enviroparks

APPENDIX 12.1

Landscape and visual methodology

Chapter Twelve
APPENDIX 12.1

LANDSCAPE AND VISUAL METHODOLOGY

12.1 This assessment has been undertaken in accordance with:

- **The Guidelines for Landscape and Visual Impact Assessment** (third edition), published April 2013 by the Landscape Institute and Institute of Environmental Management and Assessment; and
- **Photography and Photomontage in Landscape and Visual Impact Assessment** (Advice Note 01/11), published February 2011 by the Landscape Institute.

12.2 The assessment considers two separate (but inter-related) components:

- Effects on **the Landscape**; and
- Effects on **Views**.

12.3 As the two components are inter-related, the assessment of one has been undertaken alongside the other and this resultant document referred to as the **Landscape and Visual Impact Assessment (LVIA)**.

12.4 The assessment process aims to:

- Establish the baseline situation;
- Identify potential sources of direct and indirect impact;
- Identify impact receptors and estimate their sensitivity;
- Estimate the magnitude and nature of effects;
- Appraise alternatives and indicate additional/alternative measures of impact avoidance, mitigation or offset, where possible;

- Re-estimate the magnitude and nature of effects; and

- Provide an assessment of the significance of the mitigated effects and relate this back to the relevant Landscape Planning Policies.

12.5 In the presentation of this assessment, item 5 in the list above has been summarised only, in the interests of conciseness, i.e. the assessment of alternativeness is not presented in detail within this report.

12.6 The assessment includes a combination of objective and subjective judgements. Subjective judgements are avoided where possible, focussing on what would be *experienced* rather than making assumptions regarding people's expected *responses*.

12.7 The assessment allows for worst-case scenarios, although indications are given as to the effects under 'normal conditions' also, e.g. seasonal effects of vegetation.

12.8 No specific assessment has been made, in this report, of impacts on the historic landscape character of the area or any cultural heritage receptors such as Conservation Areas, Scheduled Monuments and Listed Buildings.

12.9 The detailed assessment process and terminology used is **specific to this assessment**. This is further described below with the intended meaning of some specific terms explained in the glossary provided.

BASELINE SITUATION – GENERAL

12.10 Both the landscape and visual assessment components have been undertaken against a set of Baseline Conditions (the **Baseline Situation**), which has been established during the first stage of the assessment process, using a combination of desk study and field survey work. This provides a transparent basis from which assessment results have been determined and against which professional judgements have been made.

12.11 The baseline used may be different for the landscape and visual impact assessment of specific development proposals assessed:

- In isolation (i.e. where development is assessed on its own merits); and

- Where applicable, in combination with other developments creating a similar effect (i.e. the cumulative landscape and visual effects of a number of similar developments).

12.12 The baseline used has been detailed in the assessment assumptions, in the relevant section.

12.13 The study of the Baseline Situation includes a review of available document sources (e.g. published Landscape Character Assessments, landscape policy guidance), Ordnance Survey map data, historical maps, aerial photographs and the undertaking of a field survey.

12.14 During the field survey, the principal landscape elements and features were recorded which, depending on their prominence and importance, contribute to the overall character of the area. Typical elements may include landform, land use, watercourses, vegetation, built development/infrastructure and routes or areas of public access.

12.15 A check of the likely visibility of the development proposals is also made during the field survey, with a photographic record made and visual receptor information noted.

BASELINE SITUATION – LANDSCAPE ASPECTS

12.16 A description of the landscape characteristics is provided in relation to the Site itself and the surrounding landscape with reference to the published LANDMAP aspect areas.

Baseline Situation – Visual Aspects

Zones of Theoretical Visibility (ZTVs)

12.17 The visual baseline includes examination of the visibility of the existing Site and the proposals using ZTV computer analyses and the use of photographic records from field studies, limited to an area within which there lies the potential for significant visual effects to occur. The main study area for this assessment covers an area up to a distance of circa 5 kilometres from the Site boundary.

