



# LAND TO THE WEST OF HATFIELD

Environmental Statement – Chapter 11: Landscape and Visual Impact

Arlington Business Parks GP Limited

## CONTENTS

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11	Landscape and Visual .....	1
11.1	Introduction .....	1
11.1.1	Background .....	1
11.1.2	The Site and Proposals .....	1
11.1.3	The Study Area .....	1
11.1.4	Appendices and Figures .....	2
11.2	Methodology.....	2
11.2.1	Legislation and Planning Policy Guidance.....	2
	National Planning Policy .....	2
	Local Planning Policy .....	2
	Emerging Local Planning Policy.....	3
	St Albans and City District Local Plan Review 1994 .....	4
	Local Guidance .....	4
11.2.2	Assessment Methodology.....	4
	Overview .....	4
	Assessment Terminology and Judgements.....	4
	Sensitivity of the Receptor .....	4
	Magnitude of Effect .....	6
	Significance .....	8
	Positive/Adverse/Neutral .....	9
	Cumulative Assessment .....	10
	Residential Amenity .....	10
	Green Belt .....	10
	Distances .....	10
11.3	Baseline Conditions.....	10
11.3.1	Introduction .....	10
11.3.2	Key Local Guidance Documents.....	11
11.3.3	ZTV Study .....	11
11.3.4	Landscape Character.....	12
11.3.5	Local Landscape Character.....	13

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11.3.6	Visual Receptors.....	13
11.3.7	Visual Environment of Existing Site.....	13
11.3.8	Visual Receptor Groups.....	14
11.3.9	Key Routes.....	15
11.3.10	Accessible Landscapes .....	15
11.3.11	Specific Viewpoints .....	16
11.3.12	Designated Landscapes .....	16
11.3.13	Local Landscape Value .....	16
11.4	Assessment of Effects .....	16
11.4.1	The Proposed Development .....	16
	The Proposal .....	16
	Site Fabric.....	16
	Design Response .....	17
11.4.2	Construction Effects.....	17
11.4.3	Operational Phase – Landscape Effects .....	18
	National Landscape Character .....	18
	Local Landscape Character.....	18
	Settlement Form and Context .....	20
	Designated landscapes.....	20
11.4.4	Operational Phase – Visual Effects .....	21
	Representative Viewpoints .....	21
	Visual Receptor Groups.....	22
	Ellenbrook Fields and the Eastern Edge of Hatfield (0m east).....	22
11.4.5	Cumulative Effects .....	24
11.5	Mitigation.....	26
11.6	Residual Effects .....	27
11.7	Summary of Effects.....	27
11.8	Conclusions .....	28

## 11 LANDSCAPE AND VISUAL

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### 11.1 INTRODUCTION

#### 11.1.1 Background

LDA Design was commissioned in July 2018 to carry out a landscape and visual impact assessment (LVIA) of the Proposed Development at land to the east of Hatfield, known as Hatfield Green, on behalf of Arlington Business Parks GP Ltd. The assessment has been carried out by Ben Croot and Paul Lishman, both chartered members of the Landscape Institute (CMLI) with experience of landscape planning and assessment.

This assessment defines the existing landscape and visual baseline environments; assesses their sensitivity to change; describes the key landscape and visual related aspects of the Proposed Development; describes the nature of the anticipated change upon both the landscape and visual environment; assesses the effects on the construction and operation of the Proposed Development.

#### 11.1.2 The Site and Proposals

Figure 11.1 illustrates the location of the Site. The Site is approximately 67.5 ha in size and located adjacent to the east of Hatfield. It comprises arable fields, scrub, woodland, areas of hardstanding, ponds and ditches and was once part of the Hatfield aerodrome.

Adjacent to the east is the Ellenbrook, an area of public open space comprising a series of ponds and ditches with Hatfield Business Park, residential dwellings and the University of Hertfordshire campus beyond.

To the south is an area of rough grassland and scrub, subject to a planning application for mineral extraction, and to the west is the established woodland of Home Covert and Round Wood and also Astwick Manor. Cooper's Green Lane forms the northern boundary with arable fields beyond.

Details of the proposal are set out in Chapter 3 but in summary comprise 1,100 new homes and community infrastructure, including Primary School and Local Centre. Around 50% of the Site will be retained / enhanced as green infrastructure, including Village Green, sports pitches, semi-natural green space, and woodland.

#### 11.1.3 The Study Area

It is accepted practice within landscape and visual assessment work that the extent of the study area for a development proposal is broadly defined by the visual envelope of the development site and the anticipated extent of visibility arising from the development itself, based on the Zone of Theoretical Visibility (ZTV) study. In this case a study area of 3km is considered as being appropriate to cover all potentially material landscape and visual impacts.

#### 11.1.4 Appendices and Figures

Supporting appendices have been prepared that supplement the sections regarding methodology, planning policy and baseline. The appendices are important to the assessment and should be read alongside this Chapter. These comprise:

- Appendix 11.1 Glossary
- Appendix 11.2 References
- Appendix 11.3 Methodology
- Appendix 11.4 ZTV Study
- Appendix 11.5 National Planning Policy
- Appendix 11.6 Extracts from Landscape Character Assessment
- Appendix 11.7 Figures

The figures comprise:

- Figure 11.1 Site Location
- Figure 11.2 Landscape Policy
- Figure 11.3 ZTV Study and Viewpoints
- Figure 11.4 Local Landscape Character
- Figure 11.5 Access and Public Rights of Way
- Figure 11.6 Photograph Panels

## 11.2 METHODOLOGY

### 11.2.1 Legislation and Planning Policy Guidance

#### National Planning Policy

Relevant national planning policy is set out in Appendix 11.5.

#### Local Planning Policy

Relevant local planning policy is shown on Figure 11.2. The site lies within Welwyn Hatfield Borough. Current local planning policy is described in Welwyn Hatfield District Plan (2005). Relevant saved policies from the 2005 District Plan are summarised below.

Saved Policy R17 relates to the protection of existing trees, woodland and hedgerows and new development will be required to incorporate wherever appropriate new planting.

Saved Policy R28 considers Historic Parks and Gardens and resists development that would lead to the loss of, or cause harm to the historic character, appearance or setting of these assets.

Saved Policies M5 and M6 encourages the promotion of pedestrian and cycle movement as part of development proposals.

Saved Policies D1 – D10 relate to design and advocate high quality design, including respecting the character and context of the area (D2), providing high quality public realm (D4) and integrating new landscaping as part of the development proposals (D8).

Saved Policy RA10 addresses landscape regions and character areas and dictates ‘development in the rural areas will be expected to contribute, as appropriate, to the conservation, maintenance and enhancement of the local landscape character of the area in which they are located, as defined in the Welwyn Hatfield Landscape Character Assessment.’

Saved Policy RA11 relates to Watling Community Forest which covers an area from the west of Hatfield to the northern edge of Potters Bar within the district forming part of a much larger area encompassing 18,840 ha<sup>2</sup> of land on the northern fringe of Greater London. The policy seeks to support the objectives in terms of the Forest Plan in securing planting, leisure and landscape improvements.

Public Rights of Way, bridleways and Greenways are protected under Saved Policies RA25, RA26 and RA 27 respectively. Proposals which maintain and improve these networks will be encouraged.

Saved Policy R28 relates to rural roads and protects against development which would have an adverse effect on the local environment or rural character of these routes.

#### **Emerging Local Planning Policy**

Emerging policy is set out within submission draft of the Local Plan, which is currently undergoing Examination in Public (EiP). Consequently, it carries limited weight in the decision-making framework but does indicate a direction of travel in relation to policy. Those emerging policies relevant to landscape and visual matters are summarised below.

Emerging Policy SP 1 seeks to deliver sustainable development which includes the protection and enhancement of the Borough’s natural assets and resources.

Emerging Policy SP 9 addresses place making and high quality design. The policy covers a number of design matters, in particular development proposals should be informed by and respond to character and context to deliver a ‘high quality design that fosters a positive sense of place’. The importance of public space and landscaping is also noted.

The amenity and layout of new development is considered in emerging Policy SADM 11 and sustainable design, which encompasses hard and soft landscape, in emerging Policy SP 10.

The protection and enhancement of the Borough’s critical environmental assets is set out in emerging Policy SP 11. These assets will be protected commensurate with their status.

