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**Land off Cowbridge Road, St. Athan, Vale of Glamorgan**  
**Landscape and Visual Addendum**  
**L\_EDP3504\_03a\_260517**

Dear Christine,

Thank you very much for your comments regarding the Strategic LVA dated 20 September 2016 [LPA reference 2016-01427-OUT(SR2)] and for the subsequent liaison with you and your colleague Gareth Phillips, in which I sought to agree an approach regarding the request for additional information. The following addendum sets out the findings of further desk-based studies and field work in respect of the potential landscape and visual effects of the development proposed off Cowbridge Road, St. Athan.

**1. Introduction**

- 1.1 This landscape and visual addendum (LVA) has been prepared by the Environmental Dimension Partnership Ltd (EDP) on behalf of Edenstone Homes Ltd. The site has been allocated within the Emerging Local Development Plan (LDP) for 300 residential dwellings (site reference MG2 (5) – Land to the East of Eglwys Brewis, St Athan) and it is within Policy MG17 Special Landscape Area at present.
- 1.2 The landscape and visual effects anticipated will be appraised and the magnitude of change and the level of effect on a representative viewpoint selection will be set out. The addendum also addresses how the key sensitivities identified through opportunities and constraints are mitigated against through embedded mitigation within the landscape strategy that accompanies the proposed residential development of up to 300 units and associated works.

**2. Overview of receptors**

- 2.1 Landscape related receptors likely to experience a direct landscape effect as highlighted in the Strategic LVA are summarised as follows:



- Landscape Assessment and Decision Making Process (LANDMAP) character areas covering the site;
- Policy MG17 Special Landscape Area designation covering the site;
- Landscape elements on and within the site boundary; improved land, boundary hedgerows, trees and scrub;
- Two areas of archaeological interest in site within the western field; and
- Public Right of Way E1/1/1 which crosses through the western field within the site.

2.2 Visual receptors likely to experience visual effects were highlighted in the Strategic LVA and are refined below as follows:

- Open and close range views from recreational users of Public Rights of Way (PRoW), namely PRoW E1/1/1 (**Photoviewpoint EDP 3**) within the site and PROW F1/2/1 F1/3/1 to the north within the immediate surroundings of the site;
- Medium range, filtered views for road users and residential receptors: from the edge of Flemingston Village and Conservation Area (**Photoviewpoint EDP 4**);
- Close range views for residential receptors in Eglwys Brewis located to the west and south of the site (**Photoviewpoint EDP 1**), namely those dwellings orientated towards the site on Ash Lane and Sycamore Avenue to the west and Tintern Close, Clwyd Way to the south;
- Medium range views for Ty Newydd Farm and New Farm, isolated farmsteads to the north (**Image EDP 1** below);
- Close range direct views for road users travelling along Eglwys Brewis Road (**Photoviewpoint EDP 1**);
- Close range oblique views for road users travelling on St. Athan Road, Cowbridge Road (**Photoviewpoint EDP 2**); and
- Medium range, oblique views for road users travelling on Flemingston Road (**Photoviewpoint EDP 5**).

#### ***Valeways Millennium Heritage Trail***

2.3 Approximate views were identified in the Strategic LVA, as shown on the accompanying **Plan EDP 1: Landscape Planning Considerations and Visual Envelope**. Views from the Valeways Millennium Heritage Trail were investigated further during a second site visit which was conducted on the 16 February 2017. The heritage trail progresses south-west of St Mary's



Church/Llan-fair to the north of the site, towards Flemingsdon to the north-east of the site. There are no views from the heritage trail to the north of the site as vegetation intervenes in the view along this section of the trail.

2.4 **Photoviewpoint EDP 5** is a representative view from the heritage trail which is taken approximately 530m to the east of the site. Vegetation intervenes in the views towards the site from this location therefore there is no intervisibility between the site and this section of the trail. The trail continues further south-east towards the deserted village Scheduled Ancient Monument across the Flemingston Moor; as is seen in **Photoviewpoint EDP 6**, landform limits westward views towards the site which is not visible from this location. This appraisal of the trail demonstrates that there are open or filtered close or medium ranging views of the site from the Valeways Millennium Heritage Trail.

2.5 **Plan EDP 1:** Landscape Planning Considerations and Visual Envelope have been revised and appended to this addendum as the visual envelope and likely views towards the site has been amended following the second site visit and production of **Plan EDP 2** which shows the predicted Zone of Theoretical Visibility (ZTV) based on bare earth modelling, as well as the representative Photoviewpoint locations associated with the appended photosheets.

### 3. **Effects on Landscape Elements and Landscape Character**

3.1 The site comprises three fields, there are two large fields of improved grassland (western field / eastern field) and one small land parcel (southern field) with mature trees, amenity grassland and hardstanding. The direct effects are as follows:

- The land use of the site will change from agricultural fields to built form, thus the direct effects on the character of the site will be stark. The direct effects will be limited to the character of the site and its immediate surroundings and will not be perceived in the broader landscape;
- Removal of hedgerow sections to enable vehicular access from Cowbridge Road with adequate visibility splays; and
- Removal of some trees in the southern field to accommodate development.

3.2 The site is identified within Special Landscape Area (SLA) 2 Upper and Lower Thaw Valley. The policy states that development will only be permitted in SLAs, where the proposal can demonstrate that it would not cause unacceptable harm to the landscape character associated with the SLA. The findings of the visual appraisal presented below demonstrates that there is limited intervisibility between the site and the broader landscape. Furthermore, where the site is visible (close and medium range views), it is viewed in the context of existing development and the large-scale units associated with St. Athan Ministry of Defence (MOD). The proposals will not

be perceptible from the broader landscape and therefore the effects on the landscape character protected by the SLA policy are not considered unduly harmful.

- 3.3 LANDMAP is a useful online tool which provides a more holistic overview of the value attributed to the Welsh landscape through 5 different classifications, referred to as aspects. The aspect areas geographically covering the site are listed in **Table EDP 3.1** below:

**Table EDP 3.1:** LANDMAP Aspect Areas covering the site

Aspect	Detailed Aspect Areas	Evaluation
<b>Cultural</b>	VLFGCL039 Vale of Glamorgan Rural Landscape	High
<b>Geological</b>	VLFGGL863 Llanwit-St. Athan	Outstanding
<b>Historic</b>	VLFGHL052 Llysworney and Llandough	High
<b>Landscape &amp; Habitats</b>	VLFGLLH582 Ogmre-Llantwit Arable Belt	Moderate
<b>Visual &amp; Sensory</b>	VLFGVLS805 Lias Plateau	Moderate

- 3.4 The aspect area evaluations have been considered in relation to the scale and type of development proposed. The most relevant aspect areas in terms of this landscape and visual appraisal are 'Visual and Sensory' and 'Landscape and Habitats', both of which have been evaluated as 'moderate' in LANDMAPs evaluation in terms of their value and condition (intactness/ecological merits/scenic value/quality).
- 3.5 The Lias Plateau Visual and Sensory aspect area is classified as lowland/Rolling Lowland/Open Rolling Lowland (level 3). It considered to have 'tranquil and exposed' perceptual qualities with long views to the coast and pleasant landscape; this description does not accord with the site and localised area. The aspect area is also described as a plateau with high intervisibility with evidence of intense farming practices. The proposed development is not considered to cause an unacceptable level of harm as the characteristics that contribute to the moderate evaluation assigned to the visual and sensory aspect area do not fundamentally accord with the character of the site.
- 3.6 The Ogmre-Llantwit Arable Belt Landscape Habitats aspect is classified as a dry, terrestrial, habitats/mosaic (level 3). The evaluation has been assigned as moderate due to the biodiversity interest in the occasional meadows, small woodland copses and field boundaries within the aspect area. The site does contain vegetated boundaries and small woodland copses. There will be some adverse effects as a result of the removal of vegetation to accommodate the development, however, hedgerows retained will be enhanced where necessary and the landscape strategy will include additional planting, which will have a beneficial effect on the Landscape Habitats aspect area.

#### **4. Effects on visual receptors**

- 4.1 The following visual analysis is based on the Landscape Institute's 'Guidance for Landscape and Visual Impact Assessment – 3rd Edition', and it has been prepared by qualified landscape



architects experienced in LVIA methodology. The methodology employed for this appraisal has been appended to this addendum.

- 4.2 Based on the findings of the data trawl and receptors identified in the Strategic LVA, EDP liaised with the Local Planning Authority (LPA) to agree a representative viewpoint selection from publicly accessible vantage points.
- 4.3 During our liaison dated 15 February 2017, EDP suggested potential views along with the reasoning and justification for our selection. Unfortunately, we were unable to safely take a photograph from Cowbridge Road to the north-west of the site due to the absence of a roadside verge or footpath. However, having driven this section of the road it is apparent that roadside vegetation intervenes in views as the road nears the most north-western corner of the site. It is unlikely that the proposals would be clearly visible from Cowbridge Road until the road runs parallel to the site and views of existing development in St. Athan comes into view.
- 4.4 **Plan EDP 2** shows the Zone of theoretical Visibility and viewpoint locations of the photoviewpoints appended. The reasoning used to support selection as 'representative viewpoints' is provided in **Table EDP 4.1** below:

**Table EDP 4.1:** Representative viewpoint selection

Photoviewpoints	Grid Ref.	Distance and direction to site	Type of receptor
<b>Photoviewpoint EDP 1</b> View from Cowbridge Road adjacent to MOD St. Athan, looking north-east towards the site	301226, 169321	c.10m from the site	Road users including vehicular traffic and pedestrians. Pedestrians travelling along the route are considered to have medium sensitivity.
<b>Photoviewpoint EDP 2</b> View from Cowbridge Road at the junction with Eglwys Brewis looking east towards the site	301117, 169355	c.10m from the site	Road users including vehicular traffic and pedestrians. Pedestrians travelling along the route are considered to have medium sensitivity.
<b>Photoviewpoint EDP 3</b> View from PROW to the northern site boundary looking south towards the site	301258, 169664	c.50m from the site	Recreational users of public right of way. Users of PROW are considered to have high sensitivity.
<b>Photoviewpoint EDP 4</b> View from minor road at the edge of Flemingston Conservation Area (CA), looking south-west towards the site	301517, 170011	c.385m from the site	Road users existing Flemingston Conservation Area. Pedestrians travelling along the route are considered to have medium sensitivity.

Photoviewpoints	Grid Ref.	Distance and direction to site	Type of receptor
<b>Photoviewpoint EDP 5</b> View from Valeways Millennium Heritage Trail, looking south-west towards the site	301901, 169800	c.540m from the site	Recreational users of public right of way. Users of PRoW are considered to have high sensitivity.
<b>Photoviewpoint EDP 6</b> View from PRoW adjacent to Deserted Village Scheduled Monument, looking west towards the site	302413, 169811	c.1km from the site	Recreational users of public right of way. Users of PROW are considered to have high sensitivity.

