

## **APPENDIX 4: METHODOLOGY FOR LANDSCAPE AND VISUAL ASSESSMENT**

1. The methodology employed in carrying out the landscape and visual impact assessment of the proposals for the land to the west of Tring has been drawn from best practice guidelines and the Landscape Institute and the Institute of Environmental Management & Assessment's "Guidelines for Landscape and Visual Impact Assessment" Second Edition (Spon Press 2002). The aim of these guidelines is to set high standards for the scope and contents of landscape and visual assessments and to establish certain principles that will help to achieve consistency, credibility and effectiveness in landscape and visual impact assessment. Guidance is contained in this publication on some approaches and techniques, which have been found to be effective and useful in practice by landscape professionals. However, the guidelines are not intended as a prescriptive set of rules, and have been adapted to the specific project, and to consider the Aylesbury Vale District Council's Landscape and Visual Impact Assessment Guidance Notes and comments received from Aylesbury Vale District Council during the assessment process
  
2. Landscape and visual impact assessments may be different from other specialist studies because they are generally undertaken by professionals who are also involved in the design of the landscape and the preparation of subsequent management proposals. This can allow the assessment to proceed as an integral part of the overall scheme design rather than as a discrete study carried out once the proposals have been finalised. Landscape and visual impact assessment, in common with any assessment of environmental effects, includes a combination of objective and subjective judgements, and it is therefore important that a structured and consistent approach is used to ensure that it is as objective as possible. Judgement should always be based on training and experience, and be supported by clear evidence and reasoned argument. Accordingly, it is recommended that suitably qualified and experienced landscape professionals carry out landscape and visual impact assessments.
  
3. A typical landscape assessment could include the following illustrative material:
  - Aerial Photograph;
  - Site Context Plan;
  - Topographical Features Plan;
  - Landscape Character Plan;
  - Extracts from Landscape Character Assessment;
  - Site Appraisal Plan;

- Visual Appraisal Plan;
- Landscape Opportunities and Constraints Plan;
- Landscape and Open Space Strategy Plan;
- Site Appraisal Photographs; and
- Site Context Photographs

### **Landscape and Visual Effects**

4. This methodology describes the process used in assessing the effect of the development proposals on the landscape features and visual amenity receptors surrounding the Development Site and on the Development Site's contribution to the existing landscape character and its resource.
5. Based on Figure 2.2 (page 14) of the Guidelines for Landscape and Visual Impact Assessment the iterative approach to assessing the effects of the proposals at West Tring follows the following stages:

**STAGE 1:** Initial Project Planning, Screening, Scoping and Consideration of Alternative Sites;

**STAGE 2:** Baseline Studies;

**STAGE 3:** Conceptual Design and initial identification of potential effects and design options to mitigate potential effects;

**STAGE 4:** Design development taking account of identified potential mitigation measures to avoid negative effects;

**STAGE 5:** Final Design and assessment of effects. Consideration of residual effects;

**STAGE 6:** Planning Application.

6. Due to the existing allocation of the Site within the Core Strategy there has not been a requirement to assess alternative sites (Stage 1).
7. For the purposes of this initial Landscape and Visual Impact Assessment only Stage 2 and 3 have been carried out. Stages 4, 5 and 6 will be carried out at a later stage in the planning process.

8. Landscape and visual assessments are separate, although linked, procedures. The existing landscape and its existing visual context all contribute to the existing 'baseline' for landscape and visual assessment studies. The assessment of the potential effect on the landscape capital is carried out as an effect on an environmental resource, i.e. the landscape features or character. Visual effects are assessed as one of the interrelated effects on population.
9. Landscape effects derive from changes in the physical landscape, which may give rise to changes in its character and how this is experienced. This may in turn affect the perceived value ascribed to the landscape.
10. Visual effects relate to the changes that arise in the composition of available views as a result of changes to the landscape, to people's responses to the changes, and to the overall effects with respect to visual amenity.
11. The assessment of effects aims to:-
  - Identify systematically the likely effects of the development;
  - Indicate the measures proposed to avoid, reduce, remedy or compensate for those effects, primarily as part of the iterative design process and then as more specific mitigation measures;
  - Provide an assessment and professional judgement on the magnitude of the effects and the nature and significance of these effects in a logical and objective well-reasoned fashion.
12. Effects may be positive (beneficial), neutral (no discernible change), or negative (adverse), direct or indirect, and can be secondary or cumulative, permanent or temporary (short, medium or long term). They can also arise at different scales (local, regional or national) and have different levels of significance. These aspects are examined in more detail in later sections of the methodology.

