

Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

The Hinckley National Rail Freight Interchange Development Consent Order

Project reference TR050007

Environmental Statement Volume 1: Main Statement

Appendix 11.1: Landscape and Visual Baseline Assessment

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Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
Regulation 14

This document forms a part of the Environmental Statement for the Hinckley National Rail Freight Interchange project.

Tritax Symmetry (Hinckley) Limited (TSH) has applied to the Secretary of State for Transport for a Development Consent Order (DCO) for the Hinckley National Rail Freight Interchange (HNRFI).

To help inform the determination of the DCO application, TSH has undertaken an environmental impact assessment (EIA) of its proposals. EIA is a process that aims to improve the environmental design of a development proposal, and to provide the decision maker with sufficient information about the environmental effects of the project to make a decision.

The findings of an EIA are described in a written report known as an Environmental Statement (ES). An ES provides environmental information about the scheme, including a description of the development, its predicted environmental effects and the measures proposed to ameliorate any adverse effects.

Further details about the proposed Hinckley National Rail Freight Interchange are available on the project website:

<http://www.hinckleynrfi.co.uk/>

The DCO application and documents relating to the examination of the proposed development can be viewed on the Planning Inspectorate's National Infrastructure Planning website:

<https://infrastructure.planninginspectorate.gov.uk/projects/east-midlands/hinckley-national-rail-freight-interchange/>

Appendix 11.1 ◆ Landscape and Visual Baseline Assessment

INTRODUCTION

- 1.1 This Landscape and Visual Baseline Assessment (LVB) has been prepared by The Environmental Dimension Partnership Ltd (EDP), on behalf of Tritax Symmetry (Hinckley) Limited (TSH), to inform a proposed National Rail Freight Interchange on land north-east of Hinckley (hereafter referred to as ‘the site’), which is the subject of a Development Consent Order (DCO) application.
- 1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website (www.edp-uk.co.uk).
- 1.3 This Appendix should be read in conjunction with the following Annexes:
- Annex 1 – Assessment Methodology;
 - Annex 2 – Relevant Extracts from Policy;
 - Annex 3 – Relevant Extracts from Landscape Assessments;
 - Annex 4 – GLVIA Glossary of Terms; and
 - Annex 5 – Photomontage Methodology.
- 1.4 Figure 11.1: Site Location and Site Boundaries (document reference 6.3.11.1) illustrates the extents of the Order Limits. The Proposed Development comprises the following main components and is described in full within Chapter 3: Project description (document reference 6.1.3).

Main HNRFI Site and M69 Junction 2 Works

- 1.5 The Main Hinckley National Rail Freight Interchange Site (hereafter referred to as the ‘Main HNRFI Site’) is located approximately 5km to the north-east of Hinckley town centre, in a level area of mixed farmland to the north-west of M69 Junction 2. The Main HNRFI Site falls between the Leicester to Hinckley railway to the north-west and the M69 motorway defining the south-eastern edge. To the south-west of the Main HNRFI Site are blocks of deciduous woodland, including Burbage Wood, Aston Firs and Freeholt Wood. To the north-east lies the village of Elmesthorpe, a linear settlement on the B581 Station Road. The Main HNRFI Site lies wholly within Blaby District, Leicestershire.

- 1.6 The Strategic Rail Freight Interchange (SRFI) would contain the following main elements:
- New rail infrastructure including points off the existing Leicester to Hinckley railway providing access to a series of parallel sidings at the SRFI, in which trains would be unloaded, marshalled and loaded. This railway forms part of Network Rail's strategic freight network, linking the west coast and east coast main lines and forming a primary link between Felixstowe and the Midlands and North. Network Rail has already undertaken substantial capacity enhancements under its Felixstowe to Nuneaton freight capacity scheme (F2N);
 - An intermodal freight terminal or 'Railport' capable of accommodating up to 16 trains up to 775m in length per day, with hard-surfaced areas for container storage and HGV parking and cranes for the loading and unloading of shipping containers from trains and lorries;
 - Up to 850,000 m² (gross internal area or GIA) of warehousing and ancillary buildings with a total footprint of up to 650,000 m² and up to 200,000 m² of mezzanine floorspace. These buildings might incorporate ancillary data centres to support the requirements of HNRFI occupiers and operators;
 - A lorry park with a fuel filling station;
 - An energy centre containing centralised infrastructure and plant as well as some components that will be distributed at the units;
 - Terrain remodelling, hard and soft landscape works, amenity water features and planting inside the SRFI;
 - Noise attenuation measures, including acoustic barriers up to six metres in height; and
 - Pedestrian, equestrian and cycle access routes and infrastructure inside the SRFI.
- 1.7 Connected to the Main HNRFI Site is a new access road from Junction 2 of the M69 motorway connecting to an internal road network serving the SRFI and continuing north-westwards over a new road bridge spanning proposed railway sidings and the existing Leicester to Hinckley railway to the A47 Link discussed below.
- 1.8 Works to Junction 2 of the M69 motorway comprise the reconfiguration of the existing roundabout and its approach and exit lanes, the addition of a southbound slip road for traffic joining the M69 and the addition of a northbound slip road for traffic leaving the motorway at Junction 2.

A47 Link Road

- 1.9 The A47 Link Road element of the Order Limits is a corridor of land located to the north-west of the Main HNRFI Site, extending north-west to the B4668. Its intention is to provide a link through the Main HNRFI Site and the internal road network, to a bridge over the railway and onwards to the B4668 and A47 to the north-west. This corridor comprises

enclosed, low-lying arable farmland, which is bounded by a mature hedgerow on its southern edge with Burbage Common Road, whilst the northern edge is partially open.

1.10 The proposals comprise the following:

- creation of a Link Road, from the Main HNRFI Site to the A47/B4668 road junctions including associated infrastructure such as signage, pedestrian footways and crossing points;
- creation of embankments along the Link Road; and
- conversion of agricultural land south of the Link Road to provide an extension to the Burbage Common and Woods Country Park to the south.

Offsite Highway Works

1.11 Within the wider Order Limits are a number of generally minor highways modifications proposed which are set out within Table 1.1 below.

Table 1.1: Offsite Highway Works.

No.	Location and site description	Highway Authority
Blaby DC		
B1	Junction of B581 Station Road/New Road and Hinckley Road, Stoney Stanton	Leicestershire County Council (LCC)
B2	Junction of B4669 Hinckley Road and Stanton Lane, west of Sapcote	LCC
B3	Stanton Lane/Hinckley Road, south-west of Stoney Stanton	LCC
B4	B4669 Hinckley Road/ Leicester Road, Sapcote	LCC
B5	Junction of B4114 Coventry Road and B581 Broughton Road at Soar Mill, south-east of Stoney Stanton	LCC
B6	Junction of B4114 Coventry Road and Croft Road, south-west of Narborough	LCC

No.	Location and site description	Highway Authority
Hinckley and Bosworth BC		
HB1	Junction of A47 Normandy Way and A447 Ashby Road, Hinckley	LCC
HB2	Junction of A47 Normandy Way/Leicester Road, the B4668 Leicester Road and The Common, south-east of Barwell	LCC
HB3	Junction of B4668 and New A47 Link Road, north east of the site access (Access Infrastructure)	LCC
Harborough DC/Rugby BC		
HR1	Cross in Hand roundabout at the junction of the A5 Watling Street, A4303 Coventry Road, B4428 Lutterworth Road and Coal Pit Lane, west of Lutterworth	National Highways

Railway Works

1.12 The existing Leicester to Hinckley railway features a series of uncontrolled gated pedestrian level crossings serving local Public Right of Way (PRoW) routes. There is the potential for freight trains to be held at signals on their approaches to the HNRFI. Where this happens, trains might temporarily obstruct level crossings or block views along the line, creating a risk that pedestrians might attempt to walk along the railway to get around the end of the train, climb under the couplings of stationary freight wagons or cross when it is not safe to do so because their view of an approaching train is blocked. Following discussions with Network Rail, to maintain public safety, the following measures are proposed at five crossings set out in Table 1.2 below.

Table 1.2: Railway Works

No.	Location and site description	Works Proposed
P1	Thorney Fields Farm No 2: Grid Ref: SP480959 Footpath No. XU17/2 1 km NW of Sapcote	The level crossing would be closed and the existing PRow diverted with pedestrians rerouted to an existing bridge over the railway south of Thorney Fields Farm.
P2	Elmesthorpe: Grid Ref: SP471958 Footpath No. T89/1 between Bostock Close and the B581 Station Road, opposite the Wentworth Arms public house	Permanent closure. Pedestrians would instead be able to cross the railway using the existing Station Road bridge, 75 metres to the south-west.
P3	Billington Rough: Grid Ref: SP460954 Footpath No: U50/3-U50/4 from Elmesthorpe	Permanent closure. The footpath to the east of this level crossing is proposed to be stopped up, meaning that the level crossing would have no future purpose. Pedestrian traffic wishing to cross the railway would be diverted to the railway bridge proposed for the A47 Link Road, c.750 metres to the south-west.
P4	East of Bridge Farm: Grid Ref: SP457952 Footpath No. V23/1 from Barwell	Permanent closure. The footpath to the east of this level crossing is proposed to be stopped up, meaning that the level crossing would have no future purpose. Pedestrian traffic wishing to cross the railway would be diverted to the railway bridge proposed for the A47 Link Road, c. 400 metres to the south-west.
P5	The Outwoods: Grid Ref: SP442941 Footpath no. U8/1-U52/1, connecting Burbage and the Hinckley Academy and John Cleveland Sixth Form Centre in Hinckley	Replacement of the level crossing with a pedestrian footbridge.

Purpose

- 1.13 The purpose of this document is to identify the landscape and visual baseline conditions of the DCO Site and its surrounding area, to inform the design and layout of the Proposed Development and to establish an appropriate scope of work to facilitate an assessment of the effects predicted to arise from the Proposed Development as part of the Environmental Impact Assessment (EIA) process.
- 1.14 In compiling the assessment, EDP has undertaken the following key tasks:
- Reviewed the planning policy context;
 - Undertaken a desktop study and web search of relevant background documents and maps. EDP's study included reviews of aerial photographs, web searches, Local Planning Authority (LPA) publications and landscape character assessments. EDP has also obtained, where possible, information about relevant landscape and other designations such as Areas of Outstanding Natural Beauty (AONBs), conservation areas and gardens and parks listed on Historic England's 'Register of Historic Parks and Gardens of Special Historic Interest in England' (RPG);
 - Undertaken a field assessment of local site circumstances, including a photographic survey of the character and fabric of the DCO Site and its surroundings, using photography from a number of representative viewpoints. The field assessment was undertaken by qualified landscape architects; and
 - Provided an analysis of the likely landscape and visual effects of the Proposed Development, which is determined by combining the magnitude of the predicted change with the assessed sensitivity of the identified receptors. The nature of any predicted effects is also identified (i.e. positive/negative, permanent/reversible).

Methodology Adopted for the Assessment

- 1.15 Landscape and visual assessment is comprised of a study of two separate but inter-linked issues:
- Landscape character is the physical make up and condition of the landscape itself, and arises from a distinct, recognisable and consistent pattern of physical and social elements, aesthetic factors and perceptual aspects; and
 - Visual amenity is the way in which the site is seen (views to and from the site, their direction, character and sensitivity to change).
- 1.16 Baseline landscape character issues and visual amenity issues are addressed below.
- 1.17 The LVIA has been undertaken in accordance with the 'Guidelines for Landscape and Visual Impact Assessment – Third Edition (LI/IEEMA, 2013)' (GLVIA3). The criteria referred to, but not defined within the guidelines, has been defined by EDP and set out in an Assessment Methodology contained at Annex 1. For the purposes of this assessment Box 5.1 in GLVIA3

has been used to assess landscape value. The set of factors contained in Box 5.1 were used at the outset of the process in 2019 and remain relevant. It is noted that, although broadly the same, a slightly amended set of factors has been produced as a means of assessing landscape value in Landscape Institute Technical Guidance Note TGN 02/21 Assessing Landscape Value Outside National Designations. While this document has been considered, it is not intended to replace GLVIA3 and as such the assessment completed in this ES is considered robust.

Study Area

- 1.18 To establish the baseline and potential limit of material effects, the study area has been considered at two geographical scales.
- 1.19 A broad study area of 5km was adopted from the Main Order Limits (excluding the separate redlines of the M69 signage works to the south), as shown on Figure 11.1 (document reference 6.3.11.1), enabling the geographical scope of the assessment to be defined and to provide the wider geographical context of the study. The search focussed on the local planning policy context, on identifying national and local landscape and other associated designations (e.g. AONB and RPG) and providing a general geographical understanding of the site and its broader context (for example, in relation to landform, transport routes and the distribution and nature of settlement).
- 1.20 Following initial analysis and subsequent field work, and having an appreciation of the Proposed Development, a refinement of the study area has been undertaken that focuses on those areas and features that are likely to be affected by the Proposed Development. A Zone of Theoretical Visibility (ZTV) for the proposal was produced across the 5km study area to aid understanding of the potential geographical extent of visual effects and help define a more detailed study area. The extent of this detailed study area is 2km from the Main Order Limits, although occasional reference may be made to features beyond this area where appropriate. This detailed study area is also illustrated on Figure 11.1. (document reference 6.3.11.1).

LANDSCAPE PLANNING POLICY AND DESIGNATIONS

- 1.21 An appreciation of the ‘weight’ to be attributed to any landscape or visual effects arising from development starts with an understanding of the planning context within which any such development is to be tested for its acceptability. This section appraises the relevant statutory policy context and guidance with regard to landscape and visual effects.

European Landscape Convention (2007)

- 1.22 The European Landscape Convention (ELC), which was signed by the UK in February 2006 and became binding in 2007, is the first international convention to focus specifically on landscape issues and aims to protect and manage landscapes in Europe and to plan positively for change within them. The ELC highlights the importance of developing landscape policies dedicated to protection, management and creation of landscapes, and establishing procedures for the general public and other stakeholders to participate in

policy creation and implementation. The ELC, which was signed by the UK in February 2006 and became binding in 2007, is the first international convention to focus specifically on landscape issues and aims to protect and manage landscapes in Europe and to plan positively for change within them. As set out by the Landscape Institute, “Brexit’ refers to the departure of the United Kingdom from the European Union (EU). The ELC is a convention of the Council of Europe, not the EU. Therefore, Brexit does not affect the status of this convention, and as of 31 January 2020, the UK remains a signatory¹”.

- 1.23 The ELC defines landscape as *“an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors”* (Council of Europe, 2004).

National Policy Statement for National Networks (2014)

- 1.24 The National Policy Statement (NPS) for National Networks sets out the need for, and Government’s policies to deliver, development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England. It provides planning guidance for promoters of nationally significant infrastructure projects on the road and rail networks, and the basis for the examination by the Examining Authority and decisions by the Secretary of State.

- 1.25 The NPS includes a section titled “Criteria for “good design” for national network infrastructure” which sets out the need for consideration of matters such as visual appearance, sustainability, good aesthetics, functionality and the role of technology in design. Critically in relation to landscape and visual matters the NPS states at paragraphs 4.31 and 4.32:

“A good design should meet the principal objectives of the scheme by eliminating or substantially mitigating the identified problems by improving operational conditions and simultaneously minimising adverse impacts. It should also mitigate any existing adverse impacts wherever possible, for example, in relation to safety or the environment.

Scheme design will be a material consideration in decision making. The Secretary of State needs to be satisfied that national networks infrastructure projects are sustainable and as aesthetically sensitive, durable, adaptable and resilient as they can reasonably be (having regard to regulatory and other constraints and including accounting for natural hazards such as flooding).”

- 1.26 Also of note at paragraphs 4.34 and 4.35:

“Whilst the applicant may only have limited choice in the physical appearance of some national networks infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation.

¹ <https://www.landscapeinstitute.org/policy/13732-2/>

Applicants should be able to demonstrate in their application how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. The Examining Authority and Secretary of State should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.”

- 1.27 In terms of NPS guidance on Landscape and Visual impacts, the NPS states at paragraphs 5.144 - 5.146:

“The landscape and visual assessment should include reference to any landscape character assessment and associated studies, as a means of assessing landscape impacts relevant to the proposed project. The applicant’s assessment should also take account of any relevant policies based on these assessments in local development documents in England.

The applicant’s assessment should include any significant effects during construction of the project and/or the significant effects of the completed development and its operation on landscape components and landscape character (including historic landscape characterisation).

The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include any noise and light pollution effects, including on local amenity, tranquillity and nature conservation.”

- 1.28 In terms of development in areas that are not subject to a national landscape designation, such as AONB’s and National Parks, the NPS states at paragraphs 5.156 and 5.157:

“Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be given particular consideration. However, local landscape designations should not be used in themselves as reasons to refuse consent, as this may unduly restrict acceptable development.

In taking decisions, the Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to avoid adverse effects on landscape or to minimise harm to the landscape, including by reasonable mitigation.”

- 1.29 Guidance relating to mitigation is set out in paragraphs 5.159 - 5.161:

“Reducing the scale of a project or making changes to its operation can help to avoid or mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design or changing the operation of a proposed development may result in a significant operational constraint and reduction in function. There may, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in scale or function. In these circumstances, the

Secretary of State may decide that the benefits of the mitigation to reduce the landscape effects outweigh the marginal loss of scale or function.

Adverse landscape and visual effects may be minimised through appropriate siting of infrastructure, design (including choice of materials), and landscaping schemes, depending on the size and type of proposed project. Materials and designs for infrastructure should always be given careful consideration.

Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site, although if such landscaping was proposed to be consented by the development consent order, it would have to be included within the order limits for that application. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant vista.”

National Planning Policy Framework 2021 (NPPF)

1.30 At the heart of the National Planning Policy Framework (NPPF) is a presumption in favour of sustainable development, this being the underlying theme running throughout the policy statement.

Conserving and Enhancing the Natural Environment

1.31 For landscape, this means recognising the intrinsic beauty of the countryside and balancing any ‘harm’ to the landscape resource with the benefits of the scheme in other respects. Paragraph 174 goes on to describe ways in which planning policies and decisions should contribute to the natural and local environment:

- a) *“protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) *maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- e) *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*

f) *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*"

1.32 With regards to statutory landscape designations, paragraph 176 states *"Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues"* and the *"scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest"*. As such, no part of the DCO Site boundary falls within or adjacent to the above specified statutory landscape designations.

1.33 In consideration of landscape and visual impacts of light pollution, paragraph 185 bullet point c) states that new development should *"limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation"*.

Achieving Well-designed Places

1.34 In terms of the requirements of good design for development proposals, paragraph 130 seeks to achieve high quality design in development and sets out a number of requirements which are as follows:

- a) *"will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;*
- b) *are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*
- c) *are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);*
- d) *establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;*
- e) *optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and*
- f) *create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future uses; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience."*

1.35 Paragraph 131 relates to tree provision within schemes and their ability to contribute to the character and quality of urban environments, whilst also helping to mitigate and adapt

to climate change.

- 1.36 Furthermore, in terms of design quality, paragraph 132 states, as is generally good planning practice that:

“Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot.”

Local Planning Policy

- 1.37 The Order Limits principally fall across two Local Planning Authority (LPA) areas: Blaby District and Hinckley and Bosworth Borough Council (HBBC). The relevant adopted local statutory planning documents include:

- Blaby District Local Plan (Core Strategy) (adopted 2013);
- Blaby District Local Plan (Delivery) Development Plan Document (adopted 2019);
- Hinckley and Bosworth Borough Core Strategy (adopted 2009); and
- Hinckley and Bosworth Borough Site Allocations and Development Management Policies (adopted 2016).

- 1.38 Highways modification HR1 concerning the Magna Park roundabout of the Order Limits falls on the boundary of Rugby Borough Council (RBC) and Harborough District Council (HDC). The relevant adopted local statutory planning documents include:

- Rugby Local Plan 2011 – 2031 (adopted 2019); and
- Harborough Local Plan 2011 – 2031 (adopted 2019).

- 1.39 The limited nature of the works required to highways modification HR1 are unlikely to result in the potential for significant landscape or visual effects and as such, no further review of local planning policy in relation to these works has been undertaken.

- 1.40 The following policies are considered relevant to this LVA, with extracts saved in Annex 2.

Blaby District Core Strategy (Adopted February 2013)

- 1.41 Policies within the Blaby District Local Plan Core Strategy Development Plan Document (DPD) (Adopted 2013) of relevance to landscape and visual amenity include the following:

- Policy CS2 – Design of New Development;

- Policy CS14 – Green Infrastructure (GI);
- Policy CS18 – Countryside; and
- Policy CS19 – Biodiversity and Geo-diversity.

Blaby District Local Plan (Delivery) Development Plan (Adopted February 2019)

1.42 Policies within the Blaby District Local (Delivery) DPD (Adopted February 2019) of relevance to landscape and visual amenity includes ‘Policy DM2 – Countryside’.

Hinckley and Bosworth Core Strategy (Adopted 2009)

1.43 Spatial Objectives (SO) of particular relevance to landscape and visual matters include:

- SO7 – Healthier Active Communities;
- SO9 – Identity, Distinctiveness and Quality of Design; and
- SO10 – Natural Environment and Cultural Assets.