The enhancement of existing and creation of new Strategic Green Infrastructure (GI) is addressed in emerging Policy SP 12. Opportunities to link existing GI and create new GI will be supported. Central to GI in the Borough is the Welwyn Hatfield Green Corridor as detailed in Section 4.3.

Heritage assets, including historic parks and gardens, are protected under emerging Policy SADM 15.

Landscape and ecology is addressed in detail under emerging Policy SADM 16 which seeks to conserve and enhance the Borough’s natural and historic landscape. Proposals will be assessed for their impact on landscape features and take full account of the relevant landscape character assessment.

### St Albans and City District Local Plan Review 1994

The site abuts the St Alban and City District which lies to the west, the planning policy for which is provided under saved policies from the Local Plan Review 1994. No landscape or visual designations or policies have been identified that have bearing on this LVIA.

### Local Guidance

In addition to the policy documents identified above, there are local guidance documents as follows:

- Welwyn Hatfield District Landscape Character Assessment (2005)
- Green Corridor Stage 1 Strategic Framework Report (2016)
- Welwyn Hatfield Borough Landscape Sensitivity and Capacity Study (2012)
- Hertfordshire Strategic Green Infrastructure Plan (2011)
- Welwyn Hatfield Borough Green Infrastructure Plan (2011)
- Welwyn Hatfield Welwyn Hatfield District Supplementary Design Guidance (2005)
- Hatfield Aerodrome Supplementary Planning Guidance (1999)

These form part of the documented baseline and are reviewed in Section 11.3, with accompanying commentary on the implications for the development siting and design and the assessment methodology, as appropriate.

### 11.2.2 Assessment Methodology

#### Overview

*“Landscape and Visual Impact Assessment is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and people’s views and visual amenity.” (GLVIA 3, para. 1.1).*

Paras. 2.20-2.22 of the same guidance indicate that the two components (assessment of landscape effects, and assessment of visual effects) are *“related but very different considerations”*.

The assessment method for this LVIA draws upon the established GLVIA3; An Approach to Landscape Character Assessment (Natural England, 2014), Landscape Information Technical Information Note (LI TIN) 05/2017 regarding townscape character; and LI TIN 02/17, Visual Representation, and other recognised guidelines.

The methodology is described below, with further detail provided in Appendix 11.3.

#### Assessment Terminology and Judgements

A full glossary is provided in Appendix 11.1. The key terms used within this assessment are:

- Susceptibility and Value – which contribute to Sensitivity of the receptor;
- Scale, Duration and Extent – which contribute to the Magnitude of effect; and
- Significance.

These terms are described in more detail below

#### Sensitivity of the Receptor

The sensitivity of receptor is assessed by combining the considerations of susceptibility and value.

Susceptibility indicates the ability of a landscape or visual 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.” (GLVIA3, para. 5.40), and is rated as follows:

**Table 11.1: Susceptibility**

High	Undue consequences are likely to arise from the proposed development.
Medium	Undue consequences may arise from the proposed development.
Low	Undue consequences are unlikely to arise from the proposed development.

Susceptibility of landscape character areas is influenced by their characteristics and is frequently considered (though often recorded as ‘sensitivity’ rather than susceptibility) within documented landscape character assessments and capacity studies.

Susceptibility of designated landscapes is influenced by the nature of the special qualities and purposes of designation and/or the valued elements, qualities or characteristics, indicating the degree to which these may be unduly affected by the development proposed.

Susceptibility of accessible or recreational landscapes is influenced by the nature of the landscape involved; the likely activities and expectations of people within that landscape and the degree to which those activities and expectations may be unduly affected by the development proposed.

Susceptibility of visual receptors is primarily a function of the expectations and occupation or activity of the receptors (GLVIA 3<sup>rd</sup> version, para 6.32).

Landscape Value is “the relative value that is attached to different landscapes by society” (GLVIA3, page 157), and is rated as follows:

**Table 11.2: Landscape Value**

National/ International	Designated landscapes which are nationally or internationally designated for their landscape value.
Local / District	Locally or regionally designated landscapes; also areas which documentary evidence and/or site observation indicates as being more valued than the surrounding area.
Community	‘Everyday’ landscape which is appreciated by the local community but has little or no wider recognition of its value.
Limited	Despoiled or degraded landscape with little or no evidence of being valued by the community.

Areas of landscape of greater than Community value may be considered to be ‘valued landscapes’ in the context of NPPF paragraph 170.



Sensitivity is assessed by combining the considerations of susceptibility and value described above. The differences in the tables below reflect a slightly greater emphasis on value in considering landscape receptors, and a greater emphasis on susceptibility in considering visual receptors. Sensitivity is rated as follows:

**Table 11.3: Sensitivity**

Landscape Sensitivity				
		Susceptibility		
		High	Medium	Low
Value	National/International	High	High-Medium	Medium
	Local/District	High-Medium	Medium	Medium-Low
	Community	Medium	Medium-Low	Low
	Limited	Low	Low-Negligible	Negligible
Visual Receptor Sensitivity				
		Susceptibility		
		High	Medium	Low
Value	National/International	High	High-Medium	Medium
	Local/District	High-Medium	High-Medium	Medium
	Community	High-Medium	Medium	Medium-Low
	Limited	Medium	Medium-Low	Low

For visual receptors; susceptibility and value are closely linked - the most valued views are also likely to be those where viewer’s expectations will be highest. The value attributed relates to the value of the view, e.g. a National Trail is nationally valued for access, not necessarily for the available views. Typical examples of visual receptor sensitivity are plotted in a diagram in Appendix 11.3.

**Magnitude of Effect**

The magnitude of effect is informed by combining the scale, duration and extent of effect.

Scale of effect is assessed for all landscape and visual receptors and identifies the degree of change which would arise from the development, and is rated as follows:

**Table 11.4: Scale**

Large	Total or major alteration to key elements, features, qualities or characteristics, such that post development the baseline will be fundamentally changed.
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Medium	Partial alteration to key elements, features, qualities or characteristics, such that post development the baseline will be noticeably changed.
Small	Minor alteration to key elements, features, qualities or characteristics, such that post development the baseline will be largely unchanged despite discernible differences.
Negligible	Very minor alteration to key elements, features, qualities or characteristics, such that post development the baseline will be fundamentally unchanged with barely perceptible differences.

Duration of effect is assessed for all landscape and visual receptors and identifies the time period over which the change to the receptor as a result of the development would arise, and is rated as follows:

**Table 11.5: Duration**

Permanent	The change is expected to be permanent and there is no intention for it to be reversed.
Long-term	The change is expected to be in place for 10-25 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
Medium-term	The change is expected to be in place for 2-10 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
Short-term	The change is expected to be in place for 0-2 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.

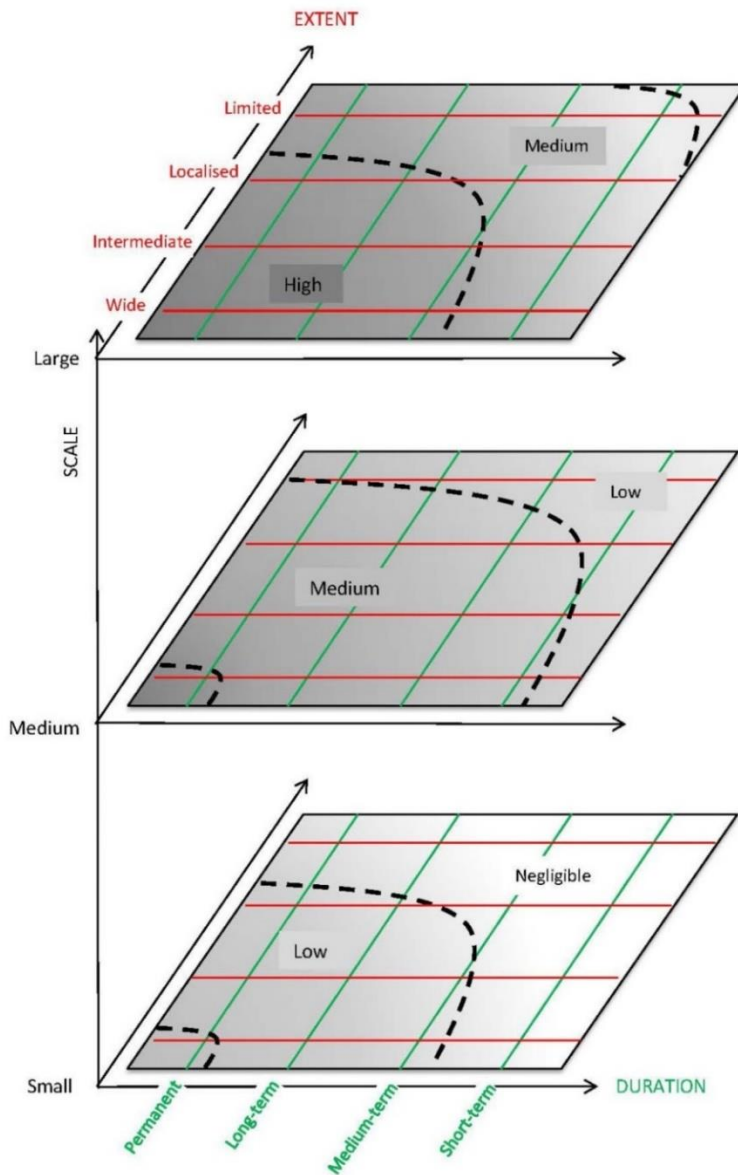
Most effects will be Long term or Permanent; however, Medium or Short term effects may be identified where mitigation planting is proposed or local factors will result in a reduced duration of effect (for example where maturing woodland will screen views in future). The effects arising from the construction of the development will usually be Short term.

