

## **APPENDIX 7.1: DETAILED LANDSCAPE AND VISUAL IMPACT ASSESSMENT METHODOLOGY**

### **Introduction**

This assessment aims to determine the likely effects of the proposed development on the existing landscape and visual receptors in the study area. The following landscape resources and visual receptors have been assessed to establish the significance of effect:

- Physical landscape features and elements;
- Landscape character; and
- Views and visual amenity experienced by residents, recreational users (including visitors and tourists) and road users.

This assessment details the impacts that may result as a consequence of the proposed development and considers the potential of likely significant effects arising as a result.

### **Approach**

The approach and methodology used for this assessment has been developed in accordance with the guidance in the following documents:

- Landscape Institute and Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment 3rd Edition;
- Countryside Agency and Scottish Natural Heritage (2002) Landscape Character Assessment – Guidance for England and Scotland; and
- Landscape Institute Advice Note 1/11 Photography and Photomontages Guidance.

The overall approach to the identification and assessment of landscape and visual effects is summarised as follows:

- determining the scope of the assessment;
- collating baseline information for landscape and visual receptors, including completing desk study research and undertaking field based survey work;
- review the proposed development and identify and describe the likely impacts of the proposed development (enabling specific judgments to be made on sensitivity of landscape and visual receptors);
- establish the sensitivity of landscape and visual receptors (balancing judgments on susceptibility and value);
- determine the magnitude of impacts (balancing judgments on size / scale, duration and reversibility);
- the assessment of likely significant landscape and visual effects through a balanced approach and clear description of judgments on sensitivity and magnitude; and
- the identification of measures to avoid or remedy significant effects and the subsequent re-assessment of likely significant effects.

The following sections provide further detail on this approach.

### **Determining the Scope of Assessment**

#### **Spatial Scope**

The spatial scope for the assessment has been determined by a two stage approach. Firstly a 'preliminary study area' is identified. This is based on the wider setting and context of the site

and sets the broad parameters for collation of baseline information; this scope is also considered sufficient to account for the likely significant effects that will be generated by the proposed development.

The spatial scope of the preliminary study area is then refined through the initial stages of the assessment (i.e. desk study and field survey work) to focus on the key sensitive receptors and likely significant effects.

No digital visibility mapping techniques have been utilised as part of this assessment, however the visual envelope of the site has been considered through desk top analysis of topographical data combined with field surveys to investigate visual enclosure arising from landform, vegetation and built form.

### **Collating Baseline Information**

Information has been collated using desk study and field survey in order to capture a comprehensive description of the baseline position for landscape and visual receptors, including reference to published landscape character studies and a range of views and visual receptor types.

### **Desk Study**

The desk study has identified potentially sensitive landscape resources (e.g. land use, landscape character and value) by reference to OS maps and existing published landscape character studies, relevant planning policy guidance and/or designated or protected views. This stage has also enabled the identification of potential visual receptors such as public rights of way (PRoW), residential properties or designated areas.

Sources of data referred to during this process include:

- Ordnance survey mapping at 1:5,000 and 1:25,000 scale;
- the MAGIC interactive website (<http://www.magic.gov.uk/MagicMap.aspx>);
- National Character Area description (profile) NCA 96: Arden (NE 469), Natural England;
- Aerial photography of the site;
- Warwickshire Landscape Guidelines (1993); and
- Warwickshire Historic Landscape Characterisation (2010).

### **Field Survey**

Early field work provides a context for LVIA and identifies the initial opportunities and constraints for a proposed development. Field survey work for this LVIA was carried out during September 2013 and has further identified landscape features and elements that contribute to the landscape character of the area or visual receptors that will have potential views of the site.

A series of representative photographs were taken during the field work. The photographs were taken with a digital camera with a 50 mm lens (equivalent focal length) at approximately 1.6 metres in height. These are presented as a series of viewpoints (included as Viewpoints 1 to 10, **Figure 7.5**) and have been used to inform the assessment.

### **Assessment of Effects**

Having established the relevant baseline position the assessment process then completes the following specific stages:

- Evaluate the sensitivity of the landscape receptors and visual receptors, specifically in response to the type of proposed development (sensitivity of landscape resources is not standard and depends on the nature and type of development proposed);
- Identify the potential magnitude of impact on the physical landscape, on landscape character and on visual receptors;
- Combine judgments on the nature of the receptor (sensitivity) and the nature of the effect (magnitude) to arrive at a clear and transparent judgment of significance.