1.44 Policies within the Site Allocations and Development Management Policies DPD of relevance to landscape and visual amenity include the following:

- Policy 6 – Hinckley/Barwell/Earl Shilton/Burbage Green Wedge; and
- Policy 20 – Green Infrastructure.

Site Allocations and Development Management Policies (adopted 2016)

1.45 Policies within the Site Allocations and Development Management Policies DPD of relevance to landscape and visual amenity include the following:

- Policy DM4 – Safeguarding the Countryside and Settlement Separation; and
- Policy DM9 – Safeguarding Natural and Semi-Natural Open Spaces.

Supplementary Planning Documents

1.46 The following additional supplementary guidance is relevant in terms of understanding landscape character across both the Blaby and Hinckley and Bosworth LPA areas:

- Blaby District Landscape and Settlement Character Assessment (2020);
- Hinckley/Barwell/Earl Shilton/Burbage Green Wedge Review April (2020);
- Hinckley and Bosworth Landscape Sensitivity Assessment (2017);
- Landscape Character Assessment for Hinckley and Bosworth (2017); and

- Hinckley and Bosworth Green Infrastructure Strategy (2020).

Landscape Designations

- 1.47 No part of the Order Limits lies within a national or regionally designated landscape as illustrated on Figure 11.2: Environmental Planning Considerations (document reference 6.3.11.2).

Other Environmental Considerations

- 1.48 Figure 11.2 (document reference 6.3.11.2) illustrates other environmental considerations within the 5km broad study area. Whilst these may not be specifically landscape designations, features of heritage, ecology, arboricultural and PRow and access value can influence the landscape or provide a receptor point from which the immediate and wider landscape is experienced.
- 1.49 For example, a nature reserve, local wildlife site of country park open to the public may not be designated for landscape purposes but is likely to be a place that people visit to take in nature, their surrounding including the landscape and seek recreation.

Heritage Matters

- 1.50 Cultural Heritage and Archaeology ES Chapter 13 (document reference 6.1.13) considers the historic character and setting of designated and non-designated heritage assets within the study area. Whilst heritage assets are not landscape designations per se, they do, on occasion, serve to influence the character of the landscape and can inform landscape value, which are considerations within this report. Where this is the case, it is noted within the relevant assessment.
- 1.51 No part of the DCO Site lies within an RPG on English Heritage's Register of Parks and Gardens of Special Historic Interest, nor does one fall within the 5km broad study area. Similarly, they do not fall within a World Heritage Site (WHS), nor is one located within the 5km broad study area.
- 1.52 There are a number of conservation areas (CAs) located within the 5km broad study area (10 in total) as illustrated in Figure 11.2: Environmental Planning Considerations. The nearest is 'Aston Flamville' CA located to the south of the Main HNRFI Site. A number of the CAs are contained centrally within urban areas (Barwell A, Barwell B, Hinckley Town Centre, Hinckley Druid Street, Hinckley Hollycroft and Earl Shilton).
- 1.53 Numerous listed buildings are located within the 5km broad study area and 2km detailed study area, most of which are clustered around CAs or centrally within urban areas (see Figure 11.2: Other Environmental Considerations (document reference 6.3.11.2)). No listed buildings lie within any part of the Order Limits, with the nearest being Grade II 'Wentworth Arms and adjoining stable, Elmesthorpe' which is located a short distance from the northern extent of the Main HNRFI Site near the junction of Burbage Common Road and the B581. The nearest Grade I listed building is 'Church of St Mary, Barwell' located c.840m north-west of the Main HNRFI Site, whilst the nearest Grade II* Listed

Building 'Church of St Michael, Stoney Stanton' is located c.55m north of the A47 Link near the junction of Hinckley Road and the B581.

- 1.54 13 scheduled monuments (SM) are located within the broad 5km study area, none of which fall within the DCO Limits. The nearest SM to the Main HNRFI Site is 'Elmesthorpe church, ruined nave and west tower' located c.1km north. 'Sapcote Castle and moat' SM falls adjacent to the south of a section of the highways modifications B4 passes through Sapcote along the B4669 Hinckley Road.

Ecology Matters

- 1.55 Ecology and Biodiversity Chapter 12 (document reference 6.1.12) considers the ecological assets within the study area. While these are not landscape designations, as for the above referenced heritage assets, they do, on occasion, serve to influence the character of the landscape and can inform landscape value. Where this is the case, it is noted in the relevant assessment.
- 1.56 No part of the Order Limits is covered by any internationally statutory designations and there are no such designations within the broad study area.
- 1.57 No part of the Order Limits is covered by a national or locally important statutory designation. However, within the 5km broad study area there are four Sites of Special Scientific Interest (SSSI), with Burbage Wood and Aston Firs SSSI located adjacent to the south-western site boundary, whilst the other three Croft Hill, Croft Pasture and Croft and Huncote Quarry are located in close proximity to one another, c.4km north-east of the site. These are illustrated on Figures 11.2 and 12.2 (document references 6.3.11.2 and 6.3.12.2).
- 1.58 One Local Nature Reserve (LNR), Burbage Common and Woods, is located adjacent to the western site boundary as illustrated on Figure 12.2 (document reference 6.3.12.2).
- 1.59 Four Local Wildlife Sites (LWS) are located within 1km of the site. Elmesthorpe Plantation LWS lies within the western area of the site, whilst Burbage Common and Woods overlaps with the LNR mentioned above, as does Field Rose Hedgerow LWS, and lies adjacent to the western boundary. Billington Rough LWS falls just c.100m north of the site boundary.
- 1.60 A number of potential Local Wildlife Sites (pLWS) and one candidate Local Wildlife Sites (cLWS) are located within or in close proximity to the site. These are illustrated in Figure 12.2 (document reference 6.3.12.2).
- 1.61 In terms of pLWS located within the site itself, these include 'Burbage Common Road Hedgerows', 'Junction 2 Grassland', 'B4669 Road Verge', 'Woodland adj. to Aston Firs', 'Freeholt Meadow', 'Elmesthorpe Boundary Hedgerow' and 'Burbage Common Road railway bridge'. In addition, a number of pLWS falls adjacent to the site boundary which include 'Freeholt Wood', 'Castlewood Grassland', 'Home Farm Grassland' and 'Station Road Verge 2'.
- 1.62 With regards to the one cLWS Trackside Meadow, this is located adjacent to the northern

boundary of the site.

Tree Preservation Orders and Ancient Woodland

- 1.63 There are no Tree Preservation Orders (TPOs) within the Order Limits. However, Aston Firs and Freeholt Wood on the southern boundary are the subject of a TPO.
- 1.64 There is no Ancient Woodland within the Order Limits. However, there are several blocks of Ancient Woodland to the south-west of the site, at Burbage Wood, Aston Firs, Freeholt Wood and Sheepy Wood. All except Sheepy Wood share a boundary with the DCO.
- 1.65 EDP has also been commissioned to undertake a BS 5837:2012 Trees in Relation to Design, Demolition and Construction compliant survey of the trees within the Order Limits. The details of this survey are contained in Appendix 11.4 (document reference 6.3.11.4). Of the items surveyed, 33 have been identified as category A, of high quality and value and a further 265 items have been identified as category B, of moderate quality and value. Both category A and B items should be prioritised for retention due to their condition, age and retention span.
- 1.66 Three veteran trees are located within the Order Limits, two of which are located within the area of the A47 Link Road, and one within the Main HNRFI Site. A veteran tree is a tree that, by a recognised criterion, shows features of biological, cultural or aesthetical value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species.

Public Rights of Way

- 1.67 The locations of PRoW have been obtained from LCC Definitive Map and Statement.
- 1.68 There are several PRoWs that pass through the site, as illustrated on Figure 11.3 (document reference 6.3.11.3). Whilst there are a number within the local context of the site, these PRoWs generally provide links between local settlements and scattered farms across the area.
- 1.69 One promoted route, the Leicestershire Round, runs through the study area, passing c.30m west of the Order Limits as it passes through Burbage Common and Woods. No National Trails or European long-distance footpaths pass through the broad study area.
- 1.70 Potential views from nearby PRoW, and others within the wider context of the broad study area, will be considered further in this report, whilst a separate and specific PRoW Assessment and Strategy has been undertaken by EDP (see Appendix 11.2, document reference 6.3.11.2), which has continually advised the on-site provision of PRoW throughout the evolution of the Proposed Development.

National Cycle Routes

- 1.71 Two National Cycle Routes (NCR) pass through the broad 5km study area, however they are both located at the far eastern and far western extents of the study area, with NCR52

located c.6km west of the Main HNRFI Site. NCR is located 9.6km north-east of the Main HNRFI Site.

Open Access Land and Country Parks

- 1.72 Burbage Common and Woods Country Park and area of Open Access Land is located adjacent to the western boundary of the Main HNRFI Site, as illustrated on Figure 11.3 (document 6.3.11.3). Natural England recognises Country Parks as significant places that contribute to England’s accessible natural green space; they are not necessarily created in recognition of, or to protect, landscape quality. However, the attractive, green, informal, accessible character of the Country Park means that it has a high local value.

BASELINE CONDITIONS: LANDSCAPE RESOURCE

- 1.73 As advocated by GLVIA3, this section identifies the range of landscape resources with the potential to experience an effect. The analysis of the baseline also requires consideration of the sensitivity of the receptor, this being a function of the susceptibility to change of the receptor and its value.
- 1.74 EDP has undertaken a review of local landscape character, which included a number of site visits by experienced landscape architects between 2017 and 2022. Where necessary, the relevance of the published character assessments to the local landscape is commented on below. Extracts of key characteristics, to assist with understanding the Council’s accepted baseline position, are contained in Annex 3.

National Character Assessment

- 1.75 At the national level, the site lies in the ‘Leicestershire Vales’ National Character Area (NCA, no. 94). The key characteristics are broadly described as:
- *“An open landscape of gentle clay ridges and valleys underlain by Mercia Mudstone and Lias groups bedrock but with an extensive cover of superficial deposits occasionally giving rise to moderately steep scarp slopes. There is an overall visual uniformity to the landscape and settlement pattern;*
 - *Land use characterised by a mixture of pasture and arable agriculture that has developed on the neutral clay soils;*
 - *Distinctive river valley of the Soar and Swift, with flat flood plains and gravel terraces together with tributaries including the Sence. Riverside meadows and waterside trees and shrubs are common, along with waterbodies resulting from gravel extraction;*
 - *Woodland character derived largely from spinneys and copses on the ridges and the more undulating land and from waterside and hedgerow trees and hedgerows. The density, height and pattern of hedgerows varies throughout;*
 - *Diverse levels of tranquillity associated with contrasts between busy urban areas and*

some deeply rural parts. Large settlements dominate the open character of the landscape. Leicester, Lutterworth, Hinckley and Market Harborough and related infrastructure, including major roads are often visually dominant;

- *Frequent small towns and large villages often characterised by red brick buildings and attractive stone buildings in older village centres and eastern towns and villages. Frequent, imposing spired churches are also characteristic, together with fine examples of individual historic buildings; and*
- *Rich and varied historic landscape, with the nationally important Bosworth Battlefield near Sutton Cheney, prominent historic parklands and country houses, ridge-and-furrow earthworks and important medieval settlement remains, for example at Wistow Hall, Gumley, Knaptoft and Peatling Magna.”*

1.76 While the key characteristics of the NCA are broadly representative of the wider landscape, for the scale of the development proposed, it is considered that the description of landscape character undertaken at the sub-regional level is more relevant in establishing the landscape resource baseline. Accordingly, while NCA 94 has been used to inform this LVA baseline, it will not be carried forward to detailed assessment of effects, with the focus being on local landscape character areas.

Local Landscape Character Assessments

1.77 The local landscape character is defined in the Blaby District Landscape and Settlement Character Assessment (2020), and the Hinckley and Bosworth Landscape Character Assessment (2017). Also of relevance is the Leicestershire and Rutland Historic Landscape Characterisation Study.

Blaby District Landscape and Settlement Character Assessment (2020)

1.78 A review of the Blaby District Landscape and Settlement Character Assessment (BDLSCA) finds that the Order Limits are located within three Landscape Character Areas (LCA). The northern parts of the Order Limits lie in LCA 6: ‘Elmesthorpe Floodplain’ and the southern portions are located within LCA 1: ‘Aston Flamville Wooded Farmland’, the locations of which are illustrated on Figure 11.5. A small part of the eastern area of the Order Limits, which will be primarily for junction improvements (east of the M69) are located within LCA 15: ‘Stoney Stanton Rolling Farmland’. Elsewhere within 2km of the Main HNRFI Site there is one other BDLSCA landscape character area, LCA 14: ‘Soar Meadows’ located east of Sharnford. The key characteristics of the LCAs mentioned above are contained within Annex 3.

1.79 In terms of Settlement Character Areas (SCAs) identified within the BDLSCA, five SCAs are located within 2km of the Order Limits. Those which form part of the Order Limits include Elmesthorpe SCA, Sapcote SCA and Stoney Stanton SCA. The other two relevant SCAs within 2km of the order limits include Aston Flamville and Sharnford.

Hinckley and Bosworth Landscape Character Assessment (2017)

- 1.80 A review of the Hinckley and Bosworth District Council Landscape Character Assessment (HBLCA) finds that the Main HNRFI Site is located within one LCA: ‘Burbage Common Rolling Farmland’ which covers the north-western end of the A47 Link (as illustrated on Figure 11.5, document reference 6.3.11.5). One other LCA ‘Stoke Golding Rolling Farmland’ is located within 2km of the Main HNRFI Site, west of Barwell and north of Hinckley. The key characteristics of this LCA are contained within Annex 3.

Rugby Landscape Character Assessment (2006)

- 1.81 Within the Rugby Borough Council Landscape Character Assessment (RBCLCA), highways modification H1 falls within the ‘High Cross Plateau, Open Plateau’. The key characteristics of this LCA are contained within Annex 3.

Harborough Landscape Character Assessment (2007)

- 1.82 Within the Harborough District Council Landscape Character Assessment (HDCLCA), highways modification H1 falls within the ‘Upper Soar’ (as illustrated on Figure 11.5, document reference 6.3.11.5). The key characteristics of this LCA are contained within Annex 3.

EDP Site Assessment

- 1.83 Site visits have taken place between 2017 and 2022 in very good to excellent weather conditions. The visits were complemented by a review of aerial photography, mapping and field assessments from publicly accessible locations (e.g., from local roads and PRow).

Main HNRFI Site

Topography

- 1.84 Across the Main HNRFI Site, the topography slopes broadly from north to south from a height of c.85m above Ordnance Datum (aOD) in the north to a height of c.110m aOD in the south, although there are a number of more localised undulations across the site within this range, as illustrated on Figure 11.6 (document reference 6.3.11.6).

Soil Types

- 1.85 The underlying mudstone bedrock across the Main HNRFI Site has an influence both on soil profiles and drainage with a large part of the Main HNRFI Site comprising ‘slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils’², whilst some small areas in the north of the Main HNRFI Site comprise ‘slightly acid loamy and clayey soils with impeded drainage’, which have impeded to slightly impeded drainage down to the mudstone aquifer below.
- 1.86 The Soils and Agricultural Quality Report (Appendix 11.3, document reference 6.3.11.3) confirms that the Main HNRFI Site is underlain by heavy clay loam topsoils that directly

² <http://www.landis.org.uk/soilscapes/index.cfm>

overlie slowly permeable clay subsoils. A small area in the north-east of the Main HNRFI Site has lighter permeable upper layers (see Figure 11.19, document reference 6.3.11.19). The heavy soils provide land of subgrade 3b agricultural quality and the lighter soils provide subgrade 3a land. All the land is limited by wetness.

Vegetation and Hydrological Features

- 1.87 The current land use of the Main HNRFI Site is predominantly arable farmland, comprising medium to small, enclosed field parcels, typically bounded with mature hedgerows with hedgerow trees. Also included within the Main HNRFI Site are a number of small to medium Improved Grassland fields and a few Poor Semi-improved Grassland fields. Areas of amenity grassland are extremely limited and located adjacent to dwellings only.
- 1.88 Along part of the eastern edge of the Main HNRFI Site to the southern extent of the Main HNRFI Site are limited areas of Semi-improved Neutral Grassland forming the motorway verge. In addition, there is a small strip of Broadleaved Semi-natural Woodland and an area of Broadleaved Plantation Woodland near the footbridge over the M69 (halfway along the eastern boundary of the Main HNRFI) and within the M69 Junction 2 roundabout is an area of Broad-leaved Plantation Woodland.
- 1.89 A description of each of the habitats on site is contained in Ecology Baseline, Appendix 12.1 of the Ecology ES (document reference 6.2.12.1) and the findings of the Extended Phase 1 survey is illustrated in Figure 12.3 (document reference 6.3.12.3). The ecological value of the habitats and features on site is assessed in the Ecology Baseline, Appendix 12.1 of the Ecology ES (document reference 6.2.12.1).
- 1.90 Figure 12.4 (document reference 6.3.12.4) describes the condition of the hedgerows on the Main HNRFI Site. With the exception of those that are designated as LWS and pLWS, the ecology survey assesses the hedgerows within the HNRFI Site to be of local value.
- 1.91 Whilst there is no Ancient Woodland within the Main HNRFI Site, there are several blocks of Ancient Woodland close to the south-western edge of the Main HNRFI Site, at Burbage Wood, Aston Firs, Freeholt Wood and Sheepy Wood.
- 1.92 Small areas of dense scrub are located near Hobbs Hayes and Woodhouse Farm whilst a larger portion is located between the access track to Hobbs Hayes and the M69 Junction 2 roundabout. A thin strip of scattered scrub is present along most of the boundary with the Hinckley to Leicester railway.
- 1.93 Details of the trees, groups of trees, woodland and hedgerows across the Order Limits are described within the Arboricultural Survey in Appendix 11.4 (document reference 6.3.11.4). Within the Main HNFRI Site Mature Category B and C hedgerow trees are throughout the field boundaries with occasional Category A and U specimens. The majority are Ash, Oak and Field Maple. Groups of trees and woodland are principally located around the boundaries and associated with the existing farmsteads. All of the woodland (which is principally mixed broadleaved woodland with Oak and Ash as predominant species) has been assessed as Category A while the groups of trees are principally Category B and C.

- 1.94 Hydrological features comprise nine field ponds scattered over the Main HNRFI Site, one unnamed stream corridor that passes from Freeholt Wood south of the Main HNRFI Site and travels in a north-eastern direction to the eastern boundary and M69, and a network of ditches, the majority of which are dry.

Historic Landscape and Features

- 1.95 The historic landscape of the Main HNRFI Site was created predominantly as a result of parliamentary enclosure of the 18th century. As can be seen from comparison with the historic mapping in Figure 13.5 (document reference 6.3.13.5), the field pattern remains much as it was 200 years ago, the network of hedgerows with hedgerow trees remaining largely intact. The greatest changes in the landscape came with the arrival of the railway in the mid C19th and the M69 in the 1970's, both of which severed field parcels along their respective routes and required diversions of PRoW.
- 1.96 Fields north of Woodhouse Farm and a field to the south of Freeholt Lodge include reduced ridge and furrow earthworks which highlights the long-term agricultural character and land use of the Main HNRFI Site since at least medieval times.
- 1.97 In terms of other historic landscape features one veteran Oak has been identified across the Main HNRFI Site (T486 within the Arboricultural Survey in Appendix 11.4, document reference 6.3.11.4), located near Hobbs Hayes. Ancient Woodland bounds the Main HNRFI Site to the south-west and provides a dense vertical natural feature which forms a backdrop to the agricultural land within the Main HNRFI Site.

Built Features

- 1.98 Major road infrastructure included within the Main HNRFI Site includes the M69 Junction 2 roundabout and slip roads and a footbridge over the M69.
- 1.99 Burbage Common Road is the principal road running through the Main HNRFI Site providing access to properties and farms along its route.
- 1.100 A separate access road off the B4669 provides access to Freeholt Lodge and Hobbs Hayes within the southern portion of the Main HNRFI Site. There is a mobile home park and a separate gypsy and traveller settlement off Smithy Lane to the south of the proposed Main HNRFI, west of M69 Junction 2.
- 1.101 Separating the main body of the Main HNRFI Site and the A47 Link is a section of the Hinckley to Leicester railway and a bridge that allows Burbage Common Road from within the Main HNRFI Site to pass over the railway and link with Burbage Common and Woods Country Park.
- 1.102 Buildings on the Main HNRFI Site itself include the dwellings of Woodhouse Farm, Old Woodhouse Farm, Woodfield, The Weeping Willows, Hobbs Hayes Farm and Freeholt Lodge. In addition to these are a number of ancillary agricultural structures that form farm complexes around Woodhouse Farm and Hobbs Hayes.