12.18 The ZTV examinations have been determined using a combination of computer-aided ground modelling software and 3D Ordnance Survey data (allowing for buildings, woodland blocks, curvature of the earth and atmospheric refraction). The ZTV does not take into account other topographical features such as tree belts, individual trees and hedgerows.

Viewpoints

12.19 During the field study, which was undertaken in December 2016, a photographic record was made to represent the range of potential views towards the Site, from available viewpoints within the study area. These locations are mapped, the visual receptor types recorded and viewpoint landscape context described. No access to private properties has been obtained during the field study.

12.20 The photographs have been taken using a Canon EOS 5D SLR camera using a 50mm focal length (35mm format equivalent) lens.

12.21 From the record of identified visual receptors and general visibility viewpoints have been determined and used in the assessment process. These have been included to reflect the locations which represent a range of available views and which are typically representative of views that may have the potential to incur significant visual effects.

12.22 The photographs used to illustrate the assessment have been ‘stitched’ together using digital imaging software to provide a ‘panorama image’, thus providing a visual context to the focus of the centre photograph. The photographs have been corrected for lens distortion and to correct changes of scale across the photograph and a cylindrical projection used to ensure consistency of scale across the panorama, vertically and horizontally when viewed on printed paper.

ASSESSMENT OF LANDSCAPE EFFECTS

General

12.23 Landscape receptors can be described in a number of ways. Landscape effects derive from changes to landscape receptors which include the physical landscape (**landscape elements**), which may give rise to change in how the landscape is experienced. These individual contributors to landscape character are termed '**landscape characteristics'**. Areas with similar landscape characteristics can be described as having a certain **landscape character** or of being a particular **Landscape Character Type (LCT)**. Where these are specific to a geographical area they are referred to as **Landscape Character Areas (LCAs)**. These can be described and categorised at different scales depending on criteria used. LANDMAP (the National Landscape Character Assessment for Wales) contains Aspect Areas within the 5 layers that are described in more detail within the LVIA Chapter.

12.24 The context of a location, in its wider setting, can influence the experience of the landscape and therefore its landscape character. Therefore, changes in the landscape character at one location can potentially affect the context of another landscape character type. In certain situations this can have an effect on the setting of valued or important landscape elements.

12.25 The landscape impact assessment describes the likely nature and scale of changes to individual landscape elements and characteristics and the consequential effect on the landscape character in relation to the development site itself and on the wider landscape. Due to the inherently dynamic nature of the landscape, it can be accepted that change arising from a development may not necessarily be significant.

LANDSCAPE SENSITIVITY

12.26 **Landscape sensitivity** can vary for landscape characteristics and landscape character. The specific sensitivity of landscape character to change is referred to as **landscape character sensitivity**.

12.27 Landscape (character) sensitivity relates to the combination of:

- The (non-monetary) **value** of the landscape receptors, which is established at the baseline stage; and
- The **susceptibility** of the landscape receptors to change in relation to the Proposed Development.

Landscape Value

12.28 Value of landscape receptors is affected by a number of factors and the values are attributed in accordance with the LANDMAP published assessment evaluations contained at Appendix 12.2 as follows:

- Outstanding = Very High
- High = High

- Moderate = Medium

- Low = Low (or Very Low)

Landscape Susceptibility

12.29 Susceptibility refers to the ability of landscape receptors to accommodate changes brought about by the Proposed Development. Relevant criteria are provided in 0.

Table 11: Susceptibility to Change of Landscape Receptors

Susceptibility	Relevant Criteria
Very High	Key landscape characteristics highly susceptible to change and very difficult to replace without affecting the existing character. Strong landscape structure with many distinct characteristics worthy of conservation.
High	Landscape characteristics susceptible to change and fairly difficult to mitigate without affecting the existing character. Typically of recognisable landscape structure and some features worthy of conservation.
Medium	Landscape characteristics with a degree of susceptibility to change; some scope to replace these elements without adversely affecting the character. Distinguishable landscape structure, few or no features worthy of conservation; may contain occasional detracting features.
Low	Landscape characteristics of low susceptibility to change or easily replaced and potentially enhanced. Weak landscape structure or transitional in nature; some evidence of degradation and a number of detracting features.
Very Low	Landscape characteristics are not susceptible to change. High probability to mitigate or replace the lost elements and to enhance the existing landscape. Damaged landscape structure, evidence of severe disturbance or dereliction; detracting features dominate.