For both landscape effects and visual effects the final conclusions on significance are based on the combination of magnitude and significance. The rationale for the overall judgment on significance is based on the sequential combination of each of the criteria individually leading to the balance and justification of these.

The detailed thresholds and criteria for each of these stages in relation to landscape impacts and, separately, visual impacts are included below.

### Assessment of Landscape Effects

Although landscape has some intrinsic sensitivity, different landscape receptors have different elements and features that can accommodate a variety of development types. To reliably inform detailed assessment of impacts, landscape sensitivity needs to be determined with reference to the changes arising from a specific type of development. Therefore landscape sensitivity is assessed combining judgements on the value attached to a landscape and the susceptibility to the type of change or development proposed.

Landscape value is the relative value attached to a potentially affected landscape. Landscape value is relative in relation to the different stakeholders and different parts of society that use or experience a landscape. Factors that have been considered in making judgements on landscape value include designations (both national and local), local planning documents, status of features (for example TPO's or Conservation Areas) and local community and interests (for example local green spaces, village greens or allotments). Landscape value will vary in response to the specific landscape that is being considered.

The following table sets out the criteria that have been considered for determining landscape value.

Table A.1 Criteria for landscape value

Value	Criteria
High	<p>Designated areas at an International or National level (including, but not limited to, World Heritage site, National Parks, AONB's) and also considered an important component of the country's character, experienced by high numbers of tourists</p> <p>Landscape condition is good and components are generally regularly maintained to a high standard</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence / absence of major infrastructure, the landscape has an elevated level of tranquillity</p> <p>Rare or distinctive elements and features are a key component that contribute to the character of the area</p>
Medium	<p>Designated areas at a Regional or County level (including, but not limited to, green belt, regional scale parks, designated as open space or a Conservation Area in local planning documents) and also considered a distinctive component of the region/county character</p>

	<p>experienced by a large proportion of its population</p> <p>Landscape condition is fair and components are generally relatively well maintained</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence / absence of major infrastructure, the landscape has moderate levels of tranquillity</p> <p>Rare or distinctive elements and features are a notable component that contribute to the character of the area</p>
Low	<p>No formal designations but a landscape of local relevance (including, but not limited to, public or semi-public open spaces, village greens or allotments) and also green infrastructure and open spaces within residential areas likely to be visited and valued by the local community</p> <p>Landscape condition is poor and components are generally poorly maintained or damaged</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence / absence of major infrastructure, the landscape has limited levels of tranquillity</p> <p>Rare or distinctive elements and features are not a notable component that contribute to the character of the area</p>

The second component of landscape sensitivity relates to susceptibility. Landscape susceptibility to change is the ability to accommodate change without undue consequences for the maintenance of the baseline situation. In this context, the term landscape receptors can be expanded to cover overall character areas, condition of a particular landscape character type or an individual landscape element or feature. Landscape susceptibility will vary in response to the specific landscape that is being considered and to the nature of the type of change that may occur.

The following table sets out the criteria that have been considered for determining landscape susceptibility.

Table A.2: Criteria for landscape susceptibility

<b>Susceptibility</b>	<b>Criteria</b>
High	<p>Scale of enclosure – landscapes with a low capacity to accommodate the type of development proposed due to the interactions of topography, vegetation cover and built form</p> <p>Nature of land use – landscapes with no or little existing reference or context to the type of proposed development</p> <p>Nature of existing elements – landscapes with components that are not easily replaced or substituted (e.g. ancient woodland, mature trees, historic parkland)</p> <p>Nature of existing features – landscapes where detracting features or major infrastructure is not present or where present but the influence of these on the landscape is limited.</p>
Medium	<p>Scale of enclosure – landscapes with a medium capacity to accommodate the type of development proposed due to the interactions of topography, vegetation cover and built form</p> <p>Nature of land use – landscapes with some existing reference or context to the type of proposed development</p> <p>Nature of existing elements – landscapes with components that are easily replaced or substituted</p>

	Nature of existing features – landscapes where detracting features or major infrastructure is present and the influence of these on the landscape is noticeable
Low	<p>Scale of enclosure – landscapes with a high capacity to accommodate the type of development proposed due to the interactions of topography, vegetation cover and built form</p> <p>Nature of land use – landscapes with extensive existing reference or context to the type of proposed development</p> <p>Nature of existing elements – landscapes with components that are easily replaced or substituted, or where there are few/no existing elements present (e.g. cleared brownfield sites)</p> <p>Nature of existing features – landscapes where detracting features or major infrastructure is present and the influence of these on the landscape is dominant</p>

### Landscape sensitivity

Sensitivity is a term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor. Receptors can include specific elements or features or may be judged at a wider scale and include landscape character parcels, types or areas.