### **Baseline Studies**

13. The initial step in any landscape or visual impact assessment is to review the existing landscape and visual resource in the vicinity of the proposed development – that is the baseline landscape and visual conditions. The data collected will form the basis from which the magnitude and significance of the landscape and visual effects of the development may be identified and assessed. The purpose of baseline studies is to record and analyse the existing landscape features, characteristics, the way the landscape is experienced, and the

condition and the value or importance of the landscape and visual resources in the vicinity of the proposed development. This requires research, classification and analysis of the landscape and visual resources as follows:-

14. The desktop study explores patterns and scale of landform, land cover and built development, which give guidance on the general landscape character of the surrounding area. Any special values that may apply, such as designated landscapes i.e. AONB, Green Belt, Conservation Areas, Listed Buildings, strategic viewing corridors, TPOs and public rights of way in the vicinity of the Development Site as appropriate and specific potential receptors of landscape and visual impact, including important components of the landscape, as well as residents, visitors, travellers through the area and other groups of viewers should also be noted.
15. The desk study provides a sound basis for subsequent field survey work including the identification of landscape character areas around the Development Site, the likely extent to which the Development Site is likely to be visible (that is the visual envelope or zone of visual influence) and principal viewpoints. The field survey identifies and records specific sensitive receptors. The term "receptor" is used in landscape and visual impact assessments to mean an element or assemblage of elements that would be directly or indirectly affected by the proposed development, including 'landscape receptors' such as vegetation features and physical areas which provide a particular sense of landscape character, and 'visual receptors' meaning particular groups of people who are likely to be affected.
16. Landscape character assessment, and particularly the stage of characterisation, is the basic tool for understanding the landscape and is the starting point for baseline surveys. There is a well established methodology developed in the UK by the Countryside Agency (now Natural England) and Scottish Natural Heritage. The baseline studies provide a concise description of the existing character of the Development Site and its surrounding landscape, and the classification of the landscape into distinct character areas or types, which share common features and characteristics. The condition of the landscape, i.e. the state of an individual area of landscape should be described as factually as possible, and a judgement also needs to be made on the value or importance to society of the affected landscape. The assessment of landscape importance includes reference to policy or designations as an indicator of recognised value, including specific features or characteristics that justify the designation of the area. This information is needed as part of the baseline to establish why the landscape is considered to be of value at a national, regional or local level.

17. The area of study for the visual assessment may extend to the whole of the area from which the Development Site and its proposed scheme is visible (the visual envelope or zone of visual influence).
18. The approximate visibility of the Development Site as existing should be determined through topographical analysis, and the actual extent of visibility checked in the field to identify and take account of the localised screening effect of buildings, walls, fences, trees, hedgerows and banks. Principal viewpoints within the area surrounding the Development Site should also be identified, and the viewpoints used for photographs selected to demonstrate the relative visibility of the Development Site (and existing features or development on it) and its relationship with the surrounding landscape and built forms. The selection of the key viewpoints should be based on the following criteria:-
- The requirement to provide an even spread of representative viewpoints within the visual envelope, and around all sides of the Development Site.
  - The requirement to provide representative viewpoints that consider a human's normal field of vision (i.e. panoramic views).
  - From locations which represent a range of near, middle and long distance views.
  - Views from both private and public viewpoints are relevant; however the representative views are taken from public vantagepoints due to restricted access to private properties.
  - Views from sensitive receptors within designated landscapes.
19. The study encompasses groups of properties, roads, public rights of way and public open space that lie within the visual envelope or zone of visual influence of the Development Site. The term "properties" includes dwellings, community facilities and places of employment. The extent of visibility of the Development Site is based on a grading of degrees of visibility, from a visual inspection of the Development Site and surrounding area in accordance with paragraphs 6.26 to 6.32 of the Guidelines for Landscape and Visual impact Assessment. There is, in any visual assessment, a continuity of degree of visibility ranging from no view of the Development Site to full open views. To indicate the degree of visibility of the Development Site from any location, including from roads, railway lines, public rights of way, public open space and properties, three categories have been used:-
- a) **Truncated / No View:** truncated / curtailed / no view of the Site or it is difficult to perceive;
- b) **Partial View:** a view of part of the Site, or a filtered view of the

