2 LANDSCAPE AND VISUAL IMPACT

2.1 INTRODUCTION

2.1.1 This chapter assesses the layout that was subject to determination and is referenced as the Refused Scheme (Revision L). Through the Wheatcroft arrangement a revised scheme has been proposed and consulted on - Revision M - which is also considered in this chapter. This chapter assesses the potential significant environmental effects of the Proposed Development on the existing landscape character, landscape components and features, and visual amenity of people and should be read in conjunction with other chapters that form the ES.

2.1.2 The main objectives of the assessment are as follows:

- Identify, evaluate, and describe the current landscape character of the site and its surroundings, and any notable individual landscape elements within the site;
- Determine the sensitivity of the landscape to the type of development proposed;
- Identify potential visual receptors (i.e., people who would be able to see the development) and representative viewpoints, and evaluate their sensitivity to the type of changes proposed;
- Identify and describe any likely effects of the development in so far as they affect landscape elements, landscape character and visual receptors;
- Evaluate the magnitude of change and its significance;
- Identify and integrate any mitigation measures that may help in offsetting or reducing adverse effects; and
- Assess the residual effects upon the identified landscape and visual receptors.

2.1.3 This Chapter is supported by the following figures and appendices:

2.1.4 Figures

- 2.1: Topography plan
- 2.2: Landscape Character plan
- 2.3: Landscape Features plan
- 2.4: Zone of Theoretical Visibility plan
- 2.5: Viewpoint Location Plan
- 2.6: Summer Photoviews
- 2.7: Summer Photomontages (Revision L)
- 2.8: Winter Photoviews
- 2.9: Winter Photomontages (Revision L)
- 2.10: Amended Summer Photomontages (Revision M)
- 2.11: Amended Winter Photomontages (Revision M)
- 2.12: Indicative Site Sections (Year 5 and 15) (Revision M).

2.1.5 Appendices:

- 2.1: Methodology
- 2.2: Landscape Effects Summary Table
- 2.3: Visual Effects Summary Table
- 2.4: Visualisations Methodology (Pegasus, based on the LI TGN))

2.1.6 An initial desk-top study was carried out to review published information relating to the Site, including planning policy of relevance to landscape and visual matters, landscape designations, published landscape character assessments and the accompanying guidance. A detailed landscape and visual survey, including photography of summer views, was undertaken in August 2019 to review the findings of the desk-top study and to determine the extent of the visual influence of the Site. A further site visit was conducted in December 2020 to record winter views.

2.1.7 There have been a number of revisions to the Site Layout and Planting Proposals plan, the following points set out which revision of the aforementioned layout was considered in each document:

- Revision H – Landscape and Visual Impact Assessment, July 2020 (initial site visit carried out in August 2019)
- Revision J – Landscape and Visual Impact Addendum, December 2020
- Revision L – Cover Letter, 2nd February 2021
- Revision M – Revision via Wheatcroft.

2.1.8 As part of the appeal process, a number of amendments were made to Revision L of the layout, referred to hereafter as the Refused Scheme. These amendments are illustrated on Revision M of the Site Layout and Planting Proposals under the Wheatcroft principle, referred to hereafter as the Alternative Scheme.

2.1.9 This chapter assesses both Refused and Alternative Scheme. Text is highlighted in red where there is a material difference between the two schemes in terms of analysis and findings.

2.2 ASSESSMENT APPROACH

Methodology

Guidance

2.2.1 The assessment has been undertaken with regard to published guidance:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA)(3rd edition) - Landscape Institute/ Institute of Environmental Management and Assessment (2013);
- An Approach to Landscape Character Assessment - Natural England (2014);
- Visual Representation of Development Proposals – Landscape Institute, Technical Guidance Note 06/19 (TGN06/19); and
- GLVIA Webinar Q&As – Landscape Institute, Technical Information Note 01/21 (TIN 01/21).

2.2.2 The LVIA methodology is presented in **Appendix 2.1:** of the ES.

Assessment of Significance

2.2.3 The assessment of significance is based on the methodology described at **ES Chapter 1: Introduction**.

2.2.4 The scale of effects is derived from the interaction of the receptor sensitivity and magnitude of change as detailed in the matrix set out in **Table 2.1** and in the ES at **Appendix 2.1**.