Extent of effects is assessed for all receptors and indicates the geographic area over which the effects will be felt, and is rated as follows:

**Table 11.6: Extent**

Wide	Beyond 4km, or more than half of receptor.
Intermediate	Up to approx. 2-4km, or around half of receptor area.
Localised	Site and surroundings up to 2km, or part of receptor area (up to approx. 25%).
Limited	Site, or part of site, or small part of a receptor area (< approx. 10%).

The diagram below, prepared by LDA Design, illustrates the judgement process of combining scale duration and effect:

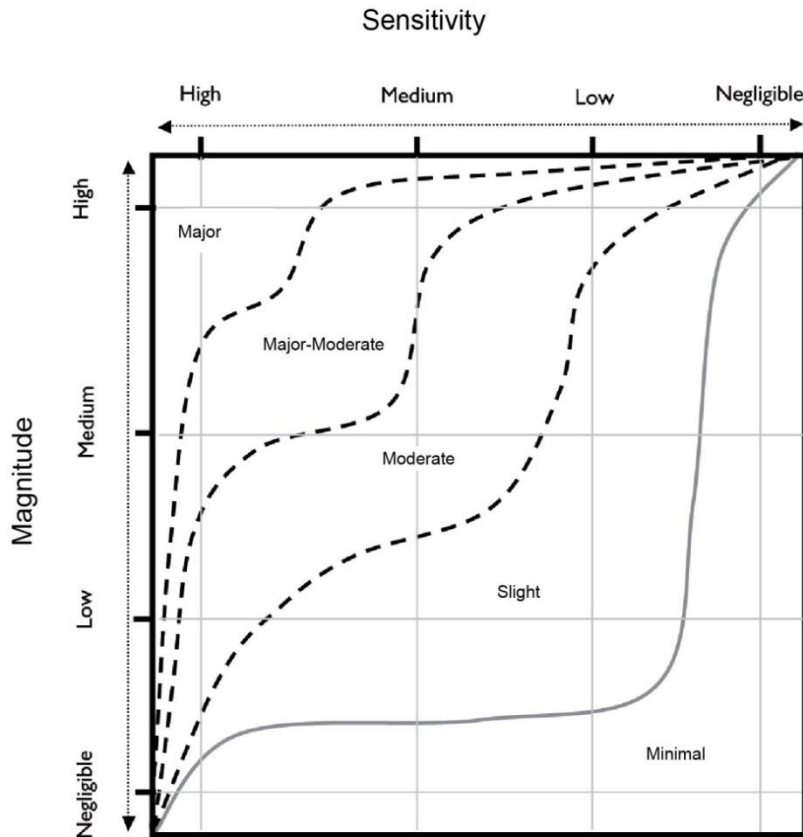


As can be seen from the illustration above, scale (shown as the layers of the diagram) is the primary factor in determining magnitude; most of each layer indicates that magnitude will typically be judged to be the same as scale but may be higher if the effect is particularly widespread and long lasting, or lower if it is constrained in geographic extent or timescale. Where the Scale of effect is judged to be Negligible the Magnitude is also assumed to be Negligible and no further judgement is required.

### Significance

Significance indicates the importance or gravity of the effect. The process of forming a judgement as to the degree of significance of the effect is based upon the assessments of magnitude of effects and sensitivity of the receptor to come to a professional judgement of how important this effect is. This

judgement is illustrated by the diagram below (based on EIA significance evaluation matrix, IEMA Special report 2011):



The significance ratings indicate a 'sliding scale' of the relative importance of the effect, with Major being the most important and Minimal being the least. Effects that are Major-Moderate or Major are considered to be significant. Effects of Moderate significance or less are "of lesser concern" (GLVIA, 3rd edition, para 3.35). It should also be noted that whilst an effect may be significant, that does not necessarily mean that such an impact would be unacceptable or should necessarily be regarded as an "undue consequence" (GLVIA, 3rd edition, para 5.40).

Where intermediate ratings are given, e.g. "Moderate-Slight", this indicates an effect that is both less than Moderate and more than Slight, rather than one which varies across the range. In such cases, the higher rating will always be given first; this does not mean that the impact is closer to that higher rating but is done to facilitate the identification of the more significant effects within tables. Intermediate judgements may also be used for judgements of Magnitude.

#### Positive/Adverse/Neutral

Effects are defined as adverse, neutral or positive. Neutral effects are those which overall are neither adverse nor positive but may incorporate a combination of both.

The decision regarding the significance of effect and the decision regarding whether an effect is beneficial or adverse are entirely separate. For example, a rating of Major and Positive would indicate

an effect that was of great significance and on balance positive, but not necessarily that the proposals would be extremely beneficial.

Whether an effect is Positive, Neutral or Adverse is identified based on professional judgement. GLVIA 3<sup>rd</sup> edition indicates at paragraph 2.15 that this is a “particularly challenging” aspect of assessment, particularly in the context of a changing landscape.

#### Cumulative Assessment

Cumulative assessment relates to the assessment of the effects of more than one development. For each of the identified cumulative schemes within the study area agreement is reached with the Planning Authority as to whether and how they should be included in the assessment.

Only operational and consented developments are considered, unless specific circumstances indicate that a development in planning should be included, with progressively decreasing emphasis placed on those which are less certain to proceed. Typically, operational and consented developments are treated as being part of the landscape and visual baseline. i.e. it is assumed that consented schemes will be built except for occasional exceptions where there is good reason to assume that they will not be constructed.

#### Residential Amenity

This LVIA does not include a separate residential amenity assessment. It is considered that the effects resulting from the proposed development would fall below the threshold of being “so unpleasant, overwhelming and oppressive that this would become an unattractive place to live” (known as the Lavender Test) and “would not feature in the planning balance, irrespective of how many dwellings were so affected”.

#### Green Belt

Green Belt is a land use designation rather than one which is indicative of the character or quality of the landscape. Effects on Green Belt do not fall under the remit of this LVIA.

#### Distances

Where distances are given in the assessment, these are approximate distances between the nearest part of the Site and the nearest part of the receptor in question, unless explicitly stated otherwise.

## 11.3 BASELINE CONDITIONS

### 11.3.1 Introduction

An overview of the baseline study results is provided in this section with the full baseline description of the individual landscape and visual receptors being provided alongside the assessment in Section 11.4 for ease of reference.

This section provides a review of the key local guidance documents and identifies those landscape and visual receptors which merit detailed consideration in the assessment of effects, and those which are not taken forward for further assessment as effects “*have been judged unlikely to occur or so insignificant that it is not essential to consider them further*” (GLVIA3, para. 3.19).

Both this baseline section and the effects section describe townscape/landscape character and visual receptors before considering designated landscape. It is common for designations to encompass both character and visual considerations within their special qualities or purposes of designation. It therefore makes a more natural reading sequence to draw together those aspects of character and views which relate to the designation if they have been described earlier in the chapter.