Site, or a distant view where the Site is perceived as a small part of the view;

- c) **Open View:** a clear view of a significant proportion of the Site within the wider landscape.

The final stage in the field survey identifies and addresses specific sensitive receptors including landscape elements and features that may be directly affected by the development, as well as residents, visitors and other groups of viewers. In the case of landscape receptors, the field survey included the recording of topographic, geological and drainage features, woodland, tree and hedgerow cover, land use, field boundaries and artefacts, access and rights of way, and illustrating the findings on a **Site Context Plan, Topographical Features Plan, Landscape Character Plan** and **Site Appraisal Plan**, and in a series of **Site Appraisal Photographs**. In the case of visual receptors, the types of views affected, an estimate of their numbers and whether there were few or many, duration of viewing, and potential seasonal screening effects was noted.

20. The potential visibility of the proposed development can also be presented on a plan using a Zone of Visual Influence (informed by a computer generated Zone of Theoretical Visibility or ZVT). This would take account of the proposed built form and the elements such as landform and significant areas of vegetation which may filter or obstruct views towards the proposed development. The Zone of Theoretical Visibility of the proposed development at Tring will be developed at Stage 5 of the iterative assessment process, once more detail of the proposed built form has been developed.
21. The sensitivity of the landscape to change is reflected in the degree to which the landscape is able to accommodate change (due to a particular development or land use change) without adverse effects on its character. This may be influenced by the extent of changes in topography and/or existing vegetation or new planting. These and other factors also influence the visibility of the proposed development and therefore influence the extent of its effect on the perceived character and visual amenity of the surrounding landscape
22. Following the field survey, the extent to which the Site is visible from the surrounding area is confirmed, identifying the views into / towards the Site, identifying specific elements such as landform, buildings or vegetation which interrupt, filter or otherwise influence views, and illustrating the findings on the Visual Appraisal Plan. The locations of principal viewpoints were also mapped and these existing views are illustrated by annotated **Site Context Photographs**. The photographs are taken at eye level, using a 50mm lens on a Canon digital camera in order to provide a realistic representation of visibility with the naked eye. Photographs are taken with an overlap allowing panoramic photographs to be produced by

splicing together individual photographs digitally, with minor retouching to eliminate variations in colour tone. The photographs are taken in accordance with Circular 01/09, published by the Landscape Institute (February 2009).

23. By the end of this stage of the study, it should be possible to advise, in landscape and visual terms, on the development's acceptability in principle, and its preferred siting, layout and design.

### **Lighting**

24. The baseline assessment for the lighting study involves gathering and mapping information about the existing light sources in the locality. The methodology for the assessment of the effect of the lighting associated with the Proposed and Overall Development has been based on the best practice guidance in "Lighting in the Countryside: Towards Good Practice" (1997), and "ILE Guidance Notes for Reduction of Obtrusive Light (2005)."
25. In addition to the information gathered as part of the desktop study for the landscape and visual assessment, consideration will be given to the existing lighting installations present in the area surrounding the Site, to establish how dark the area surrounding the Site is, and to establish a lighting baseline. This also includes considering the visibility, brightness and prominence of light sources, and identifying any areas of dark sky.
26. The sensitivity of the landscape in the vicinity of the Site to lighting and associated apparatus is then determined, based not only on the perceived value of the landscape (e.g. formal designation) but also on an assessment of the character of the landscape, including the sensitivity of the landscape type to the impacts of lighting and elements such as visibility and remoteness, with the degree of enclosure afforded by landform and vegetation being key factors, along with patterns of fields and settlements is determined.
27. The ILE "Guidance Notes for the Reduction of Obtrusive Light" provides the following guidance on classifying areas into 'Environmental Zones' for levels of exterior lighting:

