> The house is authentically a large estate building, the parkland character retained by the council's preservation of the estate. It appears to be substantially complete and externally little altered.	
<i>Setting:</i> The house stands in attractively wooded grounds within the grass pasture deer park of Margam Park. It is enclosed within the farm trail section of the community country park but is quite private and self contained. There are expansive views across the park and to south and west across the adjacent farmed landscape from the upper windows of the house. At ground-floor level and the main reception rooms views are anticipated to be a little more closely designed and localised, constrained by the trees.	
<i>Contribution of Setting to the Significance of the Asset:</i> The house being contained within the park explains its creation and the continuation of the park as whole entity enhances the value of this asset and relates its narrative. Its immediate setting is little altered from its construction.	
<i>Magnitude of Effect:</i> The turbine would be visible to the west, beyond the M5 and pylons but standing between the house and the dunes landscape and the sea (distant sea views were probably intended from the terraces in front of the house). The turbine at Whitmoor is both closer and more visible from the house than the new turbine would be, but intervisibility is confirmed. The proposed turbine would stand far outside the limits of Margam Park in its 18 th and 19 th century form, the landscape context in which we understand this house. The turbine will therefore create the minor cumulative effect of another modern impact in the distant views from this house; an indirect impact but	

quantifiable as views are important to such a gentry house. The entrance gates to the house, also Listed, would have even clearer views to the turbine, but the impact is similar; the extant Newlands turbine is again closer and more visible.

Magnitude of Impact: Medium value and Negligible = Neutral/Slight effect

Overall Impact Assessment: Negligible Adverse



FIGURE 21: SKER HOUSE (INDICATED), THIS TALL AND IMPOSING GENTRY RESIDENCE ADAPTED FROM A MEDIEVAL GRANGE SITS ON THE VERY EDGE OF THE DUNES IN GLORIOUS ISOLATION; A LOCAL LANDMARK. VIEWED FROM THE SOUTH-EAST.

Asset Name: Sker House; barn	
Community: Cornelly	Value: Very High
Designation: GI (house); GII (barn)	Distance to Development: 3.6km
Within bare-earth ZTV? Partial, theoretical intervisibility to base of rotor sweep	
<i>Summary:</i> Exceptional 16th century mansion house built around and incorporating the remains of a 15th century building, which in turn was developed on the site of a 12th century grange for which there is extensive documentary evidence. The unusual double front wings or towers emulate grander Elizabethan houses and are additions to an earlier main range, which in turn has a rear stair turret. The house retains a first-floor hall and due to a series of tenants and changes in ownership has received little alteration. It was in very poor state in the 19th and 20th century but has since been renovated to a high standard. It is now painted with a yellow ochre limewash and stands out as a three-storey architectural masterpiece on the otherwise empty coastal landscape. The Listed barn within the scattered farmyard is likely the remains of a medieval grange barn but is much altered.	
<i>Conservation Value:</i> This is a highly aesthetic building and draws the eye for miles around – it has both a statement of wealth and slightly fortified air about it – being strongly Tudor/Elizabethan in its style/form. It is also full of evidential value as the precise narrative and phasing of this complex building has not been fully established (or at least, that information is not readily available). It is historically of exceptionally high value for its associations as a monastic grange, its medieval and Tudor history and as the location for the famous 19th century novel the Maid of Sker, based on local folklore and ghost stories, for which the house is still known locally – also therefore having a communal value – as a local landmark which somewhat defines the area, and which made the area famous in the Victorian period.	
<i>Authenticity and Integrity:</i> The house has recently received a comprehensive restoration and is Grade I Listed for its exceptional completeness – little altered since the later 16th or early 17th centuries.	
<i>Setting:</i> The house sits out on the very edge of the Kenfig Nature Reserve –defining the boundary between dunes and surviving coastal farmland which enclose it to the south-west, south and south-east. The house and farmland are protected by the rocky promontory of Sker point. The house is flanked by service buildings to the east and north-west, with a long range of farm buildings to the east, the setting divided into paddocks and gardens and kitchen gardens by stone walls, creating a formalised setting. There is now a recreated formal garden to the south – which the principal facade faces across looking towards Porthcawl. There is a modern courtyard of barns down the south drive, screened by trees. A second north drive links back to another post-medieval farmstead Waun-y Mer farm.	
<i>Contribution of Setting to the Significance of the Asset:</i> Being the only standing complete survivor of this medieval	

landscape gives Sker house even more significance in the landscape – this is the biggest and grandest remnant of an intensively farmed rich coastal fringe and it is part of an important group of local sites which were once monastic granges to Margam Abbey. The farmland to the east and north-east of the house provides appropriate agricultural working character to the landscape and the presence of the Porthcawl golf club has retained the grassy landscape to the south and prevented building encroachment from the 20th century suburbs of that settlement. The vast open sand dune system of Kenfig Nature Reserve emphasises the height and grandeur of the house and arguably probably aggrandises it in the landscape, as it pulls all focus.

Magnitude of Effect: This house is a local landmark, both physically prominent in the landscape and famous as the subject of a novel which brought much attention and even tourism to the locality. The house will look directly across to the turbine but from its rear façade. The open character of the setting and dunes mean there is no screening, and it is likely the turbine will be visible from even the ground-floor rooms. The house has large late 16th century windows, which so define its architecture and allow expansive views. Intervisibility confirmed. The turbine will also be visible from the setting and gardens of the house and from the barn and in views between and across the site, although at a distance. The turbine will not be visible in views from the principal façade but will frame and distract from the house in key views towards its south front, i.e. from the Royal Porthcawl Golf Club. The turbine will compete for landscape presence with this house. The sheer size of the turbine however and the fact that it will create the effect of bringing the industrialised character of the steelworks into this nature reserve landscape, stepping that damage out visually. It has indirect impact on setting and views and landscape presence. It will have a cumulative impact of enhancing the extant damage of the steel works in this landscape with its moving profile and large industrial form, its scale in relation to the intervening low-lying dune landscape.

Magnitude of Impact: High value and Minor change = Moderate/Slight effect

Overall Impact Assessment: **Minor Adverse**

4.7.5 GRAND RESIDENCES

Large and/or surviving gentry houses, in public or private hands, often incorporating multi-period elements of landscape planning

The larger stately homes and lesser and surviving gentry seats were the homes of the manorial and lordly elite. Some may still be occupied by the descendants of medieval owners; others are in public ownership or held by the National Trust. Wealth derived from agriculture holdings, mineral exploitation and political office was invested on these structures as fashionable expressions of power and prestige. In addition, some homes will have been adapted in the post-Dissolution era from monastic centres (e.g. Margam Castle), and thus incorporate earlier buildings and hold further historical associations.

They are often Grade II* or Grade I Listed buildings on account of their condition and age, architecture features, internal fixtures and furniture, and historical and cultural associations. In addition, they are often associated with ancillary structures – chapels, stables, kitchen gardens etc. – that may be included within the curtilage of the House or be Listed in their own right. In addition, there is often a high degree of public amenity.

As such, these dwellings and associated structures were visual expressions of the wealth and aspirations of the owners, and were designed to be impressive. They were frequently located within a landscape manipulated to display them to best effect, and views to and from the structures were very important. In earlier periods this might be restricted to the immediate vicinity of the House – i.e. geometric formal gardens – but even these would have incorporated long prospects and might be associated with deer parks. From the 18th century, designed landscapes associated with the House laid out in a naturalistic style and incorporating multiple geographically disparate associated secondary structures became fashionable. The surviving examples usually contain many mature trees and thus local blocking is common. However, such is the sensitivity of these Houses, and in particular their associated designed landscapes, that the visual impact of a wind turbine is likely to be severe.

What is important and why

The great houses are examples of regional if not national architectural value, and may be located on sites with a long history of high-status occupation (evidential). They may conform to a

particular style (e.g. Gothic, Palladian) and some were highly influential locally or nationally; surviving examples are often well-maintained and preserved (historical/illustrative). They were typically built by gentry or noble families, could stage historically important events, and were often depicted in art and painting; they are typically associated with a range of other ancillary structures and gardens/parks (historical/associational). The epitome of design, they have clear aesthetic/design value, arising from their intrinsic architectural style, but also the extensive grounds they were usually associated with, and within which they were designed to be seen and appreciated. The aesthetic/design value can improve with time (the 'patina of age'), but it can also be degraded through unsympathetic development. As large structures built for the use of a single family, communal value is typically low, although an argument can be made the 19th and early 20th century great house was a community in its own right, with its family, servants and extended client base. Not all survive as country houses; some are schools, nursing homes or subdivided into flats, and this has a severe impact on their original historical/associational value, but provides new/different associational and also communal/social value.



FIGURE 22: THE ORANGERY AT MARGAM PARK, A DELIGHTFUL, DECORATED SINGLE-STOREY STRUCTURE WITH ASSOCIATED LISTED BALUSTRADED TERRACE AND POOL; VIEWED FROM THE ESE.

Asset Name: The Orangery, Margam Park; terrace walls and pool	
<i>Community:</i> Margam	<i>Value:</i> Very High
<i>Designation:</i> GI (building) GI* (terrace)	<i>Distance to Development:</i> 2.7km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine	
<i>Description: Listing:</i> Designed in 1786 by the architect Anthony Keck, of Kings Stanley, Gloucestershire, for Thomas Mansel Talbot. Built at a cost of over £1,400 and complete by 1793. Keck had built Penrice Castle for Talbot, and his chief mason, William Gubbings, was also employed at Margam. The orangery, the longest in Britain, was of Pyle stone but Sutton stone from the former mansion was used for the rear. Specialist craftsmen were brought in, including James Millward, plasterer, but most of the labour was provided by the estate. The ornate end pavilions were for housing antiquities which Talbot had brought back from Italy. Statues were displayed in the east pavilion (subsequently moved to Margam Castle), whilst the west pavilion was the 'library pavilion'. The orangery was heated by coal fires with chimneys set into the back wall. From May to October, the plants were taken out of the high rear entrance and placed around the fountain in the garden. It was not the first orangery at Margam; a collection of citrus trees was present by 1711 and a catalogue was produced in 1727. In 1842, Samuel Lewis recorded 110 orange trees in the orangery. Restoration work in 1975-7 included replacement of the roof structure and the windows. Long single storey building in classical style with 27-window front and flanking 1-window pavilions. Constructed of ashlar with renewed slate roofs partly hidden by cornice, attic above central bays with slate hung sides, impost band and plinth. The front is rusticated and vermiculated between impost and sill level. Tall round-headed window openings with vermiculated voussoirs and high plain keystones. Replaced multi-pane windows with radial glazing beneath heads. Crowning Doric cornice with metope and triglyph frieze surmounted by urns with swags. The central 5 bays are stepped forward with square stone bases in front of the angles (perhaps for statues) and the inner 3 bays are advanced	

further. Flat-headed attic frieze enriched with 7 bucrania and swags, surmounted by urns. The flanking pavilions are slightly advanced with triangular pediments surmounted by acroteria and urns. Venetian windows within blind recessed arches, containing sashes. Impost band with frieze of Vitruvian scrolls supported on round columns flanking inner windows. The metope and triglyph frieze continues from the main range below the pediment, and around the sides of the pavilions. The scrolled impost band also continues round the sides. Each side has a central Venetian doorway. That to the E contains half-lit double doors, whilst that to the W has a single half-lit door. Both are approached by stone steps bounded by ashlar walls with moulded copings. The rear is of rubble stone with quoins and plinth. Towards the centre is a wide full height entrance with panelled door within a gabled porch, partly rebuilt with weather-boarded gable. Flanking stone stacks. Late C20 lean-tos to L and R with shuttered doors, vents and stacks. That to R has a catslide roof with skylights and continues to the W pavilion. Shorter lean-tos to L. The rear of the pavilions are also of rubble masonry with quoins and plinth, and gables. The impost band continues round from the sides but is undecorated.

The main range has been converted for new uses. The pavilions are decorated in the style of Adam, and the west pavilion is more ornate. Access to the main range from each pavilion is through a Venetian doorway which matches the exterior doorways. Each has a half-lit door and side lights with sashes, and panelled reveals which fold out to form shutters. The east pavilion forms the current entrance. The side lights are flanked by pilasters which support dentilled lintels. The pilasters are supported on pedestals which continue round the room as a low dado. To the N is a moulded stone fireplace in classical style. It has a flat cornice with dentils, in the centre of which is a small motif with an urn in relief, and it contains a cast iron fireplace with fluted decoration. The room has a moulded dentilled ceiling cornice. The W pavilion is lined in Adam-style plasterwork in the form of orders, which incorporate the Venetian doors and window. (The blind arches were formerly recessed to shelve books.) The arches, decorated with anthemion, spring from lintels supported on pilasters with pedestals below. The lintels are dentilled and the pilasters have recessed panels and fluted capitals. Blind arches flank the doors to the E and W. Under each one is a moulded fan above a frieze of swags which continues from the lintels. The N and S walls have a single large arch, within which is a fireplace and window, respectively. Moulded ceiling cornice with a frieze of griffins, drapes and lamps. Adam-style coloured marble fireplace; pink and green marble with flat cornice containing a cast iron fireplace with scrolled and foliate decoration. A large balustrade terrace frames the south front of the orangery with a large shallow round pool – which are separately Listed.

Supplemental Comments: This is a glorious classical building of monumental scale, the largest and most ornate Orangery in Britain. It was built to house the antiquities and plants brought back from Mansell's grand tour and its cost was the destruction of the grand Tudor house his ancestors had created out of the Abbey ruins, an oddly iconoclastic move for one so enamoured with the past. It is a good example of the wealth and excess of 18th century British society in this period and the colonialist collecting culture. It has become something of a local landmark for its social use as a famed wedding and events venue.

Evidential Value: The building and its raised terrace will seal deposits from the destroyed Tudor house and earlier Abbey. Much of the natural slope here has been corrected, cutting in but also raising and levelling, possibly even using the rubble from the demolished buildings.

Historical Value: Immense value, as an unusual and rare building type and for its association with the Mansell family and then the Talbot family and wider site value as a former Abbey.

Aesthetic Value: This building is highly aesthetic. It was built to show off its gentleman owner's collection of antiquities and exotic plants – showcased by the structures classical design – referencing his grand tour around ancient European capitals and associated worldliness and cultured education. It is both decorative and pleasing and visually making this important statement of wealth and privilege.

Communal Value: The main building is used for used for weddings, meaning there is quite a community of people who have married there and who return to the site. The building and its park are well used and beloved by the community, it is a source of local pride and identify for the immediate area.

Authenticity: The building was built for pleasure and entertainment and retains that function, hired for private events, although no longer exclusively used by one family. It retains its Gentry appearance and rarefied character.

Integrity: The building has apparently been modernised internally, with the addition of service kitchens etc. for its new wedding function but the pavilions remain intact. Externally it is well restored and complete.

Topographical Location and Landscape Context: It sits on a long shallow west-facing slope, with Margam Castle to the east-north-east and framed to the east, north and south-east by the ruins of Margam Abbey. It is contained within the arboreal character pleasure gardens of the castle – originally laid out for the orangery and added to in the 19th century, including specimens Mansell brought back himself. The wider park and the gardens within that park are the landscape context.

Principal Views: There is an important view of the Orangery through the main garden gate, where it is framed by the ruins and views through the ruins to the east pavilion. There are views from the long gravel walk in front of the Orangery and long views west from the west front and terrace of the Castle, looking down the main garden avenue.

Landscape Presence: The building is not visible wider afield, enclosed as it is with walls and ornamental planting. It relates only to its garden setting.

Immediate Setting: It is contained within the arboreal character pleasure gardens of the Castle. Originally laid out for the Orangery and added to in the 19th century, including specimens brought back by the family. This part of the garden lies within a long rectangular plot, framed by tall stone walls with gates in and out – emphasising the restrictive and exclusive nature of the space. This creates an introverted character: the planting excludes external views.

Wider Setting: The Orangery and formal gardens stand at the extreme north-western part of the surviving deer park; the whole area is a Registered Park and Garden in three main parts. To the south, south-east and south-west the key inner park is retained and survives intact, stretching out as far as Tyn-y-Hydd, with drives, terraces and parkland planting all surviving. To the far south and south-east the farmed landscape once attached to the estate survives but are increasingly becoming developed; some farms may be retained by the Council but it is expected most are now privately owned. Its deer park extends up onto the hills and also survives as complete, with walled enclosures for sheep and deer and 19th century conifer plantations. North of the Orangery is the former Abbey Church, now a parish church and the extensive walled kitchen gardens and 19th century estate village.

Enhancing Elements: Retaining the formal entertainment function for this building has kept its character and 'essence' alive within the wider community and South Wales region – it is still a place to show off or to celebrate within. This allows us to appreciate the cost/expense and effort which went into the creating a space purely for entertainment and to understand the building as intended.

Detracting Elements: None.

Direct Effects: None.

Indirect Effects: There is a secondary cumulative effect on the wider parkland, in which we understand this Gentry building: the disconnection as a 'historic bubble' within an increasingly industrialised landscape will be enhanced by another large wind turbine, since the Whitmoor turbine already impacts the important southerly views.

Contribution of Setting to the Significance of the Asset: The setting in the surviving park is important as it gives us a chance to understand and interpret the Orangery, its architectural status and landscape as intended as a cohesive whole; an interpretation which allows us to 'read' the messages in such displays of wealth and power, as intended. The setting is complimentary and provides historical and visual context to the exceptional architecture of the building, for which it is primarily valued.

Magnitude of Effect: There will be no direct effect on views to or from the Orangery and no effect on its exclusive limited garden setting. The hypothetical wider inherent impact on the parkland will affect the Orangery the least as it sits in its own 18th century phase, solely limited to its pleasure ground setting and does not relate to either the medieval or 19th century phases which more directly concerned the wider estate.

Magnitude of Impact: High value and No Change = Neutral

Overall Impact Assessment: **Neutral**



FIGURE 23: THE LISTED TERRACE AND BALUSTRADE IN FRONT OF MARGAM CASTLE (RIGHT), WITH THE TATA STEELWORKS IN THE BACKGROUND; VIEWED FROM THE EAST.

Asset Name: Margam Castle; Terrace and screen	
Community: Margam	Value: Very High
Designation: GI (building), GI* (terrace and screen)	Distance to Development: 2.9km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	

Description: Listing:

Designed by the architect Thomas Hopper (1776-1856), for Christopher Rice Mansel Talbot (1803-90). Hopper, County Surveyor of Essex, was patronized by the Prince Regent (George IV) and undertook commissions at Carlton House in London. Hopper's work in Wales includes Penrhyn Castle and Llanover Court, Monmouthshire. The state staircase at Windsor (James Wyatt 1800-4) may have been the inspiration for the vast stairhall, which forms the focus of the interior. The plans were drafted in 1827-9 and the house was built in 1830-35 at a cost of £50,000, using sandstone from nearby Pyle quarry. The supervisory architect was Edward Haycock of Shrewsbury (1790-1870), who contributed to the interiors and the design of the service buildings. Talbot had input into the style of the house, borrowing elements from the Talbot family seat at Lacock Abbey, and the idea of the octagonal tower from his mother's ancestral home at Melbury, Dorset. On C R M Talbot's death in 1890, Margam Castle was inherited by his eldest daughter, Emily Charlotte (1840-1918). Next in line was her nephew, Andrew Mansel Talbot Fletcher, of Saltoun Hall in Scotland. Against his wishes, the estate was sold by the trustees in 1941-2. The contents were auctioned at Christies and the house and estate were purchased by David Evans-Bevan, a brewery and colliery owner of Neath. He found the castle too large and lived at the agents house on the estate, Twyn yr Hydd. By the early 1970s the castle was becoming ruinous and David Evans-Bevan sold it to Glamorgan County Council in 1973 for £400,000. Following a disastrous fire in 1977, the castle was left as a shell, with a loss of all fitments, internal plaster and carpentry.

Tudor Gothic mansion of 2 stories and attics, of ashlar stone under renewed slate roofs. The house is characterised by its asymmetry (except for the W garden front) and its rich Gothic detail. Irregular gabled bays surround a courtyard and a prominent octagonal tower. Detail includes turrets, crenellated parapets above a continuous string course with decorative bosses, finials, bay windows, oriel windows, a plinth, ornate chimney shafts in groupings of up to 6, and tablets bearing heraldic emblems. Tudor-style windows under hoodmoulds, with central transom and a varied number of lancet-headed lights, mostly containing renewed horned sash windows. The entrance front is to the N, an advanced gabled bay R of centre containing the porch. Further L is a gateway leading into a service courtyard. The W end of the house forms an impressive garden front overlooking the broadwalk which leads down to the orangery and abbey buildings; this is enclosed by a balustrade screen. A further garden front is to the S overlooking the deer park, enclosed by a raised terrace with balustrade. The terrace is separately Listed Grade II*.