- 4.5 In addition to the representative viewpoints, **Image EDP 4.1** below is included in the visual appraisal to demonstrate the view from the north.



**Image EDP 4.1:** View from minor road outside Ty Newydd Farm, to the north of the site.

- 4.6 **Image EDP 4.1** is a screen grab from google earth which is taken from a minor road outside Ty Newydd Farm located approximately 320m to the north of the site boundary at its closest point. The view towards the site is an open view across a pastoral landscape, existing dwellings in Eglwys Brewis are seen in the background of the view. The site is in the background and the western field is the most visible. The proposed development will be seen in combination with the existing settlement and mature vegetation in the background will continue to form the skyline. For this one residential receptor, which is considered to have high sensitivity, there is considered to be a medium magnitude of change and a **moderate** level of effect.
- 4.7 The methodology used to guide the following assessment of effects is appended to the back of this addendum. Below is a description of the baseline view for **Photoviewpoints EDP 1-6**, the

predicted change is also described and the magnitude of change and level of effect for each view is given below in **Table EDP 4.2**: Summary of visual effects below.

**Table EDP 4.2:** Summary of visual effects

Photoviewpoints	Sensitivity	Magnitude of Change	Level of Effect
<p><b>Photoviewpoint EDP 1</b></p> <p>View from footpath on Cowbridge Road adjacent to MOD St. Athan, looking north-east towards the site</p>	Medium	High	<b>Moderate</b>
<p><b>Description:</b></p> <p>The baseline view comprises Cowbridge Road with a grassed roadside verge with scrub in the foreground which demarcates the sites leading edge in this view. In the left of the view, the chained fence marks the boundary of St. Athan MOD, a roadside footpath is seen progressing from the fore to middle ground until it meets a junction (which is the location of <b>Photoviewpoint EDP 2</b> described below). Existing dwellings in Eglwys Brewis on Ash Lane/Sycamore Avenue, orientated towards the site, are seen in the middle ground. Existing dwellings, on St. Athan Road and the Ty Newydd Farm House, are seen in the background on the view.</p> <p>The site is seen in the fore to middle ground of the view. The site boundary is shown indicatively in the photosheets as is the approximate extent. Existing mature trees within the sites southern field are seen at close range, with the eastern and western fields seen in the middle ground.</p> <p><b>Predicted change in view:</b></p> <p>In this view, the proposed development will be seen at close range; in the foreground, the existing mature trees will be retained within the scheme and views of proposed dwellings in all three fields within the site be visible to varying degrees. Trees in the foreground filter views of development in the eastern and southern fields, whereas dwellings proposed in the western field will be openly seen from this viewpoint. As well as the retention of most mature trees in the southern field, and the hedgerow separating the eastern and western fields within the site boundary, the boundary abutting Cowbridge Road will undergo landscape enhancement with regular tree planting proposed adjacent to the site's western boundary will soften the appearance of the development once established. There are two new site accesses proposed, both will be visible in this view. The magnitude of change for viewers at this location would be high and the level of effect is considered to be moderate.</p>			
<p><b>Photoviewpoint EDP 2</b></p> <p>View from Cowbridge Road at the junction with Eglwys Brewis looking east towards the site</p>	Medium	High	<b>Moderate</b>
<p><b>Description:</b></p> <p>Like <b>Photoviewpoint EDP 1</b>, this is also an open, close range and direct view towards the site and once again. In left of the view Cowbridge Road/St. Athan Road progresses from the foreground to the middle ground until it meets a curve in the road and is no longer in view. Cowbridge Road is bordered by a grassed roadside verge which is seen across the length of the frame. In the centre of the view, a gate and a stile mark the start of a public right of way field entrance. Beyond the field seen in the foreground, vegetation aids the legibility of the undulations in in the landscape. In the background, existing development in Flemingston is discerned in the centre of the view, although a hedgerow in the middle</p>			

Photoviewpoints	Sensitivity	Magnitude of Change	Level of Effect
<p>ground filters the view. In the right of the view, the upper storeys of dwellings on Tintern Close/Clwyd Way are glimpsed beyond vegetation within and on the site's southern boundary. Distinctive evergreen trees on the site boundary of the southern field adjacent to Cowbridge Road are seen in the far right of the view in the middle ground.</p> <p><b>Predicted change in view:</b>          Like <b>Photoviewpoint EDP 1</b>, the proposed development will be seen at close range from this location. Development proposed in the western field will be most prominent in this view, the stile associated with the public right of way will be removed and the access to the site will be seen. The junction itself will change and a roundabout will be seen in the centre of the view. The public right of way will be redirected to accommodate on dwellings on site. New dwellings will be seen facing Cowbridge Road on either side of the new access road, a landscape buffer along the roadside verge will ensure the houses are set back from the road. Vegetation in the southern field intervenes in views towards proposed development in this part of the site. The grass verge with scrub abutting Cowbridge Road will undergo landscape enhancement, with a green buffer and some tree planting proposed adjacent to the site's western boundary. This will soften the appearance of the development once established. There are three new site accesses proposed and two would be visible in this view. The magnitude of change for viewers at this location would be high and the level of effect is considered to be moderate.</p>			
<p><b>Photoviewpoint EDP 3</b></p> <p>View from PRoW to the northern site boundary looking south towards the site</p>	High	High	<b>Major/ Moderate</b>
<p><b>Description:</b>          The baseline view comprises sloping pastoral land in the foreground with hedgerows on a localised ridgeline seen in the left of the view which curtail medium ranging views. In the centre of the view, a stile is discernible in the middle ground which demarcates the location of a PRoW which is on the northern edge of the western field within the site boundary. The site is partially visible in the view; the evergreen trees in the centre background of the view mark the most distant site boundary edge which joins to Cowbridge Road, and part of the western field is seen beyond boundary vegetation in the right of the view in the middle ground. Further right, riparian growth along Nant y Stepsau is outwith the northern boundary of the site. In the background of the view, existing dwellings in Eglwys Brewis on Ash Lane/Sycamore Avenue orientated towards Cowbridge Road and the site are discernible, and further beyond, the hangar at St. Athan MOD is seen beyond vegetation.</p> <p><b>Predicted change in view:</b>          The proposed development will be visible in filtered views beyond the hedgerow along the localised ridgeline in the fore to middle ground. The gap in the hedgerow in the far left of the view will be enhanced by new native species planting to infill the gap. The stile seen in the right of the view will also undergo enhancement and this pedestrian link which enters the site at its northern edge will be conserved and enhanced. Views into the western field will be most prominent from this location. The part of the field that is visible (as shown in the baseline Photoviewpoint) is the location of the proposed open attenuation and landscaped area on site. Proposed houses will be seen in the eastern and western fields but in filtered views beyond the hedgerow on the northern boundary. Some existing dwellings in Eglwys Brewis</p>			

Photoviewpoints	Sensitivity	Magnitude of Change	Level of Effect
on Ash Lane will still be visible from this perspective. The magnitude of change for viewers at this location would be high and the level of effect is considered to be major/moderate due to the close range perspective at which the site will be seen and the increased amount of built form which will be observed in the view.			
<b>Photoviewpoint EDP 4</b>  View from Flemingston Conservation Area (CA), looking south-west towards the site	Medium	Low	<b>Minor</b>
<p><b>Description:</b>                      The baseline view comprises a farm track and a fence which identifies the entrance to Flemingstone Court Farm; a minor road in the far right of the frame to make up the foreground. The middle ground consists of a pastoral field which is bordered by vegetated boundaries. There are some mature trees within a maintained hedgerow which are discernible in the middle ground. In the background of the view, existing dwellings on Sycamore Avenue are partially visible, the eaves and some upper storeys of dwellings are seen against a vegetated backdrop to form the distant skyline. The site is located in the background of the view, in front of existing dwellings on Sycamore Avenue which are located adjacent to Cowbridge Road/St. Athan's Road.</p> <p><b>Predicted change in view:</b>                      This is a framed and filtered, medium ranging view towards the site; vegetation in the middle ground intervenes in views, however part of the proposal in the western field (within the site boundary) would be partially visible; the upper storeys of proposed dwellings would be seen in filtered views beyond vegetation in the middle ground, and in front of the existing dwellings on Sycamore Avenue in the background of the view. The magnitude of change for viewers at this location would be medium and the level of effect is considered to be minor.</p>			
<b>Photoviewpoint EDP 5</b>  View from Valeways Millennium Heritage Trail, looking south-west towards the site	High	Low	<b>Negligible</b>
<p><b>Description:</b>                      The baseline view comprises a broad view of a pastoral field and farm track, which spans from the foreground to the middle ground. The field is bordered by a maintained hedgerow which is seen in the middle ground, the hedgerow and the power lines across the view demarcate the location of Flemingston Road. In the left of the view, beyond the hedgerow in the middle ground, existing dwellings on Burley Place are partially visible beyond associated property boundary vegetation. In the right of the view, agricultural buildings at Flemingstone Court Farm are visible, further right, dwellings in Flemingston are glimpsed along site mature and mix tree cover. The site is in the background and is out of view as a result of the localised landform and vegetation seen in the middle ground</p> <p><b>Predicted change in view:</b>                      There will be no change in view as a result of the proposed development which will be screened by vegetation and topography from this location.</p>			

Photoviewpoints	Sensitivity	Magnitude of Change	Level of Effect
<b>Photoviewpoint EDP 6</b>  View from Deserted Village Scheduled Monument, looking west towards the site	High	Low	Negligible
<b>Description:</b> The baseline view comprises a medium reaching view across a rolling agricultural landscape with a localised, vegetated ridgeline forming seen against the expansive sky backdrop  <b>Predicted change in view:</b> There will be no change in view as a result of the proposed development which will be screened by vegetation and topography from this location.			