#### ***"Category Examples***

- E1: Intrinsically dark landscapes National Parks, Areas of Outstanding Natural Beauty, etc
- E2: Low district brightness areas Rural, small village, or relatively dark urban locations
- E3: Medium district brightness areas Small town centres or urban locations
- E4: High district brightness areas Town/city centres with high levels of night-time activity

Where an area to be lit lies on the boundary of two zones the obtrusive light limitation values used should be those applicable to the most rigorous zone.”

28. Potential receptors of visual effects of lighting associated with the Proposed Development will be identified, such as residents, visitors and other groups of viewers including astronomers.
29. The lighting baseline provides a framework for determining the overall sensitivity of the Site and the surrounding area, and the capacity to accommodate lighting, as well as informing the design of the Proposed and Overall Development.

### **Identification and Assessment of Landscape and Visual Effects**

30. The assessment of effects aims to:-
  - Identify systematically the likely landscape and visual effects of the development
  - Indicate the measures proposed to avoid, reduce, remedy or compensate for these effects (mitigation measures)
  - Estimate the magnitude of the effects as accurately as possible;
  - Provide an assessment of the nature and significance of these effects in a logical and well-reasoned fashion.
31. Consideration is given to the impacts on completion of development and at Year 15 and/or Year 25, so that the residual effects of the development after mitigation are identified.

#### **a) Landscape Effects**

32. These include the direct and indirect effects of the development on individual landscape elements and features, as well as the effect upon the general landscape character and quality of the surrounding area. Landscape effects are described clearly and objectively, and the extent and duration of any adverse/beneficial effects quantified, using four categories of effects, indicating a gradation from high to low (i.e. high, medium, low, negligible i.e.no change). Some effects have been quantified, i.e. how many mature trees and how many metres of hedgerow are to be lost as a result of a proposed development, etc. and this type of factual data has the advantage of helping to put in context the degree of change that will occur.
33. Wider effects on landscape character and quality are less easy to predict and professional judgement is imperative to provide a fully reasoned objective conclusion/judgement. A clear



picture of likely effects is presented by referring back to the baseline landscape character assessment, and describing how the development may alter existing patterns of landscape elements and features.

b) **Visual Effects**

34. The assessment of visual effects describes:-

- The changes in the character of the available views resulting from the development
- The changes in the visual amenity of the visual receptors.

The visual effect of a development on a view will depend upon a number of factors. These can be summarised as:-

- (a) The nature of the proposal;
- (b) Its siting in the landscape;
- (c) Its size;
- (d) Its detailed design; and
- (e) The position and distance from which it is viewed.

35. The net effect of these factors is that the visual impact of an object will begin to fall away rapidly with increasing distance. Visibility will reduce substantially beyond 1.5 km (1 mile), and beyond 5 km (3 miles). Binoculars or some other aid to visibility would probably be necessary in order to perceive any detail of the proposed development.

36. A visual assessment study involves systematically identifying all the visual receptors (i.e. all properties or groups of properties, and users of roads and public rights of way) that are likely to be affected by the development, and within the visual envelope of the development. The term "properties" includes dwellings, public buildings, places of employment and recreational facilities. The method seeks to assess the impact of the development in terms of the degree of change in the view experienced by the observer. The results are presented in a systematic form allowing an informed judgement to be made of the impact of the development proposals. In the assessment of views there is likely to be a continuum in the degree of visibility of the development from Open View to No View, and in order to assist in the description and comparison of the effect on views, simplified categories were used which considered:-