Supplemental Comments: The building is an impressive and highly decorated Gothic revival castle – a fantasy building, reflecting the height of the Romantics movement. Its façades have busy asymmetrical elements but the whole is surprisingly cohesive – it has two particularly fine frontages to west and south, which are flanked by a raised retained terrace/parterre. Its interior was sadly lost after a fire during early restoration efforts. Despite many attempts at reuse the building appear to still be derelict internally but is well restored externally. There are clearly still issues of anti-social behaviour as graffiti was visible on some windows from inside with anarchist and occult symbols. The building spent much of the 20th century in the ownership of the local council, which saved it from demolition. The wider deer park is a community country park of clear local amenity value.

Evidential Value: A building of this size and scale, having undergone considerable works and alterations, may have some potential evidential value for further historic recording and study but the fire, consequent loss and its relatively late build date mean this is one of the lower conservation values.

Historical Value: The building has immense value for its associations with the Talbot family and then Evans-Bevan – this history is fairly local in its reach – the wider site has higher value as a former monastic estate of national value.

Aesthetic Value: The building is architecturally accomplished, and the result is an aesthetically pleasing and surprisingly 'delicate' building. Despite its impressive scale it settles well into its landscape, carefully situated to be framed by the hill behind. It is a building with the exceptional use of the finest and most fashionable architectural devices and forms of its day. It is one of the best examples of decorated Gothic Revival and has an interesting European or French gothic influence which may reference the early abbey on the site and makes this building different from many of the more bombastic militaristic-inspired gothic buildings of the period. This is a fantasy mansion and not a mock-castle.

Communal Value: For many decades the building has been owned by the local council and the wider site has been run as a community country park. This is an actively used amenity space within the wider district and it contains a popular cafe and farm park/learning centre and adventure attractions. The main building is not used at present but has been in the past – the service buildings and courtyard contain a cafe. The park, Abbey and Castle are a collective source of local pride and identify for the immediate area.

Authenticity: For much of the 20th century the building was slighted and little maintained by trustees, then by the army during the world wars and then during a first phase of renovations an accidental fire damaged the interior. It is now undergoing considerable works to renovate the entire estate. The building has not been divided but is one cohesive dwelling, if derelict. It does retain a pleasure and entertainment function and has not been parted with at least its inner park. The exterior appears historic and little changed.

Integrity: The building is undergoing restoration, with its entire inner park and buildings. The exterior is in excellent condition, still of historic character, its phases clearly evident. The interior was damaged by a significant fire in the 1977 with the loss many internal decorative elements, but the house has not been divided into flats or converted into a hotel, like many of these larger buildings, remaining from appearances as one cohesive dwelling and its plan form and the functions of the rooms can still be read – the framework and structure is intact.

Topographical Location and Landscape Context: The house stands on a raised knoll below Mynydd-y-Castell, with its back to the hills and facing the plain below. It stands terraced into a south-west facing slope and is angled to look out to the coastal dune landscape; the medieval farmed estate cleared to form expansive grass parkland. The slope has been raised, levelled, and terraced in to create a wide flat platform for the house. This is formalised to the south and

west by retaining walls with a decorative garden terrace. The ground is fairly level to the east before rising steeply to the hilltop and two valleys runs up into the hills to the north-west and north-east of the house. The primary landscape context for the house is the inner walled deer park/pleasure grounds section of the estate but it does also relate to its wider farmed landscape – with the site inheriting many farmsteads from the monastic abbey.

Principal Views: The house has important outward views from the south, across the deer park and west down to the Abbey ruins and Orangery. The ruined Capel Mair forms an eye-catcher to the west-north-west on the slopes above the house and the river to the north-west has been dammed to form a lake with views from the rear of the house. The main focus of both views beyond its park are out to the once beautiful coastal fringe of sand dunes – much now industrialised as Tata steelworks – which frames all views west above the trees and buildings – with the pollution from the smoking stacks rising even higher in the sky. There are inward views to the house and grounds from the south-east, south-west, south and south-west – ornamental tree planting obscuring the house in inward views from the west. There is a key view along the main avenue between ruins, Orangery and Castle. There are key parkland views from Capel Mair and Mynydd-y-Castle the hills behind the house, across the house and parkland.

Landscape Presence: The building was designed to be visually prominent in the landscape, the largest structure for miles, framed by the hills behind. It is still prominent, even from further afield, its particularly striking octagonal tower visible rising above the trees even from within the modern steelworks. The heavily industrialised character of the wider landscape has reduced the landscape presence of this house by the scale and general visual dominance of the industrial buildings.

Immediate Setting: The house sits pleasingly in its landscape, surrounded by open grass parkland, its primary façades to the south and west, framed by ornamental arboreal gardens to the west and lake to the north-west. It is bounded on the south and west sides by a large terrace with balustraded parapet, which overlooks the sweeping south-western grassland slopes out to the estuary/dune landscape.

Wider Setting: The house stands in the north-north-west part of its surviving park; the whole area is a Registered Park and Garden in three main parts and is protected. To the east, the former Stables survive to the east an extensive kitchen garden and workers settlement complex, a small estate village (now with museum and café), some buildings now in separate ownership. To the south and west the key inner park is retained and survives intact, stretching out as far as Tyn-y-Hydd, with drives, terraces and parkland planting all surviving. To the far south and south-east the farmed landscape it once owned survives but is increasingly developed – some farms may be retained by the council, but it is expected most are now privately owned. Its deer park extends up onto the hills and survives up there with walled enclosures for sheep and deer and 19th century conifer plantations.

Enhancing Elements: The house is being carefully restored and conserved, as is its surrounding park and buildings. The public access to the grounds and tea room/museum spaces allows the community to appreciate and engage with the heritage assets on the site.

Detracting Elements: The wider area has been very heavily developed for industry and the estate is now technically within a suburb of the wider district of Port Talbot. This leaves the landscaped park as something of a historic 'bubble' within a changed and industrialised landscape. This alters its landscape spatial interpretation: instead of a high-status country estate in an envious position, it now reads as a lesser status. The true extent of its former lands and isolation in its estate is somewhat obscured by the houses that now crowd around the edge of the protected area from the west and the presence of the large M4 Port Talbot junction. The aural intrusion from both the Tata steelworks and M4 is significant in all locations throughout the park.

Direct Effects: None.

Indirect Effects: The turbine will be visible in all outward views south and south-west, between the house and the Kenfig dunes. Five or six turbines are visible in this direction already, some at a distance near Porthcawl, the closest turbine being that of Newlands and which has a high impact, visible across the park when looking outwards. The house was located on the slopes to take advantage of estuary and dune views, the terrace formed to enhance these. The family took over a former monastic estate, looking out across the former estate to medieval Kenfig and its lost castle, which is in accordance with Romantic movement at the heart of the Gothic revival. The turbine will therefore change these principal and important views and relationship between the house and its wider setting. There would be no effect on immediate setting as the turbine is outside of its parkland landscape context; an additional turbine in these views will have a cumulative impact, the industrialised landscape focused to the west, limited in this direction. It will add to the house and parks sense of disconnection and isolation from its setting.

Contribution of Setting to the Significance of the Asset: The setting is important as the owner located the house to have these specific views, east, south, and south-west to the estuary, across the former monastic estate. The setting in the surviving park is important as it gives us a chance to understand and interpret the house, its architectural status and landscape as intended as a cohesive whole, an interpretation which allows us to 'read' the messages in such displays of wealth and power, as intended. The setting is complimentary and provides historical and visual context to the exceptional architecture of the building, for which it is primarily valued. The increasing development and encroachment of the modern industrialised landscape is affecting the ability of the immediate setting to insulate this house from negative impacts.

Magnitude of Effect: The turbine may have a minor cumulative effect in the views, its moving profile adding to those which already operate, creating an active distraction in the views. Contrary to most other assets, the house is of such impressive architectural form and visual power that it more than holds its own, even in these complex landscape views. The turbine will however extend the industrialised character of the Tata steelworks further out into the farmed landscape and into the Kenfig dunes landscape, which have retained their historic function and character to some

extent.
<i>Magnitude of Impact: High value and Minor change = Moderate/Slight</i>
<i>Overall Impact Assessment: Minor Adverse</i>

4.7.6 INSTITUTIONAL BUILDINGS

Range of structures, usually exhibiting elements of formal planning, often with a view to aesthetics

A wide range structures relating to formal governance or care, built and/or maintained by local, county or national authorities. This category covers structures built for a specific purpose and includes: work/poor houses, hospitals, asylums, schools, council offices or other facilities. Some of these buildings are 18th century in date, but most are 19th century or later. The earlier structures that fall into this category – principally almshouses – may have been privately built and supported. These structures betray a high degree of formal planning, within which aesthetics, setting and long views could play an important part. The sensitivity of these structures to the visual intrusion of a wind turbine depends on type, age and location.

What is important and why

Some of these structures are good examples of institutional architecture, and may retain period fittings (evidential). They are likely to conform to a particular architectural template, and may be associated with an architect of note; they may or may not retain their original function, which will have a bearing on associational value (historical/associational). There is usually a clear aesthetic/design value, with form following function but ameliorated by design philosophy. The exteriors are more likely to retain authentic period features, as the interiors will have been subject to repeated adaptation and redevelopment. There may be some regard to the layout of associated gardens and the position of buildings within a historical settlement (aesthetic/design). The level of communal value will depend on continuity of function – older structures redeveloped as residential flats will lose the original social value.



FIGURE 24: MARGAM CREMATORIUM, A STRIKING MODERNIST BUILDING CONTAINED WITHIN ITS OWN PARKLIKE SETTING, FRAMED BY TALL HEDGES; VIEWED FROM THE NORTH-EAST.

Asset Name: Margam Crematorium	
Community: Margam	Value: High
Designation: GII*	Distance to Development: 2.1km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
Summary: Elaborate and decorated modernist crematorium building by FD Williamson & Associates, opened in 1969.	
Conservation Value: The building is both intentionally brutalist/modernist and restrained, but also decorated and aesthetically pleasing in its use of details such as the stained glass. It is of an accomplished architectural style. It also holds significant community value as the local crematorium. It is of low evidential value. It is historically important for its design by a well-known architectural practice, which also created the Narbeth Crematorium and Court Croft in Tenby.	
Authenticity and Integrity: The building is still in public use and is well maintained. It retains an authentic modernist appearance and appears largely complete, although some expected modernisations to the interior.	
Setting: The building stands within its own landscaped mini parkland with tall hedges creating an enclosed private and separate character and intended to intentionally close out the wider world as a place of memory and reflection and reduce aural intrusion. It backs on to a large reservoir but the noisy M4 to the east rather spoils the overall effect.	
Contribution of Setting to the Significance of the Asset: The parkland setting is intended to enhance the serious and commemorative nature and role of the building; to the north lies the large associated cemetery.	
Magnitude of Effect: The turbine will be visible across the reservoir. The turbine would become visible on the approach to the building before the crematorium comes into view and will appear in all views around the crematorium. This will affect the intentional approach and experience of this building and will intrude visually into its separate landscape. The building is intended to be experienced from the north and east (the rear of the building to south and west is not intended to be accessed by the public) so the turbine would affect the visitor experience. It will also affect the view from the cemetery back to the crematorium.	
Magnitude of Impact: High value and Minor change = Moderate/Slight effect	
Overall Impact Assessment: Minor Adverse	

4.7.7 LISTED COTTAGES AND STRUCTURES WITHIN HISTORIC SETTLEMENTS

Clusters of Listed Buildings within villages or hamlets; occasionally Conservation Areas

The context of the (usually) Grade II Listed buildings within settlement is defined by their setting within the village settlement. Their significance is determined by their architectural features, historical interiors or role/function in relation to the other buildings. The significance of their setting to the experience of these heritage assets is of key importance and for this reason the curtilage of a property and any small associated buildings or features are often included in the Listing and any changes must be scrutinised under relevant planning law.

Most village settlements have expanded significantly during the 20th century, with rows of cottages and modern houses and bungalows being built around and between the older 'core' Listed structures. The character of the settlement and setting of the heritage assets within it are continually changing and developing, as houses have been built or farm buildings have been converted to residential properties. The setting of these heritage assets within the village can be impacted by new residential developments especially when in close proximity to the settlement. The relationships between the houses, church and other Listed structures will not be altered, and it is these relationships that define their context and setting in which they are primarily to be experienced.

The larger settlements and urban centres usually contain a large number of domestic and commercial buildings, only a very small proportion of which may be Listed or protected in any way. The setting of these buildings lies within the townscape, and the significance of these buildings, and the contribution of their setting to that significance, can be linked to the growth and development of the individual town and any associated industries. The original context of any churches may have changed significantly since construction, but it usually remains at the heart of its settlement. Given the clustering of numerous individual buildings, and the local blocking this inevitably provides, a distant development is unlikely to prove particularly intrusive.

What is important and why

Historic settlements constitute an integral and important part of the historic landscape, whether

they are hamlets, villages, towns or cities. The physical remains of previous occupation may survive beneath the ground, and the built environment contains a range of vernacular and national styles (evidential value). Settlements may be archetypal, but development over the course of the 20th century has homogenised most, with streets of terraced and semi-detached houses and bungalow growths arranged around the medieval core (limited historical/illustrative value). As dynamic communities, there will be multiple historical/associational values relating to individuals, families, occupations, industry, retail etc. in proportion to the size and age of the settlement (historical/associational). Settlements that grew in an organic fashion developed fortuitously into a pleasing urban environment (e.g. Ledbury), indistinguishable suburbia, or degenerate urban/industrial wasteland (aesthetic/fortuitous). Some settlements were laid out quickly or subject to the attention of a limited number of patrons or architects (e.g. late 19th century Redruth and the architect James Hicks, or Charlestown and the Rashleigh family), and thus strong elements of design and planning may be evident which contribute in a meaningful way to the experience of the place (aesthetic/design). Component buildings may have strong social value, with multiple public houses, clubs, libraries (communal/social), chapels and churches (communal/spiritual). Individual structures may be commemorative, and whole settlements may become symbolic, although not always in a positive fashion (e.g. the Valleys of South Wales for post-industrial decline) (communal/symbolic). Settlements are complex and heterogeneous built environments filled with meaning and value; however, beyond a certain size threshold distant sight-lines become difficult and local blocking more important.



FIGURE 25: THE PRINCE OF WALES PUBLIC HOUSE; VIEWED FROM THE SOUTH.

Asset Name: The Prince of Wales Public House (Ty Newydd)	
Community: Cornelly	Value: Medium
Designation: GII	Distance to Development: 1.8km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
Summary: This building now presents to the road as a large building of parallel ranges, with irregular lean-tos and extension to the east and rear (north). It is recorded that the current building is early 19th century in date having been rebuilt, but its asymmetrical form to the front range of single cell width, and large hall and small parlour of service space near the road indicates earlier elements. It is reputed that a court house was built here in the later medieval period and later functioned as a school room, and significant elements of that structure may survive within the wider complex. A first-floor 'courtroom' appears to survive, also known as the Guildhall, although this is far outside of the known deserted medieval town site. It has been a public house since it was reconstructed in the 19th century, serving the road between Porthcawl and Port Talbot.	
Conservation Value: This is a solid and aesthetically pleasing building from the front façade, but from the east, west, and north the complexity of the ranges and their differing ages makes this less attractive and rationalised but far more unusual and architecturally/historically interesting. It has strong historic character. Its highest conservation value is the wider site and structures heritage as a courthouse, guildhall, and school room, with likely medieval origins. It has	

significant communal value to the people of Kenfig for its ancient civic role and in its role as a historic public house – in an isolated community, with a meeting hall – this is a social hub. It will also contain significant evidential value as the Listing text is clear that this building is not understood and has not been fully analysed and recorded – its phasing and narrative not defined and partially still conjecture.

Authenticity and Integrity: It is very authentic as a public house and complex mixed-use civic building serving the community. The complex range of buildings displays good survival and integrity.

Setting: The farmhouse stands to the east of a long north-south road within the ribbon development village of Kenfig. Several other buildings, of earlier date, lie on the same perpendicular arrangement with the road and all noticeably face south. To the east behind the pub and other village buildings the land is divided into fields, with tall hedges between, a surviving pocket of farmed landscape. To the west the sand dunes have dominated the landscape from the medieval period onwards, now a valuable and protected SSSI. The views to the west, south-west and north-west are wide open and exposed, empty of built form but for the nature reserve offices/visitor centre, a couple of small barns and a bus stop. To the north-north-west the Tata steelworks are very visible.

Contribution of Setting to the Significance of the Asset: The farmed landscape to the rear provides the correct context and the reason for the settlement. These are positive elements and enhance the value of the building. The busy road and second-hand traffic noise from the M4 does dominate this landscape and is a detracting element. The large car park in front of the pub, although expected, when filled with cars crowds the pub with modern visuals and detracts from the historic character of its smart front façade.

Magnitude of Effect: The turbine would stand to the north and would be visible on the approach to the building along the road through the village from the south. Its moving blades and scale will detract from the houses facing and perpendicular to the road, which are by their historic nature low-lying in profile. The principal views south down the road would not be affected, and it must be remembered that views outwards for a pub (or guildhall) are not usually of any great consideration. The principal view to the front of the public house would include the turbine as viewed over the slight rise, appearing in views and drawing the eye away from the heritage asset. The turbine would also have a significant effect on the character of the setting. The Tata steelworks have an adverse influence (visual, noise, light, pollution) in this landscape, but the village is somewhat insulated from this by the dunes. The turbine will bring that modern industrialised form closer and within the wider landscape setting of this asset. Indirect impact on setting and limited impact on the experience of the asset on the approach from some directions.

Magnitude of Impact: Medium value and Minor change = Slight effect

Overall Impact Assessment: Minor Adverse



FIGURE 26: TY-MAEN (INDICATED) WITHIN SOUTH CORNELLY, ENCLOSED BY BUNGALOWS AND LATER HOUSES; VIEWED FROM THE NORTH.

Asset Name: Ty-Maen and garden walls and gates

Community: Cornelly

Value: Medium

Designation: GII

Distance to Development: 3.9km

Within bare-earth ZTV? Partial, theoretical intervisibility to blade tip

Summary: A 17th century house with axial stack and a rear stair turret, of lobby entry plan, with a cross-wing and linking range to the west. To the east, large early-mid 19th century extensions enclose the house, with walled gardens to the south and a walled courtyard to the north.

Conservation Value: The building is protected for its age and traditional plan form but the Victorian additions, whilst irregular, are in an aesthetically pleasing Gothic style, including a round turret. No known historical associations of interest and no communal value. The building was not accessed for Listing but was briefly visited by the Royal Commission surveyors and suggests substantial 17th century or even earlier survival of fabric.

<i>Authenticity and Integrity:</i> The house looks to have been divided into two dwellings but is still residential and appears to retain its walled gardens; the integrity of the building is likely have been affected by subdivision. Structurally it looks well maintained and complete.
<i>Setting:</i> To the west it is flanked by a bungalow built in the former field to the north the village of Cornelly and is now dominated by modern housing developments with only a few older rows of cottages surviving. To the south and south-west the fields survive, as does its walled garden. To the east is a large quarry site and industrial park; the road to the south consequently busy with lorries and traffic.
<i>Contribution of Setting to the Significance of the Asset:</i> The encroachment of the modern landscape (housing, quarry) has left the house feeling enclosed and no longer reflects its village 'middle status'. The house is affected negatively by the current setting – even its own approach off the main village road is now shared, impacting the experience and an understanding of it and its intended landscape.
<i>Magnitude of Effect:</i> There may be very distant limited views across the landscape from the fields to the south and south-west but within the walled garden and courtyard, and within the house itself, there will be no direct intervisibility. The tall hedges and garden walls alongside the road, as well as dense infill of housing in the village, limiting views to the road/street and within the village. There is also landscaping associated with the busy A4229 dual carriageway that encloses the village to the west, which would reduce and deflect views.
<i>Magnitude of Impact:</i> Medium value and Negligible change = Neutral/Slight effect
<i>Overall Impact Assessment:</i> Negligible Adverse

4.7.8 CHURCHES AND PRE-REFORMATION CHAPELS

Church of England parish churches and chapels; current and former places of worship

Most parish churches tend to be associated with a settlement (village or hamlet), and therefore their immediate context lies within the setting of the village (see elsewhere). Church buildings are usually Grade II* or Grade I Listed structures, on the basis they are often the only surviving medieval buildings in a parish, and their nature places of religious worship.