### ***Landscape / Mitigation Strategy***

- 4.8 The overall landscape strategy for the site is to protect and enhance existing landscape features by introducing ecological buffers along field boundaries. Open green space is proposed across the site and the two points of archaeological interest are intentionally located within green space and will therefore not be developed upon. The stream and flood zone to the west will remain undeveloped and utilised as an attenuation area.
- 4.9 The main principles for the proposal are shown on the Illustrative Masterplan appended with this application and are summarised below:
- Deliver a sustainable, high-quality housing scheme;
  - Maintain the integrity of the heritage assets on site by incorporating these spaces into the design by creating informal green space enclosed by proposed tree planting;
  - Provision of ample open space. The scheme includes Local Areas of Play (LAP), Local Equipped Areas of Play (LEAP), and Natural Equipped Areas of Play (NEAPs);
  - A surface water attenuation area is included along the lowest contours of the site;
  - Retain, maintain and strengthen existing vegetated boundaries, and allow for generous ecological buffers to encourage habitat creation and enhanced biodiversity on the site. Which will soften the appearance of the settlement by setting back development from the site boundary;
  - New tree planting both formal and informal with dispersed trees planted throughout the scheme and formal regular tree planting defining the rectangular NEAP in the eastern field as well as both LAPs in the western field;





- Incorporate the existing public right of way on site into the scheme by diverting the public path along a greener route within the ecological buffer, adjacent the cycle link along the southern site boundary and then northwards within an existing green corridor adjacent to a hedgerow alignment;
- Provision of a new pedestrian link between the south-eastern field and the eastern field which will benefit pedestrian movement on site; and
- Take a Green Infrastructure approach by protecting green corridors and linking to existing green space on site.

## 5. Conclusions

- 5.1 In light of the findings of the assessment of effects, the predicted effects of residential development on land off Cowbridge Road, on land east of Eglwys Brewis (allocated site) will not be detrimental to the character or designated assets. The scheme has endeavoured to maintain the integrity of the two identified heritage assets on site by leaving them undeveloped and integrating the space to make them integral to the landscape strategy of the site. A public path will be diverted to accommodate the scheme – the diverted path will follow a hedgerow alignment which separates the eastern field and the western field (in the centre of the site). The existing path alignment will be altered as a result of the proposed development, however the entrance and exit points of the path as it passes through the western field will remain unchanged.
- 5.2 The site is visible from a number of publicly accessible vantage points, but the approximate visual envelope is fairly limited as demonstrated in the visual appraisal. The visual amenity of receptors within the local area will be remarkable for some, in particular, for those travelling south on the footpath to the north of the site as illustrated by **Photoviewpoint EDP 3**. In terms of landscape amenity, there will be a direct effect on recreational users of this local public right of way which progresses into the site as part of the path will be diverted. With regards to new view from the diverted path; the proposed development will be seen at close range as for users travelling north-east and south-west between Eglwys Brewis and the village of Flemingston. Thus, there will be a major / moderate magnitude of change for users of the path. The susceptibility of these visual receptors is somewhat desensitised as a result of the surrounding existing development, such as the residential dwellings and the industrial scale units seen at St. Athan MOD.
- 5.3 Overall, the proposed development has localised effects and limited effects for the most part:
- 5.4 For users of the PRoW network, there will be a direct landscape effect experienced as a result of the diversion within the site itself, but in general, views towards the site PRoW are limited to those from the north, between the site and Flemingston. These views dissipate with distance as



landform and vegetation begin to intervene in the view. There are no open views from within Flemingston Conservation Area (CA) itself, there is a partial filtered and glimpsed view (demonstrated by **Photoviewpoint EDP 4** appended) from the CA boundary and the effects are deemed to be minor adverse as described in **Table EDP 4.2** above.

- 5.5 For residential receptors in the study area, there are very small few who's view will noticeable change. Residential receptors with close range views of the site such as the estate immediately adjacent to the site's south-eastern and south-western boundary will have direct close range views; and the isolated farm property closes to the north-western boundary will have direct and uninterrupted views of the site (as shown by **Image EDP 4.1** above). The change in view is not considered unacceptable in visual terms given the current view comprises an open view of over open farmland to existing built form where the dwellings bordering the site's south-eastern boundary are seen as well as the MOD site and some large industrial units beyond.
- 5.6 For vehicular traffic and users of the local road network, there will be change in view, but again this is limited greatly by intervening built form, vegetation and landform. The most affected road receptor group are those travelling on Cowbridge Road (which has a footpath) as the road passes the site; proposed dwellings and the site access points will be seen at close range. From the unclassified road to the north (location of isolated farmstead described above), road users will have a slightly elevated but oblique view towards the site, this view will be short lived and only available from a short part of the road as it nears Cowbridge Road.
- 5.7 In summary, the effects the development proposed are considered to be acceptable in landscape and visual terms.

## Annex EDP 1 Glossary

TERM AND DEFINITION
<b>Baseline</b>
The existing (pre-development) landscape and visual context of a study area, including landscape fabric, landscape character and existing views. The landscape baseline is not static and may be changing for various reasons. The landscape baseline can also consider such factors and describe the likely future landscape character of the landscape, without the proposed development.
<b>Effects</b>
A predicted change in the environmental baseline as a result of the proposed development. Effects can be positive or negative.
<b>Field Pattern</b>
The pattern of hedges and walls that define fields in farmed landscapes (LI/IEMA 2002).
<b>Intervisibility</b>
Two points on the ground or two features are described as “intervisible” when they are visible from each other.
<b>Landscape</b>
Landscape results from the way that different aspects of our environment (physical, social, aesthetic and perceptual) interact together and are perceived by us: <ul style="list-style-type: none"> <li>• Physical elements – e.g. geology, landform, soils, flora and fauna;</li> <li>• Social elements – e.g. land use, enclosure patterns, and the patterns, form and scale of settlements and other built development;</li> <li>• Aesthetic factors – e.g. colour, form, visual texture and pattern, sounds, smells and touch; and</li> <li>• Perceptual factors – e.g. memories, associations, stimuli and preferences.</li> </ul>
<b>Landscape capacity</b>
The degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character. Capacity is likely to vary according to the type and nature of change being proposed.
<b>Landscape character</b>
Landscape character arises from a distinct, recognisable and consistent pattern of physical and social elements, aesthetic factors and perceptual aspects in the landscape.
<b>Landscape character areas (LCAs)</b>
Single unique areas that are discrete geographical areas containing one or more landscape types.

TERM AND DEFINITION
<b>Landscape character types (LCTs)</b>
Generic units of landscape that display a distinct, consistent and recognisable landscape character.
<b>Landscape condition</b>
Description of the maintenance and condition of landscape elements and the degree to which landscape elements are representative of the landscape character area.
<b>Landscape element</b>
A physical component (both natural and manmade) of the landscape.
<b>Landscape fabric</b>
The elements and features that constitute the physical components of the landscape, including ground vegetation, hedgerows, trees, shrubs, walls, fences, and vernacular structures.
<b>Landscape units</b>
An umbrella term for landscape character areas and landscape character types.
<b>Landscape value</b>
The importance or value of the landscape to society, usually based on landscape designations or policies as indicators of recognised value.
<b>Mitigation</b>
Measures, including any process, activity or design that will avoid, reduce, remedy or compensate for the predicted significant effects of a development on the environmental baseline.
<b>Public access</b>
<p>Land with public access includes:</p> <ul style="list-style-type: none"> <li>• <b>Definitive rights of way</b> – public footpaths, bridleways, cycle routes, Byways Open to All Traffic (BOATS) and highways. Shown on Definitive Rights of Way maps held by the Local Authority. Most routes are also shown on Ordnance Survey maps;</li> <li>• <b>Permissive paths and bridleways</b> – routes where there is public access with the permission of the landowner. Such routes are usually closed at least one day a year to prevent establishment of a public right of way;</li> <li>• <b>Public open space</b> – areas designated for specified public uses, usually in the ownership of the Local Authority. Includes parks and recreation grounds. Shown on Local Development Plans;</li> <li>• <b>Beaches</b> – the public have permitted access to much of the foreshore (intertidal zone – between high and low tide marks) owned by the Crown Estate, and on land above high water mark owned by the Local Authority. Some beaches above high tide mark are privately owned and some beaches and foreshore have restricted access for military purposes;</li> <li>• <b>Access land</b> – land where public access is currently permitted with the permission of landowners. Includes land outlined in purple on the OS Explorer (1:25,000) sheets and with:             <ul style="list-style-type: none"> <li>○ No symbol – land open to public with permission of owners;</li> <li>○ White oak leaf in purple box – National Trust, always open;</li> <li>○ Purple oak leaf in white box – National Trust limited access;</li> </ul> </li> </ul>

TERM AND DEFINITION
<ul style="list-style-type: none"> <li>○ Tree symbols in purple box – Forestry Commission;</li> <li>○ Single leaf in purple box – Woodland Trust; and</li> <li>○ White “AL” in purple box – other access land.</li> <li>• <b>Open access land</b> – areas of mountains, moor, heath, down, common land and coastal foreshore that have been designated under Section 2 of the Countryside and Rights of Way Act 2000. The right of access is for walkers only and does not extend to cycling, horse riding or driving a vehicle, nor does the right of access apply to developed land, gardens or cultivated land. Under the CRoW Act 2000, there was a process of consultation that allowed the right of appeal for those with a legal interest in the land, and for sensitive ecological or archaeological sites to be excluded. Conclusive maps showing the areas designated as open access land (Registered Common Land and Open Country) are now available from Natural England (in England) and the Countryside Council for Wales (in Wales).</li> </ul>
Viewing distance
<p>That distance that a viewpoint illustration should be held from the eye in order for the illustration to match the scale of the actual view when used in the field to identify the location and scale of the proposed development.</p>
Visibility
<p>Visibility is a measure of the distance that can be seen by the human eye at any one time. Daylight visibility will depend on several factors, including:</p> <ul style="list-style-type: none"> <li>• Atmospheric transparency (governed by the solid and liquid particles held in suspension in the atmosphere);</li> <li>• Degree of contrast between an object and the background against which it is observed;</li> <li>• Position of the sun; and</li> <li>• Observer’s visual acuity.</li> </ul>
Visual receptor(s)
<p>An individual observer or group of observers who are capable of experiencing a change in the view.</p>
Zone of Theoretical Visibility (ZTV)
<p>The ZTVs consider the ‘bareground’ situation and assume excellent visibility with no atmospheric attenuation. The ZTVs therefore represent the maximum potential, theoretical visibility i.e. the worst-case situation. In reality, other components of the landscape such as forestry, trees, buildings etc. will introduce screening effects which, coupled with the atmospheric conditions, will reduce this visibility, in some instances to a considerable extent.</p>

## Annex EDP 2

### LVIA Assessment Methodology

#### Introduction

- A2.1 The development proposed does not fall within the requirements of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011.
- A2.2 The assessment methodology for assessing landscape and visual effects prepared by EDP is based on the following best practice guidance:
- *'Guidelines for Landscape and Visual Impact Assessment'* (GLVIA) – Third Edition (LI/IEMA 2013);
  - LANDMAP guidance provided on the Countryside Council for Wales (CCW) website;
  - *'Landscape Character Assessment – Guidance for England and Scotland'* (Swanwick & LUC 2002) produced on behalf of the Countryside Agency and Scottish Natural Heritage;
  - *'Landscape Character Assessment – Guidance for England and Scotland: Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity'* produced on behalf of the Countryside Agency and Scottish Natural Heritage;
  - *'BS 5837:2012 Trees in Relation to Design, Demolition and Construction'* (BSI, 2012).
- A2.3 Landscape assessment is concerned with the changes in the physical landscape in terms of features/elements that may give rise to changes in the character of the landscape. Visual appraisal is concerned with the changes that arise in the composition of available views as a result of changes to the landscape, people's responses to the changes and to the overall effects on visual amenity. Changes may result in adverse (negative), beneficial (positive) or neutral effects.
- A2.4 The nature of landscape and visual assessment requires both objective analysis and subjective professional judgement. Accordingly, the following assessment is based on the best practice guidance listed above, information and data analysis techniques, uses subjective professional judgement and quantifiable factors wherever possible, and is based on clearly defined terms (see Glossary, **Annex EDP 1**).
- A2.5 The characteristics of the development and the nature of landscape and visual effects arising will vary throughout the different phases of the lifecycle of the project. Landscape and Visual Impact Assessment (LVIA) undertaken as part of an Environmental Impact Assessment (EIA) is required to include an assessment of effects at different stages of the life-cycle of the development, and commonly includes:

- Construction effects; and
- Operational Effects (often including Year 1 and Year 15 effects such that mitigation is considered).