Table 2.1: Landscape and Visual Effects Significance Matrix

Magnitude of Change	Sensitivity of Receptor			
		High	**Medium**	**Low**
	High	Major	Major	Moderate
	Medium	Major	Moderate	Minor
	Low	Moderate	Minor	Minor
	Negligible	Negligible	Negligible	Negligible
	None	No change	No change	No change

Nature of Effects

2.2.5 GLVIA3 includes an entry that states "**effects can be described as positive or negative (or in some cases neutral) in their consequences for views and visual amenity**." GLVIA3 does not, however, state how negative or positive effects should be assessed, and this, therefore, becomes a matter of subjective judgement rather than reasoned criteria. Due to inconsistencies with the assessment of negative or positive effects a precautionary approach is applied to this LVIA that assumes all landscape and visual effects are considered to be negative (adverse) unless otherwise stated.

2.2.6 Paragraph 1.6.7 of **Chapter 1: Introduction** notes that the magnitude and significance criteria listed within the introduction are provided as a guide for specialists to categorise the significance of effects, and where discipline-specific methodology has been applied that differs from the generic criteria listed, this is clearly explained within the given chapter.

2.2.7 The major effects highlighted in dark grey are considered to be significant in terms of the EIA Regulations with regards to landscape and visual effects. The term major is synonymous with other terms such as important, serious or significant, or other terms such as vital or great, substantial or considerable. In other words, there is a notable and substantial effect which is deemed to be significant. In contrast, the term moderate is something that is regarded as being modest, middling or average, even ordinary and commonplace. In such circumstances, this term sits in the average band and is therefore quite different and distinct from significant. It should be noted that whilst an individual effect may be significant, it does not necessarily follow that the proposed development would be unacceptable in landscape planning terms. The cross-referencing of the sensitivity and magnitude of change on the landscape and visual receptor determines the significance of effect as shown in Table 2.1.

2.2.8 In determining the level of residual effects, all mitigation measures are considered.

Legislative and Policy Framework

2.2.1 This assessment has been undertaken with reference to national and local planning policy including the revised National Planning Policy Framework (NPPF) July 2021. The Planning Statement submitted as part of the original planning application details the overall planning policy context. Those policies that are relevant in terms of landscape and visual issues are described in the following paragraphs.

National legislation

2.2.2 Legislation of relevance to this assessment includes the following:

- European Landscape Convention: Guidelines for managing landscapes 2010;

- Planning (Listed Buildings and Conservation Areas) Act 1990 - regarding Listed Building protection; and
- Countryside and Rights of Way Act 2000 - regarding Public Rights of Way

National Planning Context

2.2.3 The revised NPPF dated February 2019 aims to provide one concise document which sets out the Government's planning policies for England. The NPPF promotes a presumption in favour of sustainable development, which is defined as "**meeting the needs of the present without compromising the ability of future generations to meet their own needs**" (Paragraph 7), providing it is in accordance with the relevant up-to-date Local Plan, as well as policies set out in the NPPF.

2.2.4 A key environmental objective is outlined as "**protecting and enhancing our natural, built and historic environment; including making effective use of land**".

2.2.5 The National Planning Policy Framework (February 2019) sets out the governments planning policies for England and how these are expected to be applied. NPPF paragraph 10 advises that:

> **"So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development."**

2.2.6 Section 12, Achieving well-designed places, paragraph 127 on page 38 states that:

> **"Planning policies and decisions should ensure that 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…"**

2.2.7 Section 14 Meeting the Challenge of Climate Change, Flooding and Coastal Change paragraph 154 states:

> **"When determining planning applications for renewable and low carbon development, local planning authorities should:**
>
> **a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and**

b) approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas."

2.2.8 Section 15, Conserving and enhancing the natural environment, paragraph 170 on page 49 states that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

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…

d) minimising impacts and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures…

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

2.2.9 Section 15, Conserving and enhancing the natural environment, paragraph 171 on page 49 states that:

"Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies of this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."

2.2.10 Designations within, or close to the Site are illustrated at **Figure 1.2: Environmental Designations Plan**.

Local Planning Context

2.2.11 Section 38 of the Planning and Compulsory Purchase Act 2004 requires that planning decisions should be made in accordance with the Development Plan unless material considerations indicate otherwise. The Appeal Site is within the administrative boundaries of Newark and Sherwood District Council.

Amended Core Strategy (adopted March 2019)

2.2.12 The current development plan for Newark and Sherwood comprises the Amended Core Strategy (adopted March 2019) and; Allocations & Development Management Development Plan Document (adopted July 2013).