### 11.3.2 Key Local Guidance Documents

The following guidance documents provide advice relevant to this assessment, as follows:

- Green Corridor Stage 1 Strategic Framework Report (2016) – This document forms part of the evidence base for the emerging Welwyn Hatfield Local Plan. The document sets out the Council’s aspiration to deliver a green corridor between Welwyn Garden City and Hatfield, broadly following the line of the A414 and connecting to Ellenbrook Country Park within the site.
- Welwyn Hatfield Borough Landscape Sensitivity and Capacity Study (2012): This assessment also forms part of the emerging Local Plan evidence base and assesses a number of sites across the Borough in terms of their potential for development. The Site is identified as ‘Broad Location D: West of the redeveloped part of Hatfield Aerodrome’. The Site is assessed to be of high landscape sensitivity and of high landscape value leading the assessment to conclude a low capacity for development. It is of note the assessment outlines mitigation measures that would be needed should the site be developed and does not preclude development unequivocally.
- Hertfordshire Strategic Green Infrastructure Plan (2011): Produced by Hertfordshire County Council this document provides overarching principles for the creation and management of GI within the county with the aim of connecting GI as part of a strategic network.
- Welwyn Hatfield Borough Green Infrastructure Plan (2011): This document provides further detail and analysis in relation to the GI resource of Welwyn Hatfield Borough. Ellenbrook Fields is identified as a GI asset and ‘point of focus’ and the document calls for its enhancement thorough improvements to connectivity to adjacent urban areas.
- Welwyn Hatfield Welwyn Hatfield District Supplementary Design Guidance (2005): Adopted as Supplementary Planning Guidance this document sets out design guidance for the Borough in relation to new development underpinning design policies of the Local Plan. An understanding and sensitive response to the context and character of the landscape is advocated.
- Hatfield Aerodrome Supplementary Planning Guidance (1999): Adopted as SPG and produced to shape and guide development at Hatfield Aerodrome. Although the site is included within this SPG’s jurisdiction, the guidance principally relates to the eastern area of the former aerodrome which has now been built out. The creation of a ‘linear nature park’ along the Ellenbrook is promoted.

There are also a number of baseline landscape character studies which are considered in Section 11.3.4 below.

### 11.3.3 ZTV Study

A Zone of Theoretical Visibility (ZTV) study was generated, which indicated areas of potential visibility based on the proposed design. The methodology for preparing the ZTV is contained with Appendix 11.4 and the ZTV is presented on Figure 11.3. The analysis was carried out using a topographic model

including settlements and woodlands (with heights derived from NEXTMAP 25 surface mapping data) as visual barriers in order to provide a more realistic indication of potential visibility.

The analysis was based on a maximum building height of 15m, which is representative of buildings up to 4 stories high. While the Proposed Development will include some 4 storey elements, this is the maximum building height parameter, and much of the Proposed Development will be between 2 – 3 stories high.

The ZTV study was used to aid the identification of those receptors that are likely to be most affected by the Proposed Development and those which are unlikely to have visibility. However, areas shown as having potential visibility may have visibility of the Proposed Development screened by local features such as trees, hedgerows, embankments or buildings.

The ZTV indicates the visibility of the Proposed Development would principally be to the north and south of the Site. In the north, theoretical visibility is shown for an area from Cooper's Green Lane to Lemsford between the A1 and Symondhyde Farm around 2km from the Site. In reality, field study has confirmed actual visibility is substantially less than that indicated by the ZTV owing to intervening field boundaries and tree belts, notably immediately adjacent to the Site along Coppers Green Lane.

To the east, the ZTV indicates theoretical visibility around Nashe's Farm and Beech Farm, around 2km from the Site. In reality visibility from this area is very limited owing to the screening effect of Home Covert and Round Wood on the eastern boundary of the site. Other smaller woodland stands also add to the screening of the Site.

The ZTV indicates theoretical visibility to the south of the site in an area around Popefield Farm and Smallford approximately 0km to 1km from the Site. In reality views from the south are limited to the area adjacent to the site around Popefield Farm to the north of the A1057 as a result the flat topography and intervening vegetation. Even within this area the scrubby vegetation of the former aerodrome serves to filter and screen views of the Site. Field study has confirmed views further south, to the south of the A1057, are not possible.

To the west the ZTV indicates fragmented visibility owing to the screening effect of the built form of Hatfield. Field study has confirmed that visibility in this area is limited to the immediate eastern edge of Hatfield owing to the screening effects of vegetation along Ellenbrook and residential and commercial built form.

Site observations confirm that extensive vegetation within the wider landscape would significantly reduce the extent of visibility of the Proposed Development from that illustrated by the ZTV. The anticipated main area of visibility, based on site observations, is annotated on the ZTV study as the 'Approximate Zone of Visual Influence'.

#### 11.3.4 Landscape Character

Paragraphs 5.13-5.15 of GLVIA, 3rd edition indicates that landscape character studies at the national or regional level are best used to "*set the scene*" and understand the landscape context. It indicates that Local Authority Assessments provide more detail and that these should be used to form the basis of the assessment of effects on landscape character – with (appropriately justified) adaptation, refinement and interpretation where required.

Relevant assessments are:

- Natural England's National Landscape Character Assessment of England: NCA 111 – Northern Thames Basin
- Welwyn Hatfield Landscape Character Assessment (2005)

The Welwyn Hatfield LCA is used for the purposes of assessment of character in this LVIA acknowledging the character areas identified, particularly those for Hatfield Aerodrome given its redevelopment, are likely to have changed.

#### 11.3.5 Local Landscape Character

Local landscape character areas are shown on Figure 11.4. The Site is situated in the Character Area 31: de Havilland Plain character area, in the southeast adjacent to the urban edge of Hatfield.

The following character areas are excluded from more detailed assessment on the basis that the ZTV and field study confirm limited visibility and effects are likely to be Negligible:

- LCA 30: Colney Heath Farmland
- LCA 32: Symondshyde Ridge
- LCA 33: Upper Lea Valley
- LCA 45 Welwyn Fringes
- LCA 46: Hatfield Park
- LCA 54: Mimmshall Valley
- LCA 65: Middle Lea Valley West

Effects on the following character areas are set out within Section 11.4, with baseline description provided alongside the assessment of effects for ease of reference:

- LCA 31: de Havilland Plain

#### 11.3.6 Visual Receptors

Visual receptors are *"the different groups of people who may experience views of the development"* (GLVIA, 3rd edition, para 6.3). In order to identify those groups who may be significantly affected the ZTV study, baseline desk study and site visits have been used.

The different types of groups assessed within this report encompass local residents; people using key routes such as roads; cycle ways, people within accessible or recreational landscapes; people using Public Rights of Way; or people visiting key viewpoints. In dealing with areas of settlement, Public Rights of Way and local roads, receptors are grouped into areas where effects might be expected to be broadly similar, or areas which share particular factors in common.

Representative viewpoints have been selected to assess the effects on visual receptors.

#### 11.3.7 Visual Environment of Existing Site

As shown on Figure 11.1, the Site is located to the west of Hatfield adjacent to Ellenbrook which runs north to south along the eastern boundary of the Site. The Site is relatively flat at around 75m AOD, with a slight gradient southeastwards toward the Ellenbrook.



The Site is relatively open, punctuated only by sporadic clumps of scrubby vegetation and young woodland, allowing generally open views across the Site when within it. From within the Site the large commercial buildings of Hatfield Business Park and the University of Hertfordshire form discernible features in the views. Some areas of the Site where vegetation is more mature or abundant result in more secluded and shorter views.

Beyond the Site boundary field study has confirmed the visibility to be substantially less than that indicated by the ZTV owing to localised vegetation and landform and also built form.

From the north the established vegetation lining Cooper's Green Lane forms an effective screen to views. Locations further north are further screened by hedgerow and field boundaries. Even from the lane itself only glimpsed views of the Site are possible immediately adjacent to it.

To the east the large built form of Hatfield Business Park and the University of Hertfordshire, along with residential dwellings at Salisbury Garden Village form an effective screen to views from the east, limiting them to the immediate perimeter of the Site at Ellenbrook and the fringes of built form adjacent to the brook. Views eastward beyond this immediate locality are screened by intervening built form.

To the south views are screened by the University of Hertfordshire sports complex and vegetation along the A1057. Views of the Site further south from areas south of the A1057 are not possible owing to intervening built form and vegetation. Some views of the Site are possible from the area to the north east of Popefield Farm however these are often screened by scrub vegetation and local landform, modified following the decommissioning of the airfield.