- The nature of the view (degree of visibility of the Site): Open, partial or none, as described at paragraph 17 above;
  - The extent of the view that would be occupied by the development (degree of visual intrusion): Full, Partial, Glimpse etc;
  - The proportion of the development or particular features that would be visible: Full, Most, Small Amount, None;
  - The distance of the viewpoint from the development and whether the viewpoint would focus on the development due to proximity, or the development would form one element in a panoramic view;
  - Whether the view is transient or one of a sequence of views, as from a moving vehicle or footpath.
37. Changes in visual amenity may arise from both built or engineered forms, and soft landscape elements of the development. The contribution that areas of planting introduced as part of the proposed development are considered, and the height of this planting for assessment purposes is as follows:-
- Planting at Year 1 : 3 metres
  - Planting at Year 15 : 8 metres
  - Planting at maturity : 20 metres (i.e. Year 25)
38. Changes in visual amenity may also arise from lighting proposals for the development, including the day time effect of lighting apparatus on landscape character, skylines, key views and visual receptors; and the night-time effect of the proposed light sources.
39. Consideration should also be given to the seasonal differences in effects arising from the degree of vegetative screening and/or filtering of views that would apply in summer and winter. and the assessment takes considers the "worst-case" situations (the latter being the season with least leaf cover and therefore minimal vegetative screening).

## Sensitivity of Receptors (for Landscape Effects)

40. The evaluations of landscape value and character have been made using the following criteria:

*Table 4.1: Landscape Value*

Value	Typical criteria	Typical scale of importance/ Rarity	Typical examples
Exceptional	High importance and Rarity. No or limited potential for substitution	International, National	World Heritage Site, National Park, AONB
High	High importance and Rarity. Limited potential for substitution.	National, Regional, Local	AONB, SLA Conservation area
Moderate	Moderate importance and Rarity. Limited potential for substitution.	Regional, Local	Undesignated but value perhaps expressed through non-official publications or demonstrable use.
Low	Low importance and Rarity. Considerable potential for substitution.	Local	Areas identified as having some redeeming feature or features and possibly identified for improvement.
Poor	Low importance and Rarity.	Local	Areas identified for recovery.

41. The condition of the landscape has been assessed using the following criteria:

*Table 4.2: Landscape Condition*

Good	Where the landscape and its features are in good repair / quality and have a high contribution to landscape character.
Moderate	Where the landscape and its features are in average repair/quality and make a medium contribution to the landscape character.
Low	Where the landscape and its features are in poor repair/quality and make a low contribution to landscape character.

42. The following table has been used to determine the sensitivity of the landscape to change:

*Table 4.3: Landscape Sensitivity*

Landscape Value	SENSITIVITY		
	High to exceptional	High	High
Moderate	High	Moderate	Low
Low to poor	Moderate	Low	Low
	Good	Moderate	Low
	Landscape Condition		

### **Sensitivity of Receptors (for Visual Effects)**

43. The sensitivity of visual receptors in views will be dependent on:-
- The location and context of the viewpoint;
  - The expectations and occupation or activity of the receptor;
  - The importance of the view (which may be determined with respect to its popularity or numbers of people affected, its appearance in guide books, on tourist maps, and in the facilities provided for its enjoyment and reference to it in literature or art).
44. The most sensitive receptors may include:-
- Residential properties with views from ground and first floor windows and gardens towards the proposals;
  - Important public sites used by many people;
  - Public rights of way, public open spaces and other locations where the view is part of the reason for the visit.
  - Outdoor recreation facilities, where the users attention or interest may be focused on the landscape.

### **Magnitude of Change (for Visual Effects)**

45. In the evaluation of the effects on views and the visual amenity of the identified receptors, the magnitude of scale or visual change is described (as per Table 4.4) by reference to:-
- The scale of change in the view with respect to the loss or addition of features in the view and changes in its composition;
  - The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements;
  - The duration and nature of the effect, whether temporary or permanent, intermittent or continuous;
  - The angle of view in relation to the main activity of the receptor;
  - The distance of the viewpoint from the proposed development;
  - The extent of the area over which the changes would be visible.