Having considered in detail the contributing factors to landscape value and the susceptibility of the site and surrounding area to the type of the development proposed, conclusions on landscape sensitivity can be drawn by balancing the judgements on value and susceptibility.

### Magnitude of landscape impacts

The effect on landscape receptors is assessed in relation to the size or scale of impact, the geographical extent of the change and the duration and the reversibility of the impact. The magnitude of landscape effects has been assessed in accordance with the criteria set out in the following table.

Table A.3: Criteria for determining magnitude of landscape impacts

Magnitude	Criteria
High	<p>The size and scale of change is considered large due to the extent and proportion of loss of existing landscape elements, the degree of alteration to aesthetic or perceptual aspects through change and to key characteristics which are critical to character</p> <p>Where the geographical extent would substantially influence the landscape at a regional scale, i.e. across several landscape character areas/types</p> <p>Duration of impacts would be considered long term and where the potential reversal of the impact is not likely and in practical terms would be very difficult to achieve</p>
Medium	<p>The size and scale of change is considered moderate due to the extent and proportion of loss of existing landscape elements, the degree of alteration to aesthetic or perceptual aspects through change and to key characteristics which are critical to character</p> <p>Where the geographical extent would substantially influence the landscape in the at a local scale, i.e. a single landscape character area/type (or potentially multiple areas/types where a site is located on the boundary between areas)</p> <p>Duration of impacts would be considered midterm and where the potential reversal of the impact is likely and in practical terms would be</p>

	difficult to achieve
Low	<p>The size and scale of change is considered small due to the extent and proportion of loss of existing landscape elements, the degree of alteration to aesthetic or perceptual aspects through change and to key characteristics which are critical to character</p> <p>Where the geographical extent would substantially influence the landscape in the immediate setting of the site, i.e. limited to the influence of part of a single landscape character area/type</p> <p>Duration of impacts would be considered short term and where the potential reversal of the impact is more likely and in practical terms would easily be achieved</p>
Negligible	<p>The size and scale of change is considered very small due to the extent and proportion of loss of existing landscape elements, the degree of alteration to aesthetic or perceptual aspects through change and to key characteristics which are critical to character</p> <p>Where the geographical extent would substantially influence the landscape of the site only</p> <p>Duration of impacts would be considered very short term and where the potential reversal of the impact is very likely or committed and in practical terms would very easily be achieved</p>

### Assessment of Visual Effects

Visual receptors include a particular person or groups of people likely to be affected at a specific viewpoint or series of viewpoints.

#### Visual sensitivity

Sensitivity of visual receptors is determined through balancing judgements on the value attached to a particular view against the receptors susceptibility to change in a view or visual amenity. Given the need to address the specific issues of the proposed development these factors in the context of visual sensitivity are considered as part of the assessment of visual effects.

The value attached to a view includes recognition of value through formal designations (for example planning designations or heritage assets), indicators of value attached to views by visitors (for example inclusion on maps/guide books, provision of facilities, presence of interpretation).

The susceptibility of different visual receptors to changes in views and visual amenity is judged based on the activity of people experiencing the view at any given time or location and the extent to which their attention would be focused on the view and visual amenity (rather than on the activity being undertaken).

The following table sets out the definitions of sensitivity for different visual receptors.

Table A.4: Criteria for visual sensitivity

Sensitivity	Definition
High	<p>Occupiers of residential properties</p> <p>People who are engaged in outdoor recreation in areas of open countryside, whose attention is likely to be focussed on the landscape</p> <p>Tourists and visitors to heritage asset, or other attractions, where views of the surroundings are an important contributor to the experience and visit</p> <p>Designated or protected views</p>

	People travelling through the landscape on roads, rail or other transport routes where this involves recognised scenic routes and an awareness of views and visual amenity
Medium	People who are engaged in outdoor recreation  People staying in hotels and healthcare institutions  People at work and in educational institutions where visual amenity is an important contributor to the setting and quality of working life
Low	People travelling more generally through the landscape on roads, rail or other transport routes  People at work and in educational institutions where the setting is not important to the quality of working life  People engaged in formal sports activities

### Magnitude of visual impacts

The effect on visual receptors is assessed in relation to the size or scale of impact, the geographical extent of the change and the duration and the reversibility of the impact. The magnitude of visual effects has been assessed in accordance with the criteria set out in the following table.