To the west the established woodland at Round Wood and Home Covert, forming the western boundary of the Site prevent any views further westward.

#### 11.3.8 Visual Receptor Groups

A number of visual receptor groups are present within the study area. These include residential dwellings at settlement edges, individual farmsteads, commercial premises, local and main roads and the local Public Right of Way (PRoW) network. Accessible Landscapes and PRoW are shown on Figure 11.5.

Representative viewpoints are used as 'samples' on which to base judgements of the scale of effects on visual receptor groups, and the location of representative viewpoints are shown on Figure 11.3. Corresponding photopanels from each representative viewpoint are presented at Figure 11.6. The method of photography for each presentative viewpoint has been informed by Landscape Institute Technical Note 01/11 Advice on Photography and Photomontage.

The following visual receptor groups are identified for the purposes of this LVIA and have theoretical visibility of the Proposed Development:

- Ellenbrook Fields and the eastern edge of Hatfield – 0m east
- Astwick Manor, Cooper's Green, Beech Farm and Cooper's Green Lane – 0m west
- Smallford, Ellenbrook and the University of Hertfordshire campus– 20m south
- Popefield Farm and footpath Colney Heath 15 – 200m southwest
- Hatfield Garden Village, Stanborough and Lemsford – 500m north
- Sutton's Farm, Fairfold's Farm and Nashe's Farm – 1km west

There are a number of groups listed above which are excluded from the detailed assessment.

Field study has confirmed there is very limited intervisibility between the **Smallford, Ellenbrook and the University of Hertfordshire campus** visual receptor group and the Site. No views are possible of the Site from the suburbs of Smallford and Ellenbrook whilst only glimpsed and filtered views are possible from the University of Hertford Campus owing to intervening built form along Albatross Way (Figure 11.6 / Viewpoints 5 and 6). The visual composition of views from these areas is unlikely to experience any perceptible change and they are not considered further as part of this LVIA.

Field study has also confirmed views from the **Hatfield Garden Village, Stanborough and Lemsford** receptor group are heavily filtered (Figure 11.6 / Viewpoint 8) owing to intervening vegetation. This group is not taken forward for detailed assessment within this LVIA.

The **Sutton's Farm, Fairfolds Farm and Nashe's Farm** receptor group comprises these farmsteads, local lanes, and footpaths in this area, approximately 1km west of the Site. For the majority of this area around Fairfolds Farm and Sutton's Farm, views of the Site are extremely limited owing to the flat topography and strong vegetative network. Glimpses and filtered views of the Site are possible from a small area on the higher ground around Nashe's Farm at the western end of footpath Sandridge 20 (Figure 11.6 / Viewpoint 9). These views are screened and filtered by woodland on the western boundary of the Site as well as intervening woodland blocks including Hooks Wood and Sleeve Hall Wood. Any change to the composition of the view as a result of Proposed Development at the Site is likely to be negligible and this receptor group is not taken forward further for detailed assessment in this LVIA.

#### 11.3.9 Key Routes

The following long-distance road, rail and recreational routes pass within the study area:

- A1 (M) – 600m east
- A1057 – 300m south
- A1000 – 2.3km east
- A414 – 1.4km south
- To Peterborough to London Railway Line – 2.3km east

Field study has confirmed that from all of these routes the Site is not visible owing to intervening built form and vegetation. In the case of the A1057 glimpsed views are possible from the area around Albatross Way roundabout. However, these are fleeting and given the context of the University of Hertfordshire would not result in any notable change the composition of views from this route. Overall, the visual amenity of key routes within the study area would not be affected by the Proposed Development.

#### 11.3.10 Accessible Landscapes

Within the study area there is area of common land, along with 2 Registered Parks and Gardens (one of which appears to be publicly accessible), and a Country Park (Stanborough). However, the field survey has confirmed the Site is not visible from any of these locations, and would not be affected by the Proposed Development.

It is acknowledged that the Site itself is currently publicly accessible, and visual assessment considers the effect of recreational users along the permissive routes through Ellenbrook Fields.

#### 11.3.11 Specific Viewpoints

No specific viewpoints have been identified for assessment within this LVIA.

#### 11.3.12 Designated Landscapes

No designated landscapes are within the 3km study area.

#### 11.3.13 Local Landscape Value

The Site forms part of the former Hatfield Aerodrome, the eastern part of which has been redeveloped in the form of residential and commercial uses and the remainder is currently public open space (Ellenbrook Fields). The Site, and redeveloped area's, heritage in terms of aviation dates from the early 20<sup>th</sup> century and many features associated with aviation, flight and engineering can be appreciated. The Hatfield Aerodrome Heritage Trail, a local heritage trail project undertaken by the University of Hertfordshire defines a circular walk largely outside of the Site provides an interpretation of the area's rich aeronautical heritage.

There are no statutory public rights of way within the Site, although the Ellenbrook Fields are crossed by a number of permissive routes. Field observation has confirmed these permissive paths are well used by the local population for outdoor leisure activities. A weekly Parkrun is also held around the Site / Ellenbrook Fields.

## 11.4 ASSESSMENT OF EFFECTS

### 11.4.1 The Proposed Development

#### The Proposal

The Proposed Development will comprise the following elements as described in more detail in the Design and Access Statement (DAS):

- Construction of up to 1,100 residential dwellings and community infrastructure, including primary school and local centre.
- Construction of a new primary access road, running through the scheme and joining to the existing road network to the north and south.
- Retention of existing landscape features and creation of new green infrastructure, including areas of semi-natural greenspace and more formal open space.

#### Site Fabric

A number of landscape features, comprising parts of the Site's physical fabric, would be modified or removed, as follows:

- The removal of areas of semi-improved grassland within the site to accommodate new buildings and infrastructure.
- Removal of areas of scrub within the site to accommodate new buildings and infrastructure.
- Removal of trees along the northern boundary to accommodate new site access.

- The retention and enhancement of large areas of semi-improved grassland as part of the overall Green Infrastructure strategy.
- The retention and enhancement of the vast majority of boundary trees and hedgerows.
- The 'de-culverting' of the Ellenbrook where it crosses the north of the site to reduce flood risk and improve amenity / biodiversity value.
- The retention and enhancement of two ponds, with small populations of great crested newts, in the south of the Site.
- The creation of new woodland adjacent to 'Home Covert', providing a buffer to the existing woodland and creating habitat diversity.
- The creation of new areas of tree and scrub planting throughout the Site.

### Design Response

Landscape and visual considerations have informed the design of the Proposed Development from the outset.

The Proposed Development takes the form of a Forest Village, comprising three distinct neighbourhoods (referred to as the Upper, Middle and Lower Village) and set within a comprehensive network of Green Infrastructure. This will help to create a village character that responds to the character of Hatfield New Town, yet respectful of, and sensitive to, the character of the wider surrounding countryside.

Buildings heights will vary between the neighbourhoods, with higher buildings generally located within the Middle village, and lower buildings towards the edges of the residential areas. Buildings will typically be 2 – 3 stories, with some 4 storey development in key locations. This is in keeping with the scale of development within Salisbury Village residential area.

A range of community facilities will be centrally located within the Middle Village incorporating a primary school, local centre and village green, where they are easily accessible to existing and future residents

The proposed Green Infrastructure will provide a range of different types of public open space, including amenity space, sports pitches, allotments, and semi-natural green space. The existing Ellenbrook will be retained as a key landscape feature/green corridor and culverted sections of the brook will be opened up.

A network of footpath-cycleways will be created, creating connections between the neighborhoods and providing links to the existing urban area of Hatfield to the east and the countryside to the west.

#### 11.4.2 Construction Effects

Construction is anticipated to commence by 2020, would be on a phased basis, as set out below:

- Phase 1 – construction complete by 2021
- Phase 2 – construction complete by 2023
- Phase 3 – construction complete by 2025
- Phase 4 – construction complete by 2027

Key potential impacts during the construction phase might include the visual effect of site vehicles and construction traffic, within the Site and in surrounding areas; other components typical of construction

activities, including workers' accommodation, stockpiles of materials, lighting of specific areas, such as construction compounds; and gradual modification of landscape character as part of a phased programme of works. Effects during construction would be temporary and short term and as such would be of notably lower magnitude than those on completion, although more likely to be perceived as adverse.