## **Significance of Effects**

46. Significance is not absolute and can only be identified in relation to each individual development and its unique location. It is important that any assessment of significance adopts an informed and well-reasoned judgement, supported through a clear justification as to how the conclusions about significance for each effect have been derived. It should be emphasised that whilst this methodology is designed to be robust and transparent, professional judgement is ultimately applied to determine the level of significance applied to each effect.
47. The two principal criteria determining the significance of effects are the scale or magnitude of effect, and the environmental sensitivity of the location or receptor. With regard to visual receptors, a high significance of effect would be from high sensitivity receptors such as residential properties and public rights of way where they would receive a major change in the view. A low significance of effect would be from the least sensitive receptors, such as transport corridors, as viewers would be affected for a smaller period of time as they would experience transient views. Where no change is identified the significance is assessed as neutral.
48. These thresholds will be determined by combining sensitivity and magnitude, with reference to any general terminology accepted for the whole Environmental Statement. Numerical scoring is not recommended in the "Guidelines for Landscape and Visual Impact Assessment".
49. The following tables, taken from the AVDC Landscape and Visual Impact Assessment Guidance Advice Notes, has been used to determine the significance of effects on receptors:

Table 4.4 Significance of Landscape Impacts

Assessment of significance of landscape impacts		Landscape receptor sensitivity			
		High	Medium	Low	
Red cells represent significant adverse impacts Green cells represent significant beneficial impacts Blue cells represent impacts that are not significant		Landscape with important components or of a particularly distinctive character, susceptible to relatively small changes of the type proposed.	Landscape with relatively ordinary, moderately valued characteristics reasonably tolerant of changes of the type proposed.	A relatively unimportant landscape with few features of value or interest, potentially tolerant of substantial change of the type proposed.	
Magnitude of landscape impact	Major adverse	Significant adverse changes, over a significant area, to key characteristics or features or to the landscape's character or distinctiveness for more than 2 years	High adverse significance	High/Medium adverse significance	Medium adverse significance
	Moderate adverse	Noticeable but not significant adverse changes for more than 2 years or significant adverse changes for more than 6 months but less than 2 years, over a significant area, to key characteristics or features or to the landscape's character or distinctiveness.	High/Medium adverse significance	Medium adverse significance	Low adverse significance
	Slight adverse	Noticeable adverse changes for less than 2 years, significant adverse changes for less than 6 months, or barely discernible adverse changes for any length of time.	Medium adverse significance	Low adverse significance	Neutral
	Neutral	Any change would be negligible, unnoticeable or there are no predicted changes.	Neutral	Neutral	Neutral
	Slight benefit	Noticeable beneficial changes for less than 2 years, significant beneficial changes for less than 6 months, or barely discernible beneficial changes for any length of time.	Medium beneficial significance	Low beneficial significance	Neutral
	Moderate benefit	Noticeable but not significant beneficial changes for more than 2 years or significant beneficial changes for more than 6 months but less than 2 years, over a significant area, to key characteristics or features or to the landscape's character or distinctiveness.	High/Medium beneficial significance	Medium beneficial significance	Low beneficial significance
	Major benefit	Significant beneficial changes, over a significant area, to key characteristics or features or to the landscape's character or distinctiveness for more than 2 years	High beneficial significance	High/Medium beneficial significance	Medium beneficial significance