2.2.13 Spatial Policy 3 relates to rural areas and states that:

> **"The rural economy will be supported by encouraging tourism, rural diversification, and by supporting appropriate agricultural and forestry development. The countryside will be protected and schemes to enhance heritage assets, to increase biodiversity, enhance the landscape and, in the right locations, increase woodland cover will be encouraged.**
>
> - **… Character - new development should not have a detrimental impact on the character of the location or its landscape setting."**

2.2.14 Spatial Policy 13 relates to landscape character and states that:

> **"New development which positively addresses the implications of relevant landscape Policy Zone(s) that is consistent with the landscape conservation and enhancement aims for the area(s) ensuring that landscapes, including valued landscapes, have been protected and enhanced."**

2.2.15 Core Policy 9: Sustainable Design is concerned with sustainable design and notes that:

> **"The District Council will expect new development proposals to demonstrate a high standard of sustainable design that both protects and enhances the natural environment and contributes to and sustains the rich local distinctiveness of the district. Therefore, all new development should:**
>
> - **Achieve a high standard of sustainable design and layout that is capable of being accessible to all and of an appropriate form and scale to the context complimenting the existing built and landscape environments**
> - **Through its design proactively manage surface water including where feasible the use of sustainable drainage systems**
> - **Minimise the production of waste and maximise its reuse and recycling**
> - **Demonstrate an effective and efficient use of land that where appropriate promotes the reuse of previously developed land and that optimises site potential at a level suitable to local character**
> - **Contribute to a compatible mix of uses particularly in the towns and village centres**

- **Provide for development that provides to be resilient in the long-term taking into account the potential impacts of climate change and the varying needs of the community**

- **Take account of the need to reduce the opportunities for crime and the fear of crime, disorder and anti-social behaviour and promote safe living environments**

…"

2.2.16 Core Policy 10: Climate Change concerned with climate change and states that:

"The District Council is committed to tackling the causes and impacts of climate change and to deliver a reduction in the district's carbon footprint. The District Council will work with partners and developers to:

- **Promote energy generation from renewable and low carbon sources including community led schemes through supporting new development where it is able to demonstrate that its adverse impacts have been satisfactorily addressed. Policy DM4 Renewable and Low Carbon Energy Generation provides the framework against which the appropriateness of proposals will be assessed**

- **Ensure that development proposals maximise where appropriate and viable the use of available local opportunities for district heating and de-centralised energy**

- **Mitigate the impacts of climate change through ensuring that new development proposals minimise their potential adverse environmental impacts during their construction and eventual operation. New proposals for development should therefore:**

- **Ensure that the impacts on natural resources are minimised and the use of renewable resources encouraged**

- **Be efficient in the consumption of energy, water, and other resources**

- **Steer new development away from those areas at highest risk of flooding, applying the sequential approach to its location detailed in Policy DM5 Design. Where appropriate the Authority will seek to secure strategic flood mitigation measures as part of a new development.**

- **Where appropriate having applied the Sequential Test move onto the apply the Exceptions Test in line with national guidance. In those circumstances where the wider Exceptions Test is not required, proposals for new development in flood risk areas will still need to demonstrate that the safety of the development and future occupants from flood risk can be provided for over the lifetime of the development. ● Ensure that new development positively manages its surface water run off**

through the design and layout of development to ensure that there is no unacceptable impact in run off into surrounding areas or the existing drainage regime."

2.2.17 Core Policy 13: Landscape Character notes that:

"Based on the comprehensive assessment of the district's landscape character, provided by the Landscape Character Assessment Supplementary Planning Document, the District Council will work with partners and developers to secure:

New development which positively addressed the implications of relevant landscape in policy zone(s) that is consistent with the landscape conservation and enhancement aim for the area(s) ensuring that landscapes, including valued landscapes have been protected and enhanced."

Adopted Allocations & Development Management, Development Plan Document (2013)

2.2.18 Policy DM4: Renewable and Low Carbon Energy Generation DM4 states that:

"In order to achieve the commitment to carbon reduction set out in the Core Policy 10, planning permission will be granted for renewable and low carbon energy generation development as both standalone projects and part of other development its associated infrastructure and the retro fitting of existing development where its benefits are not outweighed by detrimental impact from the operation and maintenance of the development and through the installation process upon:

- The landscape character or urban form of the district or the purposes of including land within the Green Belt arising from the individual or cumulative impacts of proposals
- …"

2.2.19 Policy DM5: Design states that in accordance with the requirements of Core Policy 9, all proposals for new development shall be assessed against the following criteria:

"…

4. Local distinctiveness and character

The rich local distinctiveness of the district's landscape and character of the built form should be reflected in the scale, form, mass, layout, design, materials and detailing of proposals for new development. Proposals creating backland development will only be approved where they would be in keeping with the general character and density of existing development in the area and would not set a precedent for similar forms of development, the cumulative effect of which would be to harm the established character and appearance of the area.