In more recent centuries the church building and associated structures functioned as *the* focus for religious devotion in a parish. At the same time, they were also theatres of social interaction, where parishioners of differing social backgrounds came together and renegotiated their social contract.

In terms of setting, many churches are still surrounded by their churchtowns. Viewed within the context of the settlement itself, churches are unlikely to be affected by the construction of a wind turbine unless it is to be located in close proximity. The location of the church within its settlement, and its relationship with these buildings, would remain unchanged: the church often being the visual focus on the main village street.

This is not the case for the church tower. While these structures are rarely open to the public, in rural communities they are frequently the most prominent visual feature in the landscape, especially where the church is itself located in a topographically prominent location. The towers of these structures were clearly *meant* to be highly visible, ostentatious reminders of the presence of the established church with its message of religious dominance/assurance. However, churches were often built and largely maintained by their laity, and as such were a focus for the *local* expression of religious devotion. It was this local devotion that led to the adornment of their interiors and the elaboration of their exteriors, including the tower.

Where parishes are relatively small, the tower would be visible to the residents of multiple parishes. This would have been a clear expression of the religious devotion – or rather, the competitive piety – of a particular social group. This competitive piety that led to the building of these towers had a very local focus, and very much reflected the aspirations of the local gentry. If the proposed development is located within the landscape in such a way to interrupt line-of-sight between church towers, or compete with the tower from certain vantages, then it would very definitely impact on the setting of these monuments.

As the guidance on setting makes clear, views from or to the tower are less important than the contribution of the setting to the significance of the heritage asset itself. The higher assessment for the tower addresses the concern it will be affected by a new and intrusive element in this landscape.

Churchyards often contained Listed gravestones or box tombs, and associated yard walls and curtilage are usually also Listed. The setting of all of these assets is usually extremely local in character, and local blocking, whether from the body of the church, church walls, shrubs and trees, and/or other buildings, always plays an important role. As such, the construction of a wind turbine is unlikely to have a negative impact.

What is important and why

Churches are often the only substantial medieval buildings in a parish, and reflect local aspirations, prosperity, local and regional architectural trends; they usually stand within graveyards, and these may have pre-Christian origins (evidential value). They are highly visible structures, identified with particular geographical areas and settlements, and can be viewed as a quintessential part of the English landscape (historical/illustrative). They can be associated with notable local families, usually survive as places of worship, and are sometimes the subject of paintings. Comprehensive restoration in the later 19th century means many local medieval churches are associated with notable ecclesiastical architects (historical/associational). The 19th century also saw the proliferation of churches and parishes in areas like Manchester, where industrialisation and urbanisation went hand-in-hand. Churches are often attractive buildings that straddle the distinction between holistic design and piecemeal/incremental development, all overlain and blurred with the 'patina of age' (aesthetic/design and aesthetic/fortuitous). They have great communal value, perhaps more in the past than in the present day, with strong commemorative, symbolic, spiritual and social value.

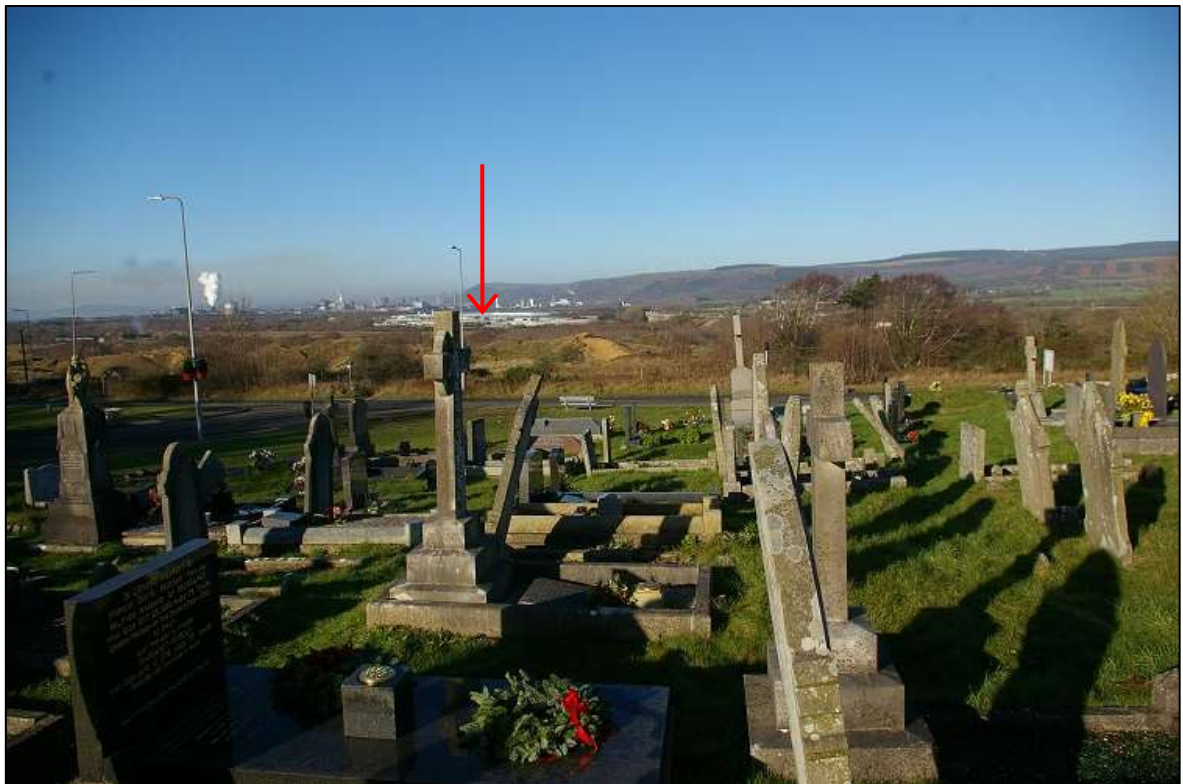


FIGURE 27: VIEW FROM THE CHURCHYARD OF ST MARY MAGDALENE, ACROSS TO THE TATA STEELWORKS; VIEWED FROM THE SOUTH. THE APPROXIMATE LOCATION OF THE PROPOSED TURBINE IS INDICATED.

Asset Name: Church of St Mary Magdalene, Pyle with Kenfig	
<i>Community:</i> Cornelly	<i>Value:</i> High
<i>Designation:</i> GII*	<i>Distance to Development:</i> 1.8km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine	
<i>Summary:</i> The church is a 13 th century building, likely built as a single cell chapelry to the Kenfig church of St James, serving the new satellite settlement of Mawdlam. There are documentary references to it in the mid 1200s. It may be that it developed out of a leper hospital, possibly associated with the adjacent Angel Inn building. It has a 14 th century tower, and a Victorian vestry and rebuilt chancel. Inside there is an exceptional Norman font, possibly brought from overwhelmed St James down by the former town.	
<i>Conservation Value:</i> The church is of local communal value to the village and wider parish as it is still a functioning parish church; it is also of architectural interest and aesthetically pleasing. It is largely valued for significant survival of medieval fabric and unusual large single cell form, the tower an addition and possible historical value or association with a hospital. It has high evidential value as clearly its complex narrative is not well understood.	
<i>Authenticity and Integrity:</i> The church retains a strong historic character, and on the surface appears medieval. The interior has received very heavy 19 th century remodelling. It is still in use as a parish church and is well maintained.	
<i>Setting:</i> The church stands on a slight knoll within an oval walled churchyard which encloses this high ground. The churchyard is densely packed and slightly overgrown due to the difficulty of cutting grass between the crowded monuments. The setting is open and expansive, the ground falling away on all sides. The aural intrusion from the M4 has a clear impact on the experience of this asset. The modern village lies to the south, the nature reserve to the north and west, with Kenfig buried town and castle immediately to the north, down the slope.	
<i>Contribution of Setting to the Significance of the Asset:</i> The church relates to an earlier relict farmed/settled landscape where it would have had dominated the wider views standing on the top of its small knoll. It would have competed for landscape dominance with the Castle and St James after construction. The current setting is far busier with modern housing and the adjacent motorway and is irrelevant to the medieval building and its architectural value.	
<i>Magnitude of Effect:</i> The turbine will be clearly visible from the church and its churchyard, apart from the south side where the body of the church itself intervenes. It will appear in views to the church from the village to the south. It will fundamentally affect all views down to the Castle and medieval deserted town, an important and almost lost relationship. It would also bring the industrialised character of the Tata Steelworks area closer to this asset and intrude on the landscape and cumulatively add to the effects of the motorway. The size of the turbine is of issue here, which will subvert the primacy of the church tower within the ribbon development of Kenfig and generally in the landscape. The modern impact on the setting would not affect the architectural value of the building.	
<i>Magnitude of Impact:</i> High value and Moderate change = Moderate/Large effect	
<i>Overall Impact Assessment:</i> Minor to Moderate Adverse	



FIGURE 28: THE RUINS OF MARGAM ABBEY, WITHIN THE GARDENS AT MARGAM CASTLE; VIEWED FROM THE SOUTH-WEST.

Asset Name: Margam Abbey; Chapterhouse	
<i>Community:</i> Margam	<i>Value:</i> Very High
<i>Designation:</i> SAM	<i>Distance to Development:</i> 2.7km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine	
<i>Description: Listing:</i> The remains of the Cistercian abbey at Margam, founded around 1147 and dissolved in 1536, and thought to have occupied the site of an earlier monastic house. The western part of the nave of the monastic church is preserved, though much altered (NPRN 302498). The traces of the remainder of the church are apparent and other remains include the roughly 19m diameter dodecahedral Early English chapter house (NPRN 308863), with some ruins of the dormer and reredorter to the south.	
<i>Supplemental Comments:</i> This is a well-maintained set of ecclesiastical ruins, now contained within a pleasure ground setting, currently the backdrop to leisure space and no doubt the scene of many parties and garden events. It is likely the most aesthetically pleasing elements of the ruins were preferentially maintained, with views opened up and managed (e.g. removing and clearing debris etc.). A grass sward covers most of the surroundings but within the ruins the spaces have often of gravel. The site is open, the ruins can be walked through and experienced from all angles; there are small stone and metal information signs.	
<i>Evidential Value:</i> The buildings themselves evidence complex structural phasing and the ground in and around the ruins will contain evidence for demolished buildings and occupation layers. Much is expected to be disturbed however due to clearance associated with the building of the first Tudor house, then the demolition and construction of the Orangery and then the formation of a pleasure garden landscape.	
<i>Historical Value:</i> High value as a former Abbey and the site has added group value for its gentry associations with the Mansell and Talbot families.	
<i>Aesthetic Value:</i> This building has high aesthetic value. It was built to show off both the wealth of the monastic order and their devotion to God. It was also intended to flatter their benefactor. Some elements of the building are clearly more elaborate (such as the chapterhouse) than others, with the other linking elements that survive appearing to be corridors and linking spaces.	
<i>Communal Value:</i> The site is much used by the community and is generally a source of local pride and identity for the immediate area; the ruins within this hold less communal value than the church and Orangery, however.	
<i>Authenticity:</i> The building was built for secluded worship and whilst they are very authentic as romantic ruins within a pleasure garden setting, they are no longer authentic as an ecclesiastical institution. They are open to the public.	
<i>Integrity:</i> The building has apparently been stabilised and collapsed walling and other features cleared to make the site more aesthetically pleasing within the gardens. The ruins that remain appear well maintained.	
<i>Topographical Location and Landscape Context:</i> It sits on a long shallow west-facing slope, with Margam Castle to the east-north-east and the large Orangery to the west; at the Abbey Church the nave was reworked into a parish church and stands to the north-west. The ruins are contained within the arboreal character pleasure gardens of the Castle – originally laid out for the Orangery and added to in the 19 th century, including specimen plants Mansell brought back himself.	
<i>Principal Views:</i> There is an important view of the Orangery through the main garden gate, where it is framed by the ruins and views through the ruins to the east pavilion of the Orangery – as well as views of the ruins through a notable tree by the parish church. There are important views from the west front of the Castle and terrace, looking down the main garden avenue to the ruins, where they are framed by the Orangery behind.	
<i>Landscape Presence:</i> The ruined building is not visible wider afield, enclosed as it is with walls, later buildings, and ornamental planting. It relates only to its current pleasure garden setting.	
<i>Immediate Setting:</i> It is contained within the arboreal character pleasure gardens of the Castle – originally laid out for the Orangery and added to in the 19 th century. This part of the garden lies within a long rectangular plot, framed by tall stone walls with gates, emphasising the restrictive/exclusive nature of the space. This creates an introverted character; the planting excluding all but views within this plot.	
<i>Wider Setting:</i> The Orangery, Abbey ruins and formal gardens stand in the north-west part of the surviving deer park; the whole area is a Registered Park and Garden. To the south, south-east and south-west the key inner park is retained and survives intact, stretching out as far as Tyn-y-Hydd, with drives, terraces and parkland planting all surviving. To the far south and south-east the farmed landscape survives in part but is increasingly becoming developed – some farms may be retained by the council, but it is expected most are now privately owned. The deer park extends up onto the hills. North of the Orangery and Abbey ruins is the former Abbey Church, now a parish church and the extensive walled kitchen gardens and 19 th century estate village.	
<i>Enhancing Elements:</i> The aesthetics of the ruin are beautifully presented as a romantic backdrop within the carefully planned and planted pleasure gardens.	
<i>Detracting Elements:</i> There is an overly pristine and curated feel to the ruins, and they would benefit from more information boards and accessible information for people. The current signage is limited and too recessive. The assets are still very much presented as aesthetic ruins and their full heritage significance is not fully expressed to visitors for them to understand and engage with the ruins in a more knowledgeable way.	
<i>Direct Effects:</i> None.	
<i>Indirect Effects:</i> There is a secondary cumulative effect on the wider parkland, in which we understand these ruins as part of a wider former Abbey estate. The disconnection as a 'historic bubble' within an increasingly industrialised landscape will be enhanced by another wind turbine since the Newlands turbine already has an impact on important southerly views.	

<i>Contribution of Setting to the Significance of the Asset:</i> The setting in the surviving park is important as it gives us a chance to understand and interpret the ruins and to 'read' the messages in such displays of wealth and power, as intended. Although it is hampered without more information being easily available to visitors. The setting is complimentary but somewhat undermines the real heritage value of the ruins, reducing them to folly status.
<i>Magnitude of Effect:</i> There will be no direct effect on views to or from the ruins and no effect on its exclusive limited garden setting. The hypothetical wider inherent impact on the parkland will affect the ruins as they did once relate to a wider Abbey estate and the wider farmed landscape.
<i>Magnitude of Impact:</i> High value and Negligible change = Slight effect
<i>Overall Impact Assessment:</i> Negligible Adverse



FIGURE 29: ST MARY'S ABBEY CHURCH, FROM WITHIN THE GARDENS; VIEWED FROM THE SOUTH-WEST.

Asset Name: St Mary's Abbey Church	
Community: Margam	Value: High
Designation: GI	Distance to Development: 2.8km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
<i>Summary:</i> This building incorporates most of the nave of the 12th century church of the Abbey. The building was truncated and enclosed in the 1540s by Sir Rice Mansell who retained the church for his new Tudor house, built out of the remains of the remodelled 13th century Abbey buildings. There some very grand tombs for the Mansell family in the church and the west front is substantially Norman with Romanesque additions to the gable and buttresses. Much of the interior was reworked in the early 1800s and again in the later Victorian period, creating a mix of Romanesque and Romantic and Gothic styles, clashing with the original form, and still presenting very much in style as a Catholic church. The interior retains the six-bay Norman arcades, with cruciform piers and round arches.	
<i>Conservation Value:</i> The unusual architectural style and form of the church and its powerful Romanesque 'high church' aesthetic defines this as a building with a complex narrative. The church holds community value as the local parish church. The historical value of the building is significant for its early ecclesiastical origins and post-Dissolution associations with the Mansell and Talbot families.	
<i>Authenticity and Integrity:</i> The building is authentic as a much-altered church with significant surviving Norman fabric and appears largely complete. It has a notable and important sense of place, flanked by the ruins of the Abbey which adds to its significance.	
<i>Setting:</i> Located to the south is the grand 18th century Orangery which replaced the Tudor house of the Mansells. To the east are the remnants of the rest of the church and the substantively surviving chapterhouse. To the west and north is the churchyard and walled kitchen gardens of the Castle, 18th and 19th century creations but possibly following the layout of the Abbey gardens. The wider setting is of the manicured landscaped gardens of the park, with sweeping grass lawns and specimen trees and flowering shrubs.	
<i>Contribution of Setting to the Significance of the Asset:</i> The church was built for the Abbey, a foreign community of monks from Clairvaux in France, brought in by Robert of Gloucester the Norman overlord. This community replaced a	

more complex, mixed early Christian community, as noted by the prevalence of carved stones and crosses. It stands at the heart of the Abbey ruins, framed by contemporary and later buildings. Its walled enclosure in the well-maintained churchyard imbues it with the solemnity expected of a church and the strong visual boundary formed indicates the ecclesiastical and 'other' nature of its former Abbey setting. The quiet peaceful parkland also creates a 'sense of place' in and around the ruins. The working side of the Orangery, a busy wedding venue, does not detract or compete with the church in the parkland landscape, and contributes to the settings narrative and provides a 'place in time' context for the church.

Magnitude of Effect: The turbine *might* be glimpsed over the roof of the adjacent Orangery and through the trees which stand in the parkland. The turbine would not be visible from the churchyard and would not affect its setting within the parkland, or any of the principal views of the church from or between the parkland gardens or churchyard. It may be clearly visible from the campaniles, but this would have no meaningful effect on the church at this distance, given the complex views to the Tata steelworks that already exist to the west. The proposed turbine will not affect the exceptional architectural value of this building.

Magnitude of Impact: High value and Negligible change = Slight effect

Overall Impact Assessment: Negligible Adverse



FIGURE 30: THE CHURCH OF ST JAMES IN PYLE; VIEWED FROM THE SOUTH-EAST.

Asset Name: Church of St James, Pyle with Kenfig; Churchyard Cross; Monuments	
Community: Cornelly	Value: High
Designation: GI	Distance to Development: 2.9km
Within bare-earth ZTV? Partial, theoretical intervisibility to hub of turbine	
Summary: 15 th century building, said to replace the lost church of St James in the river valley, consumed by the sand dunes. This church is supposed to have been built using stones from that building and the castle – even elements being wholly brought to the new site for such a purpose. There is a date of 1471 on a roof truss and this may indicate the date of the rebuilding; a documentary reference in 1483 calls it a 'noviter situate'. It was heavily restored in 1877 and 1891. It has some fine perpendicular windows and a barrel vault from the 15 th century, a bell marked with the date of 1677, and a 15 th century gritstone font; also some good memorials.	
Conservation Value: The church has a complex developmental history, possibly containing materials from Kenfig Castle and the Norman church, and thus it holds inherent evidential value. Aesthetically pleasing and of decorative medieval style. The church is of local communal value, a serving parish church.	
Authenticity and Integrity: The 16 th century losses of such things as the rood screen have been compounded by 19 th century changes, although the latter work represents a lighter-touch restoration and has been more successful in preserving the medieval character of the church than others in the neighbourhood.	
Setting: The church stands in a sub-rectangular churchyard, bounded by stone walls, on a level plot above the steep wooded valley of the Afon Cynffig. It is enclosed to the west by mature trees, part of the wooded valley landscape. To the east is the busy A48 and to north and south modern housing estates which infill between the scattered historic	

buildings of the settlement.

Contribution of Setting to the Significance of the Asset: The noise from the adjacent A48 intrudes upon the setting of the church, as do the road signs and street lights; these have a jarring effect on the expected quiet and calm of a churchyard. The well-maintained churchyard is complementary to the church. The modern impact on the setting does not affect the architectural value of the building.

Magnitude of Effect: The proposed turbine would be visible from the tower but the extant turbine at Newlands is closer, and from the south and more open side of the churchyard the M4 is visible along with the towers of the Tata Steelworks. This change in views will have no effect on the overall setting. There will be no effect at ground level, with views blocked by the trees and modern housing estates.

Magnitude of Impact: High value and Negligible change = Slight effect

Overall Impact Assessment: **Negligible Adverse**



FIGURE 31: VIEW FROM CAPEL MAIR/HEN EGLWYS ACROSS THE ADJACENT LOWLANDS; VIEWED FROM THE ENE. THE PROPOSED TURBINE WOULD BE TO THE LEFT OF THIS PHOTOGRAPH.