Sensory and Perceptual Elements

1.103 As noted above, the underlying vale character of land surrounding the Main HNRFI Site forms an expansive generally flat to gently undulating landscape with layers of hedgerows and hedgerow trees. Distant visibility is limited due to subtle variation in topography and woodland and trees within the landscape such that there is limited visual connection with surrounding settlements. The principal sense is therefore of being within open countryside. This diminishes at the boundaries with the motorway and the railway line where the influence of passing traffic and trains and road and rail infrastructure reduces the sense of tranquillity and rurality. From within the Main HNRFI Site, a number of electricity pylons can be seen, appearing in relatively close proximity to the east. These appear as visual detractors within the landscape.

Night-time Considerations

1.104 The Main HNRFI Site is affected by existing light sources in the vicinity of the site, in particular lighting at Junction 2 of the M69 and light spill from the urban area of Hinckley. This is reflected in the CPRE Map of 'England's Light Pollution and Dark Skies' which is described in the night-time baseline section below. In addition, the lights of moving vehicles on the M69 and trains on the railway line introduce a visual distraction at night.

Landscape Value of the Main HNRFI

1.105 When considering landscape value, GLVIA3 advocates that the starting point should be a review of existing landscape designations, including those at a local and national level to identify if it is valued sufficiently to warrant a greater level of protection. In this instance, the Main HNRFI Site is not within a designated landscape, as confirmed by the Local Plan Proposals Map and Figure 11.2 (document reference 6.3.11.2).

1.106 It is also relevant to understand to what extent the Main HNRFI Site has value based on its characteristics as described above. GLVIA3 makes it clear that not being located within a designated landscape does not mean the site has no value in a landscape sense. Box 5.1 in Chapter 5 of GLVIA 3 is used to assess a range of factors that are considered to assist in making judgements as to the value of a landscape. The criteria by which these assessments are judged are contained within Table A1.1 in Annex 1.

Landscape Quality

1.107 Landscape quality is a measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of the individual elements.

1.108 The character of the Main HNRFI site and its immediate surroundings (as illustrated in Figure 11.4, document reference 6.3.11.4) is generally consistent with published assessments identified above, particularly in relation to the retention of historic field pattern, woodland and rural character. Whilst the majority of the Main HNRFI Site is intact, at the boundaries, the impact of the railway and motorway has left severed fields and a general sense of disconnect between the landscape on either side of these linear

barriers. Hedgerows are generally well managed although it is noted that there is limited active management for the future in terms of new tree planting across the site. In consideration of the above, the landscape quality of the site is considered to be of medium value.



Image 1.1: The site in its current form, gently undulating arable land with agricultural buildings and dwellings.

Scenic Quality

- 1.109 Scenic quality refers to how the landscape appeals to the senses (primarily but not wholly the visual senses).
- 1.110 The landscape of the Main HNRFI Site is a typical agricultural landscape for the area, focussed on arable farming with some equestrian use. Field sizes vary from medium to large. A network of mature field boundary hedgerows with hedgerow trees which punctuate the skyline throughout the site create a layered effect within views. Whilst there is a sense of separation from the surrounding countryside as a result of the Hinckley to Leicester railway line to the north-west and the M69 to the south-east, the distance between these two features is such that much of the land has a sense of rural tranquillity, with only the fields adjacent to these features being heavily influenced by transport infrastructure. To the south, the backdrop of woodland increases the scenic quality, particularly the southern field parcels which benefit from the influence of the woodland edge.
- 1.111 The M69 motorway to the east exerts an urbanising influence over the eastern part of the site. Although it is not visible across much of the land to the west, traffic noise does still carry in certain conditions. The Hinckley to Leicester railway line, which appears in cutting and on embankment due to the gently undulating nature of the topography is located along the north-western edge of the Main HNRFI Site. Passing of trains is infrequent,

however, their presence is felt east and west over the Main HNRFI Site area due to the noise they generate, particularly the sounding of the horn at the approach to the two level crossings.

1.112 The Main HNRFI Site is subject to relative visual enclosure by surrounding woodland and tree cover to the south and west, where there is limited visual inter-connectivity between the Main HNFRI site and the wider landscape due to vegetation (Image 1.2). However, the eastern and north-western boundaries are more fragmentary (see Images 1.3 and 1.4) and permit views to higher ground within Barwell to the north-west and Croft Hill to the north-east.



Image 1.2: Taken from M69 motorway footbridge, illustrating Burbage Woods, Aston Firs and Freeholt Wood towards the west and south of the site, limiting far reaching views in those directions.



Image 1.3: Illustrating views from PRow U52/9 within 1km to the north-west, towards the site's north-western boundary, which also comprises the Hinckley to Leicester railway.



Image 1.4: Illustrating views from the east towards the eastern boundary with the M69.

- 1.113 The scenic quality of the site is considered to be in accordance with that of the host LCAs and is considered to be of a medium value.

Rarity and Representativeness

- 1.114 The Main HNRFI Site does not contain any rare LCAs/Landscape Character Types (LCTs) but it does contain one rare feature – a Veteran Oak which is of note. The site is broadly representative of its host landscape character areas - Aston Flamville Wooded Farmland and Elmesthorpe Floodplain both of which are described as retaining much of their traditional rural character but are impacted by detracting features including pylons and the M69. The Main HNRFI Site is therefore not regarded as rare in character terms. It is therefore considered to be of low value in this regard.

Conservation Interests

- 1.115 A number of hedgerows, areas of grassland and Burbage Common Road Railway Bridge are identified as LWS and potential LWS as illustrated on Figure 12.2 (document reference 6.3.12.2). These designations and potential designations indicate the county to district ecological value of some of the features on site.
- 1.116 There are no TPO trees within the Main HNRFI Site, although Aston Firs and Freeholt Wood on the southern boundary are the subject of a TPO and are of high value. However, the arboricultural survey finds 13 have been identified as category A, of high quality and value, and a further 148 items have been identified as category B, of moderate quality and value. One of the 13 category A items has also been identified as a veteran tree and is located towards the south of the Main HNRFI Site.
- 1.117 There are no designated heritage assets located on the Main HNRFI Site. There are a number of Historical Environment Record (HER) entries; one relates to an undated cropmark of a possible ditch (MLE68) recorded in the northern portion of the Main HNRFI Site and another to a late 19th century barn (MLE20555) at Hobbs Hayes farm in the southern part of the Main HNRFI Site which are of limited interest.
- 1.118 Two fields containing ridge and furrow earthworks, deriving from medieval agricultural practice, were also identified on the Main HNRFI Site.
- 1.119 In terms of geological assets, none are known to be located on the Main HNRFI Site.
- 1.120 The Main HNRFI Site is considered to comprise a landscape with some notable cultural, geological or nature conservation content, and merits a medium value in this regard.

Recreational Value

- 1.121 There are a number of PRoWs that pass through the Main HNFRI Site as defined on the Definitive Map and Statement provided by LCC, with views from some of them illustrated by Photoviewpoints 1, 2, 3, 4, 5, 6 and 8. The majority of these PRoWs align with existing field boundaries and tracks, exiting the Main HNRFI Site over the railway line or east over the M69. Open views, unsurprisingly, are available over the Main HNFRI Site from the

majority of PROWs that run through it.

1.122 It is concluded that the Main HNRFI Site provides some contribution to the recreational experience of the landscape and is therefore of medium value.

Perceptual Aspects

1.123 The perceptual characteristics of the Main HNFRI Site are influenced by the M69 motorway and Leicester to Hinckley railway on the boundaries. The Main HNRFI Site in general is that of a managed agricultural landscape, primarily used for arable crops and pasture with a number of agricultural buildings located on site, and therefore any sense of ‘wildness’ is relative and very limited. Whilst there is visual and audible disruption to tranquillity close to the M69 and the Leicester railway and from passing cars on Burbage Common Road, the central fields retain a relative sense of tranquillity. Therefore, the perceptual aspects of the Main HNRFI Site are considered to be of medium value.

Cultural Associations

1.124 The Main HNRFI Site is not known to have any cultural associations with particular people such as artists, writers, or events in history that contribute to the perceptions of natural beauty in the area. Although not within the Order Limits, the proximity to the ancient grazing ground of Burbage Common is noted. Therefore, the Main HNFRI Site is considered be of low value in this regard.

1.125 Summary of Factors to be considered in assessment of Landscape Value are set out in Table 1.3 below.

Table 1.3: Summary of Landscape Value Assessment – Main HNRFI Site.

Landscape Quality	Medium
Scenic Quality	Medium
Rarity and Representativeness	Low
Conservation Interests	Medium
Recreation Value	Medium
Perceptual Aspects	Medium

Cultural Associations	Low
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1.126 Overall, the landscape of the Main HNRFI Site is assessed as having medium value. This is considered to be the same during both day and night.

Susceptibility to Change

1.127 Factors to be considered in assessment of the Main HNRFI Site’s susceptibility to change as a result of commercial and transport infrastructure development are set out in Table 1.4 below.

Table 1.4: Susceptibility to Change Assessment – Main HNRFI Site.

Pattern, Complexity and Physical Susceptibility	A landscape with some intact pattern and/or degree of complexity and with features mostly in reasonable condition.	Medium
Visual Susceptibility	A partially enclosed landscape with some visual containment and filtering, possible limited intervisibility with visual landmarks and designated landscapes.	Medium
Experiential Susceptibility	A partially tranquil landscape with limited visual and/or aural intrusion. Some relationship with built development/ infrastructure may be present. A landscape that contains some light sources.	Medium

1.128 On the basis of the above assessment, the Main HNRFI Site would be assessed as having a medium susceptibility to change from Commercial and Transport Infrastructure Development. However, the very large-scale nature of the warehousing and rail port proposed is such that the susceptibility is raised to ‘high’ to account for the substantial ground modification required to accommodate larger buildings within the Main HNRFI Site. The susceptibility to change is also considered to be ‘high’ at night, as a result of the 24 hour operation of the development.

Landscape Sensitivity of Main HNRFI Site

1.129 The sensitivity of the Main HNFRI Site is therefore assessed as high.

A47 Link Road

1.130 The A47 Link Road comprises a corridor of land extending north-westwards across the railway from the edge of the Main HNRFI Site to the B4668/A47 Leicester Road. In the south of the corridor is an area of agricultural land which is to be the subject of habitat creation and planting as an extension of public open space adjacent to Burbage Common.

Topography

1.131 Across the A47 Link Road, the topography is gently undulating, falling from a high point of 99m by the railway line to around 90m across the remainder of the area.

Soil Types

1.132 The land forming the area within the A47 Link Road is Mercia Mudstone overlain by Bosworth Clay Member (clay and silt). The National Soil Map records this land as within the Salop Association, comprising slowly permeable seasonally waterlogged reddish fine loamy over clayey soils. These soils are typically imperfectly to poorly draining and give land limited by wetness restrictions. This land is likely to be of poorer agricultural quality, subgrade 3b, in line with the land already surveyed.

Vegetation and Hydrological Features

1.133 The current land use of the A47 Link Road is predominantly arable farmland, comprising medium to small, enclosed field parcels, typically bounded with managed low-lying hedgerows with occasional hedgerow trees. Field margins are typically scrubby. This area of the A47 Link cuts across four arable fields and hedgerow boundaries, with the southern edge formed by hedgerow aligning Burbage Common Road.

Historic Landscape and Features

1.134 The historic landscape of the A47 Link Road is similarly a result of parliamentary enclosure of the 18th century, which has experienced subsequent reorganisation in 19th and 20th centuries and of no more than low sensitivity.

1.135 Two veteran trees (T835 and T854) are located centrally, halfway along the A47 Link Road just north of the Burbage Common eastern car park.

Built Features

1.136 Built features within the A47 Link Road comprise Burbage Common Road which runs along its southern edge, the B4668 at the north-western end and the bridge over the railway from the Main HNRFI Site to the A47 Link Road. Otherwise, there are no other built features within this part of the Order Limits.

Sensory and Perceptual Elements

1.137 Whilst there is some loss of tranquillity from traffic noise which carries from the B4668 and the disruption of passing trains, (particularly the sounding of the train horn as it approaches the level crossings to the east), the area is relatively tranquil with floodplain extending northwards to Elmesthorpe and the Country Park located to the south.

Night-time Considerations

1.138 The A47 Link Road is affected by existing light sources in the vicinity of the site, in particular lighting at Junction 2 of the M69 and light spill from the urban area of Hinckley.

Landscape Value of the A47 Link Road

1.139 The A47 Link Road is not within a designated landscape, as confirmed by the Local Plan Proposals Map and Figure 11.2 (document reference 6.3.11.2).

Landscape Quality

1.140 The character of the A47 Link Road and its immediate surroundings (as illustrated in Figure 11.4, document reference 6.3.11.4)) is generally consistent with published assessments identified above, particularly in relation to the retention of historic field pattern and rural character. The majority of the A47 Link Road is intact, at the southern boundary, the impact of the railway has left severed fields and a general sense of disconnect with the landscape to the south. Hedgerows are generally well managed although it is noted that there is limited active management for the future in terms of new tree planting across the site. In consideration of the above, the Landscape quality of the A47 Link Road is considered to be of medium value.

Scenic Quality

1.141 The landscape of the A47 Link Road is a typical agricultural landscape for the area, focussed on arable farming with some equestrian use. Field sizes vary from medium to large. A network of mature field boundary hedgerows with hedgerow trees which punctuate the skyline throughout the site create a layered effect within views. Whilst there is a sense of separation from the surrounding countryside, as a result of the Hinckley to Leicester railway line and the presence of the Leicester Road which is a heavily trafficked route on the northern boundary, the distance between these two features is such that much of the land has lost a sense of rural tranquillity, with the fields adjacent to these features being heavily influenced by transport infrastructure. To the south, the backdrop of woodland increases the scenic quality.

1.142 The Hinckley to Leicester railway line, is in cutting along the south-eastern edge of the A47 Link Road although this rises to embankment further to the north-east. Passing of trains is infrequent, however, their presence is felt especially over the southern section of the A47 Link Road Corridor due to the noise they generate, particularly the sounding of the horn at the approach to the two-level crossings to the east.

1.143 The A47 Link Road is subject to relative visual enclosure by surrounding woodland and tree cover and there is limited visual inter-connectivity between the site and the wider landscape due to vegetation. However, rising ground to the north-west permits views to Barwell above the treeline. In consideration of the above, the scenic quality of the A47 Link Road is considered to be of medium value.

Rarity and Representativeness

1.144 The A47 Link Road does not contain any rare LCAs/LCTs but it does contain two rare features – two Veteran Oaks which are of note. The A47 Link Road Corridor is broadly representative of its principal host landscape character area - Elmesthorpe Floodplain, retaining much of its traditional rural character. The two field parcels that lie within Burbage Common Rolling Farmland whilst having strongly treed field boundaries are influenced by the adjacent busy Leicester Road and traveller site. Given the two veteran oaks within its boundary, the A47 Link Road Corridor therefore has medium value in this regard.

Conservation Interests

1.145 There are no ecological designations within the A47 Link Road. However, the landscape contains a number of species rich hedgerows with trees.

1.146 There are no TPO trees within the A47 Link Road although as noted above there are two veteran oaks.

1.147 There are no designated heritage assets within the A47 Link Road.

1.148 The A47 Link Road is considered to comprise a landscape with limited cultural, geological or nature conservation content, and merits a low value in this regard.

Recreational Value

1.149 Two PRow cross or border the A47 Link Road. Bridleway U52/9 crosses the southern section before connecting to a footpath on the bridge over the railway line. In accordance with the Definitive Map Footpath V22/1 runs along the north-eastern boundary although this is no longer discernible on the ground and has no onward connections to the south.

1.150 Whilst the A47 Link Road provides very little direct contribution to the recreational experience of the landscape, it provides an important setting to the adjacent Burbage Common and Woods Country Park and Open Access Land and has an influence on the recreational experience of that area. It is therefore afforded medium recreational value.

Perceptual Aspects

1.151 The perceptual characteristics of the A47 Link Road are influenced by the Leicester to Hinckley railway and Leicester Road on its boundaries. The A47 Link Road in general is that of a managed agricultural landscape, primarily used for arable crops and pasture and therefore any sense of 'wildness' is relative and very limited. Whilst there is visual and audible disruption to tranquillity close to the Leicester Road and the railway, the central

fields retain a relative sense of tranquillity. Therefore, the perceptual aspects of the A47 Link Road are considered to be of medium value.

Cultural Associations

1.152 The A47 Link Road is not known to have any cultural associations with particular people such as artists, writers, or events in history that contribute to the perceptions of natural beauty in the area. Although not within the Order Limits, the proximity to the ancient grazing ground of Burbage Common is noted. Therefore, the A47 Link Road is considered be of low value in this regard.

1.153 Summary of Factors to be considered in assessment of landscape value set out in Table 1.5 below.

Table 1.5: Summary of Landscape Value Assessment – A47 Link Road

Landscape Quality	Medium
Scenic Quality	Medium
Rarity and Representativeness	Medium
Conservation Interests	Low
Recreation Value	Medium
Perceptual Aspects	Medium
Cultural Associations	Low

1.154 Overall, the landscape of the A47 Link Road Corridor is assessed as having medium landscape value.

Susceptibility to Change

1.155 Factors to be considered in assessment of susceptibility to change are set out in Table 1.6 below.

Table 1.6: Susceptibility to Change Assessment– A47 Link Road

Pattern, Complexity and Physical Susceptibility	A landscape with some intact pattern and/or degree of complexity and with features mostly in reasonable condition.	Medium
Visual Susceptibility	A partially enclosed landscape with some visual containment and filtering, possible limited intervisibility with visual landmarks and designated landscapes.	Medium
Experiential Susceptibility	A partially tranquil landscape with limited visual and/or aural intrusion. A relationship with built development/infrastructure may be present. A landscape that contains some light sources.	Medium

1.156 On the basis of the above assessment, the A47 Link Road Corridor is assessed as having a medium susceptibility to change from Transport Infrastructure Development. This is considered to be the same during both day and night.

Landscape Sensitivity of A47 Link Road

1.157 The sensitivity of the A47 Link Road is therefore assessed as medium.

M69 Junction 2 and Other Highways Works within Order Limits

1.158 The areas around Junction 2 of the M69 other highways works locations are either highways land or field edges heavily influenced by the adjacent transport infrastructure. All of the areas relate to existing highways infrastructure, which by their nature are unremarkable including features such as hardstanding, road markings, signage, pavements and verges, with occasional mature vegetation at their edges such as trees, hedgerows and scrub. The areas are broadly of a highways or highways edge character. Whilst it is acknowledged that there are some differences between each of the locations, for the purposes of this assessment, given the broad similarities in the character and features of each of the locations, it is considered reasonable to consider the locations together. It should be noted that the assessment process is designed to consider landscapes at scale and the limited extent of these locations restricts the assessment process to some extent. However, despite some shortcomings in this regard, it was considered a useful exercise to ensure a consistent assessment process across the Main Order Limits.

1.159 Factors to be considered in assessment of landscape value are set out in Table 1.7 below.

Table 1.7: Landscape Value Assessment – M69 Junction 2 and Other Highways Works

Landscape Quality	Few areas intact	Low
Scenic Quality	Wooded nature of Junction 2 has some scenic value	Low
Rarity and Representativeness	No rare or important features	Very Low
Conservation Interests	Some conservation interest from wooded habitat at Junction 2	Low
Recreation Value	Junction 2 connects PRow	Low
Perceptual Aspects	Prominent detractors form key characteristics i.e. highways infrastructure.	Very Low
Cultural Associations	None	Very Low

1.160 The landscape value of the M69 Junction 2 areas and other highways works locations is therefore assessed as low.

1.161 Factors to be considered in assessment of susceptibility to change are set out in Table 1.8 below.

Table 1.8: Susceptibility to Change Assessment – M69 Junction 2 and Other Highways Works

Pattern, Complexity and Physical Susceptibility	A landscape with an occasionally intact pattern and/or with a low degree of complexity and with few features in reasonable condition. Habitat features within	Low
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	M69 Junction 2, warrant a low rather than a very low assessment.	
Visual Susceptibility	A partially enclosed landscape with some visual containment and filtering, possible limited intervisibility with visual landmarks and designated landscapes – this acknowledges visibility of M69 Junction 2 and other junctions with light columns from local vantage points.	Medium
Experiential Susceptibility	A landscape with prominent visual and/or aural intrusion and close relationship with large-scale built development/-infrastructure. A landscape that contains many light sources and essentially suffers from widespread light pollution.	Very Low

1.162 On the basis of the above assessment, the M69 Junction 2 and other highway works locations are assessed overall as having a low susceptibility to change from Transport Infrastructure Development. This is considered to be the same during both day and night.

1.163 The sensitivity of the M69 Junction 2 and other highways works locations is therefore low.

Off-site Rail Crossings

1.164 The three off-site locations where pedestrian level crossings over the railway line are to be stopped up and alternative crossings made available have not been assessed in the same detail as above due to the very limited extent of the locations. In general terms, given the specific railway and railway side character of the locations, together with the associated recreational value of the PRoW, it is considered the overall landscape value of these areas is low and their susceptibility to change from PRoW diversions is low. The sensitivity of the off-site rail crossings is therefore low.