A2.6 Year 1 considers the effects of the development upon completion of the construction phase. The assessment of landscape and visual effects at Year 15 takes into account any proposed mitigation measures, including structural or developmental planting. The assessment undertaken at Year 15 assumes that such proposals have the opportunity to grow and become effective. For the purposes of most LVIA's, Year 15 effects are also taken to be the 'residual effects' of the development. Residual effects are those which are likely to remain on completion of the development and are to be given the greatest weight in planning terms.

A2.7 In some cases, the scope of the EIA also requires the assessment of effects during decommissioning and restoration; an assessment of these effects is included in the LVIA when requested or required.

A2.8 The need for the consideration of cumulative effects is agreed as part of the EIA scoping process. Cumulative effects are considered in further detail below.

### **Current Guidance and the Assessment Process**

A2.9 The GLVIA presents guidelines for undertaking the assessment process using a non-prescriptive methodology. As stated at paragraph 1.20 of the GLVIA:

*"The guidance concentrates on principles while also seeking to steer specific approaches where there is a general consensus on methods and techniques. It is not intended to be prescriptive, in that it does not follow a detailed 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstances."*

A2.10 The summary following paragraph 3.45 of the GLVIA sets out the advice on good practice to be followed in undertaking the assessment and includes the following points:

- *"Assessing the significance of landscape and visual effects is a matter of judgement. It is vital that the basis of such judgements is transparent and understandable, so that the underlying assumptions and reasoning can be examined by others;*
- *A step-by step approach should be taken to make judgements of significance, combining judgements about the nature of the receptor, summarised as its sensitivity, and the nature of the effect, summarised as its magnitude;*

- *The contribution of judgements about the individual criteria contributing to the sensitivity and magnitude should be clear, and the approach to combining all the judgements to reach an overall judgement of significance should be transparent as possible;*
- *LVIAs should always distinguish clearly between what are considered to be the significant and non-significant effects; and*
- *To ensure that the reasoning behind the judgements is clear there should be more emphasis on narrative text describing the landscape and visual effects and the judgements made about their significance, with tables and matrices used to support and summarise the descriptive text, not to replace it. The key issues must be made clear."*

A2.11 This assessment is considered to comply with the general principles of good practice in the GLVIA 3<sup>rd</sup> edition as set out above.

A2.12 The assessment involves information review, consultations, fieldwork observations and photography, computer-based data processing and analysis, and subjective professional judgement. It is an iterative process, and involves up to nine main stages, and is tailored in terms of its proportionality to the size and scale of the development proposed, and its location:

- **Stage 1: Review the development proposals:** To understand the nature of the development proposals in respect of potential landscape and visual effects to inform the extent of the study area and the baseline assessment;
- **Stage 2: Landscape baseline assessment:** An analysis of the characterisation and evaluation of the existing landscape baseline, in respect of its value. This analysis is aided where possible by available published landscape character assessment;
- **Stage 3: Visual baseline assessment:** Establish the zone of visual influence of the proposals including, where appropriate, the use of computer-generated zones of theoretical visibility, based on topographical data only, and through fieldwork analysis. This establishes the locations where views of the development may be available. Fieldwork and data trawl information review to establish the types and locations of receptors within this theoretical zone;
- **Stage 4: Viewpoint selection:** Selection of viewpoints to represent the various receptor types in the study area. Locations are agreed with the Local Planning Authority (where practical) and any other relevant statutory consultees, where possible;
- **Stage 5: Mitigation:** Commentary on the input provided into the iterative design process, where appropriate, to avoid, reduce or compensate for potential effects on the landscape and visual receptors identified;



- **Stage 6: Landscape assessment:** An assessment to identify the potential residual effects on landscape fabric, the character of the landscape units and the special characteristics and purposes of any landscape designations;
- **Stage 7: Visual assessment:** An assessment of the potential residual effects upon visual amenity at the selected visual receptor locations identified within the study area; and
- **Stage 8: Judgement of landscape capacity:** A discussion about the ability of the landscape to accommodate the changes proposed.

A2.13 Each of these key stages is described in more detail below, with reference to the GLVIA 3<sup>rd</sup> Edition.

#### **Stage 1: Review of Development Proposals and Defining the Study Area(s)**

A2.14 Study areas are defined in accordance with the EIA Regulations 2011, which require an assessment to be made which provides “a description of the aspects of the environment likely to be significantly affected by the development”<sup>1</sup>. Guidance contained within the GLVIA 3<sup>rd</sup> edition is also pertinent, with this document advising that the study area for landscape and visual assessment should cover the following:

##### *Landscape (paragraph 5.2 of the GLVIA)*

*“Scoping should also identify the area of landscape that needs to be covered in assessing landscape effects. This should be agreed with the competent authority, but it should also be recognised that it may change as the work progresses, for example as a result of fieldwork, or changes to a proposal. The study area should include the site itself and the full extent of the wider landscape around it which the proposed development may influence in a significant manner.”*

##### *Visual (paragraph 6.2 of the GLVIA)*

*“Scoping should identify the area that needs to be covered in assessing visual effects, the range of people who may be affected by these effects and the related viewpoints in the study area that will need to be examined. The study area should be agreed with the competent authority at the outset and should consider the area from which the proposed development will potentially be visible. The emphasis must be on a reasonable approach which is proportional to the scale and nature of the proposed development. At the scoping stage the study area will only be defined in a preliminary way and is likely to be modified as more detailed analysis is carried out, in discussion with the competent authority.”*

A2.15 It is therefore imperative that an understanding of the development proposed, its scale, character and geographical extents is required to be able to define the study area.

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<sup>1</sup> Schedule 4, Part 1, clause 3, DETR 2011

### **Stages 2 and 3: Establishing the Landscape and Visual Baseline**

- A2.16 The purpose of baseline studies is to record and analyse the existing landscape features, characteristics, the way in which the landscape is experienced and the value or importance of the landscape and visual resource in the study area. The third edition of the GLVIA sets out guidance in relation the landscape baseline at paragraph 5.3:

*“Baseline studies for assessing landscape effects require a mix of desk study and field work to identify and record the character of the landscape and the elements, features and aesthetic and perceptual factors which contribute to it. They should also deal with the value attached to the landscape (see paragraph 5.19). The methods used should be appropriate to the context into which the development proposal will be introduced and in line with current guidance and terminology.”*

- A2.17 As set out above, it is also a requirement of the baseline stage to establish the value of the landscape receptors identified:

*“As part of the baseline description the value of the potentially affected landscape should be established. This means the relative value that is attached to different landscapes by society, bearing in mind that a landscape may be valued by different stakeholders for a whole variety of reasons. Considering value at the baseline stage will inform later judgements about the significance of effects. Value can apply to areas of landscape as a whole, or to the individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape...”*

#### *Effects on Landscape Character: LANDMAP Methodology*

- A2.18 Landscape Assessment and Decision Making Process (LANDMAP) is a system that has been in development since 1997 by CCW (now maintained by Natural Resources Wales), in conjunction with the Wales Landscape Partnership Group (WLPG). The aim is to record, and make available to anyone with an interest in land, a wide range of information about the Welsh landscape.

- A2.19 LANDMAP data is the key tool recommended for use in decision making relating to landscape character. Planning Policy Wales (Welsh Assembly Government, 2011) Section 5.3.13 states,

*“CCW’s LANDMAP information system methodology is an important information resource upon which local planning authorities can draw in making the landscape assessments needed to inform local policy, guidance and decision making in this field”.*

- A2.20 LANDMAP is a geographic information system (GIS) based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent data set. Data is organised spatially into geographically discrete units known as ‘aspect areas’. Each aspect area contains data relating to five themes, or ‘aspects’:

- Geological Landscape;

- Landscape Habitats;
- Visual and Sensory;
- Historic Landscape; and
- Cultural Landscape

A2.21 Specialists collect LANDMAP information in a structured and rigorous way that is defined by the LANDMAP methodology (updated in 2008). Each evaluated aspect has its own detailed methodological chapter specifying the approach, the information to be collected and definitions of terms used to ensure consistency.

A2.22 LANDMAP is a whole landscape approach that covers all landscapes, designated and non-designated. It identifies key landscape characteristics and qualities that can be used to aid planning policy and decisions. The accompanying guidance states that it is the use of all five layers of information that promotes sustainable landscape decision-making, giving all five layers equal consideration.

A2.23 For each aspect area, each LANDMAP theme/layer is described, assessed and assigned one of four overall grades of value: low, moderate, high or outstanding.

A2.24 Within this assessment, a summary is provided of the following:

- A summary of the published descriptions of each aspect area;
- The level at which the aspect area has been assessed in the published LANDMAP information (from Level 1 to Level 4, with Level 4 being the most detailed); and
- The evaluation related to each criterion set out above.

A2.25 A site-specific landscape character assessment is carried out which considers the key characteristics of the landscape of the local context and the role the proposed site plays in the wider landscape context, as defined by the LANDMAP Aspect Areas.

#### **Stage 4: Viewpoint Analysis**

A2.26 To aid the assessment of landscape and in particular visual, receptors, a number of representative viewpoints have been visited, photographed and assessed. These have been identified following analysis of the potential visual influence of the proposals, site survey and liaison with the local authority. The final selection of viewpoints has been selected taking account of the following:

- The accessibility to the public;

- The potential number and sensitivity of viewers who may be affected;
- The viewing direction and/or distance;
- The nature of the viewing experience;
- The type and extent of view; and
- The potential for cumulative views.