Asset Name: Capel Mair/Hen Eglwys	
Community: Margam	Value: High
Designation: GII*/SAM	Distance to Development: 3km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
<i>Summary:</i> Ruined medieval chapel of ease/parish chapel on the boundary of the former Monastic site. The building presents a single cell gabled structure retaining two windows to each gable, one with perpendicular decorated 15th century stonework. There are also the remains of a piscine and two other simple stone windows surrounds in the south wall; the north wall has largely collapsed. The building is both Listed and a Scheduled Monument. It lies within the walled boundary of the former monastic estate.	
<i>Conservation Value:</i> The structure has immense evidential and historical value – as a medieval chapel ruin and ancient religious centre, as well as being associated with Margam Abbey. It has architectural value and is now valued aesthetically for its romantic ruin status, used by the later Margam Castle as an estate eye-catcher on the hillside. It retains no communal value having been ruined for centuries.	
<i>Authenticity and Integrity:</i> The building is very authentic as part of a ruinous relict medieval abbey landscape. Its integrity is poor and declining as there is no evidence of ruin management on the site. Features which do survive are suffering ongoing weathering from its exposed hilltop setting.	
<i>Setting:</i> The chapel stands on a mid-slope promontory which projects out into the valley known as Craig-y-Capel. This provides wide open views to the east, south and north; the slope rises further to the west where beyond the monastic former estate wall about 50m to the west it is heavily wooded with 19th century conifer plantation.	
<i>Contribution of Setting to the Significance of the Asset:</i> The setting part way up the steep slope, out alone, built on the break of slope above the valley means the chapel occupies a liminal setting – a place identified as ‘special’ and ‘other’. This enhances its romantic ruin aesthetic and also adds to its air of religiosity. The setting provides a spectacular view over the park, both ancient and 18th and 19th century features and also creates a strong ‘sense of place’ and contextual setting for the wider park and for the chapel within that park.	
<i>Magnitude of Effect:</i> The turbine will be clearly visible across the park and beyond the M4. It will be a clear kinetic feature but will stand behind and to one side of the Newlands turbine which will be closer. The Tata steelworks are	

even closer still, directly south of the chapel. These developments have completely transformed the landscape the chapel overlooked when it was built, and even for its post-medieval polite deer park remodelling. The turbine will have an indirect cumulative impact on the wider landscape setting, as it is outside of the landscape context – the former monastic estate and later park – it adds to an existing adverse impact from modern industry. The Newlands turbine carries the precedent of a large industrial feature into the farmed landscape with an adverse effect in this historic area. However, the proposed turbine cannot impact the architectural value of this church or directly affect its immediate setting buffer.

Magnitude of Impact: High value and Minor change = Moderate/Slight effect

Overall Impact Assessment: Minor Adverse

Asset Name: Monks Bath	
Community: Margam	Value: High
Designation: GII*/SAM	Distance to Development: 3.5km
Within bare-earth ZTV? No	
Summary: Medieval cistern fed by a culverted leat from the Afon Cwy-bach stream which runs down the valley. It is believed to be associated with the nearby former Margam Abbey. The building is terraced back into the slope, with a stone/slate segmental pointed arched roof and dressed stone basin. The building has been re-fronted and extended in the 18 th or 19 th century as a parkland folly. It now has a decorative ironwork gate, window, and keeping place for a lantern within the extended walling. It is a Listed structure and a Scheduled site. Excavations in and around the site found medieval pottery.	
Conservation Value: This is a highly aesthetic building, romantic and enigmatic in its appearance. Older medieval fabric to the rear (largely covered by soil and set into the bank, clearly functional) with later extension and re-fronting, creates much of its current character. It has proven evidential value to the structure and in the ground around it as medieval pottery has been found. It has obvious historical value with the former Abbey. No communal value; this was part of a private, exclusive Abbey estate and then reworked as a folly on a private exclusive Gentry estate.	
Authenticity and Integrity: The building is more authentic as a folly now than an actual baths. The original fabric and building to the rear appears untouched and far more basic/rustic but for the beautiful dressed stone basin, which appears complete.	
Setting: The structure is located on the steep mid slopes of the south-west side of the Afon Cwm-bach stream. The watercourse rushes through the valley in a deeply carved hollow just north of the building. The noise of the stream is overwhelming – it echoes through the valley. The setting is generally wooded, a mix of established tree species and scrubby growth. The baths lie just below a track to a farm and are enclosed by a post and rail fence and marked by a carved stone sign clearly part of a wider historic landscape/parkland feature/heritage asset. It has a curated appearance.	
Contribution of Setting to the Significance of the Asset: The relatively unspoilt wider valley setting is positive and blocks views of the much-altered wider landscape, allowing visitors to better engage with the medieval, ecclesiastical origins of this site. Its current pristine and curated setting and Victorian additions do not enhance the feature but are interesting from a narrative perspective.	
Magnitude of Effect: The turbine would not be visible from the site or any surrounding location, in any season. The bulk of Margam Castle closes off the mouth of the larger valley of which this is tributary. There will be no effect on setting or views or significance in any way.	
Magnitude of Impact: High value and No Change = Neutral	
Overall Impact Assessment: Neutral	

4.7.9 NON-CONFORMIST CHAPELS

Non-Conformist places of worship, current and former

Non-Conformist chapels are relatively common and tend to be fairly modest structures in all but the largest settlements, lacking towers and many of the ostentatious adornments of older Church of England buildings. They are usually Grade II Listed structures, most dating from the 19th century, and adjudged significant more for their religious and social associations than necessarily any individual architectural merit. They can be found in isolated locations, but are more often encountered in settlements, where they may be associated with other Listed structures. In these instances, the setting of these structures is very local in character and references the relationship between this structure and other buildings within the settlement. The impact of a wind turbine is unlikely to be particularly severe, unless it is built in close proximity.

What is important and why

Nonconformist chapels are typically 18th century or later in date, and some retain interior period

fitments (evidential). Some of the better preserved or disused examples are representative of the particularly ethos of the group in question, and buildings may be linked to the original preachers (e.g. John Wesley) (historical value). Congruent with the ethos of the various movements, the buildings are usually adapted from existing structures (early) or bespoke (later), and similar in overall character to Anglican structures of the same period (aesthetic value). They often have strong communal value, where they survive as places of worship (communal value).



FIGURE 32: PYLE CALVINISTIC METHODIST CHAPEL; VIEWED FROM THE WSW.

Asset Name: Pyle Calvinist Chapel and schoolroom	
Community: Cornelly	Value: High
Designation: GII*	Distance to Development: 3.2km
Within bare-earth ZTV? Partial, theoretical intervisibility to hub of turbine	
Summary: Very fine early Non-Conformist chapel from 1786, enlarged with a school room in 1830 and remodelled in 1862. Italianate influence with round-headed full height windows, gabled to north and south, the school room to the east. The building is in a shocking condition, with broken boarded windows, failing roof, the roof of the school room partially collapsed.	
Conservation Value: The building would have been aesthetically pleasing but is now in terrible condition, in structural collapse. There would be high evidential value in the building considering at least two phases of rebuild. The building has inherent communal value but is clearly now unused. Its graveyard is clearly well used by the community, people seen tending graves when the site was visited. It has historical value as it is associated with William Thomas Ty-draw, an influential figure.	
Authenticity and Integrity: The building is very authentic as a historic chapel but clearly now abandoned. The integrity of any features in the interior is likely to have been significantly damaged by the appalling condition and loss of sections of roof.	
Setting: It stands in a large walled graveyard, in the south-west corner; with grand gates east of the chapel. To the west and north the chapel is now enclosed within large modern council housing estates. To the south is the Ffordd yr Eglwys road but just to the south-east is the steep banking and roundabout -junction of A4229 and A48. The road noise is significant and intrudes into the setting.	
Contribution of Setting to the Significance of the Asset: The graveyard forms the immediate setting and is appropriate and little altered. The wider setting is completely different, now densely packed residential housing and modern road junctions. The modern visual and aural impacts in the setting detract from the church, and its sidelined location in the modern landscape may explain its current abandoned condition.	
Magnitude of Effect: There may be distant views to the north-west, which will include the turbine and several extant turbines further in the distance. The turbines are framed beyond by the modern roofscape of the town, the turbine is unlikely to have any real effect on the setting, as views to and from the chapel are fairly limited to the road in front –	

subsumed by the surrounding built up landscape.

Magnitude of Impact: High value and Negligible change = Slight effect

Overall Impact Assessment: Negligible Adverse



FIGURE 33: BULAH CALVINISTIC METHODIST CHAPEL IN ITS CURRENT LOCATION, A PARK IN THE MODERN SUBURBS OF PORT TALBOT; VIEWED FROM THE SSW.

Asset Name: Beulah Calvinist Chapel	
Community: Margam	Value: High
Designation: GII*	Distance to Development: 4.1km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
<i>Summary:</i> Lombardic-style chapel built within the planned settlement of Groes, a replacement for the village swept away by CRM Talbots park extensions. This was built in 1838, the architect for the model village was Edward Haycock but Talbot himself may have had influence over the designs. It is thought its octagonal form may reference the well-preserved chapterhouse of Margam Abbey. The building was deconstructed and moved to allow for the M4 in the 1970s, raised in Tollgate park, in an area of 1930s and 1950s housing associated with the steelworks.	
<i>Conservation Value:</i> The building is aesthetically pleasing, designed to be quirky and specific, with European style. It is historically interesting as part of a planned model village created by a landowner in the late Georgian/early Victorian period, associated with Margam Park. It is of communal value as it still appears to hold services. There will be no evidential value as the building has been de-constructed and moved.	
<i>Authenticity and Integrity:</i> The building is still an authentic chapel but is not authentic as a 19th century building due to its deconstruction and removal. It is now essentially a working folly. Structurally it appears complete in its current state and well maintained.	
<i>Setting:</i> It stands in railing-enclosed grassland park, with mature trees planted around the edge. The park is a long sharp wedge shape, the chapel on the point narrow end, flanked by busy roads on both sides and rows of shops and houses. A children's play park of modern form has been located at this end of the park between the chapel and the more traditional grass and this further impacts its setting and experience, as it is further severed from any semblance of a polite setting.	
<i>Contribution of Setting to the Significance of the Asset:</i> The building was moved to preserve it, and its current setting is irrelevant from its value architecturally and its historic narrative.	
<i>Magnitude of Effect:</i> There may be distant views to the south and south-west, which would include the turbine and several extant turbines further in the distance. However, screening is provided by local trees and buildings and the Tata steelworks itself. The busy noisy suburban setting of this chapel is so all-encompassing the glimpses of another turbine, far outside of its current landscape context, is unlikely to have much additional effect. Possibly some minor cumulative impact, as the wider landscape has been completely altered around this small building.	
<i>Magnitude of Impact: High value and Negligible change = Slight effect</i>	
<i>Overall Impact Assessment: Negligible Adverse</i>	

4.7.1 CROSSES AND INSCRIBED STONES

Most medieval 'wayside' crosses are *ex-situ*. Many examples have been moved and curated in local churchyards, often in the 18th or 19th century, and the original symbolism of their setting has been lost. Therefore, context and setting are now the confines of the church and churchyard, where they are understood as architectural fragments associated with earlier forms of religious devotion. Therefore wind turbines, when visible at a distance, do not affect their relationships with their new surroundings or public understanding of their meaning and significance. This is not the case for those few wayside crosses that survive at or near their original location. This class of monument was meant to be seen and experienced in key spiritual locations or alongside main routeways, so the significance of the remaining few *in situ* examples is enhanced.

Inscribed stones are memorials erected during the early medieval period; these can survive *in situ*, but more often now found in churchyards. They essentially constitute the only written records for this period.

What is important and why

Inscribed stones are often the only written sources from the early medieval period (evidential). All have strong communal value, in terms of commemorative power and symbolic associations (communal).



FIGURE 34: TYN-Y-CELLAR STANDING STONE (INDICATED), WITH THE M4 BEHIND AND PYLONS STANDING IN THE FIELD. THE PROPOSED TURBINE WOULD BE LOCATED LEFT OF THIS PHOTOGRAPH AND WILL ADD TO THE MODERN VISUAL IMPACTS. VIEWED FROM THE EAST.

Asset Name: Tyn'r -y-Selar Standing Stone (Samsons Stone)	
Community: Margam	Value: High
Designation: SAM	Distance to Development: 0.55km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
Description: Large monolith/menhir standing in a field. It is thought to be late Neolithic or Bronze Age in age but was adopted by early Christianity, associated with a myth of St Samson throwing the stone from the ecclesiastical centre at	

Margam Abbey. It stands about 8 feet tall and is unfaced/natural on both sides.
<i>Supplemental Comments:</i> There is no public access to this monument, but it can be clearly seen from the adjacent field gateway and in winter the arable field is empty of crops.
<i>Evidential Value:</i> Very high (archaeological) potential in and around the stone, both directly connected to its raising in the landscape and any associated ritual uses, both contemporary and later.
<i>Historical Value:</i> The prehistoric standing stone became associated with an important local folklore tale, associated with early Christianity.
<i>Aesthetic Value:</i> The stone is aesthetic in the sense that it is striking, immediately identifiable and intended to be a visible part of a ritual landscape.
<i>Communal Value:</i> There is no communal value.
<i>Authenticity:</i> The stone is very authentic, still in its original position.
<i>Integrity:</i> The stone is complete and unaltered, as we understand it. Intended to be a stand-alone individual menhir.
<i>Topographical Location and Landscape Context:</i> The standing stone stands in a fairly flat landscape of gently undulating fields.
<i>Principal Views:</i> The main view to the stone would now be from the east from the far gate opposite. Intended principal views may have connected the ancient settlements on the uplands with ritual features on the coastal fringe.
<i>Landscape Presence:</i> The stone lies within a landscape with significant modern impacts and its landscape presence is very limited. This does detract from our understanding of its function.
<i>Immediate Setting:</i> The stone stands in an arable field. The field is bounded to south, north, and east by mature hedges, with a railway line beyond to the south. To the west are the tall embankments of the M4, covered in maturing deciduous trees. The field is crossed by two sets of high voltage overhead power lines carried on pylons and a third set on telegraph poles.
<i>Wider Setting:</i> The stone stands in a fairly level landscape of undulating fields, a farmed landscape on the edge of the Kenfig Nature Reserve. This landscape is truncated by the M4 which cuts the fields off from the dunes. The standing stone predates this landscape and is now experienced within an arable field with mature hedges.
<i>Enhancing Elements:</i> The immediate open character of the field around the stone.
<i>Detracting Elements:</i> The adjacent M4 is visually dominant. Carried on high embankments that transition to a concrete viaduct near the stone. There is also a line of pylons. The railway line crosses just south of the stone carried on a raised embankment and bridge, so very visible. The adjacent road to the east is the B4283, a busy local road. The aural intrusion is worse than the visual intrusion the noise from the road.
<i>Direct Effects:</i> None.
<i>Indirect Effects:</i> From the stone itself the turbine would not be visible, due to the embankments of the M4, but it would appear in views from the east, from the field gate. The turbine will also generally visually dominate the farmed landscape in which the stone is now experienced.
<i>Contribution of Setting to the Significance of the Asset:</i> The stone predates every feature in the farmed/settled landscape in which it stands. The current setting detracts from the value of the menhir.
<i>Magnitude of Effect:</i> Unless fully screened by the embankments of the M4, the proposed turbine would be partially visible in views to the stone from the gateway, but not from the stone itself. It is not a particularly imposing feature and stands isolated within a field and subject to several large modern effects (the visual and aural impact of the M4). The proposed turbine, in views to the stone from the east, would appear as an additional kinetic element in that field of view.
<i>Magnitude of Impact:</i> High value and Moderate change = Moderate/Large effect
<i>Overall Impact Assessment:</i> Moderate Adverse

Asset Name: Pyle Incised stone	
<i>Community:</i> Cornelly	<i>Value:</i> High
<i>Designation:</i> SAM	<i>Distance to Development:</i> 2.7km
<i>Within bare-earth ZTV?</i> Partial, theoretical intervisibility to hub of turbine	
<i>Description:</i> A stone slab 1.06m high incised with an early cross with shouldered rounded head. An OS benchmark.	
<i>Supplemental Comments:</i> This has been enclosed in the gravelled walled front garden of a terrace of council houses in Pyle.	
<i>Evidential Value:</i> It is expected any archaeological evidential value around this stone will have been lost during the construction of the road and houses.	
<i>Historical Value:</i> This has local historical value as an early Christian standing stone; others now at the museum in Margam.	
<i>Aesthetic Value:</i> It was intended to have an important visual function, possibly for religious gatherings, demarcate an important location, or memorialise a person. Its aesthetic value is undermined by its current setting.	
<i>Communal Value:</i> It has no communal value.	
<i>Authenticity:</i> The stone itself is little altered, weathered but authentic, but its current setting in a private garden is wholly inauthentic and detracts from the experience of the stone, subsuming it into the modern townscape.	
<i>Integrity:</i> The stone is complete and intact.	
<i>Topographical Location and Landscape Context:</i> The landscape context is the steep hill known as Kenfig Hill, overlooking the Afon Cynfigg river valley. The current landscape context is the town of Pyle.	

<i>Principal Views:</i> The principal view in and out of the setting is across the road to the north across the Afon Cynfigg valley and up and down busy Marlas road.
<i>Landscape Presence:</i> The stone has no landscape presence now, totally subsumed by the houses, parked cars etc.
<i>Immediate Setting:</i> The stone is included within a small walled front garden of a house within a long identical terrace of houses. The stone stands immediately next to the concrete wall of the garden; the garden is featureless with a gravel finish.
<i>Wider Setting:</i> Pyle was a small town which was significantly expanded in the post-war period, a mixture of large private and council housing developments.
<i>Enhancing Elements:</i> None.
<i>Detracting Elements:</i> The setting is so busy and visually complex that the stone is very effectively overlooked.
<i>Direct Effects:</i> None.
<i>Indirect Effects:</i> The turbine may be visible over the trees of the valley at a distance, with the Newlands turbine visible at closer proximity. The towers of Tata steel will also be in the background.
<i>Magnitude of Effect:</i> The stone is located incongruously in the front garden of a semi-detached council house, facing out over the valley. The proposed turbine would be located to the north-west behind trees and, subject to seasonal variation, be either wholly or partially screened. The immediate setting of the stone is wholly 20 th century.
<i>Magnitude of Impact:</i> High value and Negligible change = Slight effect
<i>Overall Impact Assessment:</i> Negligible Adverse



FIGURE 35: THE PYLE INCISED STONE (INDICATED) IN ITS MODERN SETTING; VIEWED FROM THE NORTH-WEST.

Asset Name: Stones Museum and Collection	
Community: Margam	Value: High
Designation: SAM; GII	Distance to Development: 2.8km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine	
<i>Summary:</i> Built as a single-room church school in the early C19. It closed in 1866 and the children were transferred to a new school in the nearby village of Groes. Used as a museum for early Christian stones since 1932. Conserved and interior remodelled 1998-9 by Cadw. Two-storey 3-window range of rubble stone with quoins, under a red tile roof with stone stack to W end. Lean-to porch at W end containing late C20 glazed panels and door. The S face has round-headed windows under voussoir heads with stone sills. Iron multi-pane windows with radial glazing under arches. The E end has a 3-light metal-framed window with quarries under a square hoodmould and with a stone sill. Two similar windows to N side and 2 large rooflights. The building houses the Margam stone collection is housed in a building which was once the village school. Twenty-eight stones have been gathered together, ranging in date from the 6th to the 17th centuries. The core of the collection was brought together in the grounds of Margam Abbey in the late 19th century and moved to its present home in 1932. The monument is of national importance for its potential to enhance our knowledge of the organisation and practice of Christianity. A cross may be part of a larger cluster of monuments and their importance can further enhanced by their group value.	