BASELINE CONDITIONS: VISUAL AMENITY

Introduction

1.165 This section identifies those visual receptors that may be able to obtain views of the DCO Site, their distribution, character and sensitivity to change.

1.166 Using landform data within a Geographical Information System (GIS), EDP has prepared a Zone of Theoretical Visibility (ZTV). The ZTVs are generated using terrain data and does

not account for other landscape features that may limit the extent of theoretical visibility, such as vegetation and built form. The ZTVs are based on:

- The Main Order Limits in its current form - Figure 11.7 (document reference 6.3.11.7); and
- The Proposed Built Development Parameters of the Main Order Limits - Figure 11.8 (document reference 6.3.11.8).

1.167 The ZTVs illustrate the theoretical visibility based on a digital terrain model (DTM) data (OS Terrain 5), assuming excellent visibility with no atmospheric attenuation.

1.168 For its size, the visual influence of the Main Order Limits in its current form is relatively limited given the extent of varying topography and built form in the local vicinity. As Figure 11.8 (document reference 6.3.11.18) demonstrates, the visual influence of the Main Order Limits will increase with the Proposed Development. The visual assessment process will determine the extent of the increase in visual influence as well as the magnitude of any visual effects that arise.

1.169 The ZTV was visited by walking and driving (as appropriate) local roads, PRoW and other publicly accessible viewpoints.

Representative Photoviewpoints

1.170 The main receptor groups have been identified and described below and are represented by the photoviewpoints presented in Table 1.1. Based on fieldwork observations and the findings of the data trawl, these photoviewpoints have been selected to represent the variety of views available from public vantage points towards the Main Order Limits.

1.171 Figure 11.9 (document reference 6.3.11.9) identifies the location of 54 representative viewpoints that have been identified within the ZTV. These viewpoints are at locations where there is a range in sensitivity of visual receptors, including receptors on PRoW, on roads and within residential properties. These viewpoints will form the basis of the visual assessment, the significance of any effect being assessed in terms of the magnitude of change in the view and the sensitivity of the visual receptor. The location of these views is set out in the table below. In keeping with good practice, the viewpoint locations for assessment have been agreed with Leicestershire County Council, Blaby District Council and Hinckley and Bosworth Borough Council.

1.172 The existing views from each location are illustrated within Figure 11.10 (document reference 6.3.11.10). It should be noted that the existing views are all taken in winter to demonstrate the 'worst-case' scenario with the exception of Photoviewpoint 53. Photoviewpoint 53 was taken in summer as the request from Historic England in response to the PEIR Consultation was received in spring 2022 once the leaves had already emerged. However, as this view is so close to Photoviewpoint 19, the winter scenario can be understood by comparison with Photoviewpoint 19.

Table 1.9: Summary of Representative Photoviewpoints.
 (Those with the acronyms NV are presented as Night Views as well as Day Views)

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
1	PRoW V35/1	445931, 294327	0m	North	Blaby, Elmesthorpe	Users of PRoW V35/1; Elmesthorpe Church Parish (CP).	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High
2	PRoW U50/1	445541, 294322	0m	North	Blaby, Elmesthorpe	Users of PRoW U50/1; Elmesthorpe CP.	High – recreational users on public right of way .	High – receptors out to appreciate the landscape.	High
3	PRoW U52/6	445273, 294532	0m	North-east	Blaby, Elmesthorpe	Users of PRoW U52/6; Elmesthorpe CP.	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
4	PRoW U52/8 Burbage Common Road bridge over railway	445490, 295018	0m	West and south	Blaby, Elmesthorpe	Users of PRoW U52/8 and minor road; Elmesthorpe CP.	High – recreational users on public right of way.	Medium – receptors out to appreciate the landscape but influenced by presence of railway line.	High
5	PRoW V23/1 over railway	445795, 295229	0m	South	Blaby, Elmesthorpe	Users of PRoW V23/1; Boundary views from the north; Indication of potential view from passing trains; Elmesthorpe CP.	High – recreational users on public right of way.	Medium – receptors out to appreciate the landscape but influenced by presence of railway line.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
5	PRoW V23/1 over railway	445795, 295229	0m	South	Blaby, Elmesthorpe	Rail Users	Low – rail users focus will shift between inside and out, any view would be fleeting.	Low - speed and nature of travel reduces susceptibility to change.	Low
6	PRoW U50/3	446049, 295455	0m	South	Blaby, Elmesthorpe	Users of PRoW U50/3; Close-range views from the north; Elmesthorpe CP.	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
6	PRoW U50/3	446049, 295455	0m	South	Blaby,	Rail Users	Low – rail users focus will shift between inside and out, any view would be fleeting.	Low - speed and nature of travel reduces susceptibility to change.	Low
7	Burbage Common Road	447000, 295513	0m	South-west	Blaby, Elmesthorpe	Users of Burbage Common Road; Close-range views from the north-east; Elmesthorpe CP.	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of travelling from one place to another and with a focus on the road.	Medium

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
8	PRoW V29/6 footbridge over M69	446831, 294576	0m	West	Blaby, Sapcote	Users of PRoW V29/6; Boundary views from the east; Sapcote CP.	High – recreational users on public right of way.	Medium – receptors out to appreciate the landscape but in an area where existing noise and visual influence of M69.	High
9 (Day)	PRoW U53/2	446959, 294270	232m	West	Blaby, Sapcote	Users of PRoW U53/2; Close-range views from the east; Sapcote CP.	High – recreational users on public right of way.	Medium – receptors out to appreciate the landscape but in an area with existing noise and visual influence of M69.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
9 (NV)	PRoW U53/2	446959, 294270	232m	West	Blaby,	PRoW U53/2	Low - Very few receptors at night and not in a dark sky area.	Low - Limited opportunity to appreciate the landscape at night.	Low
10	Hinckley Road	446990, 293816	0m	North-west	Blaby, Sapote	Users of Hinckley Road to the west; Medium-range views from the east.	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of travelling from one place to another and with a focus on the road.	Medium
11	PRoW V29/3	446766, 293563	240m	North-west	Blaby, Sapcote	Users of PRoW V29/3; Close-range	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
						views from the south-east.			
12 (Day)	M69 overbridge on Aston Lane	445956, 292970	0m	North	Blaby, Aston Flamville	Users of Aston Lane M69 Northbound Users Boundary views from the south.	Low – road users on minor roads passing over M69 or travelling on the M69.	Low – will have some appreciation of the landscape but in the context of travelling from one place to another and with the influence of the M69.	Low
12 (NV)	M69 overbridge on Aston Lane	445956, 292970	0m	North	Blaby, Aston Flamville	Users of Aston Lane M69 Northbound Users	Low – road users with focus on lit area in front of vehicle.	Low – limited appreciation of views from a vehicle in the dark.	Low

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
						Boundary views from the south.			
13	M69 overbridge on Lychgate Lane	445549, 292368	70m	North	Blaby, Aston Flamville	Users of Lychgate Lane; M69 Northbound Users Medium-range views from the south.	Low – road users on minor road passing over M69 or travelling on the M69.	Low – will have some appreciation of the landscape but in the context of travelling from one place to another and with the influence of the M69.	Low
14	PRoW U63/1	444775, 292714	758m	North-east	Hinckley and Bosworth, Burbage	Users of PRoW U63/1; Long-range views from the south-west.	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
15	Burbage Common	444806, 295219	854m	East	Hinckley and Bosworth, No Parish	Users of Open Access Land/Common Land; Medium-range views from the west.	High – recreational users on Open Access Land.	High – receptors out to appreciate the landscape.	High
16	Burbage Common Road	445111, 295184	0m	East	Blaby, Elmesthorpe	Users of Burbage Common Road; Close range views from the west.	Medium – road users on minor roads passing through rural areas.	High – some users may have greater appreciation of the landscape as travelling as part of recreational visit to Burbage Common and Woods Country Park.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
17	PRoW U52/9	445695, 295561	250m	South-east	Blaby, Elmesthorpe	Users of PRoW U52/9; Medium range views from the north-west.	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High
18	PRoW U52/11	445944, 296096	565m	South-east	Blaby, Elmesthorpe	Users of PRoW U52/11; Medium range views from the north.	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High
19 (Day)	Car Park of St Mary's Church, Elmsthorpe	446072, 296493	880m	South-east	Blaby, Elmesthorpe	Users of the church; Long range views from the north.	High – users within the setting of a listed building.	High – receptors likely to appreciate the surroundings of the church.	High
19 (NV)	Car Park of St Mary's Church,	446072, 296493	880m	South-east	Blaby, Elmesthorpe	Users of the church; Long range	Low – very few church users at night and located in an	Low – limited appreciation of widerlandscape after dark.	Low

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
	Elmesthorpe					views from the north.	urban area with relatively high ambient brightness.		
20 (Day)	M69 overbridge on B581	447422, 295559	120m	South-west	Blaby, Elmesthorpe	Users of B581; Close-range views from the north-east.	Low – road users on minor road passing over M69.	Low – will have some appreciation of the landscape but in the context of travelling from one place to another with a focus on the road and the influence of the M69.	Low

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
20 (NV)	M69 overbridge on B581	447422, 295559	120m	South-west	Blaby, Elmesthorpe	Users of B581; Close-range views from the north-east.	Low – road users with focus on lit area in front of vehicle.	Low – limited appreciation of views from a vehicle in the dark.	Low
21	Station Road/PRoW V29/10	447795, 295400	390m	South-west	Blaby, Elmesthorpe	Users of PRoW V29/10; Users of Station Road; Medium range views from the east.	High – recreational users on public right of way.	Medium – receptors out to appreciate the landscape but influenced by built development of village and traffic on road.	High
22 (Day)	PRoW V49/2, Stoney Stanton	448373, 294333	0m	West	Blaby, Stoney Stanton	Users of PRoW V49/2; Long-range views from the east.	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
22 (NV)	PRoW V49/2, Stoney Stanton	448373, 294333	0m	West	Blaby, Stoney Stanton	Users of PRoW V49/2; Long-range views from the east.	Low - Very few receptors at night and not in a dark sky area.	Low - Limited opportunity to appreciate the landscape at night.	Low
23	Hinckley Road, west of Sapcote	448150, 293561	0m	North-west	Blaby, Sapcote	Users of Hinckley Road; Long range views from the south east.	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of travelling from one place to another and with a focus on the road.	Medium
24 (Day)	PRoW V34/2	447482, 293450	235m	North-west	Blaby, Sapcote	Users of PRoW V34/2; Medium range	High – recreational	High – receptors out	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
						views from the south-east.	users on public right of way.	to appreciate the landscape.	
24 (NV)	PRoW V34/2	447482, 293450	235m	North-west	Blaby, Sapcote	Users of PRoW V34/2; Medium range views from the south-east.	Low Very few receptors at night and not in a dark sky area.	Low Limited opportunity to appreciate the landscape at night.	Low
25 (Day)	PRoW U47/1, Barwell	444419, 296483	630m	South-east	Hinckley and Bosworth, Barwell	PRoW Users; Long range views from the north-west.	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High
25 (NV)	PRoW U47/1, Barwell	444419, 296483	630m	South-east	Hinckley and Bosworth, Barwell	PRoW Users; Long range views from the north-west.	Low Very few receptors at night and not in a dark sky area.	Low Limited opportunity to appreciate the landscape at night.	Low
26	Shilton Road,	444976,	743m	South-east	Hinckley and Bosworth,	Users of Shilton Road;	High – a bench on the verge indicates this	High – receptors out	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
	Barwell	296984			Barwell	Long range views from the north-west.	is a valued viewpoint.	to appreciate the view.	
27	Thurlaston Lane	448762, 297854	2.4km	South-west	Hinckley and Bosworth, Earl Shilton	Users of Thurlaston Lane; Long range views from the north.	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of travelling from one place to another and with a focus on the road.	Medium
28	M69 overbridge on Pingle Lane	449418, 296985	2.2km	South-west	Blaby, Potters Marston	Users of Pingle Lane; M69 Southbound Users Long range	Low – road users on minor road passing over M69 or travelling on the M69.	Low – will have some appreciation of the landscape but in the context of	Low

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
						views from the north-east.		travelling from one place to another with a focus on the road and the influence of the M69.	
29	PRoW U18/1	450132, 296404	2km	South-west	Blaby, Potters Marston	Users of PRoW U18/1; Long range views from the north-east.	High – recreational users on public right of way.	High – receptors out to appreciate the landscape.	High
30	Croft Hill	450996, 296600	2.8km	South-west	Blaby, Croft	Users of Open Access Land; Long range views from an elevated location.	High – recreational users on open access land.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
31	Coventry Road	447308, 290682	2.4km	North-west	Blaby, Sharnford	Users of Coventry Road; Long range views from the south.	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of travelling from one place to another and with a focus on the road.	Medium
32 (Day)	Bumblebee Lane, High Cross	447367, 288686	4km	North-west	Blaby, Sharnford	Users of Bumblebee Lane; PRoW Users on Leicestershire Round Promoted Route	High – PRoW Users on the Leicestershire Round Promoted Route.	High – on a promoted route and out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
						Long range views from the south.			
32 (NV)	Bumblebee Lane, High Cross	447367, 288686	4km	North-west	Blaby, Sharnford	Users of Bumblebee Lane; PRow Users on Leicestershire Round Promoted Route Long range views from the south.	Low Very few receptors at night and not in a dark sky area.	Low Limited opportunity to appreciate the landscape at night.	Low
33	B578, Lutterworth Road	445152, 290073	1.7km	North	Hinckley and Bosworth, Burbage	Users of Lutterworth Road; Long range views from the	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of	Medium

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
						south; Burbage CP.		travelling from one place to another and with a focus on the road.	
34	Huit Farm	447471, 447753	1.1km	South-west	Blaby, Earl Shilton	Users of PRoW U18/4; Long range views from the north-east.	High – recreational users on PRoW.	High – receptors out to appreciate the landscape.	High
35	PRoW V48/2	447471, 294040	268m	North-west	Blaby, Sapcote	Users of PRoW V48/2; Medium range views from the south-east.	High – recreational users on PRoW.	High – receptors out to appreciate the landscape.	High
36 (Day)	Smenell Field, Burbage Common and	445210, 294340	165m	North-east	Blaby, Elmesthorpe	Requested by HBBC 17/01/19; Users of	High – recreational users within	High – receptors out to appreciate	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
	Woods Country Park					Country Park. Close range views from the west.	Country Park.	the landscape.	
36 (NV)	Smenell Field, Burbage Common and Woods Country Park	445210, 294340	165m	North-east	Blaby, Elmesthorpe	Requested by HBBC 17/01/19; Users of Country Park. Close range views from the west.	Low Very few receptors at night and not in a dark sky area.	Low Limited opportunity to appreciate the landscape at night.	Low
37	Footpath V29/7	446452, 294165	0m	North	Blaby, Sapcote	Requested by LCC 06/02/2019; Users of PRow. Close range views within the site.	High – recreational users on PRow.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
38	Mill Lane	447959, 297666	2km	South-west	Hinckley and Bosworth, Earl Shilton	Requested by LCC 06/02/2019; Road and PRoW users. Mid distance views from the north.	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of travelling from one place to another and with a focus on the road.	Medium
39	PRoW V37/1 at Aston Flamville	446249, 292804	217m	North-west	Blaby, Aston Flamville	Requested by LCC 06/02/2019; Users of PRoW. Mid-range views from east.	High – recreational users on PRoW.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
40	Weaver Springs Sports Park	447106, 297637	1.7km	South-west	Hinckley and Bosworth, Earl Shilton	Requested by LCC 06/02/2019; Users of recreation ground. Residential receptors. Mid-range views from the north.	Medium – receptors engaged in outdoor sports and recreation.	Medium – receptors will have some appreciation of their surroundings but with a focus on an activity/sport.	Medium
41	PRoW U8/1 on Hinckley Golf Course	444136, 294563	953m	North-east	Hinckley and Bosworth, No Parish	Requested by HBBC 17/01/19. PRoW users; golfers. Mid distant views from the west.	High – recreational users on PRoW.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
42	South of Wood House Farm	444902, 294540	189m	North-east	Hinckley and Bosworth, Burbage	Requested by HBBC 17/01/19; Users of Country Park and PRow users. Close range views from the west; Burbage CP.	High – recreational users within Country Park.	High – receptors out to appreciate the landscape.	High
43	Northern edge of Burbage Common and Woods Country Park	445092, 295136	83m	East	Blaby, Elmesthorpe	Requested by HBBC 17/01/19; Users of Country Park. Close range views from the west.	High – recreational users within Country Park.	High – receptors out to appreciate the landscape.	High
44	Eastern edge of Burbage	445348,	270m	East	Blaby,	Requested by HBBC	High – recreational	High – receptors out	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
	Common and Woods Country Park	294976			Elmesthorpe	17/01/19; Users of Country Park. Close range views from the west.	users within Country Park.	to appreciate the landscape.	
45	B4688 at Junction with Burbage Common Road	444636, 295470	126m	North-east	Hinckley and Bosworth, No Parish	Users of B4688, close range north to A47 link.	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of travelling from one place to another and with a focus on the road.	Medium
46	B4668 near entrance to Leicester Road	445052, 296062	0m	South-west	Hinckley and Bosworth, Barwell	Users of PRoW and B4688, close range views south to	Medium – road users on minor roads passing	Medium – will have some appreciation of the landscape	Medium

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
	Football Club					A47 link.	through rural areas.	but in the context of travelling from one place to another and with a focus on the road.	
47	Footpath V23/2 west of Billington Rough	445566, 295688	314m	South	Blaby, Elmesthorpe	Requested by Elmesthorpe Parish Council and Planning Inspectorate. Location moved south due to new build development blocking views on B581. Close range views to south and	High – recreational users on PRow.	High – receptors out to appreciate the landscape.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
						east.			
48	B581/The Roundhills	446893, 296030	178m	South-west	Blaby, Elmesthorpe	Requested by Elmesthorpe Parish Council and Planning Inspectorate. Residents of Elmesthorpe. Close range views to the south.	Medium – road users on minor roads passing through rural areas.	Medium – will have some appreciation of the landscape but in the context of travelling from one place to another and with a focus on the road.	Medium
49	B581 Bridge, Elmesthorpe	447038, 295862	0m	South-west	Blaby, Elmesthorpe	Road network within	Medium – road users on minor roads	Medium – will have some appreciation of	Medium

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
						Elmesthorpe	passing through rural areas.	the landscape but in the context of travelling from one place to another and with a focus on the road.	
50	Elmesthorpe Public Open Space	447037, 296258	270m	South-west	Blaby, Elmesthorpe	Recreational Users	High – recreational users within public open space.	High – receptors out to appreciate the landscape.	High
51	M69 Junction 2 Bridge	446482, 293877	0m	North-west	Blaby, Sapcote	Pedestrians, road users of M69 Junction 2 bridge	Medium – Pedestrians and PRow users linking to PRow on other side of junction.	Low – will have some appreciation of the landscape but in the context of a motorway	Medium

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
								junction.	
52	PRoW U52/1 South East of The Outwoods rail crossing	444222, 294025	78m	North-west	Hinckley and Bosworth, Burbage	PRoW users near proposed pedestrian footbridge	High – recreational users on PRoW.	Medium – receptors out to appreciate the landscape but with greater tolerance of change in infrastructure vicinity of railway infrastructure.	High

PVP. No.	Location	Grid Reference	Distance from DCO Boundary	Orientation (approx.)	Borough/ District, Parish	Reason(s) for Selection	Visual Receptor Value	Visual Receptor Susceptibility to Change	Visual Receptor Sensitivity
53	Churchyard of St Mary, Elmesthorpe	446021, 296486	880m	South	Blaby, Elmesthorpe	Requested by Historic England to illustrate views from Scheduled Monument	High – users within the setting of a listed building .	High – receptors likely to appreciate the surroundings of the church.	High
54	A47 at the Leicester Road Roundabout	445375, 296410	1.1km	South-east	Hinckley and Bosworth, Barwell	Requested by HBBC 29/01/21; Users of A47, mid-views south to Main HNRFI Site.	Low – road users on major road.	Low– will have limited appreciation of the landscape given pace and focus of travel.	Low

1.173 A summary of the potential visibility of the Proposed Development from within the surrounding landscape is described below:

- North: Views of the Main Order Limits from the north are limited to the B581 (Station Road) and dwellings along it. Beyond, a combination of gently undulating topography, mature vegetation and built form generally combine to limit inter-visibility. There are some areas of potential visibility near Huit Farm (Photoviewpoint 34) and along minor road Thurlaston Lane (Photoviewpoint 27) where although the Main Order Limits in their existing form cannot be seen, there is potential for views of the Proposed Development;
- East: Inter-visibility with the Main Order Limits is limited due to gently undulating topography, coupled with mature vegetation that enclose small to medium field parcels. These combine to screen views from the east, with potential views of the Proposed Development primarily limited to the B4669 (Hinckley Road) (Photoviewpoint 10) and the PRow network within 1km from Bridleways V29/4, V29/5, V29/6, V29/9 and V29/10, as well as Footpaths U53/2 (Photoviewpoints 9 and 35) and V49/1. Further east there are more distant secondary areas of visibility between Stoney Stanton (Photoviewpoint 22) and Fields Farm (Photoviewpoint 24), and also at the elevated geographical outlier of Croft Hill (Photoviewpoint 30);
- South: There are few views of the Main Order Limits from the south due to Aston Firs, Burbage Wood and Freeholt Wood. Views are primarily limited to the M69 Motorway as it approaches Junction 2. Areas of potential secondary visibility are from isolated, elevated locations such as at Lychgate Lane bridge, which passes over the M69 (Photoviewpoint 13), Footpath U63/1 east of Burbage (Photoviewpoint 14), High Cross c.4.5km to the south (Photoviewpoint 32) and the B578 (Lutterworth Road) c.3km to the south (Photoviewpoint 33); and
- West: Views are generally limited by mature vegetation within and on the periphery of Burbage Common Country Park whilst some do afford views towards the Main Order Limits as represented by Photoviewpoints 36, 42, 43 and 44. Similarly, mature vegetation forming field boundaries and alongside roads limits visibility from this direction to Burbage Common Road and the PRow network within 1km to the west. These routes include Bridleway U52/9 and U52/10 and Footpaths V23/1, V23/2, V50/1 and U50/3. Secondary areas of potential visibility include those from elevated positions at the edge of the Settlement of Barwell to the north-west of the site (Photoviewpoints 25 and 26).