5. Trees, woodland, biodiversity and green infrastructure

…"

2.2.20 In the explanatory memorandum relating to this policy internal paragraph 7.22 is concerned with trees and biodiversity and green infrastructure and notes that:

"Features of natural importance such as trees and hedges significantly contribute to the landscape character of the district and can also be used to help integrate new development into it. Where a site contains or is adjacent to such features, proposals should take account of their presence and wherever possible incorporate or enhance them as part of the scheme of development in order to improve the connectivity of the green infrastructure. Where it is proposed to move features, justification will be required, and replanting should form part of the development proposals."

2.2.21 Policy DM12: Presumption in Favour of Sustainable Development notes that:

"A positive approach to considering development proposals would be taken that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. Where appropriate, the Council will work proactively with applicants jointly to seek solutions which mean that proposals can be approved wherever possible and to secure development that improves the economic, social and environmental conditions within the district.

The Development Plan is a statutory starting point for decision making. Planning applications that accord with the policies in the Development Plan for Newark and Sherwood including where relevant policies in Neighbourhood Development Plans, will be approved without delay unless material considerations indicate otherwise

Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision, then planning permission will be granted unless material considerations indicate otherwise taking into account whether

Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits when assessed against the policies in the NPPF taken as a whole. Where adverse impacts do not outweigh benefits consideration should be given to mitigation where harm would otherwise occur, or

Specific policies in the Framework indicate that development should be restricted."

The Southwell Neighbourhood Plan (2016)

2.2.22 The Southwell Neighbourhood Plan is dated 2015-2026 and as set out in the introduction the Neighbourhood Plan is for the town of Southwell and is focused on this settlement. The designated Neighbourhood Plan area is defined by the Southwell Parish boundary.

2.2.23 With regard to the status of the Neighbourhood Plan once adopted the Neighbourhood Plan will form a new tier of the Development Plan at the local level in concert with the Newark and Sherwood Core Strategy (2011) and the Allocations and Development Management DPD (2013).

2.2.24 Policy SD1 is concerned with delivering sustainable development and states that:

"Only proposals for sustainable development will be supported where they demonstrate:

- **How sustainability has been addressed for the site with reference to the NSDC and NP policies applicable to it**
- **That account has been taken of the Southwell Design Guide to help ensure that it is appropriate to the location, enhances the natural and built environment**
- **That account has been taken of the need to avoid increasing the risk of flooding both on and off site in accordance with the Neighbourhood Plan policies…**
- **That where appropriate a multifunctional approach has been taken to help provide an enhanced integrated blue and green infrastructure including public rights of way with an equitable distribution of green and amenity space across the Parish of Southwell**
- **Where any development triggers the requirement for developer contributions as set out in the NSDC developers' contribution and planning obligations SPD. These should wherever possible be delivered on site rather than as commuted sums**
- **That where applicable the effects on the capacity and quality of transport access to, from and within Southwell have been addressed**
- **That where applicable account has been taken of the wellbeing and social development needs of Southwell residents"**

2.2.25 Policy E3 is concerned with green infrastructure and biodiversity and notes that:

"Development proposals must aim to protect and enhance local wildlife sites, the local Nature Reserve and priority habitats and species identified through the Natural Environment and Rural Committees (NERC) Act, the UK Biodiversity Action Plan and the Nottingham Local BAP. Any development proposal must also comply with the Natural England standing advice for protected species.

Where it is apparent or becomes apparent during the course of a planning application that s site has significant ecological value development proposals must include a baseline assessment, the habitat species and overall biodiversity value of the site where appropriate expressed in terms of the biodiversity accounting offsetting metric, advocated by the Department of the Environment, Food and Rural Affairs (DEFRA), proportionate to the size of the development. The assessment must demonstrate how biodiversity will be conserved and enhanced by the development.

Where the loss of habitat cannot be avoided proposals should include appropriate offsetting to create a

compensatory habitat to ensure that there is no loss of biodiversity.