<i>Conservation Value:</i> The site and building has limited evidential and historical value, and some aesthetic value (as part of its contribution to the overall site and its proximity to the former Abbey church). The value lies in the historical significance of the collection of early carved stone crosses and memorials. However, these have been divorced from their original setting, and could be located in any museum collection anywhere.
<i>Authenticity and Integrity:</i> The building is relatively authentic, although restored and fairly bare internally and fitted with a modern internal steel gantry. The building is in fair condition.
<i>Setting:</i> The museum is located to the north-west corner of the large churchyard attached to the Abbey church. The wooded hillside rises steeply to the north. To the west is a long range of stone rubble (Abbots Kitchen) approached by a wide tarmacked drive. The whole is set about with scattered mature parkland trees.
<i>Contribution of Setting to the Significance of the Asset:</i> Minimal. The parkland setting provides a pleasing backdrop to the building, but the collection could be housed anywhere.
<i>Magnitude of Effect:</i> The proposed turbine would be located to the south, and comprehensive screening is provided by the parkland trees and other structures.
<i>Magnitude of Impact:</i> High value and No Change = Neutral
<i>Overall Impact Assessment:</i> Neutral

4.7.1 MEDIEVAL CASTLES, MOATED SITES, DESERTED MEDIEVAL SETTLEMENTS

Masonry castles, motte & bailey castles, moated sites, manorial sites

Castles are large masonry or timber structures with associated earthworks that were built during the medieval period (c.1050-1500). These structures were built with defence in mind, and were often constructed in highly prominent locations. They were also expressions of status and power, and thus highly visible statements about the wealth and power of their owners. They are designed to see and be seen, and thus the impact of wind turbines is often disproportionately high compared to their height or proximity. High status manorial sites could also be enclosed and 'defendable', both types of monument could be associated with deer parks, gardens or pleasure grounds.

An important development in the history of medieval archaeology in the 20th century was the identification of deserted and shrunken settlements – ranging from nucleated villages to small hamlets – across the whole country, with marked concentrations in certain areas. Deserted settlements may survive as extensive and well-defined earthworks, as crop or soilmarks, or simply as orphaned place- or field-names. Many churches that now stand in isolation formerly stood within a contemporary settlement. The significance of these sites depends on the level of preservation, and associations with other relict or extant features, like manorial sites, castles or churches. In most instances, should earthworks survive in an appreciable form, the settlement itself is significant less for what it was, and more for the experiential sense of abandonment and tranquillity. Shrunken or lost settlements were rarely laid out with a conscious appreciation of designed views, and more a practical appreciation or agricultural context. As such, the impact of a turbine development will vary according to location and context, but is unlikely, in most instances, to be significant.

What is important and why

Other than churches, castles – ruined or otherwise – are often the most substantial medieval structures to survive in the landscape, and associated with extensive buried remains (evidential). The larger and better-preserved examples are iconic and grandiose expressions of political power and status. Most can be associated with notable families and some have been the scene of important historical events, represented in literature, art and film (historical/associational). All were originally designed structures, located within a landscape manipulated for maximum strategic and visual advantage (aesthetic/design). The passage of time has reduced some to ruins and others to shallow earthwork; some survived as great houses. All have been subject to the rigours of time, so the current visual state can best be described as a fortuitous development. Communal value is limited, although the ones open to the public are heritage venues, and the larger ruined examples retain a grandeur that borders on the spiritual/romantic. In the past there

would have been a strong communal element. They may or may not retain a curtilage of associated buildings, and may or may not retain an associated landscape park or deer park.

The importance of deserted settlements lies primarily in the buried archaeological resource (evidential value). There is usually some historical value, particularly where the site is well-preserved, or where associated earthwork remains survive in close proximity e.g. ridge-and-furrow (both historical/illustrative and historical/associational). There may be some aesthetic value, but such sites are typically best appreciated from the air (aesthetic/fortuitous).



FIGURE 36: THE RUINS OF KENFIG CASTLE, COMPLETELY OVERGROWN WITH BRACKEN AND GORSE. ONLY THE CORNER OF THE STONE KEEP RISES ABOVE THE BRACKEN (RIGHT). IN THE BACKGROUND, THE TATA STEELWORKS AND BROMBIL WINDFARM. THE APPROXIMATE LOCATION OF THE PROPOSED TURBINE IS INDICATED. VIEWED FROM THE SOUTH.

Asset Name: Kenfig Castle and Medieval borough	
<i>Parish:</i> Cornelly	<i>Value:</i> Very High
<i>Designation:</i> SAM	<i>Distance to Development:</i> 0.8-1.2km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine	
<i>Description:</i> The scanty remains of Kenfig Castle, a once great medieval fortress, rise from the dunes beside the Cynfig river. The castle was established in the early twelfth century by the lord of Glamorgan and was set at the northern end of a walled borough (NPRN 15335). The castle was several times assaulted and ravaged and was greatly altered and added to in the late thirteenth century. It was maintained throughout the fourteenth century but was ruinous by the early sixteenth. The borough became be-sanded through the fifteenth century. The site was excavated in 1924-32. The castle was set on a low knoll washed by the river on the west and north. It originally consisted of a roughly circular embanked and palisaded court some 37m across, enclosing a magnificent square-plan tower as well as a hall and its offices. The facades of the 14m square tower were articulated by slim dressed stone buttresses at the corners and centre of each side. It would have risen high above the court dominating the borough skyline. In about 1300 the castle was substantially reconstructed. The rampart was thrown down to level up the court and a stout curtain wall was built in its stead with a large masonry gatehouse facing into the borough. The tower was also reconstructed and its south-west wall completely rebuilt. The fortified Medieval borough was in existence by 1140-47. It became choked by sand from the fifteenth century and the corporation was abolished in 1883. The rampart and ditch enclosing the borough described a quadrilateral figure, roughly 200m square with the castle (NPRN 300455) at the northern angle. The church of St James stood outside the walls to the south (NPRN 307338) where there was an extensive suburb. There were 142 burgages or house plots, in 1314. Remains of foundations (NPRN 19101), possibly medieval, are visible in the area.	
<i>Supplemental Comments:</i> This is an extraordinary site, with visible upstanding walls from the castle and potential	

embankments or walls within the wider town. Buildings and walls can be seen appearing and disappearing in and out of the sand. Further afield there appear to be field boundaries or other landscape features, trackways etc. which indicates the entire settled landscape survives beneath the sand, relatively untouched. There has been some excavation by a local community group (but no recent activity), but ongoing maintenance is not apparent.
<i>Evidential Value:</i> The multi-layered history of the castle and medieval town and the buried features, including visible buildings across the site, field boundaries, ramparts, possible walls, and upstanding castle keep, means this wider site has immense evidential archaeological value. Its abandonment in the 15 th century and eventual swallowing by the sand dunes means it should be very well preserved.
<i>Historical Value:</i> The medieval borough and castle are very important from a historic perspective, associated with the 12 th century Norman conquest and contestation of the area and the powerful Lord of Glamorgan, as well as its development into a medieval borough. It is also historically important for its abandonment in the region.
<i>Aesthetic Value:</i> The site is part of the starkly beautiful and unusual Kenfig sand dune landscape and has a certain romantic ruin aesthetic but clearly no longer retains its intended visual power over the river valley.
<i>Communal Value:</i> This is part of a valuable community nature reserve and amenity land, and the site can be accessed by the public. It is something of a local landmark, well known and loved, but it has no defined communal value.
<i>Authenticity:</i> The site is very authentic as a buried archaeological landscape. The castle keep is upstanding but ruined and partially buried; the town completely buried.
<i>Integrity:</i> All the structures and structures are buried and/or ruinous.
<i>Topographical Location and Landscape Context:</i> The castle and inner part of the town are located on the break of slope above the steep former Afon Cynfigg river valley, on the south side of the valley. Gentle slopes to the south-west are now raised up by the sand dunes and the ground rises again to Mawdlam to the south where a low knoll is occupied by the church.
<i>Principal Views:</i> There is a key view between the Castle and the surviving medieval church at Mawdlam. There would have been a key view across and along the river valley, which the castle has clearly been positioned to control – now filled with railway lines and obscured by the adjacent M4 concrete viaduct.
<i>Landscape Presence:</i> The Castle can be seen wider afield in the landscape, one corner of the keep poking above the dunes that envelop it, visible as a broken fragment of stonework. The Castle, however, was built to dominate this landscape and now no longer has any landscape presence outside of the nature reserve. This area of the landscape is dominated by the M4 visually and aurally by the viaduct.
<i>Immediate Setting:</i> The Castle and town are enclosed by the Kenfig sand dune nature reserve to the east, west and south; it is a SSSI and community amenity land. Much of the sand dune reserve is either open dune landscape or overgrown with low-lying scrub; some areas are also waterlogged. The landscape context of this castle was the river valley, which survives much altered to the immediate north.
<i>Wider Setting:</i> The nature reserve sits on the former farmed coastal fringe of the Severn Estuary (Swansea Bay) but the dunes extend well past Porthcawl and up to the Tata Steelworks, which interrupt the dune landscape and long beach. This dune landscape is now divided from the more established farmed landscape by the M4.
<i>Enhancing Elements:</i> The management of the nature reserve allows the archaeological site to be preserved beneath the sand.
<i>Detracting Elements:</i> The encroaching modern landscape by the M4, the adjacent industrial estate, the security fences for the railway, and the more distant Tata steelworks all impose on the Castle which is now a recessive feature due to its ruined nature.
<i>Direct Effects:</i> None.
<i>Indirect Effects:</i> The turbine would be visible from the Castle and former town. It is considered that, although it would be located outside the immediate landscape setting of sand dunes, its size and kinetic character would visually intrusive.
<i>Contribution of Setting to the Significance of the Asset:</i> The setting amongst the dunes defines the context of the former borough and narrative of a town lost to the sands. The sand dunes also protect the archaeological assets. The modern impacts which intrude and impose on this setting detract and affect the experience of the archaeological assets and are such that it does affect the significance of this important site.
<i>Magnitude of Effect:</i> The proposed turbine would be located c.1km to the north, beyond the railway embankment and within the adjacent industrial estate. The landscape beyond is crossed by several lines of high voltage overhead power cables, with the towers of the Tata Steelworks on the horizon. The M4 is carried on an embankment to the east, with a long viaduct over the base of the valley. On the skyline the turbines of the Brombil Farm wind farm are visible. These modern impacts are one step removed from the rather desolate setting of the Castle and town, with many of the 20 th century visual actors either at some distance or largely screened by vegetation. The proposed turbine would be much closer and more apparent, drawing the eye and constituting a clearly modern kinetic visual actor. That said, the Scheduled site is highly uneven, and views would not be continuous or wholly dominant.
<i>Magnitude of Impact:</i> High value and Moderate change = Moderate/Large effect
<i>Overall Impact Assessment:</i> Minor to Moderate Adverse

4.7.2 HILLFORTS

Hillforts, cross dykes, promontory forts

Hillforts are large embanked enclosures, most often interpreted as fortifications, and usually occupy defensible and/or visually prominent positions in the landscape. They are typically visible from all or most of the surrounding lower and higher ground, with the corollary that they enjoyed extensive views of the surrounding countryside. As such, they are as much a visible statement of power as they are designed to dissuade or repel assault. The location of these sites in the landscape must reflect earlier patterns of social organisation, but these are essentially visual monuments. They are designed to see and be seen, and thus the impact of wind turbines is often disproportionately high compared to their height or proximity.

Cross dykes and promontory forts are rather similar in nature, being hill spurs or coastal promontories defended by short lengths of earthwork thrown across the narrowest point. Both classes of monument represent similar expressions of power in the landscape, but the coastal location of promontory forts makes them more sensitive to visual intrusion along the coastal littoral, due to the contrast with the monotony of the sea. Linear earthworks are the cross dyke writ large, enclosing whole areas rather than individual promontories. The investment in time and resources these monuments represent is usually far greater than those of individual settlements and hillforts, requiring a strong centralised authority or excellent communal organisation.



FIGURE 37: THE VIEW FROM MYNYDD Y CASTELL CAMP TO THE SOUTH-WEST, LOOKING ACROSS MARGAM PARK RPG TO THE SITE OF THE PROPOSED TURBINE. OPEN VIEWS OUT TO THE ESTUARY ACROSS THE RESERVOIR, BUT ALSO SOME MINOR BLOCKING BY THE PICTURESQUE TREE PLANTING ON THE LOWER SLOPES. VIEWED FROM THE NORTH-EAST.

Asset Name: Mynydd y Castell Camp	
Community: Margam	Value: High
Designation: SAM	Distance to Development: 3.3-3.4km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine from part of the hillfort	
Description: Elongated oval enclosure defined by bank and ditch with counterscarp in places. There is a possible roundhouse site in the centre, which may be a parkland building.	
Supplemental Comments: This is a much-weathered ditched enclosure on a hilltop. It does not seem particularly defensive, but its topographical setting would emphasise any ditches. It appears to have been adopted as a feature	

within Margam Park as a clump of trees and some rhododendrons seems to have been planted here, and the possible central building could easily have been a folly, fern house, or deer shelter.
<i>Evidential Value:</i> Expected to be high, with archaeological deposits within the silted ditches, as well as construction information and possible paleoenvironmental evidence buried beneath the banks.
<i>Historical Value:</i> Historically interesting for its inclusion within Margam Park.
<i>Aesthetic Value:</i> This is only visible in the immediate pasture setting on the hilltop and the aesthetic is of weathered silted up ditches.
<i>Communal Value:</i> None.
<i>Authenticity:</i> It is authentically a relict archaeological feature in a parkland landscape.
<i>Integrity:</i> This survives only as earthwork remains.
<i>Topographical Location and Landscape Context:</i> The monument is located on a pronounced hill top that projects from the line of hills that overlook the coastal fringe. It occupies the fairly level sloping plateau on the top of this hill.
<i>Principal Views:</i> Principal views are to the south-west and south across the parkland landscape and north-east up the valley of the Nant Cwmcaertreham river. There is a good view of Capel Mair chapel on a scarp on the opposite hillside.
<i>Landscape Presence:</i> None. The lower and mid slopes are planted with trees and decorative shrubs, and it has been subsumed within the dramatic 19 th century Castle landscape immediately below.
<i>Immediate Setting:</i> The grass pasture field on the top of the hill was likely used for deer within the parkland and is accessed up a wide track.
<i>Wider Setting:</i> Margam Abbey landscape was replaced with a Tudor deer park after the dissolution of the monasteries in the 1540s and that landscape was remodelled in the 18 th and 19 th centuries. It is now defined by sweeping grass pasture and the usual copses of parkland trees; the site is now a council owned country park amenity.
<i>Enhancing Elements:</i> This has been retained within a simple grass sward, so we can perceive its limits and character.
<i>Detracting Elements:</i> The parkland planting obscures this enclosure within the landscape.
<i>Direct Effects:</i> None.
<i>Indirect Effects:</i> The turbine will be visible across the landscape in the distance but beyond the M4. At closer proximity is the Tata steelworks and Newlands turbine. This will have a cumulative impact on a landscape already scarred by industry. This proposed turbine stands outside of the farmed landscape east of the M4 and far beyond the parkland landscape which now forms the landscape context in which this enclosure is understood.
<i>Contribution of Setting to the Significance of the Asset:</i> The parkland setting is irrelevant to the ancient hillfort but the parkland has allowed the site to remain in an undeveloped landscape.
<i>Magnitude of Effect:</i> The proposed turbine would be located to the south, and a good level of screening is provided by the parkland trees, subject to seasonal variation. The proposed turbine would be visible, and there is a cumulative effect arising from the other modern features in this landscape. However, the distances involved are likely to minimise that impact.
<i>Magnitude of Impact:</i> High value and Negligible change = Slight effect
<i>Overall Impact Assessment:</i> Negligible Adverse



FIGURE 38: THE VIEW FROM HALF MOON CAMP SOUTH TOWARDS THE SITE OF THE PROPOSED TURBINE (INDICATED); VIEWED FROM THE NORTH.

Asset Name: Half Moon Camp	
<i>Community:</i> Margam	<i>Value:</i> High
<i>Designation:</i> SAM	<i>Distance to Development:</i> 3.2km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine from part of the hillfort	
<i>Summary:</i> An enclosure, c.53m by 37m, defined by banks and scarps. A series of earthworks in a semi-circular form, possibly eroded away on one side, within an open scrubby area of waste between two blocks of conifer plantation above a steep rocky scarp. The coast path runs up and over, or just above this monument.	
<i>Conservation Value:</i> The primary conservation value is its high evidential/archaeological value, relating to the banks, ditches, and interior of the monument. The site has no known historical value. It has no communal value and while it clearly presents as overgrown man-made earthworks, this is of little consequence to its wider significance as an archaeological feature.	
<i>Authenticity and Integrity:</i> This is authentically a relict archaeological site but is obscured and hampered by the scrub growth. The earthworks are weathered by age but appear to be quite well preserved.	
<i>Setting:</i> The earthworks lie in an area of tall upland grasses and scrub with small trees and gorse, bracken etc. To the north and north-west are stone walled fields, farmland on a raised plateau. To the east and west are dense conifer plantations that appear to bulk out older woodland. To the south and south-west the site is open to the coastal fringe, set high above a rocky scarp on the nose of a promontory.	
<i>Contribution of Setting to the Significance of the Asset:</i> The wider setting is irrelevant to this feature which was designed to lie within an unenclosed upland landscape and likely predates both the farmland and woodlands. Its current immediate open setting amongst scrub – discernible as an archaeological feature is positive and contributes to engagement with visitors as it is immediately adjacent to the Wales Coast Path and marked on the mapping.	
<i>Magnitude of Effect:</i> The proposed turbine would be visible to the south. There would be some screening from the woodland that runs further down the slope to the east of the monument. The turbine would lie beyond M4 and adjacent to the Tata steelworks, which visually and aurally dominate all views, and which also aurally intrude into the immediate setting of the monument. There would be expected to be minor cumulative impact from the addition of another large landscape feature in these views; however, there is an almost complete disconnect between this Prehistoric enclosure and the lowland industrial landscape.	
<i>Magnitude of Impact:</i> High value and Negligible change = Slight effect	
<i>Overall Impact Assessment:</i> Negligible Adverse	



FIGURE 39: THE VIEW ACROSS THE LOWLANDS FROM TON MAWR CAMP; VIEWED FROM THE ENE. THE SITE OF THE PROPOSED TURBINE IS INDICATED.

Asset Name: Camp 530m east of Ton Mawr	
<i>Community:</i> Margam	<i>Value:</i> High
<i>Designation:</i> SAM	<i>Distance to Development:</i> c.4.1km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine from part of the hillfort	

<i>Description: Listing:</i> The monument comprises the remains of an earthwork enclosure. The date or precise nature of the enclosure is unknown, but it is likely to be later prehistoric. The site lies at 240m above OD on a broad spur west of Cwm Kenfig, about 4km north of Pyle on ground falling gently to the south-east. A rather irregular ring varying from 60 to 70m in diameter, area about 0.3ha, is defended by a single rampart which round the west half consists of a bank 8.5 to 10m wide, half a metre high internally and up to a metre externally, and elsewhere a scarp 4 to 6.5m wide and about 0.8m high except on the south-east where it reaches nearly 2m in height owing to the fall of ground. Round the north-west half there is also an outer ditch 8 to 12m wide and about half a metre deep; the outward turn of its counterscarp on the south-west suggests that it never extended round the remainder of the earthwork. The entrance is a simple gap on the south-west, now less than 2m wide. There are no internal structures. The monument is of national importance for its potential to enhance our knowledge of later prehistoric defensive organisation and settlement. The site forms an important element within the wider later prehistoric context and within the surrounding landscape. The site is well preserved and retains considerable archaeological potential. There is a strong probability of the presence of evidence relating to chronology, building techniques and functional detail.
<i>Supplemental Comments:</i> This is a shallow but visible circular earthwork within a pasture field on a sloping site. The fields in the wider setting enclosed by post and wire fences allowing views through and across the fields.
<i>Evidential Value:</i> Expected to be high with archaeological deposits and features across and within the monument.
<i>Historical Value:</i> Historically interesting as an archaeological site but no known specific historical associations.
<i>Aesthetic Value:</i> This is only visible in the immediate pasture setting on the hilltop. A weathered earthwork.
<i>Communal Value:</i> None.
<i>Authenticity:</i> It is authentically a relict archaeological feature in a farmed upland-pasture landscape.
<i>Integrity:</i> The banks and ditches survive as shallow earthwork remains but are well preserved as such, clearly managed within the landscape.
<i>Topographical Location and Landscape Context:</i> The monument stands on the gently sloping south-east side of the plateau, below the summit of the hilltop, Moel Ton-Mawr. The landscape context is the lower slopes of the undulating plateau and upland pasture fields.
<i>Principal Views:</i> Principal views in the modern landscape are now from the south-west from the adjacent track which is a footpath. There are more distant views down from the north from the Ogwr ridgeway walk but the enclosure would only be noticed by those expecting to see archaeology as its earthworks are not particularly pronounced. Intended views on the approach were from the south-west on the downslope, where there is an entrance.
<i>Landscape Presence:</i> This holds no wider visible presence outside of its immediate field setting, due to the slightness of the earthworks.
<i>Immediate Setting:</i> The grass pasture field on the top of the hill is used for grazing sheep, immediately outside of the walled deer park of Margam Park and part of the historic Ton Mawr farmstead.
<i>Wider Setting:</i> The wider setting of the uplands includes extensive 19 th and 20 th century plantations and to the south lies the Registered Margam Park, an ancient monastic estate, Tudor deer park, with later 18 th and 19 th century phases of remodelling.
<i>Enhancing Elements:</i> This has been retained within a simple grass sward, so we can perceive its limits and character.
<i>Detracting Elements:</i> None.
<i>Direct Effects:</i> None.
<i>Indirect Effects:</i> The turbine would be visible across the landscape to the south-west. Between the two is the operational Newlands turbine. The addition of another turbine between the asset and dunes/estuary will have a minor cumulative impact on the wider landscape already scarred by industry from the Tata Steelworks, contributing to a further change in the coastal fringe. Both the operational and proposed turbine lie outside the upland landscape which defines this semi-defended enclosure.
<i>Contribution of Setting to the Significance of the Asset:</i> The elevated location chosen clearly indicates landscape views, and views to the monument, form part of its significance. However, the earthworks of the enclosure are not clear or pronounced enough to fulfil that latter function, and the lowland landscape is significantly changed from that of c.2000 years ago. The elevation of the monument, and the attendant sense of remoteness, are key to the experience of the asset, which would not be affected by changes in the coastal littoral below.
<i>Magnitude of Effect:</i> The turbine would be visible to the south-west. The turbine would have a minor cumulative effect by further intensifying the industrial character of the wider landscape, but the elevation, immediate setting and sense of remoteness would not be affected.
<i>Magnitude of Impact:</i> High value and Negligible change = Slight effect
<i>Overall Impact Assessment:</i> Negligible Adverse



FIGURE 40: DANISH CAMP; VIEWED FROM THE NNW.