Visual Receptors

PRow, Open Access Land and Country Parks

1.174 The location of PRows surrounding the Main Order Limits are shown on Figure 11.3 (document reference 6.3.11.3). Views of the Main Order Limits from PRows and Open Access Land are generally limited to PRow within the surrounding 2km.

1.175 Photoviewpoints 1 to 8 and 37 represent views from the PRow network within the Main

HNRFI Site boundary and have open views over much of the gently undulating agricultural farmland of the site area.

- 1.176 Located to the west of the site is Burbage Common area of Open Access Land, which also forms part of Burbage Common and Woods Country Park and bounds part of the western DCO Site boundary. Views, despite the proximity, are generally well screened by existing mature vegetation within the Country Park (Photoviewpoint 15), however there are limited locations with visibility (Photoviewpoints 42, 43 and 44). Smenell Field (Photoviewpoint 36) is located within the Country Park and north of Burbage Wood and Aston Firs, adjacent to the DCO boundary, and will experience close range views of the proposed development.
- 1.177 Also, to the west and north-west are a number of PRoWs within 2km with the potential to experience visual effects as a result of the proposed development. These routes include Bridleway U52/9 (Photoviewpoint 17) and U52/10 and Footpaths V23/1, V23/2, V50/1 and U50/3. Photoviewpoint 25 illustrates elevated views from Footpath U47/1 at the southern edge of Barwell, c.1.7km to the north-west.
- 1.178 To the north, Bridleway U52/10 transitions into U52/11 (Photoviewpoint 18) and travels north from Billington Rough, climbing in elevation to Elmesthorpe. Views towards the Main HNRFI Site are screened by existing mature vegetation and existing built form around Billington Rough. Moving further away, views become more limited by intervening mature vegetation and subtle variations in topography, which combine to screen and filter views, particularly from the network between the northern boundary of the Main HNRFI Site and the southern and eastern edge of Earl Shilton to the north. Footpath U18/4 near Huit Farm (Photoviewpoint 34) provides potential visibility towards the site from its slightly elevated position and south facing slope.
- 1.179 To the east, visibility is limited due to gently undulating topography, coupled with mature vegetation enclosing small to medium field parcels. Views are primarily obtained from the PRoW network within 1km of the Main HNRFI Site from Bridleway V29/4, V29/5, V29/6, V29/9 and V29/10 as well as Footpaths U53/2 (Photoviewpoints 9 and 35) and V49/1. Further east there will be more distant, secondary areas of visibility on Footpath V49/2 between Stoney Stanton (Photoviewpoint 22) and Fields Farm along Bridleways V29/3 and V34/2 (Photoviewpoint 24). To the far east there is a publicly accessible area of Croft Hill, which provides elevated, panoramic views over the countryside between Leicester and Hinckley.
- 1.180 There are few views of the Main HNRFI Site from PRoW to the south. There are a number of routes contained within Burbage Wood within Burbage Common and Woods Country Park, which screens most views towards the Main HNRFI Site due to intervening mature vegetation. Further south, PRoW similarly have limited visibility due to the large woodland block formed by a combination of Aston Firs, Burbage Wood and Freeholt Wood. There is limited opportunity for distant, glimpsed elevated views from Footpath U63/1 (Photoviewpoint 14) as it leaves Burbage.
- 1.181 It is considered that, due to the focus on the surrounding landscape and interest in the

local area, users of local PRow throughout the study area, although with some desensitisation where views are possible of existing built form and large man-made features, are considered to be high sensitivity receptors.

Road Users

- 1.182 Although there are a number of minor roads within the study area, with the exception of those immediately adjacent to the site, only a few, if any, afford clear views of the site. Due to a combination of existing built form, mature landscape features and localised changes in topography, views from roads are frequently contained to the immediate setting.
- 1.183 The M69 Motorway aligns with and passes through part of the eastern extent of the site and allows close range views of the site, particularly the area around Junction 2. Oblique filtered views of the site to the west are available between Elmesthorpe and Aston Flamville.
- 1.184 Burbage Common Road runs within the site from Elmesthorpe to the north to the central portion of the site (illustrated by Photoviewpoint 7) before turning west and exiting the site over a bridge towards Burbage Common and Wood Country Park. As expected, the road allows open views of the site in all directions with filtered views available from the route as it passes the Country Park, as illustrated by Photoviewpoint 16.
- 1.185 B581 (Station Road) passes to the north of the Main DCO Site and briefly aligns with parts of the DCO Limits where the construction access travels south down Burbage Common Road. Despite the proximity, views towards the DCO Site would be oblique and well filtered by a combination of existing mature vegetation, built form and gently undulating topography. Photoviewpoint 20 illustrates an elevated and open view of the DCO Site from the bridge over the M69. Further east along the B581, visibility decreases with roadside vegetation and topography limiting views. Photoviewpoint 21 provides filtered views over roadside hedgerows towards the DCO Site.
- 1.186 The B4669 Hinckley Road connects Sapcote in the east with Burbage in the west, passing through the proposed junction improvements and site access for the completed development. Views upon leaving Sapcote are visually contained by a combination of mature vegetation, built form and undulating topography, as illustrated in Photoviewpoint 23. As the route travels west, visibility of the proposed junction improvements and site access increases as intervening topography, built form and mature vegetation subsides, allowing for western and north-western closer range views towards the site (Photoviewpoint 10).
- 1.187 Aston Lane connects Aston Flamville and the B4669 Hinckley Road towards Burbage, passing over the M69 on an overbridge. Photoviewpoint 12 illustrates open views along the M69, which will feature improvements as a result of the Proposed Development. Views of the warehouses within the Main HNRFI Site will, however, be limited by the physical and visual screen of Aston Firs, Freeholt Wood and Burbage Wood. Similar views will be afforded by Lychgate Lane just south of this route, which similarly passes over the M69, and is illustrated by Photoviewpoint 13.

- 1.188 Thurlaston Lane is located to the north of the site, east of Earl Shilton. Views towards the site would be oblique and filtered, if not entirely screened from this slightly elevated route, as illustrated by Photoviewpoint 27.
- 1.189 Smithy Lane is a no-through road off the B4669 (Hinckley Road) providing access to Burbage Common and Woods. The route is mainly contained within woodland and is only expected to experience a change to views as it passes Smenell Field.
- 1.190 Those travelling north on the B578 (Lutterworth Road), illustrated by Photoviewpoint 33, will experience elevated open views towards the DCO Site for a short duration as the route decreases in elevation on the approach to Burbage.
- 1.191 Bumblebee Lane connects the B4114 Coventry Road south of Sharnford with High Cross to the south. As the name suggests, at High Cross there are elevated, far reaching, filtered views to the north, as Photoviewpoint 32 illustrates.

Rail Users

- 1.192 Rail passengers on the Leicester to Nuneaton line experience close-range fleeting views as trains pass along the northern boundary of the Main HNRFI Site.

Residential Dwellings/Groups

- 1.193 This assessment has focused on views from publicly accessible locations. Views from private residential properties, although likely to be of very high sensitivity to changes in the view, are not protected by national planning guidance or local planning policy. However, to inform good site masterplanning of the development site and limit unnecessary impacts, the visual amenity of domestic dwellings is considered as part of this assessment. It should be noted that residential properties were not visited to undertake the assessment, but instead the potential for views was assessed from visits to the vicinity of the properties on publicly accessible routes. In some cases, roads and footpaths allow close access whilst in others, judgements need to be made based on what can be seen from publicly accessible viewpoints and an assessment of the property from aerial photography.
- 1.194 From an analysis of the ZTV and an understanding of potential visibility from public vantage points, individual dwellings and groups of dwellings within 2km of the Main HNRFI Site were identified for further assessment. These are summarised below:
1. Aston Firs Caravan Site: This group of dwellings is located adjacent to the proposed access road from the M69 Junction;
 2. Averley House Farm: This dwelling is located opposite the proposed M69 junction improvements;
 3. Bridge Farm: This dwelling is located in close proximity to the western area of the DCO Site, upon slightly elevated ground;

4. Billington Rough: This group of dwellings with private roads is located north of the DCO Site between the Hinckley to Leicester Railway and Elmesthorpe, upon slightly elevated ground;
5. Wood House Farm: Located within Burbage Common and Woods Country Park;
6. Station Road East: A small group of dwellings on Station Road, east of the M69 and to the north-east of the Main HNRFI Site;
7. Station Road, Elmesthorpe: A linear group of properties to north and south of Station Road, comprising a significant part of the village of Elmesthorpe;
8. Burbage Common Road North: This small group comprises a handful of dwellings that are situated in a linear fashion along Burbage Common Road;
9. Burbage Common Road West: This group comprises dwellings at the northern extent of Burbage Common and Woods Country Park;
10. Shilton Road and Dawson's Lane Barwell: This linear group is located to the north-west of the DCO Site on the elevated ground within Barwell. This area provides far reaching views over the landscape;
11. Dwellings on Church Lane, Dovecote way, St Mary's Close and Barwell Lane, Barwell: This group is located to the north-west of the DCO Site on the elevated area near St Mary's Church within Barwell;
12. Highgate Lodge Farm and Red Hill Farm: Two dwellings within farmsteads to the east of the M69;
13. Properties on and accessed from Stanton Lane including Boundary Farm and Nuttingore Farm;
14. Fields Farm: A dwelling within a farmstead in open countryside to the south east of the Main HRNFI Site;
15. Western edge of Stoney Stanton: Properties on Smithy Farm Drive, Fisher Close, Farndon Drive, St Peter's Close, Tansey Crescent, and George Marriot Close, Hinckley Road and Howe Close.
16. B4668 between Burbage Common Road and A47: This group comprises a handful of dwellings to the south of the B4668 and a Gypsy and Traveller Site;
17. Gypsy and Traveller Settlement on Smithy Lane near the M69 Junction 2;
18. Breach Lane: A handful of dwellings on farmsteads on elevated ground to the north of the Main HNRFI Site;
19. Thorney Fields Farm: A dwelling within a farmstead in open countryside to the north east of the Main HRNFI Site; and

20. Cadle Close: Properties on the north-western edge of Stoney Stanton.

1.195 The susceptibility of residential receptors to change is dependent, to some extent, on the room(s) and the activities of people in those rooms. Residents with visibility from rooms normally occupied in waking hours and outdoor spaces such as gardens will generally have a very high susceptibility to change, with lower susceptibility for users of bedrooms or rooms from which there may be no expected view, for example bathrooms. Susceptibility is also reduced for dwellings on farms where farm buildings, yards and associated activities form part of the existing visual context.

Proposed Photomontage Selection

1.196 43 of the Photoviewpoints have been selected for illustrating the Proposed Development as Photomontages and are illustrated in Figure 11.16 (document reference 6.3.11.16). The number of photomontages has been increased from 10 at the PEIR stage to 43 following comments at public consultation that it was difficult to understand the potential impacts without being able to 'see' the changes in a photomontage.

1.197 Two different levels of Photomontage have been produced:

- Proposed Built Parameters - AVR1 – Illustrates location, extent and visibility of Proposed Built Parameters; and
- Proposed Illustrative Scheme - AVR3 – Photorealistic View including use of materials based on the Illustrative Masterplan (document reference 2.3) and Illustrative Landscape Strategy (Figure 11.20, document reference 6.3.11.20).

1.198 Locations were selected for photomontages based on the following criteria:

- Inclusion of views where it would not otherwise be clear how much of the Proposed Development would be visible. This includes all viewpoint locations beyond 1km of the Order Limits with the exception of two locations to the south-west – Photoviewpoints 14 and 52;
- Inclusion of views from the most sensitive receptors within Burbage Common and Woods Country Park, on PRow within 1km of the Main HNRFI Site boundary and close to residential dwellings within 1km of the Main HNRFI boundary; and
- Inclusion of views on the boundary of the Main HNRFI Site where the impact of mitigation might not otherwise be understood.

1.199 It was not considered appropriate or necessary to provide photomontages from every viewpoint as once it is clear what can be seen from certain locations, it is possible to understand what is likely to be visible from other locations close by. For example, Photoviewpoints 13 and 14 have a similar open view and orientation to Photoviewpoint 12. However, by contrast, although closer, Photoviewpoint 39 has a different visual context and it was felt that a parameter montage would be useful to check for potential visibility above the treeline. Similarly, it was not considered necessary to provide

montages of locations where road and rail infrastructure is proposed such as Photoviewpoints 45, 46 and 52 as the introduction of a roundabout or a pedestrian bridge over a railway line are features that can be readily imagined and understood. Finally, photomontages were not included from Viewpoints which would not exist once development takes place such as Photoviewpoints 4, 5, 6 and 37.

- 1.200 It should be noted that the Proposed Built Parameter Photomontages illustrate the maximum built parameters in which development could theoretically be built out. They do not illustrate the actual built form of the Proposed Development which in reality would comprise a number of separate buildings, varied roofscapes, internal road layouts, landscaping, lighting etc.
- 1.201 In the case of the photorealistic montages, the buildings are shown at 0.5m below the maximum parameter height as that is the most likely height they will be built to, given the standard height of Tritax units at 21.5m, 24.5m and 27.5m. The extra 0.5m in the parameter allows for any unforeseen changes in ground level. The 13 locations for the photorealistic montages have been selected based on the following criteria:
- Coverage of views from north, south, east and west into the Main HNRFI Site;
 - Coverage of a range of receptors, e.g. walkers on PRow, road users; and
 - Coverage of identified sensitive receptors, e.g. users of listed buildings, PRow and high vantage points.
- 1.202 Given the number of photomontages produced and the nature of the development, it was not considered necessary to provide photorealistic views at Year 1 and Year 15 for every photorealistic montage. Year 1 montages were therefore only produced for those views where there was likely to be a notable difference between the Year 1 and the Year 15 scenario, namely Photoviewpoints 1, 3, 42 and 43.
- 1.203 The growth rates assumed for planting in the Photomontages are described in the Methodology in Annex 5. Growth rates for some of the species selected as part of the planting proposals are set out in Table 1.10 below. This is based on tree growth rates given in Illustrated Tree of Britain and Europe, Second Edition (D Moore and J White 2013). It must be noted in this instance that the majority of the planting depicted in the photomontages would be planted many years before Year 1 during the enabling works phase of the construction period and would have up to 8 additional years of growth once Year 15 is reached. However, given there is not yet a clear phased planting programme at this stage in the design process, the decision was taken to show all planting in the montages as though it had been planted at Year 0 and therefore representing the 'worst-case scenario'.

Table 1.10: Tree Growth Rates for a Range of Trees within Illustrative Landscape Strategy

Tree Species	Scientific Name	Planted height	Estimated Annual growth Rate (m)	Optimal height at Year 15 (m)
Field Maple	Acer campestre	3	0.6	12
Silver Birch	Betula pendula	2	0.8	14
Hazel	Corylus avellana	1	0.5	8.5
Hawthorn	Crataegus monogyna	1	0.5	8.5
Common Walnut	Juglans Regia	2.5	0.6	11.5
Aspen	Populus Tremula	2.5	1.0	17.5
Common Oak	Quercus robur	2.5	0.3	7
White Willow	Salix Alba	2.5	1.0	17.5
Small leaved Lime	Tilia cordata	3	0.4	9

BASELINE CONDITIONS: NIGHT-TIME VISUAL AMENITY

Approach and Methodology

1.204 The Guidelines for Landscape and Visual Impact Assessment’ (GLVIA3) recognises that night-time views may be a consideration, stating that “it may be important to carry out night-time ‘darkness’ surveys of the existing conditions in order to assess the potential effects of lighting” (para 6.12). However, it does not provide a specific methodology for doing so. Reference is made to preparation of 3D models and “quantitative assessment of lighting levels”, with inputs from lighting engineers. At present, the level of lighting detail provided in the Lighting Strategy (document reference 6.2.3.2) is sufficient to inform the level of detail required for this DCO application, with further details to follow during the detailed design stages. A lighting illumination model (based on the Lighting Strategy,

document reference 6.2.3.2) has been prepared for the purposes of the night-time photomontages to inform the judgements of the Chartered Landscape Architects undertaking the LVIA.

1.205 In the absence of specific published guidelines for night-time LVIA, the methodology used reflects the day-time approach with adjustments made for night-time conditions as set out in Annex 1.

1.206 Levels of existing light sources in the landscape across England has been prepared by CPRE and the mapping available online³ covers the site and site context. To categorise zones of darkness within the site and its existing context CPRE’s ‘England’s Light Pollution and Dark Skies’ map has been employed. Nine types of brightness levels are presented in CPRE’s mapping as illustrated in Image 1.5 below.

Categories	Brightness values (in nw/cm ² /sr) ¹²
Colour band 1 (Darkest)	<0.25
Colour band 2	0.25-0.5
Colour band 3	0.5-1
Colour band 4	1-2
Colour band 5	2-4
Colour band 6	4-8
Colour band 7	8-16
Colour band 8	16-32
Colour band 9 (Brightest)	>32

Image 1.5: CPRE’s table on how the maps have been split into colour bandings to show levels of brightness.

Classification of Zones of Darkness

1.207 EDP has condensed and classified the data to represent 4 zones in line with CPRE’s ‘England’s Light Pollution and Dark Skies’ map which are listed below:

- Dark Sky Core (colour bands 1 and 2);
- Rural Darkness and Buffer (colour band 3);
- Transition (colour band 4); and

³ <https://www.nightblight.cpre.org.uk/maps/>

- Urban (colour bands 5 to 9).

- 1.208 Dark Sky Core Zones – The condition of the night sky within the core are generally considered the best within England with clear views of the nights sky with minimal light pollution.
- 1.209 Rural Darkness and Buffer Zones– still identified as a ‘dark sky’ these areas may not be connected to the main core but still have clear views of the night’s sky.
- 1.210 Transition Zones – This zone lies between dark zones and the urban environment. Conditions in this zone are variable with skies appearing brighter.
- 1.211 Urban Zones– Urban areas have high ambient brightness, effected by light pollution from infrastructure, roads, residential and commercial sources.

Night-time Baseline

- 1.212 Image 1.6 below illustrates the baseline level of light pollution within the vicinity of the Main HNRFI Site.
- 1.213 As can be seen, the vast majority of the Main HNRFI Site is located within Transition Zone 4 with a small area of Zone 3 – Rural Darkness and Buffer and a broader area of Zones 5 and 6 – Urban – centred around Junction 2 of the M69. As such, the baseline light pollution of the Main HNRFI Site indicates that it is already influenced by nearby urban areas and transport routes and it is not considered as a ‘Dark Sky Core’.
- 1.214 As also shown in Image 1.6 below the A47 Link Road Corridor and Western Amenity Area predominantly lie in Zones 5 and 6 with some Transition Zone 4 sections north of the common and closer to the railway line – away from urban influences along the Leicester Road.