Assessment of Landscape Sensitivity

12.30 Landscape Susceptibility and Landscape Value are then assessed in combination to provide an overall rating in terms of Landscape Sensitivity, with professional judgement applied. Typical examples include where a Medium Susceptibility and a Medium Landscape Value results in a Medium Landscape Sensitivity. A High Susceptibility and Low Landscape Value typically result in a Medium Sensitivity and a High Susceptibility and a High Landscape Value would typically result in a High Landscape Sensitivity.

Magnitude of Landscape Effects

12.31 The Magnitude of change is concerned with the scale of change to the landscape characteristics, the geographical extent of this change and the duration/reversibility of the changes. The magnitude of landscape effects have been categorised as follows in 0.

Table 12: Magnitude of Landscape Effects

Magnitude of Landscape Effect	Landscape Criteria
Very Large	Typically, large scale changes and/or numerous changes to important landscape characteristics
Large	Typically, large scale changes to some landscape characteristics, or a high number of medium scale changes to the landscape characteristics
Medium	Typically, some medium scale changes to some landscape characteristics
Small	Typically, a low number of medium scale changes to landscape characteristics, or a number of small scale changes to landscape characteristics
Very Small	Typically, occasional, small scale changes to unimportant landscape characteristics

12.32 In general, the duration weighting applied to magnitude is as follows:

- Very Long term effect: 15+ years
- Long term effect: 8 to 15 years
- Medium term effect: 3 to 8 years
- Short term effects: 1.5 to 3 years
- Temporary effect: Less than 18 months

12.33 Where variations between relevant criteria, duration etc. occur, reasoned professional judgement is applied and described in the assessment to determine the magnitude of effect.

NATURE OF LANDSCAPE EFFECT

12.34 Changes to landscape characteristics can be of a **positive**, **negative** or **neutral** nature. The determination of the nature of effect on landscape receptors is related to the Baseline Situation and what is recognised to be either a desirable or an undesirable change (e.g. from assessments of landscape quality, landscape policy guidance). A neutral effect may occur, for example, if a characteristic element is replaced with a different but equally characteristic element. Therefore, it is possible for there to be a large magnitude of change but with a neutral effect overall. All effects are considered to be **negative** unless otherwise stated.

SIGNIFICANCE OF LANDSCAPE EFFECTS

12.35 The significance of a landscape effect (from an impact) is a function of the sensitivity of the affected landscape receptor, the magnitude of change and the nature of effect. While the methodology is designed to be robust and transparent, professional judgement is ultimately applied to determine the significance of each effect.

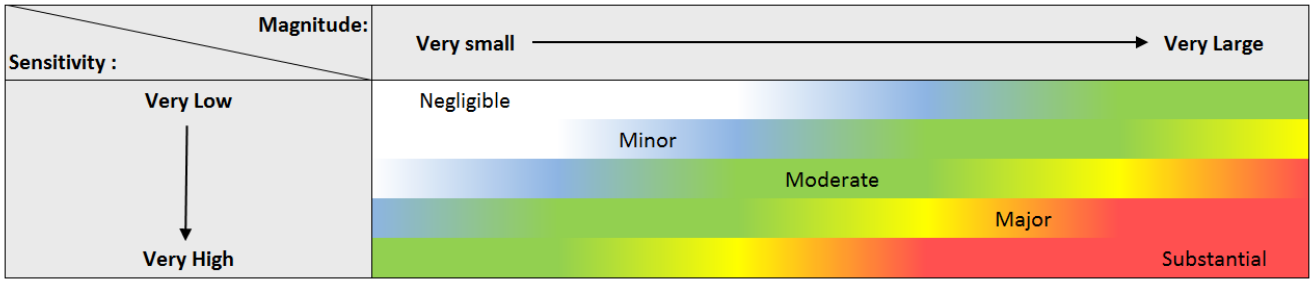
12.36 The degree of landscape significance is defined in 0. These are different for beneficial and adverse effects. Generally, an effect, which is greater than 'Moderate', is likely to be Significant and a 'material consideration' in the decision-making process.