Asset Name: Danish Camp	
Community: Margam	Value: High
Designation: SAM	Distance to Development: c.4.2km
Within bare-earth ZTV? Yes, theoretical intervisibility to base of turbine from part of the hillfort	
Summary: Listing: An oval enclosure, c.45m NE-SW by 36m, defined by a bank and, possibly, a ditch. This appears as shallow earthworks within a fenced off enclosure in a large conifer plantation. The enclosure is dominated by tall upland grasses and scrub, which somewhat obscures the archaeology.	
Conservation Value: The primary conservation value is high evidential/archaeological value, with archaeological deposits and features across and within the monument. The site has no known historical association but the name 'the Danish camp' would suggest local folklore. It has no communal value and whilst aesthetically it clearly presents as overgrown man-made earthworks, this is of little consequence to its wider significance as an archaeological feature in its current context.	
Authenticity and Integrity: This is very authentic as an archaeological feature but is now within a fenced enclosure within a planned conifer plantation. The banks are weathered and reduced but generally in good order. There is an issue with scrub growth, and it could benefit from some active management.	
Setting: The site is enclosed within an extensive plantation that dominates the Cwm Philip valley and uplands. It is next to a wide access track and enclosed within post and wire fences. There are no views out of the plantation and no connection to the surrounding landscape. The upland landscape is the landscape context for the asset. The primary views for this asset would be across and along the river valley to the north-west and south-west, but wider views south-south-west would include the coastal fringe.	
Contribution of Setting to the Significance of the Asset: The wider high upland setting defines the reason for this enclosed settlement – it provides wide views of the landscape and can perform a semi-defensive function if required. The current plantation setting precludes us from understanding this as a visitor as it is so enclosed and shut off within the plantation woodland. The immediate setting is irrelevant to the archaeological feature.	
Magnitude of Effect: The turbine would not be visible due to screening from the plantation woodland, but if the trees were to be felled then it would open up the views and the turbine would be visible at a distance within the coastal landscape. The proposed turbine would be located outside of its upland landscape context. There is currently no change to setting or views.	
Magnitude of Impact: High value and No Change = Neutral	
Overall Impact Assessment: Neutral	



FIGURE 41: THE VIEWS OUT TO THE ESTUARY AND COASTAL FRINGE FROM MOEL TON-MAWR HILLFORT; VIEWED FROM THE EAST.

Asset Name: Moel Ton-Mawr hillfort	
<i>Community:</i> Margam	<i>Value:</i> High
<i>Designation:</i> SAM	<i>Distance to Development:</i> c.4.3km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine from part of the hillfort	
<i>Description: Listing:</i> On the gently sloping western side of the Moel Ton-Mawr summit plateau are the earthworks of diamond-shaped concentric hillfort, associated with a fieldsystem of possible Iron Age date. The complex consists of a sub-rectangular enclosure 75-80m east-west by 60-65m. It occupies the central southern part of a larger, more irregular enclosure that is roughly 230m east-west by 195m. This may also have been intended to appear rectilinear despite the concave north-eastern facade which rests on a stream channel. Both enclosures are defined by double banks with medial ditches. This suggests that they are broadly contemporary. Both have south-facing entrances, the outer offset by some 20m to the east. These are connected by further banks and ditches, producing a forecourt or approach way. A third, newly recognised, enclosure is attached to the south side of the outer circuit and is a more visible survivor of a larger field system. This is rectilinear, roughly 145m east-west and in the region of 80-100m deep. It too appears to be defined by double banks with a medial ditch, at least on its south side. Its eastern side springs from the west side of the outer enclosure entrance and there appears to be an embanked trackway on this side. This would be the main approach to the complex and it extends beyond the third enclosure.	
<i>Supplemental Comments:</i> This is a well-preserved monument with well-defined and upstanding earthworks clearly visible within a series of open pasture fields, fields divided by scrappy upland hedges and fences.	
<i>Evidential Value:</i> Expected to be high with archaeological deposits and features across and within the monument.	
<i>Historical Value:</i> Historically interesting as an archaeological site, first noted on 19 th century mapping, but no known specific historical excavation or associations. Referred to as a Roman fort/camp, probably erroneously, in all likelihood Iron Age in date.	
<i>Aesthetic Value:</i> This is only visible in the immediate pasture setting on the hilltop and the aesthetic is of weathered banks and silted up ditches. It is more visible than the other sites considered here due to its well-preserved banks.	
<i>Communal Value:</i> None.	
<i>Authenticity:</i> It is authentically a relict archaeological feature in a farmed upland-pasture landscape.	
<i>Integrity:</i> This survives only as earthwork remains but is well preserved as such, clearly managed within the landscape.	
<i>Topographical Location and Landscape Context:</i> The monument stands on the gently sloping western side of the plateau, before the summit of the hilltop, Moel Ton-Mawr. The landscape context is the undulating plateau and upland pasture fields.	
<i>Principal Views:</i> Principal views in the modern landscape are now from the south-west or north-east when visitors pass by on the adjacent Ogwr Ridgeway Walk. Intended views on the approach were from the north where there is a clearly defined entrance. There are glimpses of the enclosure from the south and south-west on an earlier part of the ridgeway walk, as one exits the conifer plantations and there are wide but distant views from the upper deer park in Margam Park.	

<i>Landscape Presence:</i> As this is visible in the landscape it does hold an element of landscape value but only as a relict archaeological feature. It does not hold presence but does catch the eye when moving through the exposed upland grassland landscape.
<i>Immediate Setting:</i> The grass pasture field on the top of the hill is used for grazing sheep, immediately outside of the walled deer park. Accessed up a wide track, which appears to be an ancient route way over the hills.
<i>Wider Setting:</i> The wider setting of the uplands includes many of 19 th and 20 th century conifer plantations and to the south lies the Registered Margam Park.
<i>Enhancing Elements:</i> This has been retained within a simple grass sward, so we can perceive its limits and character.
<i>Detracting Elements:</i> The modern fence line boundary crosses the site.
<i>Direct Effects:</i> None.
<i>Indirect Effects:</i> The proposed turbine would be visible in the landscape below; equidistant with the Tata Steelworks, which lies directly to the west and are very visible from the monument. The addition of the proposed turbine will have a minor cumulative impact on the wider landscape already scarred by industry, contributing to a further change in the coastal fringe over which this defended enclosure looks and will interrupt views to the estuary.
<i>Contribution of Setting to the Significance of the Asset:</i> The elevated location chosen clearly indicates landscape views, and views to the monument, form part of its significance. The earthworks of this enclosure are relatively clear but are not visible on the landscape scale. The lowland landscape is significantly changed from that of c.2000 years ago. The elevation of the monument, and the attendant sense of remoteness, are key to the experience of the asset, which would not be affected by changes in the coastal littoral below.
<i>Magnitude of Effect:</i> The turbine would be visible to the south-west. The turbine would have a minor cumulative effect by further intensifying the industrial character of the wider landscape, but the elevation, immediate setting and sense of remoteness would not be affected.
<i>Magnitude of Impact:</i> High value and Negligible change = Slight effect
<i>Overall Impact Assessment:</i> Negligible Adverse



FIGURE 42: THE UPSTANDING RAMPARTS OF PEN-Y-CASTELL CAMP; VIEWED FROM THE NORTH.

Asset Name: Pen-y-Castell Camp	
<i>Community:</i> Cornelly	<i>Value:</i> High
<i>Designation:</i> SAM	<i>Distance to Development:</i> 4.5km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine from part of the hillfort	
<i>Summary: Listing:</i> The monument comprises the remains of a hillfort, which probably dates to the Iron Age period (c. 800 BC - AD 74, the Roman conquest of Wales). It is situated at the west end of a ridge, with steep natural slopes below it on its north, west and south sides. Past quarrying at the north-west end has removed a considerable length of bank, and has hollowed out the interior at the west end. There is further quarrying immediately south-west of the site. Hillforts are usually located on hilltops and surrounded by a single or multiple earthworks of massive proportions. Hillforts must have formed symbols of power within the landscape, while their function may have had as much to do	

with ostentation and display as defence. The monument is of national importance for its potential to enhance our knowledge of later prehistoric defensive organisation and settlement. The site forms an important element within the wider later prehistoric context and within the surrounding landscape. The site is well preserved and retains considerable archaeological potential. There is a strong probability of the presence of evidence relating to chronology, building techniques and functional detail.

Conservation Value: The primary conservation value is high evidential/archaeological value, with archaeological deposits and features across and within the monument. The site has no known historical value. There is a historic quarry along its northern and western end. It has no communal value and whilst aesthetically it clearly presents as overgrown man-made earthworks, this is of little consequence to its wider significance as an archaeological feature.

Authenticity and Integrity: This is very authentic as an archaeological feature but there is an issue of scrub growth, particularly gorse, developing in the enclosure and on the banks, which could benefit from some active management; the integrity was affected by the creation of the quarry but the banks are otherwise quite substantial. There is also evidence of antisocial behaviour, rubbish and evidence of fires and parties and some digging and fly-tipping, dumping of rubbish in the monument.

Setting: The site is enclosed within a sub-oval block of pasture fields on the edge of the ribbon development which climbs up Kenfig Hill. To the north lies the farmstead and more farmland. It is very open and exposed hilltop setting.

Contribution of Setting to the Significance of the Asset: This Prehistoric enclosure predates the farmed landscape in which it stands, and the intensive 19th and 20th century urban landscape encloses the hill to the north, west and south. The setting is therefore irrelevant to the enclosure, but its hilltop topography defines its likely defensive function.

Magnitude of Effect: The turbine would be visible to the west, across the busy urban landscape of Pyle. The turbine would have a minor cumulative effect by further intensifying the industrial character of the wider landscape, as it will be framed by the extensive Tata steelworks on the skyline and M4 corridor. This monument suffers from its modern setting.

Magnitude of Impact: High value and Negligible change = Slight effect

Overall Impact Assessment: **Minor Adverse**

4.7.3 REGISTERED PARKS AND GARDENS

In/formal planning tends to be a pre-requisite for registered landscapes, but varies according to individual design. Such landscapes can be associated with larger stately homes (see above), but can be more modern creations. Landscape parks are particularly sensitive to intrusive visual elements (see above), but many gardens are usually focused inward, and usually incorporate stands of mature trees that provide (seasonal) local blocking. Unless the proposed wind turbine is to be located close to the garden, its impact would be minimal.

What is important and why

Parks and gardens can be extensive, and are usually associated with other high-value heritage assets. They may contain a range of other associated structures (e.g. follies, grottos etc.), as well as important specimen planting (evidential). Individual examples may be archetypes of a particular philosophy (e.g. picturesque) or rare survivors (e.g. medieval garden at Godolphin) (historical/illustrative). Parks that cover an extensive area can incorporate and utilise existing monuments, structures and biota of varying date and origin. They may have their origins in the medieval period, but owe their modern form to named landscape gardeners of national importance (e.g. Capability Brown). They may be depicted in art and lauded in poetry and prose (all historical/associational). The landscape park is the epitome of aesthetic/design: the field of view shaped and manipulated to conform to a particular ethos or philosophy of design; this process can sweep away what went before, or adapt what is already there (e.g. Trewithen Park). Planned views and vistas might incorporate distinctive features some distance removed from the park. Many of these parks have been adapted over time, been subject to the rigours of time, and have fully matured in terms of the biological component. The communal value of these landscapes is limited; in the present day some are open to the public, but in origin and conception they were essentially the playgrounds of the elite. They might contain or incorporate commemorative structures (communal/commemorative).

Asset Name: Margam Park RPG	
<i>Community:</i> Margam	<i>Value:</i> High
<i>Designation:</i> RPG	<i>Distance to Development:</i> 2.1-4.2km
<i>Within bare-earth ZTV?</i> Yes, theoretical intervisibility to base of turbine is possible from a greater part of the Park	

<i>Description:</i> Listing: Margam Park is a multi-layered site of outstanding historical importance. It includes prehistoric and Cistercian abbey remains, and has a Tudor deer park, eighteenth-century and nineteenth-century garden and landscaping phases. The site is usefully depicted on an early bird's eye view. Of particular importance are the very fine walled deer park, the banqueting house facade, the outstanding Georgian orangery, the Citrus House and the nineteenth-century gardens with their fine collection of trees and shrubs. The 1950s garden of Twyn-yr-Hydd is a delightful and well preserved period piece within the park. Its main dates are from twelfth-fifteenth century; 1540-late seventeenth century; 1786-90; 1830-40; 1920s; 1950s. There are a number of earthworks of possible garden origin. The garden is depicted on the Second Edition Ordnance Survey 25-inch map of Glamorgan XXXIII, sheet 7 (1899). Its main elements on that map include greenhouse, terrace walls, antiquity (contrived), saw mill, nursery, woodland with vista paths, woodland, walled garden, well, sundial, relict hedgelines, isolated geometric copses, orangery, carriage drive, waterfall, lodge, parterres, orchard, parkland, pinery, ponds, peasantry and fountain.
<i>Supplemental Comments:</i> A parkland/estate of four main phases: an earlier historic probable monastic phase with numerous scattered and contiguous monastic granges; later a walled deer park associated with a Tudor/Elizabethan manor. A small area was reworked as an early 18th century pleasure ground framing the Orangery (which led to the destruction of the earlier house); some elements of parkland landscape design may date to this phase. The early 19th century phase created even more extensive formal and walled gardens and further altered the parkland by moving the village of Margam, as well as constructing a massive new country house on the slope above the formal gardens. Much of the park's appearance now relates to this last phase. The site was taken on by the local council in the 1970s to save it from development; the inner park is managed and the house is receiving careful restoration. The park is now a community amenity space and public country park, with farm park and learning educational centre.
<i>Evidential Value:</i> The multi-layered history of the park and the buried features this may contain, from both the medieval monastic landscape and Tudor deer park, opens it up to future landscape study and holds high evidential value.
<i>Historical Value:</i> The Margam Park estate is locally important, and the park is associated with key Welsh families like the Mansells and the Talbots, who were instrumental in the industrialisation of this landscape and economic boom in the 19th century. It also holds separate value as a former Cistercian monastery.
<i>Aesthetic Value:</i> The park is a designed landscape, the sculpting of natural features and historic farmland into the 19th century picturesque ideas of perfection, 'perfecting the landscape'. Therefore its core value is to be aesthetic, to create beautiful vistas. The earlier elements in the park are associated with hunting deer so have a different aesthetic value – the conceal/reveal is about creating excitement in the chase and habitat for animals.
<i>Communal Value:</i> The Margam Park estate is run as a publicly accessible amenity land 'country park' for the local community, a widely and actively used resource. As an additional note, the Orangery and ruins/parish church have additional communal value, for the community/group of people who may have married on the estate.
<i>Authenticity:</i> The estate has been managed by the local council and is undergoing significant restoration, retained as a single entity although many of the wider farmsteads have been sold off. However in some areas the health and safety necessary paths, dog bins, car park and signage detract from the authenticity of the views and setting.
<i>Integrity:</i> The parks wider agricultural land has been built on in some places and the adjacent road is now the busy A48, with all associated lighting at junctions and signage. The villages and settlements on its edges encroaching, becoming suburbs of the Port Talbot building linking between the M4 and the steelworks, with some loss of integrity. The inner former deer park is untouched and even extends up onto the farmed uplands. The wooded river valley sections of the park are now in divided ownership, including sections within the former monastic walled estate.
<i>Topographical Location and Landscape Context:</i> The estate occupies a low undulating coastal fringe abruptly framed by tall hills behind to east and north. Most of the park occupies its gently sloping long southern and south-westerly slopes and the steeper upper south-facing and west facing slopes.
<i>Principal Views:</i> The park has extensive views to and across the Severn Estuary and across to Exmoor.
<i>Landscape Presence:</i> The parkland announces itself in the landscape with the inner walled enclosure where it survives and the wooded edges and scattered lodges and gatehouses or Listed gates and gate piers.
<i>Immediate Setting:</i> The parkland is framed by farmland, now much of it private which used to be part of the estate; many of the farms have medieval origins as monastic granges. The busy A48 also forms the west, south-west, and south boundary, running in a diagonal then length of the inner walled park.
<i>Wider Setting:</i> The parkland is framed by Pyle to the south-east and south, the M4 to the south and west and the steelworks and port Talbot to the west and north-west. To the north and east are the steep hills and valleys so synonymous with South Wales.
<i>Enhancing Elements:</i> The management of the estate as amenity land ensures the space is used for leisure and pleasure grounds, observed as being very actively used by the community. The grounds are maintained but not over-managed, a fairly natural balance being maintained.
<i>Detracting Elements:</i> The encroaching industrial landscape, with a further expansion of the steelworks clearly laid out with new roundabout just across the M4 junction from the small village which clusters the kitchen gardens. This industrial landscape intrudes visually, in the form of light pollution, and aurally. Certain areas of the estate feature more modern and intrusive elements such as concrete paths, car parks, steps cut into banks and rubbish bins, or map signage. These do affect the character of the setting but have been carefully managed.
<i>Direct Effects:</i> None.
<i>Indirect Effects:</i> The proposed turbine would be visible from the Castle and inner grass park, as well as from the upland deer park and from Capel Mair eye catcher. The proposed turbine would be visible from features such as the terrace and lake, but not so much from the Orangery or ruins. There is a small wind farm to the north beyond at Brombil which is not

visible from the park, but which frames the estate in wider landscape views. There is an operational turbine Newlands to the south. There are other wind turbines in this landscape including several near Porthcawl/Bridgend. Other turbines are and significant industrial features are visible in these wide 180° views across the estuary. There would be a cumulative impact of industrial modern encroachment on this ancient landscape.

Contribution of Setting to the Significance of the Asset: The setting and physical location of the estate defines its key characteristics, which have been carefully designed or modified over the course of centuries. The essentially setting for the park lies up the hills to the north-east and east, further away from the proposed turbine. The contribution of setting depends on the extent to which the wider landscape was borrowed or subsumed within the designed views intended for the later post-medieval estate. Those views have very effectively been cut off to the west by the M4 and the modern or recent developments that have taken place along the coastal littoral.

Magnitude of Effect: The proposed turbine would be visible to the south/south-west from parts of the wider estate, and more particularly the elevated parts to the north-east. The turbine would have a minor cumulative effect by further intensifying the industrial character of the wider landscape, but set at a distance, with good opportunities for screening provided by parkland trees, buildings and other features, subject to seasonal variation.

Magnitude of Impact: High value and Minor change = Moderate/Slight effect

Overall Impact Assessment: **Minor Adverse**

4.7.4 HISTORIC LANDSCAPE

General Landscape Character

The landscape of the British Isles is highly variable, both in terms of topography and historical biology. Natural England has divided the British Isles into numerous 'character areas' based on topography, biodiversity, geodiversity and cultural and economic activity. The County Councils and AONBs have undertaken similar exercises, as well as Historic Landscape Characterisation.