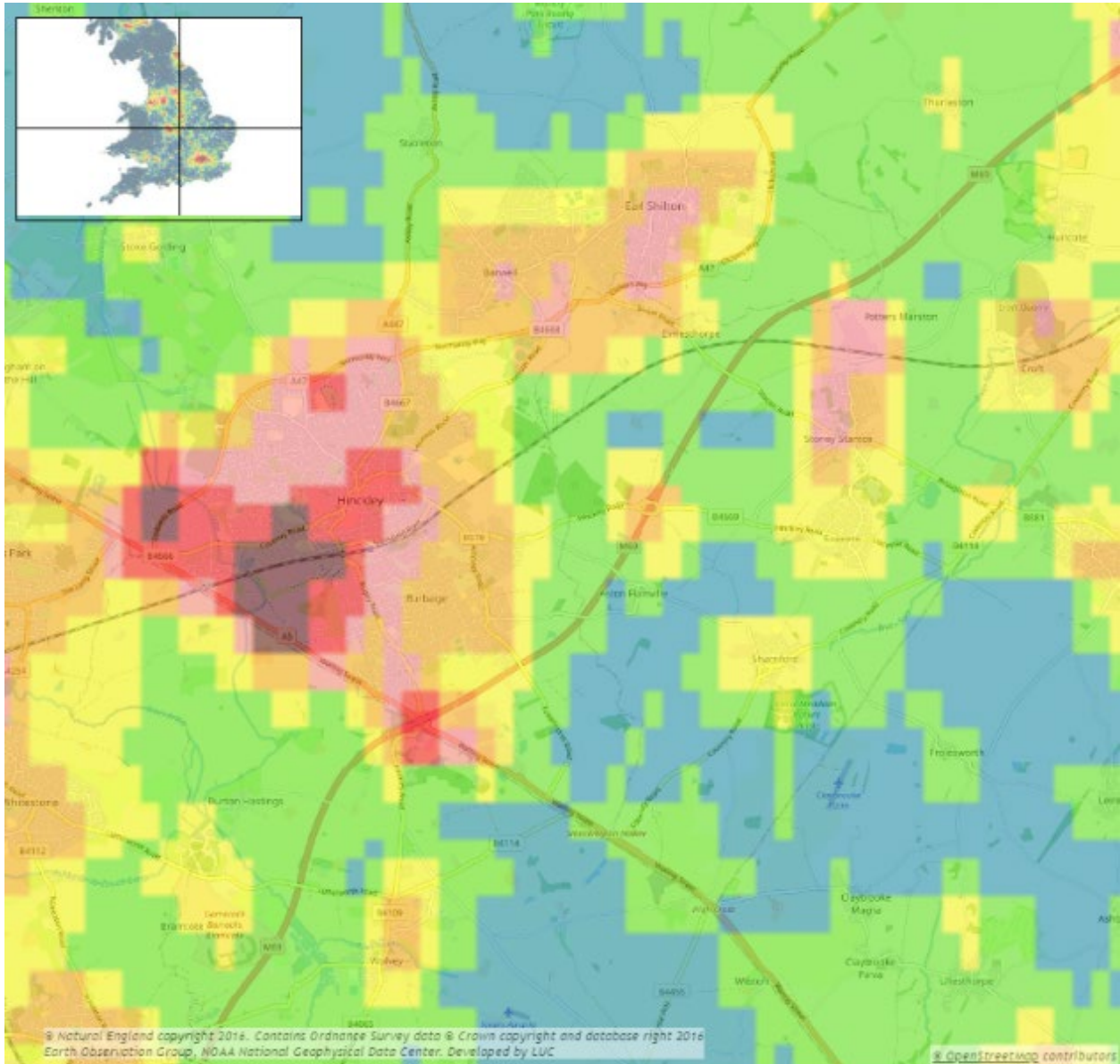


Image 1.6: Baseline levels of light pollution within the vicinity of the Main HNRFI Site (extracted from CPRE’s interactive map of ‘England’s Light Pollution and Dark Skies’)

Categories	Brightness values (in $\text{nw}/\text{cm}^2/\text{sr}$) ¹²
Colour band 1 (Darkest)	<0.25
Colour band 2	0.25-0.5
Colour band 3	0.5-1
Colour band 4	1-2
Colour band 5	2-4
Colour band 6	4-8
Colour band 7	8-16
Colour band 8	16-32
Colour band 9 (Brightest)	>32

Night Photoviewpoint Selection

- 1.215 Nine of the representative photoviewpoints have been selected for night-time views to capture baseline light during dark hours. These locations have been agreed with LCC, BDC and HBDC as part of the design development and assessment process. These locations are indicated by a yellow highlight on Figure 11.9 Photoviewpoint Locations (document reference 6.3.11.9). These locations have been selected based on the coverage of views from north, south, east and west into the site and the majority are taken where receptors are likely to be at night (roads, settlements and PRow near dwellings and settlements).
- 1.216 Photoviewpoints 9, 12, 19, 20, 22, 24, 25 and 36 were selected to illustrate the site's context after dark, Photoviewpoint 32 being considered too distant for any accurate effects to be illustrated as a night photomontage. It should be noted that with regard to users of PRow, it is likely that the majority of receptors will not be active on these routes after dark, particularly away from urban areas and light sources which provide a sense of security. However, it is recognised that, particularly in the winter months when daylight hours are short, dog-walkers and recreational walkers/runners on PRow warrant assessment. The existing night views are presented in Figure 11.12 (document reference 6.3.11.12) and described below. Night Photoviewpoint 9 illustrates views from the PRow (and to some extent near-by properties) east of the Main HNRFI Site at night which comprise static light sources associated with Junction 2 of the M69, the sports pitches on the B4668 and settlement at Barwell and Earl Shilton, whilst moving lights from vehicles passing along the M69 are located in the foreground. The silhouette of woodland south of the Main HNRFI Site can be made out against a glowing night sky backdrop, likely provided by the urban light sources within Hinckley and Burbage.
- 1.217 Night Photoviewpoint 12 illustrates views from the M69 overbridge on Aston Lane (and to some extent, views from the M69 northbound carriageway) towards the Main HNRFI Site at night which comprises static light sources associated with Junction 2 of the M69 and the B4669, whilst moving lights from vehicles passing along the M69 are located in the foreground. The silhouette of woodland south of the Main HNRFI Site can be made out against a glowing night sky backdrop, likely provided by the urban light sources within Earl Shilton and Barwell. Similarly, Night Photoviewpoint 20 illustrates views from an M69 overbridge, of which the light sources are similar, with Junction 2 of the M69 and vehicles on the M69 itself visible in the centre of the view. Again, a backdrop of night glow from Hinckley and Burbage creates a silhouette of the blocks of woodland that bound the Main HNRFI Site to the south.
- 1.218 Night Photoviewpoint 19 illustrates views from elevated ground at St Mary's Church within the settlement of Elmesthorpe looking south towards the Main HNRFI Site. The foreground is well lit due to static streetlighting within the settlement and from windows of nearby properties. Distant static light sources are visible at Junction 2 of the M69. The silhouette of woodland south of the Main HNRFI Site can be made out against a glowing night sky backdrop, likely provided by the urban light sources within Hinckley and Burbage.
- 1.219 Night views from the edge of Stoney Stanton are illustrated by Night Photoviewpoint 22 of which a number of static light sources appear in the direction of the Main HNRFI Site, particularly towards elevated locations at Barwell and Earl Shilton. A night glow is provided by a combination of urban settlements within the area (such as Hinckley,

Burbage, Barwell, Earl Shilton and Elmesthorpe). Similar views are experienced from Bridleway V34/2 (Night Photoviewpoint 24) just south of Hinckley Road, with the light sources at Junction 2 of the M69 a more prominent focus within views.

- 1.220 In terms of views from the elevated ground from the edge of Barwell as represented by Night Photoviewpoint 25, the immediate foreground comprises no static light sources, whilst a number of static light sources appear in the middle distance and centre of the view, comprising street lighting associated with the B4668, A47 and beyond.
- 1.221 Distant elevated night-time views are illustrated by Night Photoviewpoint 32 from Bumblebee Lane at High Cross. A considerable number of static light sources appear in the direction of the Main HNRFI Site, as well as concentrations of night glow into the sky around settlements.
- 1.222 Night Photoviewpoint 36 illustrates close range views from Smenell Field within Burbage Common and Woods Country Park. There are no static light sources within the view in the direction of the Main HNRFI Site. It should be noted that the number of receptors within the Country Park at night is likely to be very low.
- 1.223 The value and susceptibility of visual receptors in specific locations at night is generally lower than during the day, as darkness naturally limits outdoor activity and visual extent. The value, susceptibility and sensitivity of receptors for the night views is therefore presented as a separate row in Table 1.9 above and in the Schedules of Landscape and Visual Construction and Operational Effects (document references 6.2.11.5 and 6.2.11.6).

SUMMARY AND CONCLUSIONS

Summary

1.224 The findings show that in landscape terms:

- The Order Limits are not covered by any statutory landscape designations and will be designed and developed in accordance with national and local landscape planning policy;
- The Order Limits are located across 3 LCAs and 3 SCAs within Blaby District, 1 LCA and 1 UCA within Hinckley and Bosworth District, 1 LCA within Rugby Borough and 1 LCA within the Harborough District; and
- The Main HNRFI Site features a number of other considerations that add some landscape value to it:
 - 1 LWS, Elmesthorpe Plantation Hedgerow;
 - 2 LWSs located adjacent to the site, Field Rose Hedgerow and Burbage Common and Woods;
 - Adjacent Ancient Woodland at Burbage Wood, Aston Firs, Freeholt Wood and

Sheepy Wood;

- 13 category A trees of high quality and value on site including one veteran tree;
 - A number of PRoW that provide access across the site; and
 - Burbage Common and Country Park adjacent to the west of the site.
- The A47 Link Road also has 2 veteran trees which are a notable feature of the landscape.

1.225 In terms of visual amenity:

- The generally flat vale landscape character within which the Main HNRFI Site and A47 Link is contained contributes towards the relative visual containment;
- PRoW that pass through the Main HNRFI Site have open views of it, whilst those in close proximity have open to filtered views;
- Beyond 1km, views from PRoW are generally filtered by the combination of intervening trees, hedgerows and gently undulating topography;
- Views from the local road network are similarly limited to the surrounding 1km;
- Views from the rail network are limited to the stretch of railway that passes the west to north boundary of the Main HNRFI Site; and
- There are a number of individual and groups of dwellings within the visual envelope of the site, primarily within 1km from the site or on more distant, elevated ground to the north and east at the edges of Barwell and Stoney Stanton.

Conclusions

1.226 Whilst the landscape of the DCO Site is not subject to a protective designation, it is crossed by PRoWs and contains a number of landscape features that contribute to its landscape value. Detractors such as the noise and movement from the M69 and railway are noted to influence the Main HNRFI Site but are not so significant as to totally 'urbanise' the landscape, which broadly retains its rural agricultural character. In visual terms, the Main HNRFI Site and A47 Link Road are relatively well contained, particularly to the south by existing woodland. The majority of intervisibility occurs within 1km with occasional longer views from areas of higher ground to the west, north and east.

Annex 1 ◆ Assessment Methodology

INTRODUCTION

A1.1 This section provides a methodology for landscape and visual impact assessment as used by EDP.

METHODOLOGY

A1.2 The assessment methodology for assessing landscape and visual effects prepared by EDP is based on the following best practice guidance:

- Guidelines for Landscape and Visual Impact Assessment – Third Edition (LI/IEMA, 2013);
- An Approach to Landscape Character Assessment (Natural England, October 2014); and
- Landscape Institute Technical Guidance Note (TNG) 06/19 Visual Representation of Development Proposals (17 September 2019).

A1.3 Other reference documents used to understand the baseline position in landscape terms comprise published landscape character assessments appropriate to the site's location and the nature of the proposed development.

A1.4 The nature of landscape and visual assessment requires both objective analysis and subjective professional judgement. Accordingly, the following assessment is based on the best practice guidance listed above, information and data analysis technique, it uses quantifiable factors wherever possible and subjective professional judgement where necessary, and is based on clearly defined terms (see Glossary, Annex 4).

Landscape Assessment

A1.5 Landscape effects derive from changes in the physical landscape fabric that may give rise to changes in its character and how this is experienced. These effects need to be considered in line with changes already occurring within the landscape and which help define the character of it.

A1.6 Effects upon the wider landscape resource, i.e., the landscape surrounding the development, requires an assessment of visibility of the proposals from adjacent landscape character areas, but remains an assessment of landscape character and not visual amenity.

Visual Assessment

A1.7 The assessment of effects on visual amenity draws on the predicted effects of the development, the landscape and visual context, and the visibility and viewpoint analyses,

and considers the significance of the overall effects of the proposed development on the visual amenity of the main visual receptor types in the study area.

Identifying Landscape and Visual Receptors

A1.8 This assessment has sought to identify the key landscape and visual receptors that may be affected by the changes proposed.

A1.9 The assessment of effects on landscape as a resource in its own right draws on the description of the development, the landscape context and the visibility and viewpoint analysis to identify receptors, which, for the proposed development may include, but not be limited to, the following:

- The landscape fabric of the development site;
- The key landscape characteristics of the local context;
- The 'host' landscape character area that contains the proposed development;
- The 'non-host' landscape character areas surrounding the host character area and may be affected by the proposals (where relevant); and
- Landscape designations on a national, regional or local level (where relevant).

A1.10 The locations and types of visual receptors within the defined study areas are identified from Ordnance Survey maps and other published information (such as walking guides), from fieldwork observations and from local knowledge provided during the consultation process. Examples of visual receptors may include, but not be limited to, the following:

- Settlements and private residences;
- Users of National Cycle Routes and National Trails;
- Users of local/regional cycle and walking routes;
- Those using local rights of way – walkers, horse riders, cyclists;
- Users of open spaces with public access;
- People using major (motorways, A and B) roads;
- People using minor roads; and
- People using railways.

Assessment of Landscape and Visual Effects

A1.11 The assessment of effects on the landscape resource includes consideration of the potential changes to those key elements and components that contribute towards

recognised landscape character or the quality of designated landscape areas; these features are termed landscape receptors. The assessment of visual amenity requires the identification of potential visual receptors that may be affected by the development. As noted, following the identification of each of these various landscape and visual receptors, the effect of the development on each of them is assessed through consideration of a combination of:

- Their overall sensitivity to the proposed form of development, which includes the susceptibility of the receptor to the change proposed and the value attached to the receptor; and
- The overall magnitude of change that will occur - based on the size and scale of the change, its duration and reversibility.

Defining Receptor Sensitivity

- A1.12 A number of factors influence professional judgement when assessing the degree to which a particular landscape or visual receptor can accommodate change arising from a particular development. Sensitivity is made up of judgements about the ‘value’ attached to the receptor, which is determined at baseline stage, and the ‘susceptibility’ of the receptor, which is determined at the assessment stage when the nature of the proposals, and therefore the susceptibility of the landscape and visual resource to change, is better understood.
- A1.13 Susceptibility indicates “the ability of a defined landscape or visual receptor to accommodate the specific proposed development without undue negative consequences”⁴. Susceptibility of visual receptors is primarily a function of the expectations and occupation or activity of the receptor. A degree of professional judgement applies in arriving at the susceptibility for both landscape and visual receptors and this is clearly set out in the technical appendices to this assessment.
- A1.14 A location may have different levels of sensitivity according to the types of visual receptors at that location and any one receptor type may be accorded different levels of sensitivity at different locations.
- A1.15 Table A1.1 provides an indication of the criteria by which the overall value of a landscape receptor is judged within this assessment. This is based on the factors contained in Box 5.1 of GLVIA3. It is noted that the Landscape Institute’s ‘Technical Guidance Note (TGN) 02-21: Assessing landscape value outside national designations’ amends and expands on the Box 5.1 factors and could be applied to this assessment. However, the assessment was started using the Box 5.1 factors in 2019 and as the TGN is not intended to supercede Box 5.1, the approach is considered robust. Table A1.2 provides an indication of the criteria by which the overall susceptibility of the landscape in relation to the type of development proposed, in this case, Commercial and Transport Infrastructure.

⁴ Landscape Institute and Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, Third Edition Page 158

Table A1.1: Assessment of Landscape Value.

Landscape Character Area Value				
<i>Very Low</i>	<i>Low</i>	<i>Medium</i>	<i>High</i>	<i>Very High</i>
Undesignated countryside and landscape features; absence of distinctive landscape characteristics; despoiled/degraded by the presence of many landscape detractors.	Undesignated countryside and landscape features; few distinctive landscape characteristics; presence of landscape detractors.	Undesignated countryside and landscape features; some distinctive landscape characteristics; few landscape detractors.	Locally designated/valued countryside (e.g. Areas of High Landscape Value, Regional Scenic Areas) and landscape features; many distinctive landscape characteristics; very few landscape detractors.	Nationally/internationally designated/valued countryside and landscape features; strong/distinctive landscape characteristics; absence of landscape detractors.
Consideration of Other Value Criteria				
<i>Condition/Quality</i>				
A landscape with no or few areas intact and/or in poor condition.	A landscape with few areas that are intact and/or in a reasonable condition.	A landscape with some areas that are intact and/or in reasonable condition.	A landscape with many areas that are intact and/or in a reasonable condition.	A landscape with most areas intact and/or in good condition.

Landscape Character Area Value				
<i>Scenic Quality</i>				
A landscape of little or no aesthetic appeal.	A landscape of low aesthetic appeal.	A landscape of some aesthetic appeal.	A landscape of high aesthetic appeal.	A landscape of very high aesthetic appeal.
<i>Rarity and Representativeness</i>				
A landscape that does not contain rare or important landscape character types or features.	A landscape that contains a rare or important landscape feature.	A landscape that contains more than one rare or important landscape feature.	A landscape that contains a rare or important Landscape Character Type and contains one or more rare or important landscape features.	A landscape that contains a rare or important Landscape Character Types and is abundant in rare or important landscape features.
<i>Conservation Interests</i>				
A landscape with no or very limited cultural, geological and/or nature conservation content.	A landscape with low cultural, geological and/or nature conservation content.	A landscape with some cultural, geological and/or nature conservation content.	A landscape with high cultural, geological and/or nature conservation content.	A landscape with abundant cultural, geological and/or nature conservation content.

Landscape Character Area Value				
<i>Recreation Value</i>				
A landscape with no contribution to recreational experience.	A landscape with limited contribution to recreational experience.	A landscape that provides some contribution to recreational experience.	A landscape that provides a good contribution to recreational experience.	A distinct landscape that forms a strong contribution to recreational experience.
<i>Perceptual Aspects</i>				
A landscape with prominent detractors as part of the key characteristics.	A landscape with a number of detractors and limited perceptual values.	A landscape with few detractors that also retains some perceptual values such as relative tranquillity.	A landscape with very few detractors that has a relatively wild, tranquil or unspoilt landscape.	A wild, tranquil or unspoilt landscape without noticeable detractors.
<i>Cultural Associations</i>				
A landscape without recorded associations.	A landscape with few recorded associations.	A landscape with some and/or moderately valued associations.	A landscape with numerous and/or highly valued associations.	A landscape of rich and/or very highly valued associations.

Landscape Character Area Value				
<i>Overall Judgement of Landscape Value</i>				
Very Low value – receptor largely reflects very low value criteria above.	Low value – receptor largely reflects low value criteria above.	Medium value – receptor largely reflects medium value criteria above.	High value – receptor largely reflects high value criteria above	Very High value – receptor largely reflects very high value criteria above.

Table A1.2: Assessment of Landscape Susceptibility to Commercial and Transport Infrastructure Development.

Very Low Susceptibility to Change	Low Susceptibility to Change	Medium Susceptibility to Change	High Susceptibility to Change	Very High Susceptibility to Change
Pattern, Complexity and Physical Susceptibility to Change from Commercial and Transport Infrastructure Development				
A simple, monotonous and/or degraded landscape with common/indistinct features and minimal variation in landscape pattern.	A landscape with an occasionally intact pattern and/or with a low degree of complexity and with few features in reasonable condition.	A landscape with some intact pattern and/or with a degree of complexity and with features mostly in reasonable condition.	A mostly patterned/textured landscape or a simple but distinctive landscape and/or with some high value features predominantly intact.	A strongly patterned/textured landscape or a simple but distinctive landscape and/or with high value features intact.
Visual Susceptibility to Change from Commercial and Transport Infrastructure Development				

Very Low Susceptibility to Change	Low Susceptibility to Change	Medium Susceptibility to Change	High Susceptibility to Change	Very High Susceptibility to Change
<p>A very enclosed landscape that contains or strongly filters views, with an absence of visual landmarks and a lack of intervisibility with designated landscapes.</p>	<p>A predominantly enclosed landscape that contains or filters most views, with very few views of visual landmarks or intervisibility with designated landscapes.</p>	<p>A partially enclosed landscape with some visual containment and filtering, possible limited intervisibility with visual landmarks and designated landscapes.</p>	<p>An open landscape with intervisibility and limited visual filtering or enclosure. Prominent visual landmarks may be present, and/or intervisibility with designated landscapes may occur.</p>	<p>An open or exposed landscape with extensive intervisibility and no or very limited visual filtering or enclosure. Prominent visual landmarks are present, and/or intervisibility with designated landscapes occurs.</p>
<p>Experiential Susceptibility to Change from Commercial and Transport Infrastructure Development</p>				

Very Low Susceptibility to Change	Low Susceptibility to Change	Medium Susceptibility to Change	High Susceptibility to Change	Very High Susceptibility to Change
<p>A landscape with prominent visual and/or aural intrusion and close relationship with large scale built development/-infrastructure.</p> <p>A landscape that contains many light sources and essentially suffers from widespread light pollution.</p>	<p>A busy landscape with frequent visual and/or aural intrusion and nearby relationship with large scale built development/-infrastructure.</p> <p>A landscape that contains frequent light sources and suffers from light pollution.</p>	<p>A partially tranquil landscape with limited visual and/or aural intrusion. A relationship with built development/-infrastructure may be present. A landscape that contains some light sources.</p>	<p>A tranquil landscape with limited visual and/or aural intrusion. A non-intrusive relationship with built development/-infrastructure may be present. A landscape that contains few light sources.</p>	<p>A very tranquil, wild or remote landscape with little or no sense of visual or aural intrusion.</p> <p>A landscape that contains very few light sources and provides dark skies.</p>
Overall Judgement of Susceptibility to Change from Commercial and Transport Infrastructure Development				
<p>Very Low susceptibility – receptor largely reflects very low criteria above.</p>	<p>Low susceptibility – receptor largely reflects low criteria above.</p>	<p>Medium value – receptor largely reflects medium criteria above.</p>	<p>High susceptibility – receptor largely reflects high criteria above.</p>	<p>Very High susceptibility – receptor largely reflects very high criteria above.</p>

A1.16 Table A1.3 provides an indication of the criteria by which the overall sensitivity of the landscape resource is judged within this assessment and considers both value and susceptibility independently.