On this basis, effects are only assessed during the operational period, when construction is complete but before mitigation planting is fully mature. At this point in the project the effects are likely to be at their greatest and this is considered to be a 'worst-case' scenario. The effects will gradually reduce during the operational phase as planting along site boundaries and throughout the Site matures.

### 11.4.3 Operational Phase – Landscape Effects

#### National Landscape Character

The Site lies within NCA 111: Northern Thames Basin. This character area occupies a large elongate area to the north of London from St Albans in the west to Clacton-on-Sea in the east. characteristics of noted to be [inter alia]:

- *“The landform is varied with a wide plateau divided by river valleys. The prominent hills and ridges of the ‘Bagshot Hills’ are notable to the northwest and extensive tracts of flat land are found in the south.”*
- *“The pattern of woodlands is varied across the area and includes considerable ancient semi-natural woodland. Hertfordshire is heavily wooded in some areas as are parts of Essex, while other areas within Essex are more open in character. Significant areas of wood pasture and pollarded veteran trees are also present.”*
- *“Mixed farming, with arable land predominating in the Hertfordshire plateaux, parts of the London Clay lowlands and Essex heathlands. Grasslands are characteristic of the river valleys throughout...” including sites related to Roman occupation, with the Roman capital at Colchester and City*
- *“Rich archaeology of St Albans (Verulamium) and links to London. Landscape parklands surrounding 16th- and 17th-century rural estates and country houses built for London merchants are a particular feature in Hertfordshire.”*
- *“The medieval pattern of small villages and dispersed farming settlement remains central to the character of parts of Hertfordshire and Essex. Market towns have expanded over time as have the London suburbs and commuter settlements, with the creation of new settlements such as the pioneering garden city at Welwyn and the planned town at Basildon.”*

The character areas identified in the national character area assessment are used to “set the scene” with assessment undertaken on character areas defined in the detailed, district level Welwyn Hatfield Landscape Character Assessment (2005).

#### Local Landscape Character

Landscape character assessment at the local level is provided by the Welwyn Hatfield Landscape Character Assessment (2005) produced by Hertfordshire County Council and Welwyn Hatfield Council and is shown for the study area on Figure 11.4. The Site is identified within LCA31: de Havilland Plain, the key characteristics of which are noted as being [inter alia]:

- *“An extensive level plain.”*
- *“Large open arable landscape to the north on high quality agricultural land.”*
- *“Disused Hatfield aerodrome with associated industrial and commercial development and aeronautical structures.”*
- *“Existing and restored mineral workings.”*
- *“Urban fringe development and glasshouses.”*
- *“Incoherent and jumbled landscape, particularly to the south and centre.”*

The accompanying text adds *“to the centre [of the character area] the disused Hatfield aerodrome and the new business park have visually dominant structures, together with areas of existing and redundant mineral extraction.”*

The assessment concludes the condition of this character area is ‘poor’ with one of the identified guidelines for managing change set out on page 28 being *“screen/soften the visually intrusive built features on the perimeter and within the area including the Hatfield Business Park and the Hatfield Aerodrome.”*

The Site and its immediate locality demonstrate many characteristics of LCA31: de Havilland Plain, in particular the level plain-like topography, mineral workings and urban fringe developments and the remnants of the disused Hatfield aerodrome. The Site itself contains a number of characterising features including its relative flat topography, large swathes of semi-improved grassland, blocks of scrub and established perimeter vegetation.

Taking into consideration the Welwyn Hatfield Borough Landscape Sensitivity and Capacity Study which assessed the Site as ‘Broad Location D: West of the redeveloped part of Hatfield Aerodrome’ and concludes it to be of high landscape sensitivity and of high landscape value, the susceptibility of the de Havilland Plain LCA, a larger area that the Site, to this type of development is considered to be **medium-high** in that undue consequences may arise from the Proposed Development.

For the purposes of this LVIA in accordance with the methodology set out in Section 11.2, the de Havilland Plain is considered to be of **local / district** value as it possesses features and attributes that contribute to the character and appreciation of the landscape including heritage assets, public access and biodiversity qualities above ‘ordinary countryside’ resulting in its sensitivity to be judged to be **medium**.

The Proposed Development would result in a **large, permanent** change in character of Ellenbrook Fields from an undeveloped site to one containing built form. However, this would affect a relatively **limited** part of the overall character area, largely contained to the confines of the northern extent of Ellenbrook Fields. Furthermore, the clustering of development into 3 discreet neighborhoods, interspersed with Green Infrastructure, will help break up the perceived scale and massing of the built form. Overall a **medium** magnitude of change is therefore anticipated, resulting in a **major-moderate** and **adverse** effect.

The effects on character would rapidly decrease with distance from the Proposed Development, and any perceptible changes to character are unlikely to extend much beyond the boundaries of Ellenbrook Fields, in part due to the high degree of enclosure of the Site from boundary vegetation. Furthermore, this area of the de Havilland Plain landscape is already influenced by urban form as recorded in the

Welwyn Hatfield Landscape Character Assessment and the development of the Site would not appear out of context to this. The Proposed Development would also be well integrated into the landscape by existing and proposed vegetation.

The Proposed Development would result in a **medium-small, permanent** change for a **limited** area beyond Ellenbrook Fields, primarily where there is intervisibility with the eastern edge of Sailbury Village. A **low** magnitude of change is therefore anticipated on the landscape immediately surrounding the Site, resulting in a **slight** and **adverse** effect.

There are unlikely to be any discernible effects on the wider character of the de Havilland Plain given the close association between the Proposed Development and the existing built-up area, and effective screening and filtering provided by existing vegetation. Overall a **negligible** scale / magnitude of effect is concluded.

Overtime, the proposed Green Infrastructure and landscape planting would assimilate the development within the landscape context. In particular proposed tree and woodland planting will break-up views of the built form and ensure the development fits with the existing pattern of woodland across the landscape. New planting will also help soften the urban edge of Hatfield, which is currently characterised by intrusive built features.

Given the limited visibility of the Site, no other landscape character areas as identified within the Welwyn Hatfield Landscape Character Assessment and shown on Figure 11.4 would experience perceptible change to their character.

#### Settlement Form and Context

Effects to the existing settlement of Hatfield are anticipated to be limited. It is considered that the Proposed Development would represent a logical extension to the settlement area, relating well to the existing Salisbury Village to the east and being well contained to the west by existing / enhanced boundary vegetation and woodland.

Importantly, the Proposed Development creates an opportunity to enhance the existing urban edge, which is currently defined by a combination of industrial units and residential properties, some of which back on to or are fenced off from the Ellenbrook Fields. The Proposed Development will create a series of three well defined neighborhoods that are well integrated into the landscape, and positively responds to the surrounding countryside, with lower density development fronting on to Green Infrastructure along the western edge.

In addition, large areas of the Ellenbrook Fields will be retained as Green Infrastructure, providing local recreational amenity and contributing positively to emerging policy aspirations and the strategic green infrastructure network of the Borough.

#### Designated landscapes

No designated landscapes are present within the study area.

#### 11.4.4 Operational Phase – Visual Effects

##### Representative Viewpoints

The location of representative viewpoints are shown on Figure 11.3 and corresponding photopanels are presented at Figure 11.6. The viewpoint description, description of effects and scale of effect for each viewpoint is set out on the relevant photograph, and the scale of effect at each viewpoint is summarised in the table below:

**Table 11.7: Representative Viewpoints**

Viewpoint	Distance, direction	Scale of effect	
		Adverse, Neutral, Positive	
		Medium term	Permanent
VP 1: View from Ellenbrook Fields near to the Hatfield Aerodrome Memorial looking west toward the Site.	10m E	Large Adverse	Large Adverse
VP 2: View from the junction of Cooper’s Green Lane and Hatfield Avenue looking west toward the Site.	20m E	Small Adverse	Negligible
VP 3: View from the junction of Cooper’s Green Lane and Astwick Manor looking east toward the Site.	20m W	Small Adverse	Negligible
VP 4: View from footpath Colney Heath 14 looking northeast toward the Site.	675m SW	Small to Medium Adverse	Small
VP5: View from Albatross Way looking northwest toward the Site.	50m SE	Negligible	Negligible
VP6: View from Ellenbrook Lane at the junction with the A1057 looking northwest toward the Site.	300m SE	Negligible	Negligible
VP 7: View from Cooper’s Green Lane at the junction with Sandpit Lane looking northeast.	1.8km SW	Negligible	Negligible
VP 8: View from Bridleway Hatfield 041 looking south toward the Site.	700m N	Negligible	Negligible
VP 9: View from Footpath Sandridge 20 looking east toward the Site.	1.6km W	Negligible	Negligible



Each of the viewpoints is a 'sample' of the potential effects, representing a wide range of receptors – including not only those actually at the viewpoint, but also those nearby, at a similar distance and/or direction.