Table 13: Significance of Landscape Effects

Significance	Adverse Landscape Effects	Beneficial Landscape Effects
Negligible	Overall, typically, there may be some Small scale, Short-term impacts but virtually no lasting adverse effect on existing landscape character.	Overall, typically, there may be some Small scale Short-term positive impacts but virtually no lasting beneficial effect on existing landscape character
Minor	Typically: Some Small-Medium scale effects on existing landscape character in poor condition. Very Small or Temporary changes to Medium sensitivity landscape. Minimal effect on landscape character.	Overall, typically, landscape character and condition is slightly improved via strengthening of some valued characteristic landscape elements for a Long-term duration, in high and Very High sensitivity landscapes where limited scope to provide improvement exists, or Some shorter duration improvements to landscapes of lower sensitivity
Moderate	Typically: Large scale and Long term changes to landscapes and/or landscape receptor of low sensitivity. Some Medium scale changes to Medium sensitivity landscape and/or landscape receptor. Very Small or Temporary changes to highly sensitive landscape and/or landscape receptor. Noticeable effect on the landscape and/or landscape receptor without exceeding the landscape capacity threshold.	Overall, typically, landscape character and condition is improved via the introduction of characteristic landscape elements and the removal of incongruous landscape elements: Permanently and greatly in highly sensitive areas; For a number of characteristics for a Medium-Long-term duration in areas of Medium landscape sensitivity; For a small number of characteristics for a Short-Medium-term duration in lower sensitivity landscapes
Major	Typically: Numerous Long-term effects on Medium sensitivity landscape and/or landscape receptor. Small permanent effects on highly sensitivity landscape and/or landscape receptor. Landscape receptor and/or character is affected to a significant degree.	Overall, typically, landscape character and condition is significantly improved via removal of some existing incongruous landscape elements and introduction/restoration of some valued characteristic landscape elements in lower and Medium sensitivity landscapes where much scope to provide improvement exists
Substantial	Proposals are at complete variance with many key characteristics of a very highly valued landscape.	Proposals would remove substantial numbers of existing incongruous landscape elements and introduce a number of highly desirable landscape elements to substantially restore an area of landscape character of high potential landscape value for a Very Long-term period

12.37 The derivation of the level of significance (of effect) uses professional judgement taking into consideration the contributing factors of sensitivity, magnitude and nature of effect and generally follows a pattern by which the relationship between sensitivity and magnitude contributes to the level of significance as shown in **Diagram 1** below. It should be noted that only *Significant* effects need to be determined, not the assessed level of the effect, however it is acknowledged that levels of effects can be a useful aid when reading and understanding the assessment.

Diagram 1: General Relationship Between Magnitude, Sensitivity and Significance



Moderate or less:	Not significant
Moderate - Major:	Potentially significant - (use professional judgement and justify if not significant)
Major and Substantial:	Significant

ASSESSMENT OF VISUAL EFFECTS

General

12.38 Visual effects relate to the experienced changes that arise in the composition of available views due to changes in a landscape scene, and to the overall effects with respect to visual amenity. Effects are defined as the relationship between the **visual sensitivity**, the **magnitude of change** and the **nature** of the effect.

Visual Sensitivity

12.39 The sensitivity of the visual receptor will be influenced by the **value** attached to views (which is established at the baseline stage) and the **susceptibility to change**, in relation to the development proposed.

12.40 Judgements on **value** take into account any recognised importance of the view (e.g. in relation to valued landscapes or features, or through planning designations) and any indicators of value attached to views by visitors e.g. guidebooks and tourist maps.

12.41 **Susceptibility to change**, in relation to the development proposed, is influenced by the following factors:

- Location and context of the viewpoint;
- Characteristics of the view, e.g. whether it is continuous or intermittent and static or transient; and
- The activity or expectations of the receptor at the viewpoint.