A2.27 The viewpoints selected include a variety of public viewpoints (with public access), transport routes, areas of landscape designation and landscape character areas. In no instance (unless specifically stated) have private views been included.

A2.28 A photograph is taken at the location of each selected viewpoint to represent the character of the view. The photographs are taken using a digital SLR and are presented with an approximate viewing distance of 300mm in compliance with the Landscape Institute Advice Note 01/11.

A2.29 Where photomontages or verified views are presented in the assessment, the methodology for their production is provided separately.

### **Stage 5: Mitigation**

A2.30 Mitigation measures seek to avoid, reduce or compensate for any adverse landscape or visual effects resulting from the development proposals. Mitigation measures are considered under two categories:

- Primary, or embedded, mitigation measures are those that are intrinsically part of the development proposals, such as the height, scale, massing, orientation and location of development or the nature of materials used; and
- Secondary, or reduction, mitigation measures are designed to address remaining adverse effects (both significant and non-significant effects), and include proposals such as areas of new planting to filter views towards the development or new hedgerows to compensate for those lost.

A2.31 Recommendations for mitigation and enhancement measures are fed into the design process following the baseline studies and the identification of landscape and visual receptors. This early stage involvement of the landscape practitioner ensures that the proposals which come forward have taken account of the most important landscape and/or visual constraints within the wider landscape.

A2.32 Enhancement is a separate issue to mitigation and involves the identification of measures that can positively contribute to the landscape or to visual amenity. For example, restoring or

reconstructing local landscape character, improving the management of new and existing landscape fabric or the removal of landscape detractors.

### **Stage 6: Landscape Assessment**

A2.33 The assessment of effects on landscape draws on the description of the development, the landscape context and the visibility and viewpoint analysis, and considers whether the proposed development is likely to have a significant beneficial or adverse effect on landscape fabric, the character of the landscape units and the special characteristics of any landscape designations in the study area such that their ability to fulfil their purposes is likely to be compromised.

#### ***Effects on Landscape Fabric***

A2.34 Landscape fabric is composed of the physical components of the landscape. Developments can bring about both direct and indirect effects on landscape fabric. Direct effects occur where changes to the fabric of the landscape arise as the result of physical disturbance; for example, the loss of landscape elements such as hedgerows, walls and trees. Indirect effects are consequential changes that are separated from the source of the change in a temporal or spatial manner; for example, changes in vegetation downstream as the result of modifications to surface water patterns in a catchment area.

A2.35 The assessment of effects on landscape fabric considers the existing landscape fabric of the site and the predicted losses and gains to landscape fabric as a result of the development, and makes a judgement as to whether there is likely to be a significant beneficial, adverse or neutral change to landscape fabric.

A2.36 Significant beneficial effects on landscape fabric could occur where important/-mature/diverse/distinctive components, which had previously been lost or degraded as the result of agricultural operations or other development, will be added, reinstated or improved. Significant adverse effects on landscape fabric could occur where important/mature/diverse/distinctive components will be permanently lost and the effect cannot be adequately mitigated.

#### ***Effects on Landscape Character***

A2.37 In order to reach an understanding of the effects of development on landscape character, it is necessary to consider the different aspects of the landscape, and how these interact to create landscape character. These aspects are as follows:

- **Elements:** The individual elements that make up the landscape, including prominent or eye-catching features such as hills, valleys, woods, trees and hedges, ponds, buildings and roads. They are generally quantifiable and can be easily described;

- **Characteristics:** Elements or combinations of elements that make up a particular contribution to the character of an area, including experiential characteristics such as tranquillity and wildness; and
- **Character:** The distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place of different areas of the landscape. Character is identified through the process of characterisation, which evaluates the landscape as a resource in its own right and identifies geographical areas of similar character.

### **Assessment of Effects**

A2.38 The assessment of effects includes a combination of objective and subjective judgements. The development proposals are assessed against the baseline information to enable an evaluation of the effects that would occur upon the existing landscape resource.

A2.39 Typically, the landscape receptors identified in the assessment are likely to include:

- Site landscape fabric;
- The LANDMAP aspect areas (Geological, Historic, Visual and Sensory, Landscape Habitats and Cultural);
- The landscape character of the site and local context through an assessment of the effects of the proposals on the key characteristics of the landscape identified in the baseline assessment and site visit;
- The 'host' character of the landscape character area/unit in the published landscape character assessment;
- 'Non-host' landscape character areas surrounding the host character area, which may be affected by the proposals (where relevant); and
- The character of any local or national landscape designations (where relevant) through an assessment of the likely effects on the published key characteristics or special qualities.

A2.40 The landscape effects are defined as the result of the interaction between the sensitivity of the landscape receptor and the magnitude of change predicted for that receptor.

### **Sensitivity of the Landscape Resource**

A2.41 A number of factors influence professional judgement when assessing the degree to which a particular landscape receptor can accommodate change arising from a particular development.

Sensitivity is made up of judgements about the value attached to the receptor determined at baseline stage (paragraph 5.19 of the GLVIA) and the susceptibility of the receptor to the type of change arising from the development proposal.

- A2.42 A location may have different levels of sensitivity according to the types of receptors at that location and any one receptor type may be accorded different levels of sensitivity at different locations, e.g. due to differences in value or susceptibility to change.

#### *Susceptibility to Change for Landscape Receptors*

- A2.43 The susceptibility of a landscape receptor relates to the ability of the receptor to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies as defined within the Local Development Plan or landscape character assessments.
- A2.44 It is important when considering susceptibility that heed is taken of the type of development proposed i.e. intrinsic or inherent sensitivity (such as is commonly indicated within published sensitivity in capacity assessments) cannot reliably inform the identification of susceptibility as they are carried out without any reference to the particular type of development proposed. Judgements about the susceptibility of landscape receptors within this assessment are provided on a verbal scale as indicated in **Table EDP A2.1**.

**Table EDP A2.1:** Susceptibility to Change Criteria for Landscape Receptors

Category	Landscape Receptor Criteria
Very High	Strong/distinctive landscape elements/aesthetic/perceptual aspects; absence of landscape detractors; landscape receptors in excellent condition. Landscapes with clear and widely recognised cultural value. Landscapes with a high level of tranquillity.
High	Many distinctive landscape elements/aesthetic/perceptual aspects; very few landscape detractors; landscape receptors in good condition. The landscape has a low capacity for change as a result of potential changes to defining character.
Medium	Some distinctive landscape elements/aesthetic/perceptual aspects; few landscape detractors; landscape receptors in fair condition. Landscape is able to accommodate some change as a result.
Low	Few distinctive landscape elements/aesthetic/perceptual aspects; presence of landscape detractors; landscape receptors in poor condition. Landscape is able to accommodate large amounts of change without changing these characteristics fundamentally.
Very Low	Absence of distinctive landscape elements/aesthetic/perceptual aspects; presence of many landscape detractors; landscape receptors in very poor condition. As such landscape is able to accommodate considerable change.

#### *Value of Landscape Receptors*

- A2.45 The value attached to the landscape receptors within the assessment will cover the following:



- The value of the landscape character types or areas that might be affected by the development, based upon review of any designations at both national and local levels, and, where there are no designations, judgements based on criteria that can be used to establish landscape value; and
- The value of individual contributors to landscape character, especially the key characteristics, which may include individual elements of the landscape, in particular landscape features, notable aesthetic, perceptual or experiential qualities, and combinations of these contributors.

A2.46 The potential information/designations that will contribute to understanding value is summarised below, with reference to paragraph 5.20 of the GLVIA:

- Statutory designations, e.g. National Parks, National Scenic Areas, Areas of Outstanding Natural Beauty;
- Heritage Coasts;
- Conservation areas, listed buildings, Tree Preservation Orders, important hedgerows, scheduled monuments, historic gardens and battlefields;
- Local landscape designations in Development Plans;
- Local/community interests e.g. local green spaces, village greens and allotments; and
- Art and literature including e.g. tourism literature or specially promoted views.

A2.47 In the absence of existing evidence to indicate value, it is advised that new survey and analysis may be needed to establish landscape value. The range of factors that can help in the identification of valued landscape are listed at paragraph 5.28 of the GLVIA and summarised below and defined in the glossary:

- Landscape condition/quality;
- Scenic quality;
- Rarity;
- Representativeness;
- Conservation Interests;
- Recreational value;

- Perceptual aspects, e.g. wildness and/or tranquillity; and
- Associations.

A2.48 **Table EDP A2.2** provides an indication of the criteria by which the value of a landscape receptor is judged within this assessment.

**Table EDP A2.2:** Landscape Value Criteria for Landscape Receptors

Category	Landscape Receptor Criteria
Very High	Nationally/Internationally designated/valued countryside and landscape features; strong/distinctive landscape characteristics; absence of landscape detractors.
High	Locally designated/valued countryside (e.g. Areas of High Landscape Value, Regional Scenic Areas) and landscape features; many distinctive landscape characteristics; very few landscape detractors.
Medium	Undesignated countryside and landscape features; some distinctive landscape characteristics; few landscape detractors.
Low	Undesignated countryside and landscape features; few distinctive landscape characteristics; presence of landscape detractors.
Very Low	Undesignated countryside and landscape features; absence of distinctive landscape characteristics; despoiled/degraded by the presence of many landscape detractors.

A2.49 It is important to note that there can be complex relationships between landscape value and susceptibility to change, which are particularly important when considering development proposals near to designated landscapes. For example, an internationally, nationally or locally designated landscape does not automatically, or by definition, have high susceptibility to all types of change. Designated landscapes, by virtue of the characteristics of the landscape and/or the nature of the proposal, can have a low susceptibility to change.

### **Defining Overall Sensitivity**

A2.50 The overall sensitivity of any landscape receptor is determined by combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape as set out at paragraph 5.39 of GLVIA 3<sup>rd</sup> Edition (2013). For example, a high susceptibility to change and a low value may result in a medium overall sensitivity. A degree of professional judgement will always apply in arriving at the overall sensitivity for landscape receptors, and a five-point word scale is used to define this – Very High, High, Medium, Low and Very Low – this reflecting the definition used for value and susceptibility individually.

### **Magnitude of Change**

A2.51 The magnitude of change is determined through a range of considerations particular to each effect receptor and effect. In line with the GLVIA, the three main attributes considered are:

- Scale of change
- Geographical extent; and
- Duration and reversibility.

A2.52 **Scale of Change:** The considerations set out at paragraph 5.49 of the GLVIA are summarised as follows:

- The extent of any existing landscape fabric elements lost including the proportion of the total extent that this represents and the contribution of that element to the character of the landscape;
- The degree to which aesthetic or perceptual aspects of the landscape are altered by removal of features e.g. hedgerows and/or the introduction of new features e.g. buildings; and
- Consideration of whether the effect changes the key characteristics of the landscape which are critical to its distinctive character.