From these viewpoints it can be seen that:

The extent of **Large** scale visual effects, where the Proposed Development would form a major alteration to key elements, features, qualities and characteristics of the view such that the baseline will be fundamentally changed, would generally be limited to locations within or immediately adjacent to the Site, where unfiltered or filtered views through vegetation and built form are possible.

Beyond this area, the extent of **Small** scale effects is limited due to the screening effects of woodland and tree belts at the perimeter and in close proximity to the Site.

Beyond approximately 500m from the site boundary, scale of effects reduces from **Small to Negligible**, particularly once the mitigation planting along the more exposed western and northern boundaries has matured, breaking up the edge of the built form, filtering and screening views of the proposals.

Outside these areas, the Proposed Development would either be screened from visual receptors by vegetation within the landscape, or the development would form a very limited change in views, being seen in the context of existing settlement edge of Hatfield.

#### Visual Receptor Groups

This assessment focuses on effects on groups of visual receptors, incorporating effects on views from public spaces and streets within settlements (or around the houses in areas with isolated dwellings), and the routes and accessible landscape in the surrounding countryside. Residents and visitors within these communities are assessed to be of **High-Medium** sensitivity. The assessment of effects on settlements focuses on the visual amenity of public spaces, though views from groups of dwellings will also be noted in the descriptions. Effects on private residential amenity are a separate matter, and only require assessment when a development is likely to be 'overwhelming' or 'overbearing' (as set out within Section 11.2.2 and Appendix 11.3), which is not the case in respect of this Proposed Development.

#### Ellenbrook Fields and the Eastern Edge of Hatfield (0m east)

This visual receptor groups includes users of Ellenbrook Fields and residential properties and public spaces at the eastern edge of Hatfield and represents the closest visual receptor group to the Site.

Views of the Site vary greatly from Ellenbrook Fields depending on the location and presence of intervening vegetation. In the northern part of Ellenbrook Fields (from within the Site) (Figure 11.6 / Viewpoint 1) views are relatively open, however, further south (beyond the Site boundary) views become obscured by intervening scrubby vegetation. Outward views from with the northern part of Ellenbrook Fields (the Site) are characterised by the urban fringe of Hatfield in the form of the large and bulky industrial units of Hatfield Business Park and also dwellings within Salisbury Village residential area adjacent to the east. Nonetheless, given the Site is currently undeveloped, the Proposed Development would change the nature of the existing views.

Private dwellings adjacent to the east of Ellenbrook Fields include properties on Nimrod Drive, Flamingo Close and Walker Grove as well as Cunningham Avenue beyond and a large area of public open space known as Barlow Playground. From these receptors the scrubby vegetation along the eastern edge of the Site screens and filters many views and consequently views of the Proposed Development are likely to be more possible from upper storeys of dwellings, commonly 2 to 2.5 storeys in height. Beyond the immediate dwellings that front or back onto Ellenbrook Fields, views are quickly screened by built form, limiting views and street level allowing only glimpses at best through to the Site.

Views from Hatfield Business Park are largely screened by the eastern boundary vegetation of the Site which limited views from this area. The large commercial units themselves also screen views further within the Business Park and at street level from public roads.

The scale of change to visual receptors within Ellenbrook Fields is assessed to be **large** overall. Effects for the completed development would be **permanent**, affecting a **localised** extent of the receptor group and result in a **high** magnitude of change. The significance of the visual effects for Ellenbrook Fields are therefore assessed to be **major-moderate** and **adverse**.

For receptors along the eastern boundary of the Site – including receptors on the edge of Salisbury Village residential area - a **medium** scale of change is predicted. Effects for the completed development would be **permanent**, affecting a **limited** extent of the receptor group and result in a **medium-low** magnitude of change. The significance of the visual effects is therefore assessed to be **moderate** and **adverse**.

Beyond the areas described above, the scale of change would be of **small-negligible** scale, **permanent** duration, affecting a **limited** extent of the receptor group and resulting in a **negligible** magnitude of change. The significance of the visual effects is therefore assessed to be **minimal** and **adverse**.

Overtime, the proposed Green Infrastructure and landscape planting would assimilate the development within the landscape context. In particular proposed tree and woodland planting will soften views of the built form and ensure the development fits with the existing pattern of woodland across the landscape.

#### **Astwick Manor, Cooper's Green, Beeches Farm and Cooper's Green Lane (0m, west)**

This visual receptor group encompasses a small number of receptors in close proximity (approximately 0m – 500m) to the Site to the west. These include private residential dwellings at Astwick Manor, Cooper's Green, Beech Farm and also local road users on Cooper's Green Lane.

Views from this visual receptor group are often screened by established vegetation aligning Cooper's Green Lane and woodland forming the western boundary of the Site including Round Wood, Home Covert and Cut Field Wood. Field study has found that views from Cooper's Green and Beeches Farm are not possible given intervening vegetation whilst those from Astwick Manor (Figure 11.6 / Viewpoint 3) are very limited. Even from Cooper's Green Lane views of the Site are limited to its northern extent where it runs adjacent to the Site (Figure 11.6 / Viewpoints 2 and 3).

Any change to views from this visual receptor group will be largely a result of the new access and roundabout from Cooper's Green Lane. Built form of the Proposed Development would be generally screened behind the retained established vegetation that aligns Cooper's Green Lane and strengthened with additional planting as part of the Site's northern boundary, maintaining the rural and vegetated character of the lane.

Overall a **medium** scale of change is anticipated to the Astwick Manor, Cooper's Green, Beeches Farm and Cooper's Green Lane visual receptor group affecting a **limited** extent for a **permanent** duration resulting in a **low** magnitude of change. A **slight** and **adverse** effect is concluded for this visual receptor group.

#### Popefield Farm and Footpath Colney Heath 14 / 15 (200m southwest)

This visual receptor group is located approximately 200m to the southwest of the Site and comprises users of footpath Colney Heath 14 / 15 (Figure 11.6 / Viewpoint 4) and also Popefield Farm and Notcutts Garden Centre.

This area has consent for future mineral workings (visible in the foreground) and the composition of these views will change significantly in future before the land is restored post mineral working.

From Notcutts Garden Centre and Popefield Farm views of the Site are screened by the boundary vegetation of these properties and no change to the views is anticipated.

From footpath Colney Heath 14 / 15 (Figure 11.6 / Viewpoint 4) glimpsed and filtered views of the Proposed Development would be possible filtered by and nestled within the vegetative network. The Proposed Development would also be seen in the context of Hatfield Business Park and the western residential suburbs of Hatfield which can be seen currently in the middle ground. Whilst development of the Site would increase the quantity of built form it is considered it would not alter the composition of views from this area given the visibility of Hatfield.

Overall a **small** scale of change is anticipated to visual receptors on Footpath Colney Heath 14/15 for a **permanent** duration affecting a **limited** extent of the receptor group and resulting in a **negligible** magnitude of change, and **minimal adverse** effects.

#### 11.4.5 Cumulative Effects

The LVIA cumulative assessment considers development projects within the 3km LVIA Study Area, which have a reasonable prospect of coming forward before or at the same time as proposed development. The methodology for the cumulative assessment is set in in Appendix 11.3.

The following schemes are considered to be part of the cumulative assessment:

- Application for redevelopment within Hatfield Business Park to provide office / industrial premises and hotel.
- Application for proposed extension to Hatfield Quarry into land known as Furze Field, involving restoration of extension area to agricultural land.
- Application for the establishment of a new quarry on land at the former Hatfield Aerodrome, including a new access onto the A1057, plant and other ancillary facilities, and restoration to open space.

No other relevant projects have been identified within the LVIA study area.