Development proposals will create additional habitat space including roosting, nesting or shelter opportunities for wildlife and will be looked on favourably when considering the biodiversity value of a development.

Development proposals that fail to mitigate or compensate for loss of important habitat or wildlife species will not normally be granted planning permission.

Unless it can be shown to be impractical or financially unviable a buffer strip must be provided between the boundaries of properties or plots within a development and any existing historic, landscape or ecological valuable hedgerow, trees and any other features of merit for maintaining effective blue and green infrastructures. The width of the buffer strip should have regard to guidance in the Southwell Design Guide.

The provision of non-woody herbaceous species to be established on created buffer strips should have regardto guidance in the Southwell Design Guide.

Where the loss of protected trees is a result of a development proposal is unavoidable, appropriate replacement planting should be incorporated as part of the scheme.

As part of development proposals provision should be made for long term maintenance of any retained or created habitat, existing historic landscape or ecologically valuable vegetation and buffer stripprovisions."

2.2.26 Policy E4 is concerned with public rights of way and wildlife corridors and states that:

"Developers must ensure that existing and any new PRoWs including footpaths, cycle routes and bridleways, which cross their sites, are retained wherever possible and enhance the green infrastructure in Southwell Parish.

PRoWs should be considered to be multifunctional contributing not only to the green infrastructure but also where relevant to open spaces including those due under developer contributions.

Unless it can be shown to be impracticable the minimum total width for a public right of way shall be sufficient to allow for machine maintenance, the inclusion of an allowance or hard surface to provide inclusive access for the public and with associated vegetation margins for it to be effective as a wildlife corridor.

The provision or retention of trees, wooded species and hedges along public rights of way should have regard to guidance in the Southwell Design Guide.

When a new PRoW is to be provided or revisions made to existing PRoWs on a development, any alignment should avoid the use of estate roads for the purpose wherever

possible and preference given to estate paths through landscape or open space areas away from vehicle traffic.

Provision should be made for the long-term maintenance of any PRoWs that are part of development proposals."

2.2.27 Policy E6 is concerned with climate change and carbon emissions and states that:

"Proposals for low carbon energy generation schemes will be supported providing they comply with relevant national, NSDC and Neighbourhood Plan policies, with specific reference to the following criteria:

- **Does not impact negatively on the local landscape character and the setting of the settlement in accordance with other development planning policies**
- **Does not impact negatively on the setting and character of any heritage asset**
- **Fully assess the impact of any tall structures within the landscape or townscape**
- **Takes account of the Southwell Protected Views policies…**
- **Demonstrates compliance with the NSDC Wind Energy Supplementary planning document**

Development proposals will need to demonstrate thatthey have taken account of the current industry and government best practice principles for energy saving construction in design of buildings and landscape treatments and guidance in the Southwell Design Guide. This may include considering the use of on-site renewable technologies where they comply with other policies within the Development Plan."

Consultations

2.2.28 A selection of viewpoint locations were agreed upon with a Landscape Architect at Via East Midlands Ltd in August 2019. Following discussions with the Case Officer and Conservation Officer at Newark and Sherwood District Council, three additional viewpoints were recorded during the Site visit. These three viewpoints are: Appendix **Viewpoint A,** taken from near Brinkley Hall Farm; Appendix **Viewpoint B** was taken from PRoW footpath 209/12/1 on the edge of Southwell Conservation Area and; Appendix **Viewpoint C** which is taken from within the grounds of Southwell Minster.

Scoping Criteria

2.2.29 The proposed development has been subject to Screening under the EIA Regulations as described within **ES Chapter 1: Introduction**. Newark and Sherwood Council originally concluded in its Opinion dated 27th August 2019 that the Proposed Development would not constitute a development that would have major impacts on the environment of more than local significance. However, on 4th November 2021, The Planning Inspectorate issued a Direction that stated that the Proposed Development is considered to have the potential for significant visual effects, and so an ES was required that assesses landscape and visual effects.

2.2.30 The above consultations have been used to guide the scope of the LVIA which considers the following potential effects:

- **Construction Phase**
  - Landscape elements and features.
  - Character of the local landscape.
  - Night-time character.
  - Change in views (temporary).
- **Operational Phase**
  - Landscape elements and features.
  - Character of the local landscape.
  - Night-time character.
  - Change in views at Year 1 and Year 10, particularly as experienced by users of nearby Public Rights of Way (PRoW) and existing residential properties within the vicinity of the Site**.**
- **Decommissioning Phase (at Year 40)**
  - Landscape elements and features.
  - Character of the local landscape.
  - Night-time character.
  - Change in views (temporary).