A2.53 **Table EDP A2.3** provides an indication of the criteria by which the size/scale of change at a landscape receptor is judged within this assessment.

**Table EDP A2.3:** Scale of Change Criteria for Landscape Receptors

Category	Landscape Receptor Criteria
Very High	Total loss of or major alteration to key elements/features/characteristics of the baseline condition. Addition of elements which strongly conflict with the key characteristics of the existing landscape.
High	Notable loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that are prominent and may conflict with the key characteristics of the existing landscape.
Medium	Partial loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that may be evident but do not necessarily conflict with the key characteristics of the existing landscape.
Low	Minor loss or alteration to one or more key elements/features/characteristics of the baseline landscape. Addition of elements that may not be uncharacteristic within the existing landscape.
Very Low	Barely discernible loss or alteration to key elements/features/characteristics of the baseline landscape. Addition of elements not uncharacteristic within the existing landscape.

A2.54 **Geographical Extent:** This is distinct from the size or scale of effect; a range of scales that typically apply are listed below:

- Large scale effects influencing several landscape types or character areas;

- Effects at the scale of the landscape type or character areas within which the proposal lies;
- Effects within the immediate landscape setting of the site;
- Effects at the site level (within the development site itself); and
- Effects only experienced on parts of the site at a very localised level.

A2.55 **Duration and reversibility:** are separate but linked considerations. Duration is judged according to the defined terms set out in below. Reversibility is a judgement about the prospects and practicality of the particular effect being reversed in, for example, a generation. The categories used in this assessment are set out below.

*Duration:*

- Long term (20 years+);
- Medium to long term (10 to 20 years);
- Medium term (5 to 10 years);
- Short term (1 year to 5 years); and
- Temporary (less than 12 months).

*Reversibility:*

- Permanent with unlikely restoration to original state e.g. major road corridor, power station, urban extension etc.;
- Permanent with possible conversion to original state e.g. agricultural buildings, retail units;
- Partially reversible to a different state e.g. mineral workings;
- Reversible after decommissioning to a similar original state e.g. wind energy development; and
- Quickly reversible e.g. temporary structures.

### **Defining Overall Magnitude of Change**

- A2.56 The overall magnitude of change experienced by a landscape receptor is determined by combining judgements of their scale of change, the geographical extent of any change and the duration and/or reversibility of that change. For example, a high scale of change experienced for a short period and over a small geographical extent may result in a medium overall magnitude of change. A degree of professional judgement will always apply in arriving at the overall magnitude of change for landscape receptors, and a five-point word scale is used to define this – Very High, High, Medium, Low and Very Low – this reflecting the definition used for scale of change.

### **Defining Landscape Effects**

- A2.57 To define the significance of an effect, the separate judgements about the sensitivity of the receptors and the magnitude of change at those receptors need to be combined to allow a final judgement to be made about whether each effect is significant in terms of the EIA Regulations, or not. This is undertaken within this assessment, in the first instance, using a matrix that combines the two facets to determine a level of effect. Further professional judgement is applied, relevant to the development and its location, to finalise the level of effects and thus its significance.

### **Visual Amenity Assessment**

- A2.58 The visual amenity assessment is often informed by the preparation of a Zone of Theoretical Visibility (ZTV) using a Geographical Information System (GIS). This typically uses only landform data (of various resolutions) to assess the theoretical visibility of the development proposals. In reality, vegetation and built form substantially reduce the locations from where the proposals are visible; however, the ZTV is a useful starting point to inform the field assessment.
- A2.59 The field assessment identifies locations and routes from where the proposals can be seen, taking into account the effects of built form and vegetation to establish the primary zone of visibility. The assessment may consider 'average' conditions and 'worst-case' conditions, the latter being when leaf-cover is minimal. Where visual assessments cannot be undertaken in the winter months due to the project programme, the assessment will state any limitations this is considered to have on the certainty with which the assessment can be undertaken.
- A2.60 The assessment of effects is aided through consideration of a representative selection of viewpoints from where principal receptors may obtain clear views of the proposed development. The viewpoints selected typically represent specific locations from where the maximum visibility of the proposals is available in the local area. As a result of the selection of only viewpoints in which the proposed development will be visible and those where it is most conspicuous, there will be a tendency to overstate the true extent of visibility of the development and its effects on visual amenity.

### **Identifying Visual Receptors**

- A2.61 The locations and types of visual receptors within the defined study areas are identified from Ordnance Survey maps and other published information (such as walking guides), from fieldwork observations and from information provided during the consultation process.
- A2.62 The selected viewpoints provided within the report will be agreed through consultation with the Local Planning Authority, where possible and practical. They will illustrate clear views of the development from locations within the study area which typically cover a range of:
- Designated landscapes (where present);
  - Landscape character areas/ types;
  - Distances and orientations from the proposals; and
  - Receptor types.
- A2.63 A typical range of receptors and the locations and activities that they may be undertaking is provided in **Table EDP A2.4**. As shown, these are grouped into primarily two, but sometimes three, main receptor groups (zonal, linear route and marine-based receptors) whose location and activities influence the way that they experience the landscape and views.

**Table EDP A2.4:** Typical Visual Receptors

	<b>Receptor Type</b>	<b>Typical Locations</b>	<b>Activities</b>
<b>Zonal</b>	Residents	Residential properties, farmsteads, settlements and towns	Enjoying views from within the curtilage of their properties, from windows, driveways and gardens
	Walkers, cyclists, horse riders	Open access areas	For exercise and to enjoy the landscape and views
	Motorists, walkers, cyclists and horse riders	Scenic vantage points	Stopping a journey to enjoy the view
	People at leisure (outdoors) e.g. golfers, fishermen, campers, bathers	Golf courses, fishing lakes, recreational grounds, picnic sites, camping and caravan sites, holiday villages	Playing golf, fishing or other outdoor sports, picnicking, camping and caravan holidays
	People at work (outdoors)	Farms, mineral extraction sites, waste disposal sites	Working but with views of surroundings
	People at leisure (indoors)	Indoor recreational centres, cinemas	Indoor sports and leisure activities with few views of surroundings
	People at work (indoors)	Offices, business parks, industrial estates	Working with few views of surroundings
	Ferry, rail and air travellers	At ferry terminals, railway stations and airports	Waiting to catch their chosen mode of transport

	Receptor Type	Typical Locations	Activities
<b>Linear</b>	Walkers, cyclists and horse riders	On footpaths, cycle routes, bridleways and other public rights of way	Travelling at a steady pace with ample opportunity to enjoy the specific qualities of the landscape
	Motorcyclists, motorists and passengers	On motorways, A or B class roads, minor roads and tracks	Travelling at various speeds, depending on the class of road and driver, with views of surroundings
	Rail and air travellers	On trains and aeroplanes	Travelling at various speeds and with various views
<b>Marine-based</b>	Recreational water users, e.g. swimmers, surfers, sailors	Moving around the inshore waters	Swimming, surfing, skiing, sailing, fishing, with views
	Passengers, e.g. ferry and cruise ships	On ferry and shipping routes	Passage-making, with views
	Commercial shipping and fishing	On shipping routes	Passage-making, limited views

### **Visual Receptor Sensitivity**

- A2.64 Factors that influence professional judgment when assessing the degree to which a particular view can accommodate change arising from a particular development, without detrimental effects, would typically include judgements about the susceptibility of visual receptors to change and the value attached to views.
- A2.65 Judgements of susceptibility of visual receptors to change is mainly a function of the occupation or activity of people experiencing the view at particular locations, and the extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations.
- A2.66 Judgements of value attached to views take into account recognition of the value attached to particular views, e.g. heritage assets, or through planning designations and indicators of the value attached to views by visitors, e.g. guidebooks, tourists maps and interpretative material.
- A2.67 **Table EDP A2.5** provides an indication of the criteria by which both the susceptibility and value are combined to define the overall sensitivity of visual receptors.



**Table EDP A2.5:** Overall Sensitivity Criteria for Visual Receptors

Category	Visual Receptor Criteria
Very High	<p>Designed view (which may be to or from a recognised heritage asset or other important viewpoint), or where views of the surroundings are an important contributor to the experience. Key promoted viewpoint e.g. interpretative signs. References in literature and art and/or guidebooks tourist maps. Protected view recognised in planning policy designation.</p> <p>Examples may include views from residential properties, especially from rooms normally occupied in waking or daylight hours; national public rights of way e.g. National Trails and nationally designated countryside/landscape features with public access which people might visit purely to experience the view; and visitors to heritage assets of national importance.</p>
High	<p>View of clear value but may not be formally recognised e.g. framed view of high scenic value, or destination hill summits. It may also be inferred that the view is likely to have value e.g. to local residents.</p> <p>Examples may include views from recreational receptors where there is some appreciation of the landscape e.g. golf and fishing; local public rights of way, access land and National Trust land, also panoramic viewpoints marked on maps; road routes promoted in tourist guides for their scenic value.</p>
Medium	<p>View is not promoted or recorded in any published sources and may be typical of the views experienced from a given receptor.</p> <p>Examples may include people engaged in outdoor sport other than appreciation of the landscape e.g. football and rugby or road users on minor routes passing through rural or scenic areas.</p>
Low	<p>View of clearly lesser value than similar views experienced from nearby visual receptors that may be more accessible.</p> <p>Examples may include road users on main road routes (motorways/A roads) and users of rail routes or people at their place of work (where the place of work may be in a sensitive location). Also views from commercial buildings where views of the surrounding landscape may have some limited importance.</p>
Very Low	<p>View affected by many landscape detractors and unlikely to be valued.</p> <p>Examples may include people at their place of work, indoor recreational or leisure facilities or other locations where views of the wider landscape have little or no importance.</p>

### **Magnitude of Change**

A2.68 The magnitude of the change to a view is a judgement based on a series of parameters, listed below. A professional judgement of the magnitude of change is reached by fieldwork observation, which can be supported by cross sections and computer-generated visualisations and/or 3D models, where appropriate. Magnitude is determined by evaluating the following parameters:

- **Size or scale**, taking into account change with respect to loss or additions of features in the view and changes in its composition, including the proportion of the view occupied by the proposals. In addition, the degree of contrast or integration with any new features or changes in the landscape in terms of form, scale and mass, line, height, colour and texture are considered. Finally, the nature of the view is considered e.g. full, partial or glimpsed;
- **Geographical extent** will vary with different viewpoints and is likely to reflect the angle of view in relation to the main activity of the receptor; the distance of the viewpoint from the proposed development and the extent of the area over which the changes would be visible; and
- **Duration and reversibility** of visual effects as set out for the landscape effects above.