Some character areas are better able to withstand the visual impact of turbines than others. Rolling countryside with wooded valleys and restricted views can withstand a larger number of turbines than an open and largely flat landscape overlooked by higher ground. Parts of the Welsh landscape are populated by a large and diverse number of intrusive modern elements, e.g. electricity pylons, factories, quarries and other turbines, and the question of cumulative impact must be considered. The aesthetics of individual wind turbines is open to question, but as intrusive new moving visual elements within the landscape, it can only be **negative**, if **temporary** and **reversible**.

- The proposed turbine would be located within the *Port Talbot Docks and Margam Works* landscape character area (LCA), part of the Swansea Bay national landscape character area (NLCA).
- The proposed turbine is to be located within the *Port Talbot Industrial* historic landscape aspect area. The value of this aspect area rated as *moderate* but is bookended by *Kenfig Burrows*, *Margam Rural*, and *Margam Country Park*, which are all rated as *outstanding*.
- In terms of the cultural landscape services, the area forms part of the *Margam Works* aspect area. This is rated as being of *low* value, whereas the adjacent *Kenfig Burrows* aspect area is rated as *outstanding*.
- In visual and sensory terms, the area forms part of the *Margam Works*, afforded a value of *low*, and described as having '...a low scenic quality as a major detractor although its character of a threatening, overpowering and uninviting landscape is very strong... The works have a strong integrity but overall comprise a degraded landscape'. In contrast, the adjacent *Kenfig Burrows* aspect area is rated as *outstanding*, *Margam Country Park* as *high*, the rest as *moderate* (e.g. *Coedhirwaun*). The erection of a wind turbine within the *Margam Works* aspect area will have little meaningful visual effect, but the visual influence over adjacent areas will be considerable as the location is one step removed from the main focus of that industrial landscape.
- In terms of the wider landscape, the proposed turbine would be located between two landscapes of outstanding historic interest: *Merthyr Mawr*, *Kenfig* and *Margam Burrows*;

and *Margam Mountain*. The former landscape is dominated by the influence of wind-blown sand on historic communities (most vividly expressed by the loss of Kenfig Castle and town), consisting of the adjacent settlement of Kenfig and its associated fieldsystems, and the dune landscape of the Kenfig Burrows. Margam Mountain, in contrast, represents a large section of dissected upland plateau together with its deep valleys and adjacent lower slopes. The landscape here ranges from enclosed fields around the lower slopes, to late enclosed upland fields and extensive forestry plantations. There are already turbines within the Margam Mountain landscape, and others to the south-east of the Kenfig and Margam Burrows. Both landscapes are impacted upon by the industrialised coastal littoral.

- During the period of operation (nominally 25 years) the turbine will have a **temporary reversible** effect on the wider landscape and the heritage assets it contains as, once it has fulfilled its role, it can technically be removed.

In overall terms, the erection of a wind turbine in this area will serve to erode the distinctiveness of this landscape. This is with particular regard to the cumulative impact of wind energy in the local area. The turbine will not erase or harm the elements that make up this landscape, and the demonstrated visual complexity of the landscape would diminish the visual intrusion of the proposed development. On that basis, the impact of the proposed turbine is assessed as **Minor to Moderate Adverse**.

4.7.5 AGGREGATE IMPACT

The aggregate impact of a proposed development is an assessment of the overall effect of a single development on multiple heritage assets. This differs from cumulative impact (below), which is an assessment of multiple developments on a single heritage asset. Aggregate impact is particularly difficult to quantify, as the threshold of acceptability will vary according to the type, quality, number and location of heritage assets, and the individual impact assessments themselves.

Of the heritage assets selected for detailed assessment, the impact of the proposed wind turbine was judged to be minor/adverse in ten instances, minor to moderate/adverse in two instances, and moderate/adverse in one instance. This reflects the open character of much of this coastal littoral. On that basis, the aggregate impact is assessed as **minor adverse**.

4.7.6 CUMULATIVE IMPACT

The cumulative effect of the proposed change or development — sometimes relatively small changes, or a series of small changes, can have a major impact on our ability to understand, appreciate and experience a historic asset.

Setting of Historic Assets in Wales 2017, 9

*The key for all cumulative impact assessments is to focus on the **likely significant** effects and in particular those likely to influence decision-making.*

GLVIA 2013, 123

The visual impact of a single wind turbine can be significant, but the cumulative impact could undoubtedly eclipse this in some areas. An assessment of cumulative impact is, however, very difficult to gauge, as it must take into account operational developments, those with planning consent, and those still in the planning process. The threshold of acceptability has not, however, been established, and landscape capacity would inevitably vary according to landscape character.

In terms of cumulative impact in this landscape, there are 11 operational turbines (and one consented) within 6km of the site. There is a small (x4) wind farm at Mynydd Brombil Farm to the north, and the separate turbines located to the south-south-east (x5) are close enough that, when

viewed from the north, they look like they form part of a single wind farm. In addition, there are also other strong modern visual actors in this landscape: the pylons, the industrial estates, and the steelworks. On balance, the addition of another turbine in this landscape will not exacerbate the visual impact to any significant degree, and thus the impact is adjudged to be **minor adverse**.

4.7.7 SUMMARY

TABLE 1: IMPACT SUMMARY

Asset	Type	Distance from turbine	Value	Magnitude of impact	Assessment	Overall Assessment
Ty'n y Cellar Farm (multiple)	GII	0.6km	Medium	Minor	Slight	Minor Adverse
Barn at Eglwys Nunydd	GII	1.5km	Medium	Negligible	Slight	Negligible Adverse
Old Park	GII*	1.8km	High	Minor	Moderate/Slight	Minor Adverse
Llanmihangel Farm; Cross	GII* SAM	1.9km	High	Negligible	Slight	Negligible Adverse
Pool Farmhouse	GII	2km	Medium	Minor	Slight	Minor Adverse
Marlas House	GII	2.5km	Medium	Negligible	Slight	Negligible Adverse
Llanmihangel Mill; Bridge; Leat	GII GII* SAM	2.4km	High	Negligible	Slight	Negligible Adverse
The Hall Farm	GII*	2.9km	High	Negligible	Slight	Negligible Adverse
Morfa Bach Underbridges (east and west)	GII	0.4km 0.5km	Medium	No Change	Neutral	Neutral
Marlas Overbridge	GII	2.5km	Medium	Negligible	Neutral/Slight	Negligible Adverse
Pyle Road Overbridge	GII	3.4km	Medium	Negligible	Neutral/Slight	Negligible Adverse
Bryndu Coke Ovens	SAM	4.1km	High	No Change	Neutral	Neutral
Chain Home Low Radar Station	SAM	3.5km	High	Negligible	Slight	Negligible Adverse
Twyn-yr-Hydd (multiple)	GII	2-2.3km	Medium	Negligible	Neutral/Slight	Negligible Adverse
Sker House; Barn	GII* GII	3.6km	High	Minor	Moderate/Slight	Minor Adverse
Margam Orangery; Terrace; Pool	GI GII*	2.7km	High	No Change	Neutral	Neutral
Margam Castle; Terrace	GI GII*	2.9km	High	Minor	Moderate/Slight	Minor Adverse
Margam Crematorium	GII*	2.1km	High	Minor	Moderate/Slight	Minor Adverse
The Prince of Wales PH	GII	1.8km	Medium	Minor	Slight	Minor Adverse
Ty Maen; Gates	GII	3.9km	Medium	Negligible	Neutral/Slight	Negligible Adverse
St Mary Magdalene, Kenfig	GII*	1.8km	High	Moderate	Moderate/Large	Minor to Moderate Adverse
Margam Abbey	GI SAM	2.7km	High	Negligible	Slight	Negligible Adverse
St Marys Abbey Church	GI	2.8km	High	Negligible	Slight	Negligible Adverse
St James, Pyle	GI	2.9km	High	Negligible	Slight	Negligible Adverse
Capel Mair/Hen Eglwys	GII* SAM	3km	High	Minor	Moderate/Slight	Minor Adverse
Monks Bath	GII* SAM	3.5km	High	No Change	Neutral	Neutral
Pyle Calvinist Methodist Chapel	GII*	3.2km	High	Negligible	Slight	Negligible Adverse
Beulah Calvinist Methodist Chapel (multiple)	GII* GII	4.1km	High	Negligible	Slight	Negligible Adverse
Tyn'r-y-Selar standing stone	SAM	0.55km	High	Moderate	Moderate/Large	Moderate Adverse
Pyle incised stone	SAM	2.7km	High	Negligible	Slight	Negligible Adverse
Stones Museum and Collection	SAM GII	2.8km	High	No Change	Neutral	Neutral
Kenfig Castle and Town	SAM	0.8- 1.2km	High	Minor	Moderate/Slight	Minor to Moderate Adverse
Mynydd y Castell Camp	SAM	3-3.4km	High	Negligible	Slight	Negligible Adverse
Half Moon Camp	SAM	3.2	High	Negligible	Slight	Negligible Adverse
Pen-y-Castell Camp	SAM	4.5km		Negligible	Slight	Negligible Adverse
Camp 530m east of Tonmawr	SAM	4.1	High	Negligible	Slight	Negligible Adverse

Danish Camp	SAM	4.2	High	No Change	Neutral	Neutral
Camp north of Tonmawr	SAM	4.3	High	Negligible	Slight	Negligible Adverse
Margam RPG	RPG GI	2.1- 4.2km	High	Minor	Moderate/Slight	Minor Adverse
Registered landscape: Merthyr Mawr, Kenfig, Margam Burrows			High	Minor	Moderate/Slight	Minor Adverse
Registered landscape: Margam Mountain			High	Minor	Moderate/Slight	Minor Adverse
Historical landscape			High	Minor	Moderate/Slight	Minor to Moderate Adverse
Aggregate effect				Minor		Minor Adverse
Cumulative effect				Minor		Minor Adverse

5.0 CONCLUSION

The proposed wind turbine would be located within the existing Kenfig Industrial Estate, a low-rise sprawl of steel portal-framed sheds, straight roads, and wide verges. A carbide factory was established here in 1940 due to the proximity of good rail connections, limestone, and coal. The factory closed in 1966 and the site became a generic industrial estate. Prior to this it had been an area of enclosed fields, some of medieval pedigree and others enclosed from the coastal lowlands. The archaeological potential of the site is deemed to be *low*.

There are 82 Listed Buildings or structures within 5km of the proposed site, and 17 Scheduled Monuments. Most of the high value assets are either churches, or gentry houses and associated structures, in particular the structures and designated landscapes associated Margam Castle, which incorporates medieval buildings and landscapes.

Most of the designated heritage assets in the wider area are located at such a distance as to minimise the impact of the proposed development, or else the contribution of setting to overall significance is less important than other factors. The landscape context of many of these buildings and monuments is such that they would be partly or wholly insulated from the effects of the proposed wind turbine by a combination of local blocking from trees or buildings, or that other modern intrusions have already impinged upon their settings. However, the impact on 13 of these assets was adjudged to be greater than negligible, with a likely appreciable effect on the historic landscapes here.

With this in mind, the overall impact of the proposed development can be assessed as **minor to moderate adverse**. The impact of the development on the buried archaeological resource would be **negligible** but **permanent/irreversible**.

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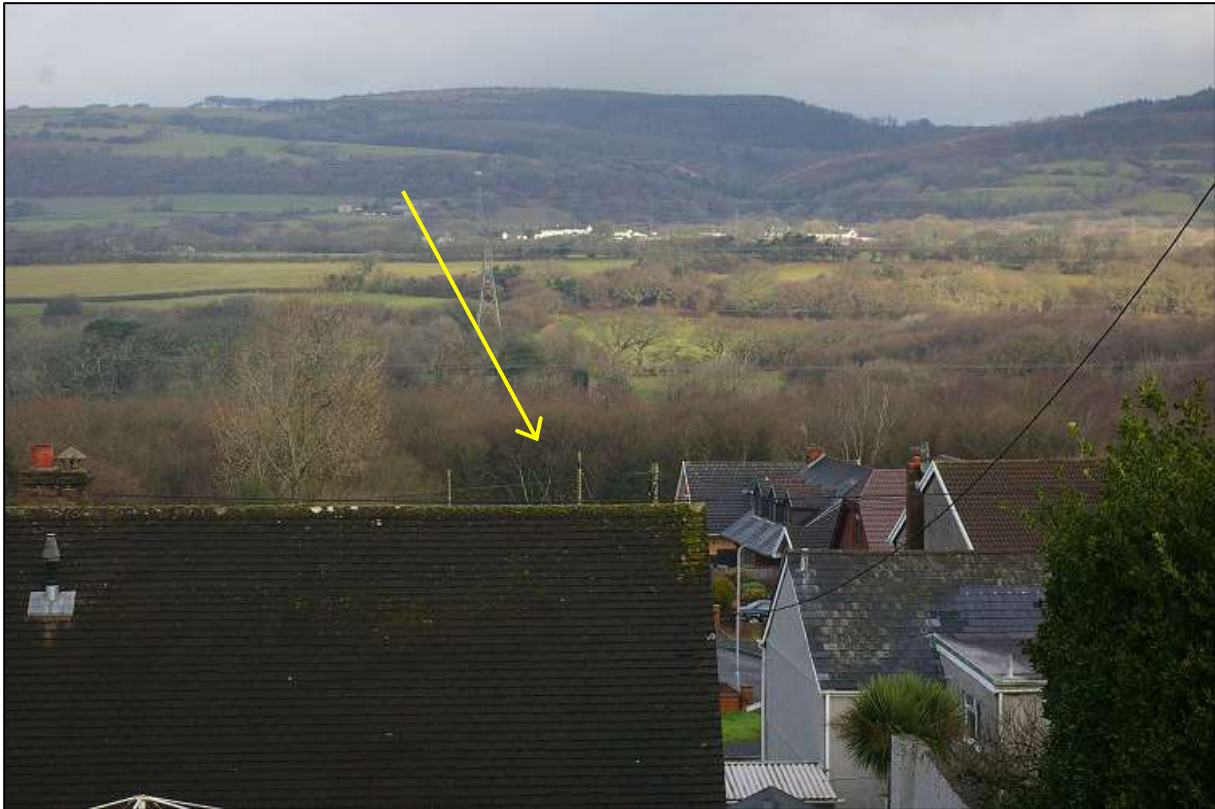
APPENDIX 1: ADDITIONAL HVIA PHOTOGRAPHS



1. THE OPEN VIEWS FROM THE 'MODERN' VILLAGE OF KENFIG, ACROSS THE NATURE RESERVE, VIEWS DOMINATED BY THE DISTANT TATA STEELWORKS; VIEWED FROM THE SOUTH.



2. LLANMIHANGEL BRIDGE, LEADING TO THE MILL AND FARM; VIEWED FROM THE SOUTH-EAST.



3. THE SITE OF THE BRYNDU COKE OVENS (INDICATED). THE SITE IS NOW ENCLOSED IN WOODLAND BEHIND A LARGE HOUSING DEVELOPMENT; VIEWED FROM THE SOUTH.



4. MARGAM CASTLE, A GRAND GOTHIC REVIVAL 19TH CENTURY COUNTRY HOUSE; VIEWED FROM THE WSW ALONG THE ROAD FROM THE ORANGERY.



5. MARGAM CASTLE AND GARDENS, WITH ITS VARIOUS LISTED OUTBUILDINGS AND SERVICE COURT, AS SEEN FROM THE PARK. NOTE THE TATA STEELWORKS ON THE SKYLINE TO THE WEST. VIEWED FROM THE SSE.



6. THE CHURCH OF ST MARY MAGDALENE, MAWDLAM; VIEWED FROM THE SOUTH-EAST.



7. THE RUINS OF MARGAM ABBEY; VIEWED FROM THE WEST.



8. THE VIEW DOWN THE WEST DRIVE FROM MARGAM CASTLE, SHOWING THE SETTING OF THE ORANGERY, ABBEY RUINS AND CHURCH; VIEWED FROM THE ESE.



9. CAPEL MAIR, LOCATED ON AN OPEN MID-SLOPE PROMONTORY ABOVE MARGAM PARK; VIEWED FROM THE NORTH-WEST.



10. THE VIEW ACROSS THE REGISTERED PARK AT MARGAM CASTLE, AS VIEWED FROM FROM CAPEL MAIR, WHICH IN TURN ACTS AS AN EYE-CATCHER FOR THE PARK; VIEWED FROM THE NORTH-WEST.



11. THE MONKS BATH, MEDIEVAL CISTERN AND BASIN, LOCATED IN THE WOODED VALLEY BEHIND THE ABBEY, LATER ADAPTED AND EXTENDED AS A FOLLY WITHIN THE REMODELLED PARKLAND; VIEWED FROM THE NORTH.



12. THE OPEN VIEWS FROM KENFIG CASTLE TO THE M4 AND RAILWAY LINE, WITH PYLONS AND EXTANT TURBINES VISIBLE; VIEWED FROM THE SSW.



13. EVIDENCE FOR OTHER RUINED STRUCTURES BENEATH THE SAND DUNES AT KENFIG; VIEWED FROM THE NORTH-EAST.



14. THE SHALLOW EARTHWORKS THAT CONSTITUTE THE HILLFORT OF MYNYDD Y CASTELL IN MARGAM PARK, INCLUDING A PLANTATION OF PARKLAND CONIFERS; VIEWED FROM THE NORTH.



15. HALF MOON CAMP, SWATHED IN BRACKEN, AN OPEN AREA OF SCRUB WITH WOODLAND TO BOTH SIDES; VIEWED FROM THE NORTH-WEST.



16. THE SHALLOW EARTHWORKS OF THE EASTERN SIDE OF TON MAWR CAMP, SHOWING ITS OPEN SETTING; VIEWED FROM THE NORTH-EAST.



17. THE MORE IMPRESSIVE EARTHWORKS OF MOEL MAWR HILLFORT; VIEWED FROM THE ESE.

APPENDIX 2: METHODOLOGY

The majority of the most important ('nationally important') heritage assets are protected through *designation*, with varying levels of statutory protection. These assets fall into one of six categories, although designations often overlap, so a Listed early medieval cross may also be Scheduled, lie within the Curtilage of Listed church, inside a Conservation Area, and on the edge of a Registered Park and Garden that falls within a world Heritage Site.

Listed Buildings

A Listed building is an occupied dwelling or standing structure which is of special architectural or historical interest. These structures are found on the *Statutory List of Buildings of Special Architectural or Historic Interest*. The status of Listed buildings is applied to 300,000-400,000 buildings across the United Kingdom. Recognition of the need to protect historic buildings began after the Second World War, where significant numbers of buildings had been damaged in the county towns and capitals of the United Kingdom. Buildings that were considered to be of 'architectural merit' were included. The Inspectorate of Ancient Monuments supervised the collation of the list, drawn up by members of two societies: The Royal Institute of British Architects and the Society for the Protection of Ancient Buildings. Initially the lists were only used to assess which buildings should receive government grants to be repaired and conserved if damaged by bombing. The *Town and Country Planning Act 1947* formalised the process within England and Wales, Scotland and Ireland following different procedures. Under the 1979 *Ancient Monuments and Archaeological Areas Act* a structure cannot be considered a Scheduled Monument if it is occupied as a dwelling, making a clear distinction in the treatment of the two forms of heritage asset. Any alterations or works intended to a Listed Building must first acquire Listed Building Consent, as well as planning permission. Further phases of 'listing' were rolled out in the 1960s, 1980s and 2000s; Cadw advise on the listing process and administer the procedure, in Wales, as with the Scheduled Monuments.

Some exemption is given to buildings used for worship where institutions or religious organisations (such as the Church of England) have their own permissions and regulatory procedures. Some structures, such as bridges, monuments, military structures and some ancient structures may also be Scheduled as well as Listed. War memorials, milestones and other structures are included in the list, and more modern structures are increasingly being included for their architectural or social value.

Buildings are split into various levels of significance: Grade I (2.5% of the total) representing buildings of exceptional (international) interest; Grade II* (5.5% of the total) representing buildings of particular (national) importance; Grade II (92%) buildings are of merit and are by far the most widespread. Inevitably, accuracy of the Listing for individual structures varies, particularly for Grade II structures; for instance, it is not always clear why some 19th century farmhouses are Listed while others are not, and differences may only reflect local government boundaries, policies and individuals.

Other buildings that fall within the curtilage of a Listed building are afforded some protection as they form part of the essential setting of the designated structure, e.g. a farmyard of barns, complexes of historic industrial buildings, service buildings to stately homes etc. These can be described as having *group value*.