Table 4.5 Significance of Visual Impacts

		Visual receptor sensitivity			
		High	Medium	Low	
<p><b>Assessment of significance of visual impacts</b></p> <p>Red cells represent significant adverse impacts                      Green cells represent significant beneficial impacts                      Blue cells represent impacts that are not significant</p>		<ul style="list-style-type: none"> <li>Residential properties with views from ground and first floor windows and gardens towards the proposals.</li> <li>Important public sites used by many people.</li> <li>Public rights-of-way, public open spaces and other locations where the view is part of the reason for the visit.</li> </ul>	<ul style="list-style-type: none"> <li>Commercial and industrial premises.</li> <li>Schools.</li> <li>Playing fields.</li> <li>Other areas where the view is not central to the use.</li> </ul>	<ul style="list-style-type: none"> <li>Roads and rail with views towards the development where the viewer passes at speed and the view is not central to the use.</li> </ul>	
Magnitude of visual impact	Major adverse	Where the proposed development would cause a significant deterioration in the existing view	High adverse significance	High/Medium adverse significance	Medium adverse significance
	Moderate adverse	Where the proposed development would cause a noticeable deterioration in the existing view	High/Medium adverse significance	Medium adverse significance	Low adverse significance
	Slight adverse	Where the proposed development would cause a barely perceptible deterioration in the existing view	Medium adverse significance	Low adverse significance	Neutral
	Neutral	Where the proposed development would cause no discernible deterioration or improvement in the existing view	Neutral	Neutral	Neutral
	Slight benefit	Where the proposed development would cause a barely perceptible improvement in the existing view	Medium beneficial significance	Low beneficial significance	Neutral

	<b>Moderate benefit</b>	Where the proposed development would cause a noticeable improvement in the existing view	High/Medium beneficial significance	Medium beneficial significance	Low beneficial significance
	<b>Major benefit</b>	Where the proposed development would cause a significant improvement in the existing view	High beneficial significance	High/Medium beneficial significance	Medium beneficial significance

### Effects during Construction

50. It is recognised that project characteristics and hence sources of effects, will vary through time. The construction, operation, decommissioning and restoration phases of a development are characterised by quite different physical elements and activities. In the construction phase, sources of landscape and visual effects include:-

- Site access and haulage routes.
- Materials stockpiles and construction compounds.
- Construction equipment and plant.
- Utilities, including lighting.
- Protection of existing features.
- Temporary and permanent mitigation proposals.

### Mitigation

51. The purpose of mitigation is to avoid, reduce and where possible remedy or offset, any significant, negative (adverse) effects on the environment arising from the proposed development. Mitigation is thus not solely concerned with "damage limitation", but may also consider measures that could compensate for unavoidable residual effects. Mitigation measures may be considered under two categories:-

- Primary measures that intrinsically comprise part of the development design through an iterative process;
- Secondary measures designed to specifically address the remaining (residual) negative (adverse) effects of the final development proposals.

52. Strategies to address likely negative (adverse) effects include:



- Avoid or reduce impact by changing form of development;
- Remediation of impact, (e.g.) by planting to 'soften', absorb and assimilate development into the landscape;
- Compensation of impact, (e.g.) by replacing felled trees with new trees, and
- Enhancement, e.g. creation of new landscape or habitat.

53. Guidelines for Mitigation:

- All negative (adverse) landscape and visual effects that are likely to occur throughout the project life cycle should be considered for mitigation, although the statutory requirement is limited to significant effects;
- Consultation with local community and special interest groups on the proposed mitigation measures is important;
- Landscape mitigation measures should be designed to suit the existing landscape character and needs of the locality, respecting and building on local landscape distinctiveness and helping to address any relevant existing issues in the landscape.
- It must be recognised that many mitigation measures, especially planting, are not immediately effective. Where planting is intended to provide 'softening' and assist in 'visually absorbing' the development, it may also be appropriate to assess residual effects for different periods of time, such as day of opening, Year 15 and/or Year 25 at maturity.
- The developer should demonstrate a commitment to the implementation of mitigation measures to agreed programme and budget.
- The proposed mitigation measures should address specific issues and performance standards should be identified for the establishment, management, maintenance and monitoring of new landscape features.
- A programme of appropriate monitoring may be agreed with the regulatory authority, so that compliance and effectiveness can be readily monitored and evaluated.

54. Common Mitigation Measures include:

- Sensitive location and siting;
- Site layout and Choice of Site level;
- Appropriate form, materials and design of buildings. It is not always practical or desirable to screen buildings. In these cases the scale, design, colour and texture of building should be carefully considered;

- Lighting;
- Ground Modelling: for immediate screening effect but may in itself be an adverse impact unless carefully matched to existing landform;
- Planting: Structural planting can help to integrate and soften development as well as being of potential value as a wildlife habitat; and
- Use of recessive colouration.