A2.69 For the visual receptors identified, the factors above are examined independently and the findings judged in accordance with the indicative categories below in **Table EDP A2.6**.

**Table EDP A2.6:** Scale of Change Criteria for Visual Receptors

Category	Visual Receptor Criteria
Very High	There would be a substantial change to the baseline, with the proposed development creating a new focus and having a defining influence on the view.
High	The proposed development will be clearly noticeable and the view would be fundamentally altered by its presence.
Medium	The proposed development will form a new and recognisable element within the view which is likely to be recognised by the receptor.
Low	The proposed development will form a minor constituent of the view being partially visible or at sufficient distance to be a small component.
Very Low	The proposed development will form a barely noticeable component of the view, and the view whilst slightly altered would be similar to the baseline situation.

A2.70 The criteria by which the geographical extent of the area will be affected within this assessment for visual receptors are:

- Direct views at close range with changes over a wide horizontal and vertical extent;
- Direct or oblique views at close range with changes over a notable horizontal and/or vertical extent;
- Direct or oblique views at medium range with a moderate horizontal and/or vertical extent of the view affected;
- Oblique views at medium or long range with a small horizontal/vertical extent of the view affected; and

- Long range views with a negligible part of the view affected.

### **Defining Visual Effects**

- A2.71 The assessment of effects on visual amenity draws on the predicted effects of the development, the landscape and visual context, and the visibility and viewpoint analyses, and considers the significance of the overall effects of the proposed development on the visual amenity of the main visual receptor types in the study area.
- A2.72 To define the significance of an effect, the separate judgements about the sensitivity of the receptors and the magnitude of change at those receptors need to be combined to allow a final judgement to be made about whether each effect is significant in terms of the EIA Regulations, or not. This is undertaken within this assessment, in the first instance, using a matrix which combines the two facets to determine a level of effect. Further professional judgement is applied, relevant to the development and its location, to finalise the level of effects and thus its significance.

### **Significance of Landscape and Visual Effects**

- A2.73 The purpose of the assessment process is to identify the significant environmental effects (both beneficial and adverse) of the development proposals. For proposals subject to a full EIA, Schedule 4 to the EIA Regulations specifies the information to be included in all environmental statements, which should include a description of:

*"the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development."*

- A2.74 In order to consider the likely significance of any effect, the sensitivity of each receptor is combined with the predicted magnitude of change to determine the significance of effect, with reference also made to the geographical extent, duration and reversibility of the effect within the assessment. Having taken such a wide range of factors into account when assessing sensitivity and magnitude at each receptor, the significance of effect can be derived by combining the sensitivity and magnitude in accordance with the matrix in **Table EDP A2.7**.

**Table EDP A2.7:** Significance Matrix for Landscape and Visual Effects

Overall Sensitivity	Overall Magnitude of Change				
	Very High	High	Medium	Low	Very Low
Very High	<b>Substantial</b>	<b>Major</b>	<b>Major/ Moderate</b>	<b>Moderate</b>	Moderate/ Minor
High	<b>Major</b>	<b>Major/ Moderate</b>	<b>Moderate</b>	Moderate/ Minor	Minor
Medium	<b>Major/ Moderate</b>	<b>Moderate</b>	Moderate/ Minor	Minor	Minor/ Negligible
Low	<b>Moderate</b>	Moderate/ Minor	Minor	Minor/ Negligible	Negligible
Very Low	Moderate/ Minor	Minor	Minor/ Negligible	Negligible	Negligible/ None

A2.75 Each effect is described and evaluated individually through the integration of all of the relevant factors and assessed as either **significant** or **not significant**. For landscape and visual effects, those effects identified at a substantial, major, major/moderate or moderate level (shown in bold in **Table EDP A2.7**) are generally considered to be **significant** and those effects assessed at a moderate/minor, minor, minor/negligible or negligible level are considered to be **not significant**.

A2.76 In certain cases, where additional factors may arise, a further degree of professional judgement may be applied when determining whether the overall change in the view will be significant or not and, where this occurs, this is explained in the assessment.

### Definition of Effect

A2.77 Taking into account the levels of effect described above, and with regard to effects being either adverse or beneficial, the following table represents a description of the range of effects likely at any one receptor.

**Table EDP A2.8:** Definition of Effect

Effect	Definition
<b>Substantial</b>	Changes resulting in a complete variance with the landscape resource or visual amenity
<b>Major</b>	Changes resulting in a fundamental change to the landscape resource or visual amenity
<b>Moderate</b>	A material but non-fundamental change to the landscape resource or visual amenity
<b>Minor</b>	A slight but non-material change to the landscape resource or visual amenity
<b>Negligible</b>	A detectable but non-material change to the landscape resource of visual amenity
<b>None</b>	No detectable change to the landscape resource or visual amenity

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### **Nature of Effect**

- A2.78 It is a requirement of the EIA Regulations to state whether effects are adverse, beneficial or neutral. The landscape effects will be considered against the landscape baseline, which includes published landscape strategies or policies if they exist.
- A2.79 Visual effects are more subjective as people's perception of development varies through the spectrum of negative, neutral and positive attitudes. In the assessment of visual effects the assessor will exercise objective professional judgement in assessing the significance of effects and will assume, unless otherwise stated, that all effects are adverse, thus representing the worst-case scenario.

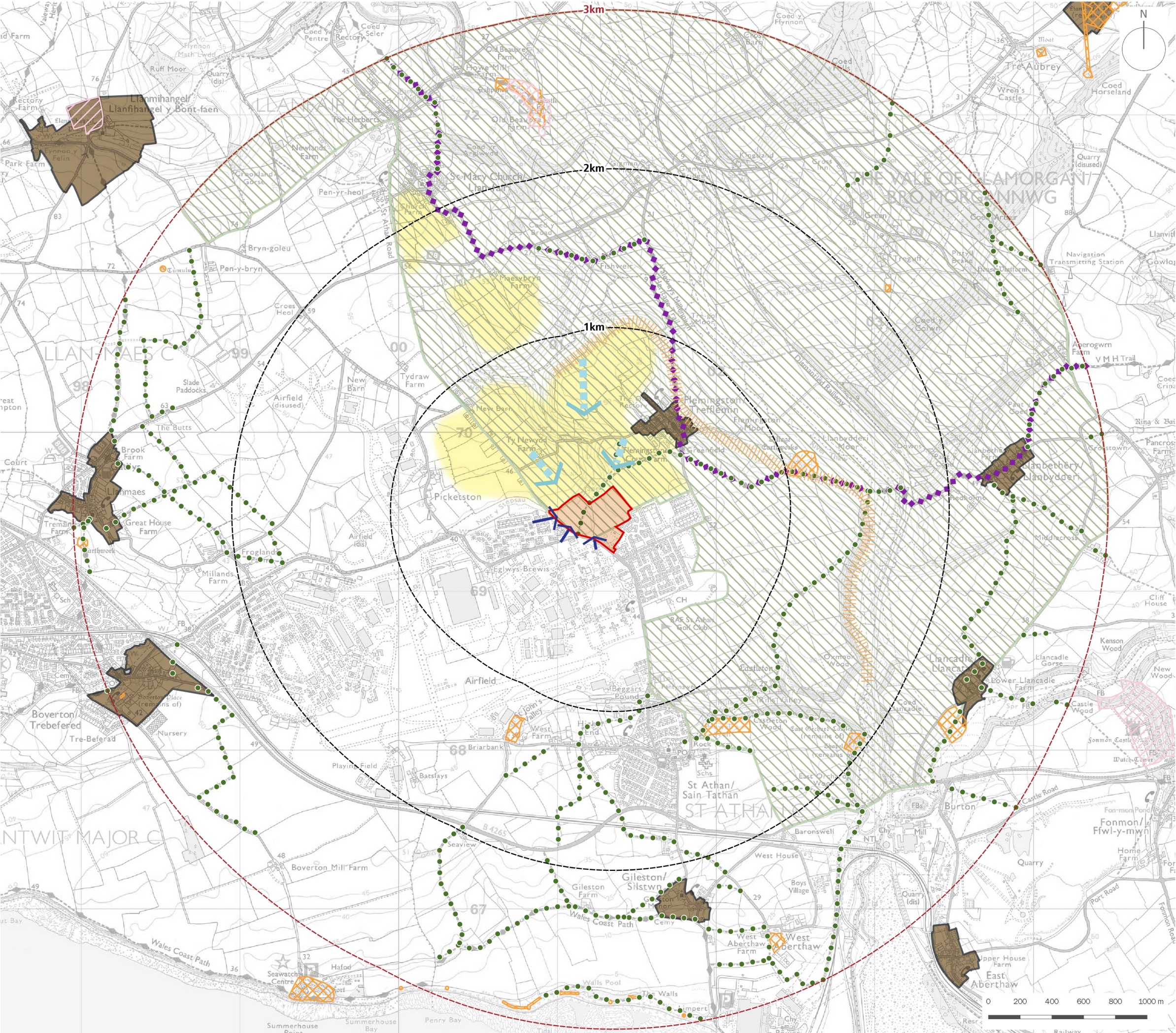
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## Plans