12.42 In terms of private residential receptors, whilst it is an accepted planning principle that there is 'no right to a view' residents are recognised as having the potential to be particularly susceptible to changes in their visual amenity. Locations (rooms) normally used in waking or daylight hours are usually considered more sensitive than other locations.

12.43 The indicative terminology in 0 was used as a guide to describe sensitivity with regard to **visual** receptors.

Table 14: Sensitivity of Visual Receptors

Visual Sensitivity	Value and Susceptibility to Change Criteria	Typical Receptor Types/Locations
Very High	Prominent location or vista with high visual amenity **value** that is recognised in published sources. Very high **susceptibility to change** as a very high level of attention focussed on the landscape and particular views.	Protected View/s recognised in planning policy designation. Private views from primary living space regularly used in daylight hours where the focus is on a landscape of recognised very high value.
High	Well-known area, typically designated for scenic value or otherwise recognised for a high landscape **value**. High **susceptibility to change** as a high level of attention focused on the landscape and particular views.	Users of promoted recreational or well-used footpath routes and open access land where primary enjoyment is from the landscape and visual amenity. Private views from main living space or property curtilage regularly used where the focus is on the landscape of a high value beyond the private curtilage.
Medium	Locations afford views of some **value**, but visual amenity not well recognised beyond locality. Moderate **susceptibility to change** as a moderate level of attention focussed on the landscape and particular views.	Main access routes (road and rail routes) with some landscape interest. Views from recreational sport areas which may involve some incidental appreciation of views of the wider landscape, e.g. golf or fishing. Private views from residential properties from rooms not normally occupied in waking or daylight hours, e.g. bedrooms.

Low	Viewpoint context and location is of lesser **value** than similar views from nearby visual receptors that may be more accessible. Low **susceptibility to change** as low level of attention focussed on the landscape and particular views.	Views from recreational sport areas which does not involve or depend upon appreciation of views of the landscape, e.g. football, rugby, speedway. Minor road routes where passengers would have limited focus on a landscape of no recognised value. People at their places of work where the main focus is not on the surrounding landscape context.
Very Low	Viewpoint context is such that views have a very low **value**. Expectations of visual amenity are very low. Activity at viewpoint is incidental to the view.	People at their place of work where there the type of activity has no relationship to the surrounding landscape context.

MAGNITUDE OF VISUAL EFFECTS

12.44 The magnitude or scale of visual change is described by reference to:

- Scale of Change;
- Geographical Extent; and
- The Duration and Reversibility of the effect.

12.45 The Scale of Change takes into account the loss or addition of features in the view and changes in the composition of the view including the proportion of the view occupied by the Proposed Development. The extent of contrast or integration of any new features or changes in the landscape scene with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture is also considered.

12.46 The 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 proximity of the viewpoint to the Proposed Development; and
- The extent of the area over which the changes would be visible.

12.47 Viewpoint proximity to the Site was classed as follows:

- Close-range: Within 0.5km
- Medium-range: Between 0.5km and 1km

- Long-range: Over 1km

12.48 In general, the Duration and reversibility considerations applied to magnitude are as follows:

- Very Long term effect: 15+ years
- Long term effect: 8 to 15 years
- Medium term effect: 3 to 8 years
- Short term effects: 1.5 to 3 years
- Temporary effect: Less than 18 months

12.49 The terminology in 0 was adopted for the definition of magnitude of visual effects:

Table 15: Magnitude of Visual Effects

Magnitude of Visual Effect	Visual Criteria
Very Large	Where the proposals become the only dominant feature in the view and to which all other elements become subordinate. Typically involves direct views at close range over a wide horizontal and vertical extent.
Large	Where the proposals would form a significant and immediately apparent element of the scene and would affect the overall impression of the view. Typically involves direct or oblique views at close range with notable changes over the horizontal and vertical extent.
Medium	Where proposals would form a visible and recognisable new development but where it is not intrusive within the overall view. Typically involves direct or oblique views at medium range with a moderate horizontal and/or vertical extent of the view affected.
Small	Where proposals constitute only a minor component of the wider view, where awareness does not affect the overall quality of the scene. Typically involves an oblique view at medium or long range or a direct view at long range with a small horizontal/vertical extent of the view affected.
Very Small	Where only a very small part of the development is discernible or that it is at such a distance that the effects are scarcely appreciated.