The LVIA cumulative assessment for the Proposed Development - in combination with the above projects – is set out in the following table:

**Table 11.8: Cumulative Assessment**

Scheme	Assessment
Hatfield Business Park	<p>The scheme is located to the east of the Site, on brownfield land within the Hatfield Business Park. It is considered that the development will have no discernible effect on the character of the Site, and there will be no intervisibility with the proposed development. It is therefore judged that there is no potential for significant cumulative effects.</p>
Hatfield Quarry / Furze Field	<p>The scheme is located to the north of the Site, on greenfield land surrounding the existing Hatfield Quarry, the vast majority of which seems to have already been restored. It is anticipated that the extraction / restoration would take approximately 18 months, and that the quarry extension will be restored to a mosaic of wetland, grassland, and woodland once extraction is complete. As such, it is likely to be complete prior to the construction phase of the Proposed Development (in 2020), and there will be some minor positive landscape effects resulting from the restoration proposals. If there was a period of overlap between extraction and construction phase of the Proposed Development, there is likely to limited scope of cumulative landscape and visual effects due to separation by existing vegetation and lack of intervisibility. It is therefore judged that there is no potential for significant cumulative effects.</p>
New Quarry at former Hatfield Aerodrome	<p>The scheme is located to the south of the Site, on greenfield land comprising the southern extent of Ellenbrook Fields. It is anticipated that the extraction / restoration would take approximately 30 years, and that the quarry will be restored to a mosaic of wetland, grassland, and woodland on a phased basis during the extraction period. As such, extraction and construction / operation of the Proposed Development are likely to coincide and there is potential for significant cumulative effects.</p> <p>In order to assess the cumulative effects, the quarry and Proposed Development are considered at two stages:</p> <ul style="list-style-type: none"> <li>• 2027, when the Proposed Development is complete / operational, but while the quarry is active (long term but temporary effects)</li> <li>• 2048: When the Proposed Development is operation and the quarry is fully restored (permanent effects)</li> </ul> <p>By 2027, the operational Proposed Development is predicted to have a major-moderate and adverse effect on the landscape character of the Ellenbrook Fields due to a change in character from an undeveloped site to one containing built form. The mineral extraction will result in the loss of undeveloped land and will change the character of the countryside of the western edge of Hatfield. However, mineral extraction is already a feature of the local landscape and the phased approach to extraction / restoration will</p>

	<p>ensure parts the landscape is restored once mineral extraction is complete. The Green Infrastructure strategy for the Proposed Development will also ensure a degree of separation is maintained between residential uses and extraction sites. It is considered that cumulative effect on the landscape character of the Ellenbrook Fields will be large scale, long term, and over a localised part of the character area. A high magnitude of change is therefore anticipated and the overall cumulative landscape effect will continue to be major-moderate and adverse.</p> <p>By 2027, the operational Proposed Development is predicated to have a major-moderate / moderate effect on visual receptors within Ellenbrook Fields and on the eastern edge of Hatfield due to change in views from an undeveloped site to one containing built form. The mineral extraction will result in the loss of undeveloped land and will further disrupt views from within Ellenbrook Fields, however, it will not be readily apparent from the edge of Hatfield due to the degree of intervening vegetation. It is considered that cumulative effect on the views from within the Ellenbrook Fields will be large scale, long term, and over a localised part of the receptor group. A high magnitude of change is therefore anticipated and the overall cumulative visual effect will continue to be major-moderate and adverse.</p> <p>By 2048, the mineral extraction will be complete and all parts of the minerals site restored. The minerals site will reflect the existing baseline condition, comprising open space and areas of planting, and as such, the permanent cumulative landscape and visual effects will remain as predicted for the Proposed Development alone. However, it is acknowledged that there will be some positive landscape and visual effects resulting from the restoration proposals, improving the overall character and appearance of the southern extent of Ellenbrook Fields; helping assimilate the development within the landscape context; and screening views.</p>
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## 11.5 MITIGATION

A 'mitigation by design' approach has been taken for the proposals, meaning that during the course of the masterplanning process, landscape considerations were taken into account as an integral part of the design of the development, as described in Chapter 3: Proposals and Alternatives, and summarized at the start of the Section 11.4 of this Chapter. The assessment of effects therefore assumes that all primary mitigation measures are embodied in the design of the proposals.

Additional mitigation measures that should be adopted, beyond those inherent within the design include:

- Careful selection of building materials, colours and architectural treatment to ensure the proposed development sits well within the landscape and is not visually intrusive.
- Adoption of a Construction and Environmental Management Plan to ensure existing landscape features to be retained are properly protected during the construction phase.

- Adoption of a Landscape and Ecological Management Plan to ensure the proposed planting and green infrastructure becomes well established and is properly managed in perpetuity.

## 11.6 RESIDUAL EFFECTS

The mitigation measures required to reduce the effect of the proposed development on landscape character and views has been incorporated into the design of the project and the assessment of effects assumes that this mitigation is delivered.

No further primary mitigation measures are proposed, and as such, the residual effects will be the same as those described in relation to the Permanent effects of the proposed development.

## 11.7 SUMMARY OF EFFECTS

Effects on the receptors assessed in Section 11.4 are summarised in the following table:

**Table 11.9: Summary of Effects.**

Receptor	Comments	Distance / Direction	Sensitivity	Magnitude	Significance	Positive / Neutral / Adverse
<b>Landscape Character</b>						
LCA31: de Havilland Plain	Effects on Ellenbrook Fields	/	Local / District	Medium	Major - Moderate	Adverse
	Effects on landscape immediately surrounding the Site			Low	Slight	
	Effect on the wider character area			Negligible	Negligible	
<b>Visual Receptor Groups</b>						
Ellenbrook Fields and the Eastern Edge of Hatfield	Within Ellenbrook Fields	0m east	High - Medium	High	Major - Moderate	Adverse
	Area within approximately 100m of Ellenbrook Fields	100m east		Medium-low	Moderate	
	Elsewhere within receptor group	>100m east		Negligible	Minimal	

Receptor	Comments	Distance / Direction	Sensitivity	Magnitude	Significance	Positive / Neutral / Adverse
Astwick Manor, Cooper's Green, Beeches Farm and Cooper's Green Lane	Overall visual effect on receptor group	0m west	High - Medium	Low	Slight	Adverse
Popefield Farm and Footpath Colney Heath 14 / 15	Overall visual effect on receptor group	200m southwest	High - Medium	Negligible	Minimal	Adverse

## 11.8 CONCLUSIONS

This assessment considers the effects of the Proposed Development on the existing landscape and visual baseline environments. The LVIA has also been an important component of the masterplanning process, ensuring landscape and visual considerations have informed the design of the Proposed Development from the outset.

In relation to landscape character, it is predicated that there will be major-moderate adverse effects on the Ellenbrook Fields itself, due to its change from an undeveloped site to built development. However, this is in part mitigated by the design of the Proposed Development, which will create a series of three well defined neighbourhoods that sit within a strong Green Infrastructure framework. Beyond Ellenbrook Fields, the effects rapidly reduce to slight-negligible, and there are unlikely to be any discernible effects on the wider character of the de Havilland Plain.

The Proposed Development also relates well to the existing settlement form and context. It is considered that the Proposed Development would represent a logical extension to Hatfield, relating well to the existing Salisbury Village to the east and being well contained to the west by existing / enhanced boundary vegetation and woodland. Importantly, the Proposed Development creates an opportunity to enhance the existing urban edge, which is currently defined by a combination of industrial units and residential properties, some of which back on to or are fenced off from the Ellenbrook Fields.

In relation to views, it is predicated that there will be major-moderate adverse effects on recreation users of Ellenbrook Fields itself, due to its change from undeveloped site to built development. However, this is in part mitigated by the design of the Proposed Development, with the proposed tree and woodland planting helping to assimilate the development into the landscape and softening views of the built form. The proposed Green Infrastructure will also provide a range of different types of publicly accessible open space. The effects reduce to moderate for the limited number of recreational and residential receptors along the immediate eastern Site boundary, who will have relatively open views of the Proposed Development. Beyond this, effects are considered to be slight-minimal and there are unlikely to be any discernible effects on views towards the Site from with Hatfield or the surrounding countryside.

Overall it is concluded that the effects of the Proposed Development are well contained and limited to a small number of receptors within and immediately adjacent to the Site. There will be a large degree of change to character and views as a result of the changing land-use within the Site, but the Proposed Development has been sensitively designed to respond to local context.