**Plan EDP 1:** Landscape Planning Considerations and Visual Envelope  
(EDP3504/09a 26 May 2017 MD/LH)

**Plan EDP 2:** Zone of Theoretical Visibility and Viewpoint Locations  
(EDP3504/12 26 May 2017 MD/LH)

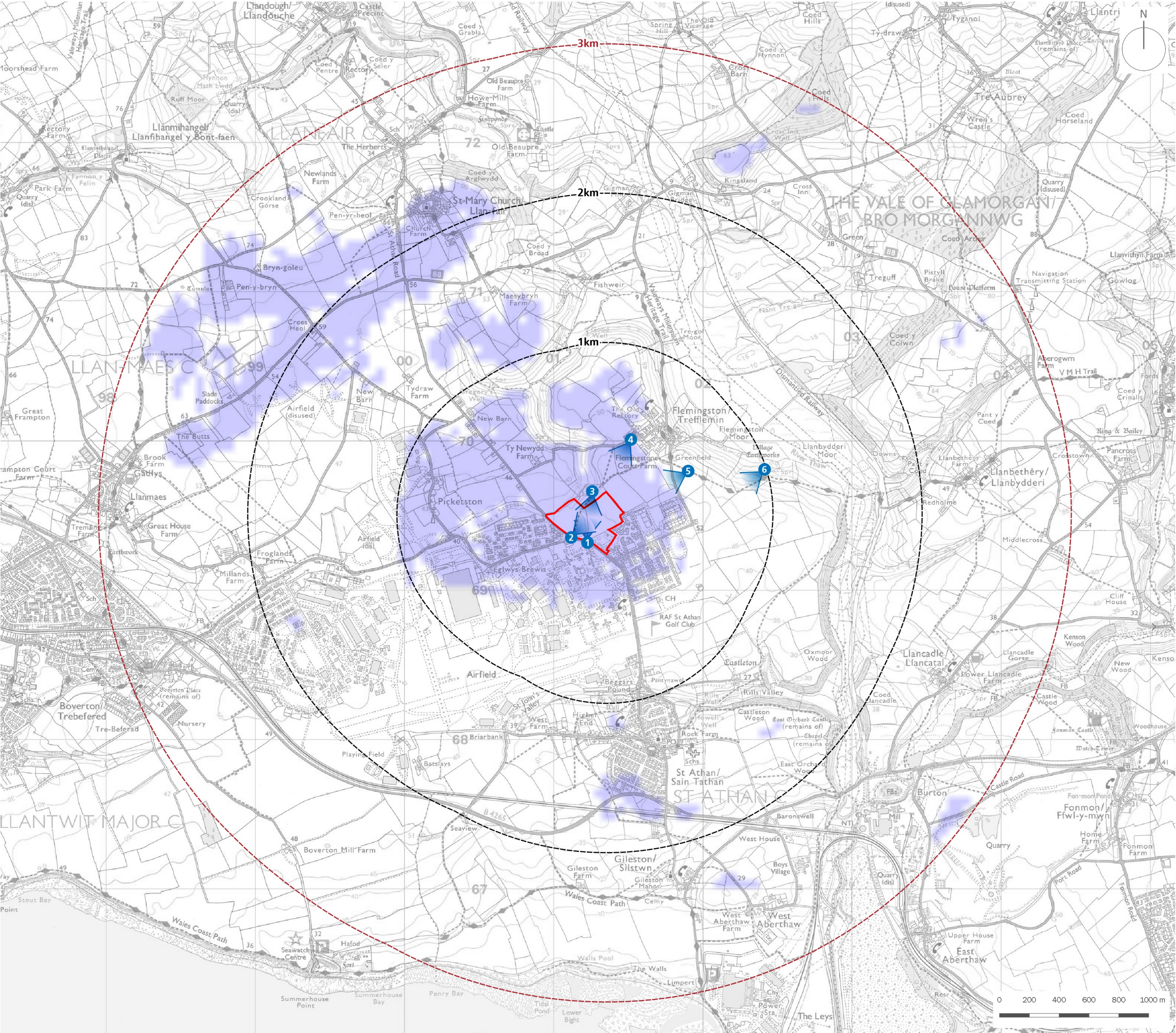




- Site Boundary
- Range Rings (at 1km intervals)
- 3km Detailed Study Area
- Valeways Millennium Heritage Trail
- Public Rights of Way
- Historic Parks and Gardens
- Scheduled Monument
- Conservation Area
- Local Ridgelines
- Approximate Extent of Visual Envelope
- SLA 2: Upper & Lower Thaw Valley
- MG 2 (5) Site Allocation
- Likely View Towards The Site
- Open Close Range Views into the Site

client		
Edenstone Homes Ltd		
project title		
Land off Cowbridge Road, St. Athan, Vale of Glamorgan		
drawing title		
Plan EDP 1: Landscape Planning Considerations and Visual Envelope		
date	26 MAY 2017	drawn by LH
drawing number	EDP3504/09a	checked MD
scale	Refer to Scale Bar	QA MC





Site Boundary

Range Rings (at 1km Intervals)

3km Detailed Study Area

Viewpoint Locations

client

Edenstone Homes Ltd

project title

Land off Cowbridge Road, St. Athan, Vale of Glamorgan

drawing title

Plan EDP 2: Zone of Theoretical Visibility and Viewpoint Locations

date

26 MAY 2017

drawn by

LH

drawing number

EDP3504/12

checked

MD

scale

Refer to Scale Bar

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## Photoviewpoints

**Photoviewpoint EDP 1:** View from Cowbridge Road adjacent to MOD St. Athan north-east towards the site  
(EDP3504/11 26 May 2017 LH/MD)

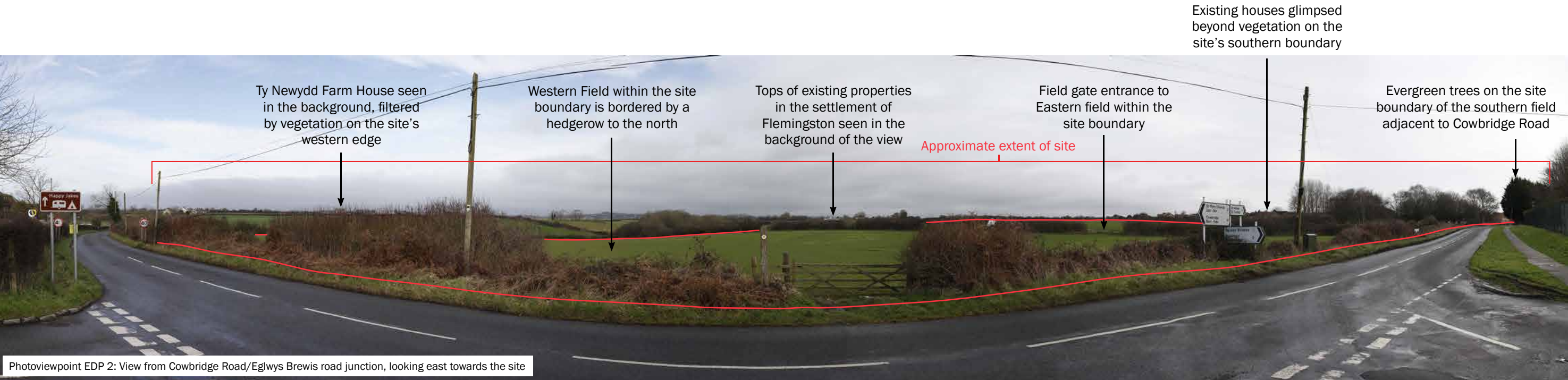
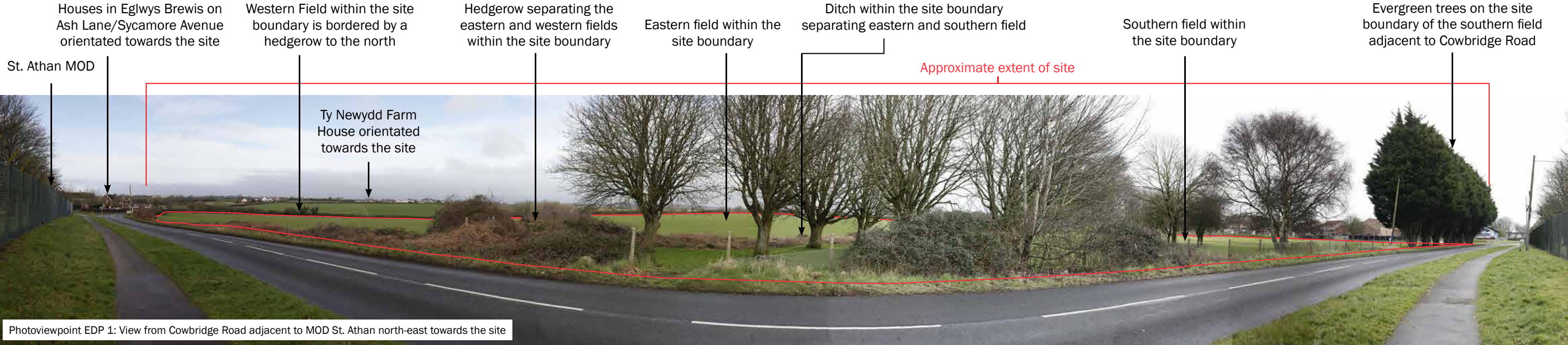
**Photoviewpoint EDP 2:** View from Cowbridge Road/Eglwys Brewis road junction, looking east towards the site  
(EDP3504/11 26 May 2017 LH/MD)

**Photoviewpoint EDP 3:** View from PRoW to the north of the site boundary, looking south towards the site  
(EDP3504/11 26 May 2017 LH/MD)

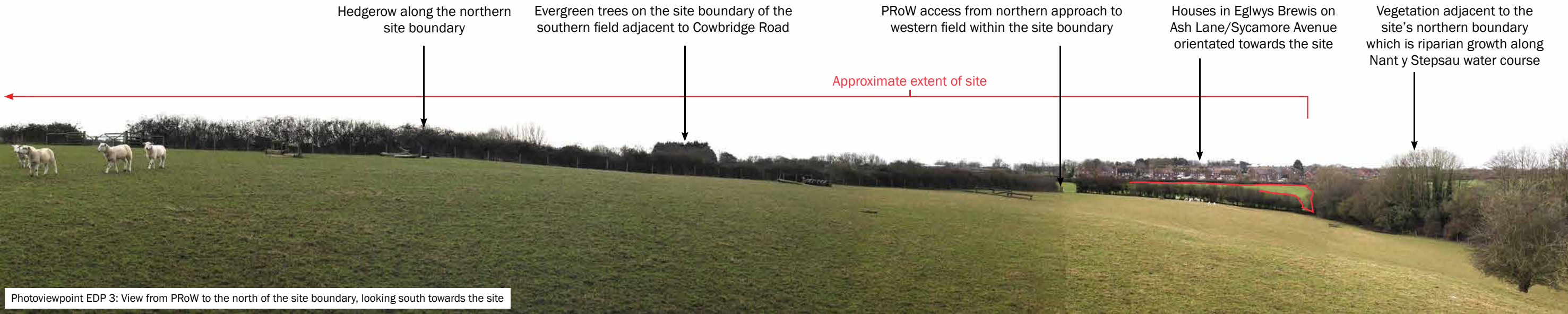
**Photoviewpoint EDP 4:** View from Flemingston Conservation Area (CA), looking south-west towards the site  
(EDP3504/11 26 May 2017 LH/MD)

**Photoviewpoint EDP 5:** View from Valeways Millennium Heritage Trail, looking south-west towards the site  
(EDP3504/11 26 May 2017 LH/MD)

**Photoviewpoint EDP 6:** View from Deserted Village Scheduled Monument, looking west towards the site  
(EDP3504/11 26 May 2017 LH/MD)







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VP Location: Date Taken: Lens: Viewing Distance:  
VP 3: 301258, 169664 16/02/17 50mm 300mm  
VP 4: 301517, 170011 16/02/17 50mm 300mm

date 26 MAY 2017  
drawing number EDP3504/11  
drawn by LH  
checked MD  
QA MC

client Edenstone Homes Ltd  
project title Land off Cowbridge Road, St. Athan, Vale of Glamorgan  
drawing title Photoviewpoints EDP 3 and EDP 4