12.50 Where variations between relevant criteria occur, reasoned professional judgement is applied and described in the assessment to determine the magnitude of effect.

NATURE OF VISUAL EFFECT

12.51 Changes to view can be of a **positive**, **negative** or **neutral** nature. The determination of the nature of effect on view is related to the Baseline Situation and what is considered to be either a desirable or an undesirable change. The assessment of the nature of visual effect focuses on what is *experienced*, although some professional judgement has (by necessity)

been applied to consider the subjective matter of whether the change could generally be received by the visual receptors as positive, negative or neutral. All changes are assumed to be **negative** unless otherwise stated.

SIGNIFICANCE OF VISUAL EFFECTS

12.52 The significance of visual effects (from an impact) is a function of the sensitivity of the affected visual receptor, the magnitude of change and the nature of effect. While the methodology is designed to be robust and transparent, professional judgement is ultimately applied to determine the significance of each effect.

12.53 The results of the assessment have been presented by providing a brief description of the existing view from each principal representative viewpoint/receptor, followed by a description of changes to the view and the landscape scene and an analysis of the magnitude and nature of the effects.

12.54 The significance of visual effects is defined in 0. These are different for beneficial and adverse effects. Generally, an effect which is greater than a 'Moderate' significance is likely to be a pertinent 'material consideration' in the decision-making process.

Table 16: Significance of Visual Effects

Significance	Adverse Visual Effects	Beneficial Visual Effects
Negligible	Adverse effect has minimal significance due to low visual amenity even from otherwise sensitive viewpoints. Produces only very slight deterioration to views.	Beneficial effect has minimal significance due to limited scope to improve existing view even from sensitive viewpoints. Provides only very slight improvement to views.
Minor	Typically: Large-very large scale deterioration to low sensitivity views of low quality. Small scale deterioration to lower and Medium sensitivity views of high quality. Very Small-Medium scale deterioration to higher sensitivity receptors with low existing visual amenity.	Typically: Medium scale improvements to existing views with high visual amenity and Medium sensitivity. Small scale improvements to views of low visual amenity from low sensitivity viewpoints. Very Small scale improvements to low quality high sensitivity views.
Moderate	Typically: Noticeable Long-term or Large scale deterioration in low sensitivity but high quality views. Medium scale deterioration to Medium sensitivity high quality views and Very Large changes to low quality views. Small scale and Temporary deterioration in Highly sensitive and high amenity value views and larger scale deterioration in low quality views.	Typically: Noticeable large-scale improvement in unimportant views with low existing visual amenity and visual sensitivity. Small to Medium scale improvements to views from Medium and High sensitivity viewpoints with low existing visual amenity. Very Small scale improvements in existing low visual amenity from Very High sensitivity viewpoints.

Major	Typically: Medium scale deterioration in High sensitivity, high quality views, or larger scale deterioration in High sensitivity but lower quality views. Small scale deterioration to higher sensitivity views of high quality. Considerable Long-term deterioration in Medium sensitivity views of high amenity value.	Typically: Large to Very Large scale improvements at Medium to High sensitivity locations. Medium to Large scale improvements to High sensitivity viewpoints with low existing visual amenity.
Substantial	Clear and obvious Very Large-scale adverse changes resulting in considerable and Long-term deterioration in Highly sensitive and important views.	Clear and obvious very large scale changes resulting in considerable and Long-term improvement in existing poor view for High sensitivity receptors.

12.55 The derivation of the level of significance (of effect) uses professional judgement taking into consideration the contributing factors of sensitivity, magnitude and nature of effect and generally follows a pattern by which the relationship between sensitivity and magnitude contributes to the level of significance as shown diagrammatically in 0. It should be noted that, strictly, *Significant* effects only need to be determined, not the assessed level of all effects, however it is acknowledged that levels of effect can be a useful aid when reading and understanding the assessment.

Diagram 2: General Relationship Between Magnitude, Sensitivity and Significance