Table A.5: Criteria for determining magnitude of visual impacts

Magnitude	Criteria
High	The size and scale of change is considered substantial due to the extent of loss, addition or alteration of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience  The geographical extent in relation to the angle, distance and extent of visibility  Duration of impacts would be considered long term and where the potential reversal of the impact is not likely and in practical terms would be very difficult to achieve  Alteration in close proximity
Medium	The size and scale of change is considered fair due to the extent of loss or addition of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience  The geographical extent in relation to the angle, distance and extent of visibility  Duration of impacts would be considered medium term and where the potential reversal of the impact is likely and in practical terms would be difficult to achieve
Low	The size and scale of change is considered small due to the extent of loss or addition of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience  The geographical extent in relation to the angle, distance and extent of visibility  Duration of impacts would be considered short term and where the potential reversal of the impact is very likely and in practical terms would easily be achieved
Negligible	The size and scale of change is considered very small due to the extent

	<p>of loss or addition of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience</p> <p>The geographical extent in relation to the angle, distance and extent of visibility</p> <p>Duration of impacts would be considered very short term and where the potential reversal of the impact is very likely or committed and in practical terms would very easily be achieved</p>
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### Defining Significance of Effects

For both landscape effects and visual effects the final conclusions on effects are based on the combination of magnitude and sensitivity. The rationale for the overall judgement on significance is based on the sequential combination of each of the criteria individually leading to the balance and justification of these.

Detailed assessment is a means of drawing together, in a systematic way, an assessment of the likely significant environmental effects of a proposed development; however not all landscape and visual effects arising will be significant. Significant effects in the context of this assessment are described in the following sections.

Determination of the significance of an effect requires the application of [professional judgement to weigh the findings of the sensitivity of the receptor and the magnitude of the predicted impacts. The criteria for determining the significance of effects for landscape and visual effects are set out in Table A.6 and A.7, below. These criteria are based on guidance provided by the Landscape Institute.

Table A.6: Criteria for determining significance of landscape effects

<b>Significance of Effect</b>	<b>Description</b> <b>The proposed development would:</b>
Major Adverse (Negative) Effect	Be at considerable variance with the character of the landscape. Degrade or diminish the integrity of a range of characteristic features and elements. Damage the sense of place.
Moderate Adverse (Negative) Effect	Conflict with the character of the landscape. Have an adverse impact on characteristic features or elements. Diminish the sense of place.
Minor Adverse (Negative) Effect	Not quite fit the character of the landscape. Be at variance with characteristic features and elements. Detract from a sense of place.
Neutral Effect	Maintain the character of the landscape. Blend in with characteristic features and elements. Enable the sense of place to be retained.
Minor Beneficial (Positive) Effect	Complement the character of the landscape. Maintain or enhance characteristic features and elements. Enable some sense of place to be restored.
Moderate Beneficial (Positive) Effect	Improve the character of the landscape. Enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development. Enable the sense of place to be restored.
Major Beneficial (Positive) Effect	Enhance the character of the landscape. Enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development. Enable the sense of place to be enhanced.

Table A.7: Criteria for determining significance of visual effects

<b>Significance of Effect</b>	<b>Description</b>
Major Adverse	The proposed development project would cause major deterioration to



	a view from a highly sensitive receptor, and would constitute a major discordant element in the view.
Moderate Adverse	The proposed development would cause obvious deterioration to a view from a moderately sensitive receptor, or perceptible damage to a view from a more sensitive receptor.
Minor Adverse	The proposed development would cause limited deterioration to a view from a receptor of medium sensitivity, or cause greater deterioration to a view from a receptor of low sensitivity.
Negligible / Neutral	No perceptible change in the view.
Nil	There would be no view of the proposed development in the view.
Minor Beneficial	The proposed development would cause limited improvement to a view from a receptor of medium sensitivity, or would cause greater improvement to a view from a receptor of low sensitivity.
Moderate Beneficial	The project would cause obvious improvement to a view from a moderately sensitive receptor, or perceptible improvement to a view from a more sensitive receptor.
Major Beneficial	Large Beneficial The project would lead to a major improvement in a view from a highly sensitive receptor.