Table A1.3: Assessment of Landscape Sensitivity.

		Susceptibility of Landscape Receptor				
		Very High	High	Medium	Low	Very Low
Receptor Value	Very High	Very High	Very High/High	High	High/Medium	Medium
	High	Very High/High	High	High/Medium	Medium	Medium/Low
	Medium	High	High/Medium	Medium	Medium/Low	Low
	Low	High/Medium	Medium	Medium/Low	Low	Low/Very Low
	Very Low	Medium	Medium/Low	Low	Low/Very Low	Very Low

A1.17 For visual receptors, judgements of susceptibility and value are closely interlinked considerations. For example, the most valued views are those that people go and visit because of the available view, and it is at those viewpoints that their expectations will be highest and thus most susceptible to change.

A1.18 Table A1.4 provides an indication of the criteria by which the overall sensitivity of a visual receptor is judged within this assessment and considers both value and susceptibility independently.

Table A1.4: Visual Receptor Sensitivity.

Category	Visual Receptor Criteria
Very High	<p>Designed view (which may be to or from a recognised heritage asset or other important viewpoint), or where views of the surroundings are an important contributor to the experience. Key promoted viewpoint, e.g. interpretative signs. References in literature and art and/or guidebooks tourist maps. Protected view recognised in planning policy designation.</p> <p>Examples may include views from residential properties, especially from rooms normally occupied in waking or daylight hours or outdoor spaces such as gardens; national PROW, e.g. National Trails and nationally designated countryside/landscape features with public access, which people might visit purely to experience the view; and visitors to heritage assets of national importance.</p>
High	<p>View of clear value but may not be formally recognised, e.g. framed view of high scenic value, or destination hill summits. It may also be inferred that the view is likely to have value, e.g. to local residents.</p> <p>Examples may include views from recreational receptors where there is some appreciation of the landscape, e.g. golf and fishing; local public rights of way, access land and National Trust land, also panoramic viewpoints marked on maps; road routes promoted in tourist guides for their scenic value.</p>
Medium	<p>View is not promoted or recorded in any published sources and may be typical of the views experienced from a given receptor.</p> <p>Examples may include people engaged in outdoor sport other than appreciation of the landscape, e.g. football and rugby, or road users on minor routes passing through rural or scenic areas.</p>
Low	<p>View of clearly lesser value than similar views experienced from nearby visual receptors that may be more accessible.</p> <p>Examples may include road users on main road routes (motorways/A roads) and users of rail routes or people at their place of work (where the place of work may be in a sensitive location). Also views from commercial buildings where views of the surrounding landscape may have some limited importance.</p>

Category	Visual Receptor Criteria
Very Low	View affected by many landscape detractors and unlikely to be valued. Examples may include people at their place of work, indoor recreational or leisure facilities or other locations where views of the wider landscape have little or no importance.

A1.19 The tables above offer a template for assessing overall sensitivity of any landscape or visual receptor as determined by combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape as set out at paragraph 5.39 of GLVIA3. However, the narrative in this report may demonstrate that assessment of overall sensitivity can change on a case-by-case basis.

A1.20 For example, a high susceptibility to change and a low value may result in a medium overall sensitivity, unless it can be demonstrated that the receptor is unusually susceptible or is in some particular way more valuable. A degree of professional judgement applies in arriving at the overall sensitivity for both landscape and visual receptors.

Magnitude of Change

A1.21 The magnitude of any landscape or visual change is determined through a range of considerations particular to each receptor. The three attributes considered in defining the magnitude are:

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

A1.22 Receptor locations from which views of the proposed development are not likely to occur will receive no change and therefore no effect. With reference to the ZTV and site survey, the magnitude of change is defined for receptor locations from where visibility of the proposed development is predicted to occur.


A1.23 Table A1.5 provides an indication of the criteria by which the size/scale of change at a landscape or visual receptor is judged within this assessment.

Table A1.5: Landscape and Visual Receptor Magnitude of Change Criteria.

Category	Landscape Receptor Criteria	Visual Receptor Criteria
Very High	Total loss of or major alteration to key elements/features/characteristics of the baseline condition. Addition of elements which strongly conflict with the key characteristics of the existing landscape.	There would be a substantial change to the baseline, with the proposed development creating a new focus and having a defining influence on the view.
High	Notable loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that are prominent and may conflict with the key characteristics of the existing landscape.	The proposed development will be clearly noticeable, and the view would be fundamentally altered by its presence.
Medium	Partial loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that may be evident but do not necessarily conflict with the key characteristics of the existing landscape.	The proposed development will form a new and recognisable element within the view which is likely to be recognised by the receptor.
Low	Minor loss or alteration to one or more key elements/features/characteristics of the baseline landscape. Addition of elements that may not be uncharacteristic within the existing landscape.	The proposed development will form a minor constituent of the view being partially visible or at sufficient distance to be a small component.
Very Low	Barely discernible loss or alteration to key elements/features/characteristics of the baseline landscape. Addition of elements not uncharacteristic within the existing landscape.	The proposed development will form a barely noticeable component of the view, and the view whilst slightly altered would be similar to the baseline situation.

A1.24 Table A1.6 provides an indication of the criteria by which the geographical extent of the area affected is judged within this assessment.

Table A1.6: Geographical Extent Criteria.

	Effects on Landscape Receptors	Effects on Visual Receptors
Largest 	Large scale effects influencing several landscape types or character areas.	Direct views at close range with changes over a wide horizontal and vertical extent.
	Effects at the scale of the landscape type or character areas within which the proposal lies.	Direct or oblique views at close range with changes over a notable horizontal and/or vertical extent.
	Effects within the immediate landscape setting of the site.	Direct or oblique views at medium range with a moderate horizontal and/or vertical extent of the view affected.
	Effects at the site level (within the development site itself).	Oblique views at medium or long range with a small horizontal/vertical extent of the view affected.
	Smallest	Effects only experienced on parts of the site at a very localised level.

A1.25 The third, and final, factor, in determining the predicted magnitude of change is duration and reversibility. Duration and reversibility are separate but linked considerations. Duration is judged according to the defined terms set out below, whereas reversibility is a judgement about the prospects and practicality of the particular effect being reversed in, for example, a generation. The categories used in this assessment are set out below:

Duration:

- Long term (20 years+);
- Medium to long term (10 to 20 years);
- Medium term (5 to 10 years);

- Short term (1 year to 5 years); or
- Temporary (less than 12 months).

Reversibility:

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

Significance of Effect

A1.26 The purpose of the EIA process is to identify the significant environmental effects (both beneficial and adverse) of development proposals. Schedule 4 to the EIA Regulations specifies the information to be included in all environmental statements, which should include a description of: *"The likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development"*.

A1.27 In order to consider the likely significance of any effect, the sensitivity of each receptor is combined with the predicted magnitude of change to determine the significance of effect, with reference also made to the geographical extent, duration and reversibility of the effect within the assessment. Having taken such a wide range of factors into account when assessing sensitivity and magnitude at each receptor, the significance of effect can be derived by combining the sensitivity and magnitude in accordance with the matrix in Table A1.7.

Table A1.7: Level of Effects Matrix.

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

A1.28 In certain cases, where additional factors may arise, a further degree of professional judgement may be applied when determining whether the overall change in the view will be significant or not and, where this occurs, this is explained in the assessment.

Definition of Effects

A1.29 Taking into account the levels of effect described above, and with regard to effects being either adverse or beneficial, the following table represents a description of the range of effects likely at any one receptor.

Table EDP A1.8: Definition of Effect.

Category	Definition of Adverse Effects	Definition of Beneficial Effects
Substantial	Typically, the landscape or visual receptor is highly sensitive with the proposals representing a high adverse magnitude of change. The changes would be at complete variance with the landscape character and would permanently diminish the integrity of a valued landscape or view.	The removal of substantial existing incongruous landscape or visual elements and the introduction or restoration of highly valued landscape elements or built form which would reinforce local landscape character and substantially improve landscape condition and visual amenity.
Major	Typically, the landscape or visual receptor has a high to medium sensitivity with the proposals representing a high to medium adverse magnitude of change to the view or landscape resource. Changes would result in a fundamental change to the landscape resource or visual amenity.	The removal of existing incongruous landscape/visual elements and the introduction or restoration of some valued landscape or visual elements would complement landscape character and improve landscape condition and improve the local visual amenity.
Moderate	Typically, the landscape or visual receptor has a medium to low sensitivity with the proposals representing a high to medium magnitude of change. The proposals would represent a material but non-fundamental change to the landscape resource or visual amenity.	The removal of some existing incongruous landscape elements and/or the introduction or restoration of some potentially valued landscape elements which reflect landscape character and result in some improvements to landscape condition and/or visual amenity.

Category	Definition of Adverse Effects	Definition of Beneficial Effects
Minor	Typically, the landscape or visual receptor has a low sensitivity with the proposals representing a medium to low magnitude of change. The proposals would result in a slight but non-material change to the landscape resource or visual amenity.	Some potential removal of incongruous landscape features or visual amenity, although more likely the existing landscape and/or resource is complemented by new landscape features or built features compliant with the local landscape and published landscape character assessments.
Negligible	Typically, the landscape or visual receptor has a low or very low sensitivity with the proposals representing a very low magnitude of change. There would be a detectable but non-material change to the landscape resource or visual amenity.	The proposals would result in minimal positive change to the landscape or visual resource, either through perceptual or physical change, and any change would not be readily apparent but would be coherent with ongoing change and process, and coherent with published landscape character assessments.
None	Typically, the landscape receptor has a very low sensitivity with the proposals resulting in no loss or alteration to the landscape resource or change to the view. There would be no detectable change to the landscape resource or visual amenity.	There would be no detectable positive or negative change to the landscape resource or visual amenity.

A1.30 Effects can be adverse (negative), beneficial (positive) or neutral. The landscape effects will be considered against the landscape baseline, which includes published landscape strategies or policies if they exist. Changes involving the addition of large-scale man-made objects are typically considered to be adverse as they are not usually actively promoted as part of published landscape strategies. Accordingly, the assessment of landscape effects as a result of these aspects of the proposed development will be assumed to be adverse, unless otherwise stated within the assessment.

A1.31 Visual effects are more subjective as people’s perception of development varies through the spectrum of negative, neutral and positive attitudes. In the assessment of visual effects, the assessor will exercise objective professional judgement in assessing the level of effects and, unless otherwise stated, will assume that all effects are adverse, thus representing the worst-case scenario.

Cumulative Effects

A1.32 Cumulative effects generally occur where there may be simultaneous or sequential visibility of two or more developments of the same type and scale, or where the consideration of other schemes would increase an effect identified. Where other similar schemes are in the planning system and made known to the applicant, or are under construction, these are considered in conjunction with the proposed scheme.

NIGHT-TIME ASSESSMENT METHODOLOGY

A1.33 Night-time assessment of lighting on landscape and visual receptors is an emerging area and there is no specific policy or guidance on the subject. The approach and methodology of this assessment follows the same structured approach as the daytime visual assessment set out above, based on the principles set out in the Guidelines for Landscape and Visual Impact Assessment 2013 (GLVIA). The following adjustments have been made to allow for night-time conditions.

Sensitivity of Landscape Receptors at night

A1.34 Susceptibility to lighting is judged based on the degree to which the character area is currently characterised by darkness – informed by satellite mapping of light distribution and site observations and a review of relevant documents including ‘Night Blight: Mapping England’s light pollution and dark skies’⁵ prepared by CPRE.

A1.35 Value is judged the same as for the daytime assessment unless specific factors suggest otherwise. For example, identification as a dark sky site may increase value and the absence of factors at night that contribute to value in daytime may reduce value.

Sensitivity of Visual Receptors at night

A1.36 For visual receptors the assessment takes account of the different importance attached to views in the night-time environment: Generally, the value attached to night-time views is considered to be low unless there is a particular feature that can be best appreciated in the hours of darkness. This may include views of stars and the night sky that are only possible in particularly dark areas or views of well-known landmarks that are lit up at night. The susceptibility of receptors also differs at night reflecting the different activities people undertake in the hours of darkness. For example, drivers using roads at night tend to be more focused on the road and the area illuminated by their headlights than during the day and may have oncoming headlights, cats eyes or other reflective signage drawing their

⁵ https://nightblight.cpre.org.uk/images/resources/Night_Blight_cppe.pdf

attention, resulting in lower susceptibility. This is particularly the case on unlit rural roads that may be narrow and winding. On the other hand, people taking part in activities requiring darkness, such as stargazing, would be of higher susceptibility. The sensitivity of visual receptors at night is generally rated as follows:

- National value and High susceptibility – visitors to Dark Sky Parks;
- Local value and High susceptibility – visitors to dark sky discovery sites or public observatories;
- Community value and High susceptibility – wild campers, people engaged in night time activity such as bat watching or residents of notably dark areas (i.e. rural locations with no street lighting) in the streets around their homes where dark skies are integral to the amenity;
- National value and Medium susceptibility – visitors to nationally important or well-known public landmarks that are illuminated at night e.g. key public buildings, bridges or sculptural features;
- Local value and Medium susceptibility – visitors to locally important or well-known local landmarks that are illuminated at night e.g. key public buildings, bridges or sculptural features;
- Community value and Medium susceptibility – residents in urban areas or semi-urban/rural areas (where street lighting is present) in the streets around their homes, users of cycle routes and railways;
- Community value and Low susceptibility – drivers using local, unlit roads; and
- Limited value and Low susceptibility – users of main roads and people at their place of work.

Perception of light over distance

A1.37 The physics of lighting tells us that the amount of light reaching any given point reduces with distance. A light source will emit a fixed amount of light, which spreads out in all directions, expanding with distance – like an inflating balloon. The amount of light reaching an area of fixed size, such as a person’s eye, is therefore markedly reduced by distance. Atmospheric conditions also play a role, with lights observably appearing brighter in drier conditions when the light is less scattered and reflected by water droplets in the air. However, human night vision and perception is optimised to gather the available light, and notice contrast – so the perception of the brightness of a light may reduce less with distance than physics would suggest.

Annex 2 ◆ Relevant Extracts from Policy

BLABY DISTRICT LOCAL PLAN 1999 (SAVED POLICIES 2007)

Policy CE22: Landscaping

“Planning permission will only be granted for development which:

- i) takes into account, and retains where appropriate, existing landscape, ecological or geological features.*
- ii) Incorporates general landscaping and planting of an appropriate quality to assimilate the development into its local landscape and ecological context.*
- iii) Provides a well landscape and informal edge where development adjoins the countryside or other areas of open land.”*

Policy CE23: Croft Hill Area of Local Landscape Value

“Planning permission will not be granted for development which would have an adverse effect on the appearance or character of Croft Hill which is identified on the proposals map as an Area of Local Landscape Value.”

BLABY DISTRICT CORE STRATEGY (ADOPTED FEBRUARY 2013)

Policy CS2 – Design of New Development

“In order to secure a high quality environment, all new development should respect distinctive local character and should contribute to creating places of a high and urban design quality, contributing to a better quality of life for the local community.

Design should be appropriate in its context and should take any opportunities available to improve the character and quality of an area and the way it functions. Development proposals should demonstrate that they have taken account of local patterns of development, landscape and other features and views and are sympathetic to their surroundings through urban design, landscaping (including tree planting), architecture and architectural detailing. At the same time, the Council will support innovative design that is appropriate in its context.

High quality places, which are safe and socially inclusive, will be required through the application of good design principles including layout, street design, scale, materials, natural surveillance, orientation, and sustainable construction. New development should create safe environments where crime and disorder or fear of crime does not undermine quality of life.

The design of new development should take account of, and provide opportunities to enhance, the natural and historic environment, including improvements to Green Infrastructure and opportunities to promote biodiversity.

Consideration needs to be given to the access and mobility needs of people (including, but not limited to, elderly people and disabled people) so that barriers to access can be overcome for the benefit of the entire community. This should be considered in the design of new developments from the outset. This will contribute to the creation of mixed communities. In addition, developments should be designed with full consideration of the principles of permeability, legibility and connectivity.

The design of development incorporating the above features will need to be demonstrated through the Design and Access Statement. The Council will use Building for Life 12 (BfL12) as a tool to encourage high quality design across all new housing developments in the District.

Where the design of a new development is not considered of high enough quality, the Council will seek appropriate improvements.”

Policy CS14 – Green Infrastructure (GI)

“Blaby District Council and its partners will seek to protect existing, and provide new, ‘networks of multi-functional green spaces’. This network will comprise public and privately owned land. Green Infrastructure can include formal open spaces for sport and recreation, green areas that can be used for informal recreation, areas that are valuable for their biodiversity (flora and fauna and network links), areas that are of cultural importance (heritage assets and their settings), areas that maintain natural and ecological processes (such as floodplains) and other areas that contribute to the health and quality of life of communities.

The Council will seek to improve and enhance the Green Infrastructure network throughout the District using opportunities identified in available evidence including, but not limited to, exploring with partners improved access to:

- *the River Soar and River Sence corridors and Grand Union Canal;*
- *the Rothley Brook corridor;*
- *the network of Green Wedges that adjoin the urban areas; and*
- *In accordance with the Blaby Town Centre Masterplan opportunities will be explored with partners to improve Bouskell Park (Blaby) as a recreational resource.*

Opportunities to incorporate key landscape features such as woodlands, ponds, rivers and streams and the local topography should be used to create high quality design incorporating a wide range of high quality, functional and useful open spaces and links.

It is important that the subsequent maintenance of GI is considered at the earliest

opportunity and that the bodies and resources responsible for its long term management and maintenance liabilities are identified.”

Policy CS18 – Countryside

“Land will be designated as Countryside where it is outside the limits to built development and outside designated Green Wedges and Areas of Separation.

Within areas designated as Countryside, planning permission will not be granted for built development, or other development which would have a significantly adverse effect on the appearance or character of the landscape.

Planning permission will, however, be granted for limited small scale employment and leisure development (including dwellings essential for these needs) subject to consideration of its impacts.”

Policy CS19 – Bio-diversity and Geo-diversity

“The District of Blaby has a number of sites of ecological and geological importance of national, regional and local level significance, which the Council will seek to safeguard and enhance.

Where a proposed development on land within or outside a SSSI is likely to have an adverse effect on a SSSI (either individually or in combination with other developments), planning permission will not normally be granted. Where an adverse effect on the site’s notified special interest features is likely, an exception will only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the network of SSSIs. Conditions and/or planning obligations will be used to mitigate the harmful aspects of the development and where possible, to ensure the conservation and enhancement of the site’s biodiversity or geological interest.

Other sites within the District (including Regionally Important Geological Sites, Local Nature Reserves, Local Wildlife Sites and UK and local (Leicester, Leicestershire and Rutland) Bio-diversity Action Plan sites etc), will be protected and enhanced (where appropriate). The Council will seek to resist proposed development on, or affecting such sites, where the development could be alternatively located in less biodiverse/geologically sensitive areas. Where there are no alternative sites available, the designated sites should be retained with appropriate buffering and mitigation measures put in place to avoid/reduce any adverse impacts resulting from the proposal. Where this is not possible, compensatory measures should be sought, including provision of replacement habitats.

The Council will work closely with national and local wildlife organisations, local communities and landowners in order to ensure the creation and designation of new wildlife sites and the identification, restoration, protection and enhancement of existing sites and new priority habitats, where appropriate opportunities arise. The Council will explore the potential for new ‘Local Wildlife Sites’ in association with major development.

The Council will seek to maintain/extend networks of natural habitats to link sites of biodiversity importance by avoiding or repairing the fragmentation and isolation of natural habitats. These networks should be protected from development. Where development in these areas cannot be avoided, the networks of natural habitats should be strengthened by or integrated within the development. The Council recognises that networks cross Local Authority boundaries, so will work with partners to ensure their maintenance and enhancement.

In terms of species protection, the Council will protect those species which do not receive statutory protection under a range of legislative provisions, but have been identified as requiring conservation action as a species of principal importance for the conservation of biodiversity nationally. Any development proposals should ensure that these species and their habitats are protected from the adverse effects of development through the use of appropriate mitigation measures.