Conservation Areas

Local authorities are obliged to identify and delineate areas of special architectural or historic interest as Conservation Areas, which introduces additional controls and protection over change within those places. Usually, but not exclusively, they relate to historic settlements.

Scheduled Monuments

In the United Kingdom, a Scheduled Monument is considered an historic building, structure (ruin) or archaeological site of '**national importance**'. Various pieces of legislation, under planning, conservation, etc., are used for legally protecting heritage assets given this title from damage and destruction; such legislation is grouped together under the term 'designation', that is, having statutory protection under the *Ancient Monuments and Archaeological Areas Act 1979*. A heritage asset is a part of the historic environment that is valued because of its historic, archaeological, architectural or artistic interest; those of national importance have extra legal protection through designation.

Important sites have been recognised as requiring protection since the late 19th century, when the first 'schedule' or list of monuments was compiled in 1882. The conservation and preservation of these monuments was given statutory priority over other land uses under this first schedule. County Lists of the monuments are kept and

updated by the Welsh Government. Sites are identified by Cadw as of being of national importance and included in the schedule. Under the current statutory protection any works required on or to a designated monument can only be undertaken with a successful application for Scheduled Monument Consent.

Registered Parks and Gardens

Culturally and historically important 'man-made' or 'designed' landscapes, such as parks and gardens are currently "listed" on a non-statutory basis, included on the 'Register of Historic Parks and Gardens' administered by Cadw. Under the Historic Environment (Wales) Act 2016 a statutory register of parks and gardens will come into force during 2022. Sites included on this register are of **national importance**, many are associated with stately homes of Grade II* or Grade I status. Emphasis is laid on 'designed' landscapes, not the value of botanical planting. Sites can include town squares and private gardens, city parks, cemeteries and gardens around institutions such as hospitals and government buildings. Planned elements and changing fashions in landscaping and forms are a main focus of the assessment.

Registered Battlefields

Battles are dramatic and often pivotal events in the history of any people or nation. Cadw maintains the inventory of battlefields in Wales, created by RCHMW, in order to afford them a measure of protection through the planning system.

World Heritage Sites

Arising from the UNESCO World Heritage Convention in 1972, Article 1 of the Operational Guidelines (2015, no.49) states: 'Outstanding Universal Value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity'. These sites are recognised at an international level for their intrinsic importance to the story of humanity, and should be accorded the highest level of protection within the planning system.

Value and Importance

While every heritage asset, designated or otherwise, has some intrinsic merit, the act of designation creates a hierarchy of importance that is reflected by the weight afforded to their preservation and enhancement within the planning system. The system is far from perfect, impaired by an imperfect understanding of individual heritage assets, but the value system that has evolved does provide a useful guide to the *relative* importance of heritage assets. Provision is also made for heritage assets where value is not recognised through designation (e.g. undesignated 'monuments of Schedulable quality and importance' should be regarded as being of *high* value); equally, there are designated monuments and structures of *low* relative merit.

TABLE 2: THE HIERARCHY OF VALUE/IMPORTANCE (BASED ON THE DMRB LA104 2020 TABLE 3.2N).

Value (sensitivity) of receptor / resource	Typical description
Very High	Very high importance and rarity, international scale and very limited potential for substitution
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution
Low	Low or medium importance and rarity, local scale
Negligible	Very low importance and rarity, local scale.

Concepts – Conservation Principles

In making an assessment, this document adopts the conservation values (*evidential*, *historical*, *aesthetic* and *communal*) laid out in *Conservation Principles for the sustainable management of the historic environment in Wales* (Cadw 2011), and the concepts of *authenticity* and *integrity* as laid out in the guidance on assessing World Heritage Sites (ICOMOS 2011). This is in order to determine the relative importance of *setting* to the significance of a given heritage asset.

Evidential Value

Evidential value (or research potential) is derived from the potential of a structure or site to provide physical evidence about past human activity, and may not be readily recognised or even visible. This is the primary form of data for periods without adequate written documentation. This is the least equivocal value: evidential value is absolute; all other ascribed values (see below) are subjective. However,

Historical Value

Historical value (narrative) is derived from the ways in which past people, events and aspects of life can be connected via a place to the present; it can be *illustrative* or *associative*.

Illustrative value is the visible expression of evidential value; it has the power to aid interpretation of the past through making connections with, and providing insights into, past communities and their activities through a shared experience of place. Illustrative value tends to be greater if a place features the first or only surviving example of a particular innovation of design or technology.

Associative value arises from a connection to a notable person, family, event or historical movement. It can intensify understanding by linking the historical past to the physical present, always assuming the place bears any resemblance to its appearance at the time. Associational value can also be derived from known or suspected links with other monuments (e.g. barrow cemeteries, church towers) or cultural affiliations (e.g. Methodism).

Buildings and landscapes can also be associated with literature, art, music or film, and this association can inform and guide responses to those places.

Historical value depends on sound identification and the direct experience of physical remains or landscapes. Authenticity can be strengthened by change, being a living building or landscape, and historical values are harmed only where adaptation obliterates or conceals them. The appropriate use of a place – e.g. a working mill, or a church for worship – illustrates the relationship between design and function and may make a major contribution to historical value. Conversely, cessation of that activity – e.g. conversion of farm buildings to holiday homes – may essentially destroy it.

Aesthetic Value

Aesthetic value (emotion) is derived from the way in which people draw sensory and intellectual stimulation from a place or landscape. Value can be the result of *conscious design*, or the *fortuitous outcome* of landscape evolution; many places combine both aspects, often enhanced by the passage of time.

Design value relates primarily to the aesthetic qualities generated by the conscious design of a building, structure or landscape; it incorporates composition, materials, philosophy and the role of patronage. It may have associational value, if undertaken by a known architect or landscape gardener, and its importance is enhanced if it is seen as innovative, influential or a good surviving example. Landscape parks, country houses and model farms all have design value. The landscape is not static, and a designed feature can develop and mature, resulting in the 'patina of age'.

Some aesthetic value developed *fortuitously* over time as the result of a succession of responses within a particular cultural framework e.g. the seemingly organic form of an urban or rural landscape or the relationship of vernacular buildings and their materials to the landscape. Aesthetic values are where proposed developments usually have their most pronounced impact: the indirect effects of most developments are predominantly visual or aural, and can extend many kilometres from the site itself. In many instances the impact of a development is incongruous, but that is itself an aesthetic response, conditioned by prevailing cultural attitudes to what the historic landscape should look like.

Communal Value

Communal value (togetherness) is derived from the meaning a place holds for people, and may be closely bound up with historical/associative and aesthetic values; it can be *commemorative*, *symbolic*, *social* or *spiritual*.

Commemorative and symbolic value reflects the meanings of a place to those who draw part of their identity from it, or who have emotional links to it e.g. war memorials. Some buildings or places (e.g. the Palace of Westminster) can symbolise wider values. Other places (e.g. Porton Down Chemical Testing Facility) have negative or uncomfortable associations that nonetheless have meaning and significance to some and should not be forgotten. *Social value* need not have any relationship to surviving fabric, as it is the continuity of function that is important. *Spiritual value* is attached to places and can arise from the beliefs of a particular religion or past or contemporary perceptions of the spirit of place. Spiritual value can be ascribed to places sanctified by hundreds of years of veneration or worship, or wild places with few signs of modern life. Value is dependent on the perceived survival of historic fabric or character, and can be very sensitive to change. The key aspect of communal value is that it brings specific groups of people together in a meaningful way.

Authenticity

Authenticity, as defined by UNESCO (2015, no.80), is the ability of a property to convey the attributes of the outstanding universal value of the property. 'The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful'. Outside of a World Heritage Site, authenticity may usefully be employed to convey the sense a place or structure is a truthful representation of the thing it purports to portray. Converted farm buildings, for instance, survive in good condition, but are drained of the authenticity of a working farm environment.

Integrity

Integrity, as defined by UNESCO (2015, no.88), is the measure of wholeness or intactness of the cultural heritage and its attributes. Outside of a World Heritage Site, integrity can be taken to represent the survival and condition of a structure, monument or landscape. The intrinsic value of those examples that survive in good condition is undoubtedly greater than those where survival is partial and condition poor.

Summary

As indicated, individual developments have a minimal or tangential effect on most of the heritage values outlined above, largely because almost all effects are indirect. The principal values in contention are aesthetic/designed and, to a lesser degree aesthetic/fortuitous. There are also clear implications for other value elements (particularly historical and associational, communal and spiritual), where views or sensory experience is important. As ever, however, the key element here is not the intrinsic value of the heritage asset, or the impact on setting, but the relative contribution of setting to the value of the asset.

Setting – The Setting of Heritage Assets

The principal guidance on this topic is contained within the publication: *The Setting of Historic Assets in Wales* (Cadw 2017). While interlinked and complementary, it is useful to consider heritage assets in terms of their *setting* i.e. their immediate landscape context and the environment within which they are seen and experienced, and their *views* i.e. designed or fortuitous vistas experienced by the visitor when at the heritage asset itself, or those that include the heritage asset. This corresponds to the experience of its wider landscape setting.

Where the impact of a proposed development is largely indirect, *setting* is the primary consideration of any HIA. It is a somewhat nebulous and subjective assessment of what does, should, could or did constitute the lived experience of a monument or structure. The following extracts are from the Cadw publication *The Setting of Historic Assets* (2017, 4):

The setting of a historic asset is made up of:

- its current surroundings
- our present understanding and appreciation of the historic asset
- what (if anything) survives of its historic surroundings.

Setting does not depend on public rights of way or current ability to access the asset or viewpoints, though these can contribute to the significance of a historic asset and its setting. Likewise, the number of visitors to a site or viewpoint does not affect the importance of the setting.

The HIA sets out to determine the magnitude of the effect and the sensitivity of the heritage asset to that effect. The fundamental issue is that proximity and visual and/or aural relationships may affect the experience of a heritage asset, but if setting is tangential to the significance of that monument or structure, then the impact assessment will reflect this. This is explored in more detail below.

Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland. Together, these determine the character and extent of the setting.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or

experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context; for example, where church towers function as landmarks in the wider landscape.

Views

Historic and significant views are the associated and complementary element to setting, but can be considered separately as developments may appear in a designed view without necessarily falling within the setting of a heritage asset *per se*. As such, significant views fall within the aesthetic value of a heritage asset, and may be *designed* (i.e. deliberately conceived and arranged, such as within parkland or an urban environment) or *fortuitous* (i.e. the graduated development of a landscape ‘naturally’ brings forth something considered aesthetically pleasing, or at least impressive, as with particular rural landscapes or seascapes), or a combination of both (i.e. the *patina of age*, see below).

The Setting of Historic Assets in Wales (2017) lists a number of instances where views contribute to the particular significance of a heritage asset:

- views to, from and across the historic asset that were designed and developed when the historic asset was first created — for example, in the case of a defensive or ritual structure
- views to, from and across the historic asset which are linked with a time in its history — for example, a historic artistic depiction of the site
- important modern views to, from and across the historic asset – for example, popular visitor viewing points

On a landscape scale, views, taken in the broadest sense, are possible from anywhere to anything, and each may be accorded an aesthetic value according to subjective taste. Given that terrain, the biological and built environment, and public access restrict our theoretical ability to see anything from anywhere, in this assessment the term *principal view* is employed to denote both the deliberate views created within designed landscapes, and those fortuitous views that may be considered of aesthetic value and worth preserving. It should be noted, however, that there are distance thresholds beyond which perception and recognition fail, and this is directly related to the scale, height, massing and nature of the heritage asset in question. For instance, beyond 2km the Grade II cottage comprises a single indistinct component within the wider historic landscape, whereas at 5km or even 10km a large stately home or castle may still be recognisable. By extension, where assets cannot be seen or recognised i.e. entirely concealed within woodland, or too distant to be distinguished, then visual harm to setting is moot. To reflect this emphasis on recognition, the term *landmark asset* is employed to denote those sites where the structure (e.g. church tower), remains (e.g. earthwork ramparts) or – in some instances – the physical character of the immediate landscape (e.g. a distinctive landform like a tall domed hill) make them visible on a landscape scale. In some cases, these landmark assets may exert landscape *primacy*, where they are the tallest or most obvious man-made structure within line-of-sight. However, this is not always the case, typically where there are numerous similar monuments (multiple engine houses in mining areas, for instance) or where modern developments have overtaken the heritage asset in height and/or massing.

Yet visibility alone is not a clear guide to visual impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development (see Table 2), some of which are seasonal or weather-related.

Thus the principal consideration of assessment of indirect effects cannot be visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of the heritage asset, and the sensitivity of that setting to the visual or aural intrusion of the proposed development. The schema used to guide assessments is shown in Table 2 (below).

Methodology

The methodology adopted in this document is based on that outlined in *The Setting of Historic Assets and Heritage Impact Assessment in Wales* (Cadw 2017). The assessment of visual impact at this stage of the development is an essentially subjective one, and is based on the experience and professional judgement of the authors.

Visibility alone is not a clear guide to impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development, some of which are seasonal or weather-related.

The principal consideration of this assessment is not visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of heritage assets, and the sensitivity of that setting to the visual intrusion of the proposed development. The schema used to guide assessments is shown in Table 3 (below). A key consideration in these assessments is the concept of *landscape context* (see below).

Assessment and Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context, for example, where church towers function as landmarks in the wider landscape.

Type and Scale of Impact

The effect of a proposed development on a heritage asset can be direct (i.e. the designated structure itself is being modified or demolished, the archaeological monument will be built over), or indirect (e.g. a housing estate built in the fields next to a Listed farmhouse, and wind turbine erected near a hillfort etc.); in the latter instance the principal effect is on the setting of the heritage asset. A distinction can be made between construction and operational phase effects. Individual developments can affect multiple heritage assets (aggregate impact), and contribute to overall change within the historic environment (cumulative impact).

Construction phase: construction works have direct, physical effects on the buried archaeology of a site, and a pronounced but indirect effect on neighbouring properties. Direct effects may extend beyond the nominal footprint of a site e.g. where related works or site compounds are located off-site. Indirect effects are both visual and aural, and may also affect air quality, water flow and traffic in the local area.

Operational phase: the operational phase of a development is either temporary (e.g. wind turbine or mobile phone mast) or effectively permanent (housing development or road scheme). The effects at this stage are largely indirect, and can be partly mitigated over time through provision of screening. Large development would have an effect on historic landscape character, as they transform areas from one character type (e.g. agricultural farmland) into another (e.g. suburban).

Cumulative Impact: a single development will have a physical and a visual impact, but a second and a third site in the same area will have a synergistic and cumulative impact above and beyond that of a single site. The cumulative

impact of a proposed development is particularly difficult to estimate, given the assessment must take into consideration operational, consented and proposals in planning.

Aggregate Impact: a single development will usually affect multiple individual heritage assets. In this assessment, the term aggregate impact is used to distinguish this from cumulative impact. In essence, this is the impact on the designated parts of the historic environment as a whole.

Scale of Impact

The effect of development and associated infrastructure on the historic environment can include positive as well as negative outcomes. However, all development changes the character of a local environment, and alters the character of a building, or the setting within which it is experienced. Change is invariably viewed as negative, particularly within respect to larger developments; thus while there can be beneficial outcomes (e.g. positive/moderate), there is a presumption here that, as large and inescapably modern intrusive visual actors in the historic landscape, the impact of a development will almost always be **neutral** (i.e. no impact) or **negative** i.e. it will have a **detrimental impact** on the setting of ancient monuments and protected historic buildings.

This assessment incorporates the systematic approach outlined in the ICOMOS and DoT guidance (see Table 2), used to complement and support the more narrative but subjective approach advocated by Cadw (see Table 3). This provides a useful balance between rigid logic and nebulous subjectivity (e.g. the significance of effect on a Grade II Listed building can never be greater than moderate/large; an impact of negative/substantial is almost never achieved).

TABLE 3: MAGNITUDE OF IMPACT (BASED ON DMRB LA104 2020: ICOMOS 2011 9-10).

Magnitude of impact (change)		Typical description
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
Minor	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.
No change		No loss or alteration of characteristics, features or elements; no observable impact in either direction.

TABLE 4: SIGNIFICANCE OF EFFECTS MATRIX (BASED ON DRMB LA 104 2020; ICOMOS 2011, 9-10).

		Magnitude of Impact (degree of change)				
		No Change	Negligible	Minor	Moderate	Major
Environmental Value (Sensitivity)	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	High	Neutral	Slight	Moderate or Slight	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

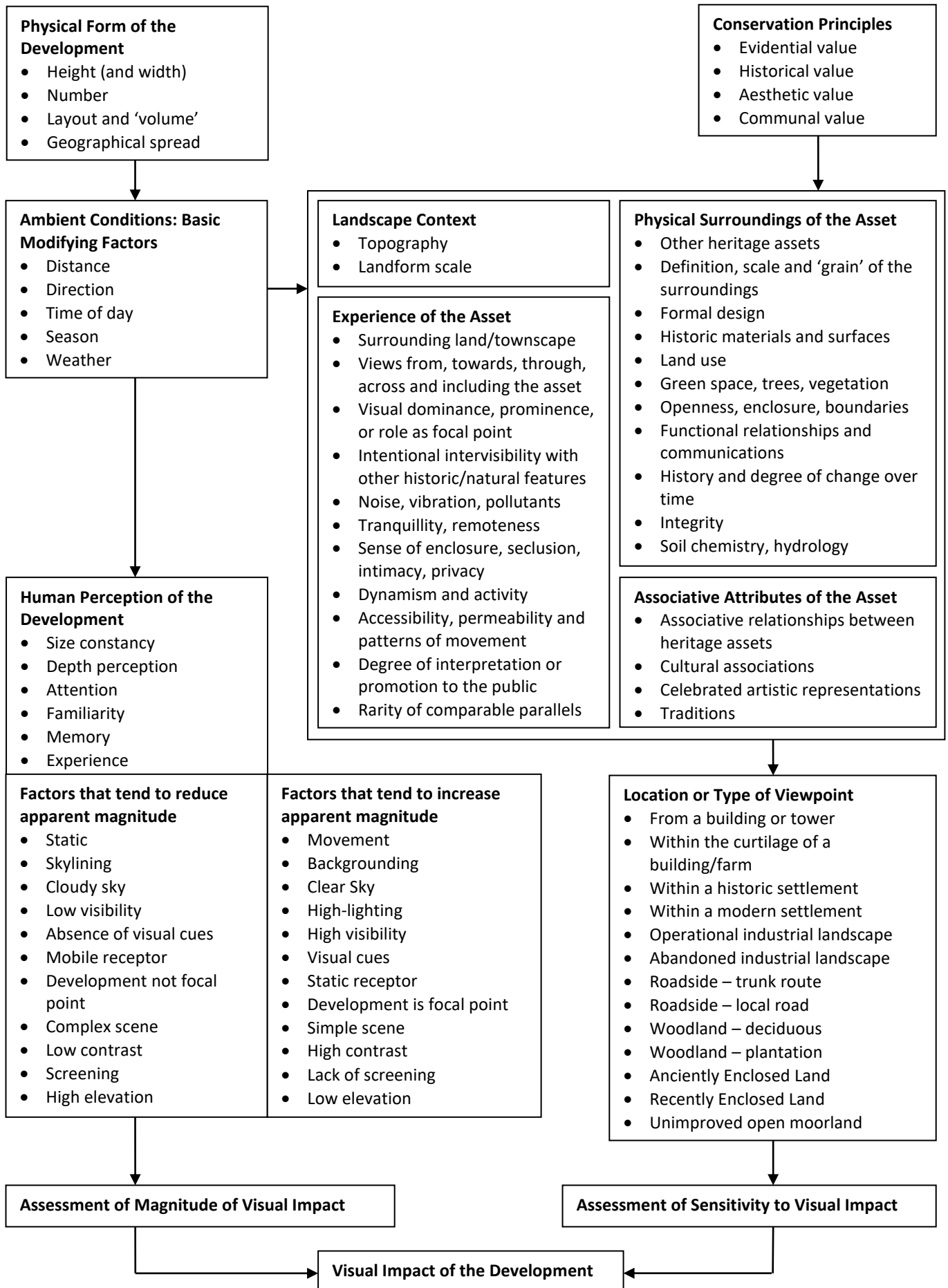


TABLE 5: THE CONCEPTUAL MODEL FOR VISUAL IMPACT ASSESSMENT PROPOSED BY THE UNIVERSITY OF NEWCASTLE (2002, 63), MODIFIED TO INCLUDE ELEMENTS OF ASSESSMENT STEP 2 FROM THE SETTING OF HISTORIC ASSETS (CADW 2017).



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