This Council recognises that previously developed land can be of significant biodiversity or geological interest. Where this is the case, the Council will aim to retain this interest and have it incorporated into any development of the site and / or adopt appropriate mitigation measures.

When considering development proposals of an appropriate type and scale, the Council will seek to ensure that opportunities to build in biodiversity or geological features are included as part of the design.”

EMERGING LOCAL PLAN POLICY – BLABY DISTRICT LOCAL PLAN 2029

Policy DM2 – Development in the Countryside

“In areas designated as Countryside on the Policies Map, development proposals consistent with Core Strategy Policy CS18 will be supported where the following criteria are met:

General

- a) *The development is in keeping with the appearance and character of the existing landscape, development form and buildings. Decisions in respect of impact on landscape character and appearance will be informed by the Blaby Landscape and Settlement Character Assessment, Leicestershire and Rutland Historic Landscape Characterisation Study, National Character Areas and any subsequent pieces of evidence; and*
- b) *The development provides a satisfactory relationship with nearby uses that would not be significantly detrimental to the amenities enjoyed by the existing or new occupiers, including but not limited to, consideration of:*
 - i) *overdevelopment of the site due to factors including footprint, scale and mass;*

- ii) *privacy, light, noise, disturbance and overbearing effect; and*
- iii) *vibration, emissions, hours of working, vehicular activity.*”

HINCKLEY AND BOSWORTH CORE STRATEGY (ADOPTED 2009)

Spatial Objective 7: Healthier Active Communities

“To develop healthier and stronger communities by improving access to, and the provision of, community, sports and cultural facilities, green infrastructure and walking and cycling routes integrated with local public transport. Whilst there are localised areas where additional community, sports and cultural facilities are required, overall, provision is generally sufficient across the borough, but the quality of these facilities needs to be improved.”

Spatial Objective 9: Identity, Distinctiveness and Quality of Design

“To ensure development contributes to the local distinctiveness of the borough, and enhances both settlement identity and the environment through the quality of sustainable design. Design and other measures will be used to develop strong community identities and neighbourhood pride.”

Spatial Objective 10: Natural Environment and Cultural Assets

“To deliver a linked network of green infrastructure, enhancing and protecting the borough’s distinctive landscapes, woodlands, geology, archaeological heritage and biodiversity and encourage its understanding, appreciation, maintenance and development.”

Policy 6 – Hinckley/Barwell/Earl Shilton/Burbage Green Wedge

“Within the Hinckley/Barwell/Earl Shilton/Burbage Green Wedge uses will be encouraged that provide appropriate recreational facilities within easy reach of urban residents and promote the positive management of land to ensure that the Green Wedge remains or is enhanced as an attractive contribution to the quality of life of nearby urban residents.

The following land uses will be acceptable in the Green Wedge, provided the operational development associated with such uses does not damage the function of the Green Wedge:

- a) *Agriculture, including allotments and horticulture not accompanied by retail development;*
- b) *Recreation;*
- c) *Forestry;*
- d) *Footpaths, bridleways and cycleways;*

- e) *Burial grounds; and*
- f) *Use for nature conservation.*
- g) *Any land use or associated development in the Green Wedge should:*
- h) *Retain the function of the Green Wedge;*
- i) *Retain and create green networks between the countryside and open spaces within the urban areas;*
- j) *Retain and enhance public access to the Green Wedge, especially for recreation; and*
- k) *Should retain the visual appearance of the area.”*

Policy 20: Green Infrastructure

“The implementation of the Green Infrastructure Network as outlined on the Key Diagram is a key priority of the council.

To assist delivery of this plan, the following strategic interventions will be supported:

Southern Zone

- *Burbage Common and Woods - Increase the size of the site to increase both the community value and biodiversity holding capacity and improve access to the site, particularly for pedestrians and cyclists.”*

HINCKLEY AND BOSWORTH SITE ALLOCATIONS AND DEVELOPMENT MANAGEMENT POLICIES (ADOPTED 2016)

Policy DM4 – Safeguarding the Countryside and Settlement Separation

“To protect its intrinsic value, beauty, open character and landscape character, the countryside will first and foremost be safeguarded from unsustainable development. Development in the countryside will be considered sustainable where:

- a) *It is for outdoor sport or recreation purposes (including ancillary buildings) and it can be demonstrated that the proposed scheme cannot be provided within or adjacent to settlement boundaries;*
- b) *The proposal involves the change of use, re-use or extension of existing buildings which lead to the enhancement of the immediate setting;*
- c) *It significantly contributes to economic growth, job creation and/or diversification of rural businesses;*
- d) *It relates to the provision of stand-alone renewable energy developments in line with Policy DM2: Renewable Energy and Low Carbon Development; or*

- e) *It relates to the provision of accommodation for a rural worker in line with Policy DM5 - Enabling Rural Worker Accommodation.*

and:

- i) *It does not have a significant adverse effect on the intrinsic value, beauty, open character and landscape character of the countryside;*
- ii) *It does not undermine the physical and perceived separation and open character between settlements;*
- iii) *It does not create or exacerbate ribbon development;*
- iv) *If within a Green Wedge, it protects its role and function in line with Core Strategy Policies 6 and 9; and*
- v) *If within the National Forest, it contributes to the delivery of the National Forest Strategy in line with Core Strategy Policy 21.”*

Policy DM9 – Safeguarding Natural and Semi-Natural Open Spaces

“All developments within or affecting Natural and Semi-Natural Open Spaces should seek to retain and enhance the accessibility of the space and its recreational value whilst ensuring the biodiversity and conservation value is also enhanced.

Development within areas of Natural and Semi-Natural Open Space, as defined on the policies map, will only be considered appropriate where:

- a) *The proposal relates to the enhancement of the area for recreational purposes and only where this does not lead to the loss or damage of the area’s biodiversity value;*
- b) *It relates to the enhancement of the area’s biodiversity or conservation value;*
- c) *It would promote the establishment and enhancement of pedestrian footpaths and cycle ways;*
- d) *If within the National Forest, it contributes to the delivery of the National Forest Strategy in line with Core Strategy Policy 21; and*
- e) *If within a Green Wedge, it protects its role and function in line with Core Strategy policies 6 and 9.”*

Annex 3 ◆ Relevant Extracts from Landscape Character Assessments

Annex 4 ◆ GLVIA Glossary of Terms

TERM AND DEFINITION
Baseline
<p>The existing (pre-development) landscape and visual context of a study area, including landscape fabric, landscape character and existing views. The landscape baseline is not static and may be changing for various reasons. The landscape baseline can also consider such factors and describe the likely future landscape character of the landscape, without the proposed development.</p>
Effects
<p>A predicted change in the environmental baseline as a result of the proposed development. Effects can be positive or negative.</p>
Field Pattern
<p>The pattern of hedges and walls that define fields in farmed landscapes (LI/IEMA 2002).</p>
Intervisibility
<p>Two points on the ground or two features are described as intervisible when visible from each other.</p>
Landscape
<p>Landscape results from the way that different aspects of our environment (physical, social, aesthetic and perceptual) interact together and are perceived by us:</p> <ul style="list-style-type: none"> • Physical elements – e.g. geology, landform, soils, flora and fauna;

TERM AND DEFINITION
<ul style="list-style-type: none"> • Social elements – e.g. land use, enclosure patterns, and the patterns, form and scale of settlements and other built development; • Aesthetic factors – e.g. colour, form, visual texture and pattern, sounds, smells and touch; and • Perceptual factors – e.g. memories, associations, stimuli and preferences.
Landscape Capacity
<p>The degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character. Capacity is likely to vary according to the type and nature of change being proposed.</p>
Landscape Character
<p>Landscape character arises from a distinct, recognisable and consistent pattern of physical and social elements, aesthetic factors and perceptual aspects in the landscape.</p>
Landscape Character Areas (LCAs)
<p>Single unique areas that are discrete geographical areas containing one or more landscape types.</p>
Landscape Character Types (LCTs)
<p>Generic units of landscape that display a distinct, consistent and recognisable landscape character.</p>
Landscape Condition
<p>Description of the maintenance and condition of landscape elements and the degree to which landscape elements are representative of the landscape character area.</p>

TERM AND DEFINITION
Landscape Element
A physical component (both natural and manmade) of the landscape.
Landscape Fabric
The elements and features that constitute the physical components of the landscape, including ground vegetation, hedgerows, trees, shrubs, walls, fences and vernacular structures.
Landscape Units
An umbrella term for landscape character areas and landscape character types.
Landscape Value
The importance or value of the landscape to society, usually based on landscape designations or policies as indicators of recognised value.
Mitigation
Measures, including any process, activity or design that will avoid, reduce, remedy or compensate for the predicted effects of a development on the environmental baseline.
Public Access
<ul style="list-style-type: none"> • Definitive rights of way – public footpaths, bridleways, cycle routes, Byways Open to All Traffic (BOATS) and highways. Shown on Definitive Rights of Way maps held by the Local Authority. • Permissive paths and bridleways – routes where there is public access with the permission of the landowner. Such routes are usually closed at least one day a year to prevent establishment of a public right of way;

TERM AND DEFINITION

- **Public open space** – areas designated for specified public uses, usually in the ownership of the Local Authority. Includes parks and recreation grounds. Shown on Local Development Plans;
- **Beaches** – the public have permitted access to much of the foreshore (intertidal zone – between high and low tide marks) owned by the Crown Estate, and on land above high water mark owned by the Local Authority. Some beaches above high tide mark are privately owned and some beaches and foreshore have restricted access for military purposes;
- **Access land** – land where public access is currently permitted with the permission of landowners. Includes land outlined in purple on the OS Explorer (1:25,000) sheets and with:
 - No symbol – land open to public with permission of owners;
 - White oak leaf in purple box – National Trust, always open;
 - Purple oak leaf in white box – National Trust limited access;
 - Tree symbols in purple box – Forestry Commission;
 - Single leaf in purple box – Woodland Trust; and
 - White “AL” in purple box – other access land.
- **Open access land** – areas of mountains, moor, heath, down, common land and coastal foreshore that have been designated under Section 2 of the Countryside and Rights of Way Act 2000. The right of access is for walkers only and does not extend to cycling, horse riding or driving a vehicle, nor does the right of access apply to developed land, gardens or cultivated land. Under the CRoW Act 2000, there was a process of consultation that allowed the right of appeal for those with a legal interest in the land, and for sensitive ecological or archaeological sites to be excluded. Conclusive maps showing the areas designated as open access land (Registered Common Land and Open Country) are now available from Natural England (in England) and the Countryside Council for Wales (in Wales).

Viewing Distance

TERM AND DEFINITION
<p>That distance that a viewpoint illustration should be held from the eye in order for the illustration to match the scale of the actual view when used in the field to identify the location and scale of the proposed development.</p>
Visibility
<p>Visibility is a measure of the distance that can be seen by the human eye at any one time. Daylight visibility will depend on several factors, including:</p> <ul style="list-style-type: none"> • Atmospheric transparency (governed by the solid and liquid particles held in suspension in the atmosphere); • Degree of contrast between an object and the background against which it is observed; • Position of the sun; and • Observer’s visual acuity.
Visual Receptor(s)
<p>An individual observer or group of observers who are capable of experiencing a change in the view.</p>
Zone of Theoretical Visibility (ZTV)
<p>The ZTVs consider the ‘bareground’ situation and assume excellent visibility with no atmospheric attenuation. The ZTVs therefore represent the maximum potential, theoretical visibility i.e. the worst-case situation. In reality, other components of the landscape such as forestry, trees, buildings etc. will introduce screening effects which, coupled with the atmospheric conditions, will reduce this visibility, in some instances to a considerable extent.</p>

Annex 5 ◆ Photomontage Methodology

OVERVIEW

- A5.1 A verified photomontage is a visual representation of a proposed development that is as accurate as it is possible to be within the limits of the technology used and the available data. Although it is not possible to achieve 100% perfect accuracy due to minor errors in survey work, environmental variables and photographic distortion, the careful implementation of a best practice method will result in only a negligible error.
- A5.2 The photomontage images represent how the proposed development would be perceived from a number of representative viewpoints. These locations were chosen as the result of a detailed consideration of sensitive viewpoints.
- A5.3 The methods described in this document are based on current best practice and follow recommendations from 'Guidelines for Landscape and Visual Impact Assessment 3rd edition' (GLVIA3), Landscape Institute and IEMA (2013), alongside the Landscape Institute technical guidance note, 'Visual Representation of Development Proposals', (LI 06/19).

METHODOLOGY

Photography

- A5.4 During the field study, a photographic record was made to represent the full range of potential views towards the site from available viewpoints within the study area. These locations are mapped, the visual receptor types recorded, and viewpoint context described. All photographs have been taken from publicly accessible locations. The methodology ensures that the combination of camera and lens recreates as close as possible what can be seen by the human eye.

Equipment

- A5.5 The aim of a photomontage is to illustrate what a proposed development may look like to a person standing at a specified viewpoint. In order to create this effect, all photographs are taken with a camera and lens combination, resulting in a 'standard' focal length (equivalent to the cone of human vision). A standard focal length is usually considered to be in the range 45mm to 55mm on a traditional 35mm film camera. On digital cameras, where the image sensor is often smaller than the recorded image on traditional film cameras, the focal length of the lens used must compensate for the effective magnification resulting from the smaller sensor.
- A5.6 A Canon EOS 5D Mark IV full frame sensor (FFS) camera was used for daytime summer views and a Canon EOS 5D Mark II FFS camera was used for the daytime winter views. A Canon 5D Mark II FFS was also used for winter night views in conjunction with a 50mm

prime lens (35mm format equivalent), which is within the 'standard' focal length range. The full frame sensor in all the cameras therefore, results in no magnification. To eliminate the parallax error that occurs when taking panoramic images, a sliding plate on the tripod head was employed allowing the camera to be moved back along the line of sight so that the nodal point of the lens was positioned directly over the axis of rotation.

IMAGE CAPTURE

- A5.7 The camera was mounted on a tripod using a panoramic tripod head at 1.6m above ground level to simulate the view at eye level. The orientation of the camera was adjusted so that the optical axis and the horizontal axis were aligned with the horizon. This is the 'astronomical' horizon as set by a gravity governed bubble level.
- A5.8 Images were captured in the camera's RAW format for maximum quality and control of each view. Camera settings were chosen carefully for each viewpoint; the camera was set to aperture priority mode, a small aperture of f/11 was used and the focus distance selected specifically to render all parts of the scene in focus whilst retaining image quality.
- A5.9 Panoramas were deemed essential to show the maximum extent of the Proposed Development and so frames were taken at 15-degree intervals to allow for overlap (discussed below).

POST PRODUCTION

- A5.10 The panoramas were stitched together using PTGui Pro specialist panorama creation software, with each photograph being cropped to take only the central portion of each image. These precautions minimise the small amount of optical distortion effect caused by the camera lens. Images were imported as jpeg files and minor tonal and colour adjustments were made which aim to replicate the scene as honestly as possible as it was perceived by the photographer at the time of capture. The stitched cylindrical panorama was then cropped to varying fields of view for use as a baseline 'existing' view.

SURVEY

- A5.11 Precise surveying is essential to gain accurate information of the camera and control point positions. GPS readings were taken from the central tripod position that the camera was placed using a GNSS Receiver, which achieved a 25mm degree of tolerance.

CONTROL POINTS

- A5.12 Control points are surveyed points/objects that can clearly be identified on the photograph. Since they are included in the 3D model, they can be visually matched with the corresponding points on the photograph. Control points were identified within each photograph and marked for the survey team to take measurements. A minimum of three

control points were chosen of fixed features such as lampposts, fence posts and sign posts. Occasionally if available, control points taken from another viewpoint were also used for even more accurate positioning of the 3D model within the photograph.

- A5.13 Survey poles were also used as temporary control points where minimal fixed control points were available. These control points were then created within the 3D program in the precise positions.
- A5.14 Control points were taken using the aforementioned GNSS receiver and a Leica Total Station in the case of the winter viewpoints.
- A5.15 All survey measurements were supplied in CAD format for use in the 3D model.

3D MODEL

- A5.16 3D models were created from the design information supplied and were aligned within 3DS Max using the Parameters Plan and Illustrative Masterplan to determine the X and Y position. Finished floor levels were then used to accurately position the 3D model vertically Above Ordnance Datum (aOD).

VEGETATION GROWTH

- A5.17 When developing the model at year 15, judgements need to be made about the growth rate of the planting proposed. Given the species selected as part of the Illustrative Landscape Strategy, woodland vegetation and trees have been illustrated at between 8 and 10m with some fluctuation in size to add an element of realism to the model.

CAMERA MATCHING AND RENDERING

- A5.18 The process of camera matching (i.e. correctly assembling the perspective views within the 3D program to match those photographs taken on site) needs meticulous attention to detail. The details of the Ordnance Survey co-ordinates for each viewpoint, and the angle of each view were also checked as part of the verification process.
- A5.19 The survey information was added into the 3D model and aligned precisely with the OS coordinate system. '3D' Cameras (or perspective views) were then created within 3DS Max at each of the viewpoint locations and raised by 1.6m to match the position at eye-level that was achieved during photography.
- A5.20 3D control points were created to match those visible in each of the panoramas and positioned according to the survey data. Any atmospheric conditions experienced at the time of taking the photograph were added to the model. For example, haze or reflected sunlight.

- A5.21 As an additional aid in the camera matching process, a terrain was created of the site using contours from the Environment Agency 1m LiDAR Digital Surface Model data. This was used to align with the terrain visible in each viewpoint.
- A5.22 Using the '3D' camera each cylindrical panorama was used as a backdrop and rendered using a V-Ray camera option that mirrors the distortion exhibited in a cylindrical panorama. Adjustments were then made to the camera angle and the position of the photograph to align the 3D control points with the real-life equivalents shown in each panorama, thus creating a 'photo-matched' viewpoint with the model aligned at the correct scale and angle.
- A5.23 A daylight system was created within 3DS Max using the geographic location and time Zone and setting the correct time that the viewpoint was captured. This allows for the accurate creation of shadows as at the time of taking the photograph. For viewpoints taken in full cloud, a High Dynamic Range Image (HDRI) was mapped as a 'dome light' within 3DS Max and used as the main light source. A HDRI is an image format that contains a large amount of shadow and highlight information and can be used to illuminate a 3D scene, providing a good representation of conditions on a cloudy day.

POST PRODUCTION

- A5.24 Care was taken in Adobe Photoshop to mask out elements of the 3D model that may be obscured by foreground objects to produce the final visualisations.

Night Photomontages

- A5.25 Night photography causes a number of issues that have a knock-on effect on the creation of photomontages meaning that they must be viewed as a representation of what is likely to be seen rather than a perfectly accurate portrayal of what the eye will see. The white balance must be amended in the post production stage to counteract the colour casts caused by the many light sources within the photographs (i.e. Ambient light, moonlight, tungsten light from the street lamps/houses/artificial lighting).
- A5.26 Long exposure times are necessary with night photography leading to difficulties in getting a shot due to moving light from cars and aeroplanes. Where possible, twilight was chosen to capture night photographs that minimise long exposure times, which cause light trails from cars.
- A5.27 Lens flare is a by-product of night photography. This can be minimised by using a high aperture, though this increases the depth of field thus making the areas of the photograph not in focus blurred. A slightly lower aperture was chosen to keep as much of the proposal in focus as possible allowing the side affect of the lens flare.
- A5.28 To achieve a higher degree of accuracy in the render, photometric lights were used within 3DS Max. Information on the specific lights to be used was supplied in the form of a lighting strategy, and 3D models of the chosen luminaires were sourced, along with the relevant IES files supplied by Holophane. These are files containing accurate information

about the Lux levels cast by the light as well as the spread and can be used within 3D programs. Lights were positioned within the 3D model to the limits of the available information to mirror the proposed lights within the site.

A5.29 Due to the nature of night photomontages, it is not possible to show the effect of the proposed lights on the surrounding existing vegetation, or the effect that other light sources have within the viewpoint (i.e. lights from buildings). Atmospheric conditions also play a part in how light sources are viewed, and have more impact when the viewpoint is further away. These conditions are recreated subjectively based on the night photography.

REFERENCES

All photomontages were created in accordance with recommendations given in the following publications:

Landscape Institute and IEMA (2013) Guidelines for Landscape and Visual Impact Assessment 3rd edition (GLVIA3).

Landscape Institute:

Note 06/19 - Visual Representation of Development Proposals;

Note 07/19 - Visual Representation of Development Proposals: Glossary and Abbreviations;

Note 08/19 - Visual Representation of Development Proposals: Camera Auto Settings; and

Scottish Natural Heritage (2017) Visual representation of windfarms: good practice guidance. ('SNH 2017').

CAVEATS

i. A photomontage can never be considered as a 100% accurate representation of what would be seen due to the large number of variables affecting the images from the photography to the limitations of the 3D programs. They should be used as an aid to the decision-making process.

ii. The night photography did not include precise Ordnance Survey coordinates, therefore the camera has been positioned using aerial photography and uses the previously mentioned control points to align the view correctly. These should be considered as Landscape Institute 'Type 3' photomontages.