2.2.31 With regards to the Operational Phase, effects upon the character of the local landscape and visual amenity will be considered at Year 1 i.e. post completion with all landscape mitigation measures being implemented, and at Year 10 once the proposed planting has matured. The Decommissioning Phase is likely to have similar or comparable effects upon landscape character and visual amenity as those assessed during the Construction Stage.

Limitations to the Assessment

2.2.32 In undertaking the landscape and visual assessment in relation to the Proposed Development, there are limitations and constraints affecting the outputs from this work. These include:

- The Screened Zone of Theoretical Visibility (SZTV) does not demonstrate absolute visibility and is therefore refined through field work with the assessed potential visibility of the Proposed Development;
- Access to assess the predicted visual effects from private individual properties outside the Site has not been obtained. As a result, the assessment of likely effects of residential areas has been made from vantage points with representative views taken from the nearest available public viewpoint. The assessment of the properties is based on proxy location information.

2.2.33 The assessed development at Year 1 is based on the elevation drawings that accompany the EIA as presented in **ES Chapter 1: Introduction**. The development at Year 10 is assessed on the assumption that the Proposed Development is delivered in line with these drawings and estimated conservative growth of existing and proposed mitigation planting.

2.2.34 The focus of this chapter is on landscape and visual effects arising from the Proposed Development; however, whilst effects on cultural heritage and ecology are

beyond the scope of this chapter, heritage assets and nature conservation designations in the study area are shown on the Environmental Designations plan.

2.3 BASELINE CONDITIONS

2.3.1 This section identifies and describes the existing landscape features, and landscape and visual resources found within and around the Site. This study helps to gain an understanding of what makes the landscape distinctive, what its important components or characteristics are, and how it is changing prior to the introduction of the Proposed Development. The baseline study is instrumental in the identification of the landscape receptors and visual receptors/views to be assessed.

Site Description and Context

2.3.2 The Site is located within the district of Newark and Sherwood, within the County of Nottinghamshire, and occupies a series of broadly rectangular fields that are currently in use for agriculture, to the north of Halloughton.

2.3.3 A single line of high voltage electricity transmission line crosses the Site on a broad east-west axis, and a single line of telegraph poles cross the far eastern extent of the Site.

2.3.4 There are two Public Right of Ways within the Site boundary, footpath 209/43/1 is located in the far northern extent of the Site, situated adjacent to part of the northern boundary. Bridleway 209/74/1 crosses the central portion of the Site, between Halloughton Wood and Stubbins Farm in the east.

2.3.5 The boundary of the Site is largely formed of hedgerows which in places in reinforced with hedgerow trees. The far eastern extent of the Site is contained by an area of plantation woodland situated adjacent to Stubbin's Lane. Linear belts of planation woodland also form the Site boundaries to the north of Halloughton. Internally within the Site, hedgerow boundaries are generally well established, intact, and well defined and formed of hedgerow vegetation including a scattering of hedgerow trees. Westhorpe Dumble crosses the central portion of the Site on a broad east-west orientation, its route lined by riparian vegetation which includes a large quantity of trees.

2.3.6 The topography of the Site slopes gradually from a high point of approximately 93m Above Ordnance Datum (AOD) in the far northwest corner of the Site to 57m AOD near to the proposed Site access, in the southeastern corner of the Site. The fields on either side of the Westhorpe Dumble slope gently towards the watercourse.

2.3.7 New Radley Farm is situated within the northern extent of the Site; however, it is excluded from within the Site boundary. The farmhouse is set within the woodland and surrounded to the north, east and south

Landscape and Environmental Designations

2.3.8 The Site lies outside of any statutory or local/non-statutory landscape designations at either the local or national level such as: National Parks; Areas of Outstanding Natural Beauty (AONB) and; Special Landscape Areas (SLAs) (see **Environmental Designations Plan**).

2.3.9 With regard to nearby designations, a Conservation Area is located within Halloughton which includes four Grade II and one Grade II* Listed Buildings. Further Grade II Listed Buildings are located to the east. Southwell to the north-east of the Site contains a Conservation Area and numerous Listed Buildings.

Topography and Watercourses

2.3.10 The Site is situated within a gently sloping landscape, which is part of a wide vale landscape as illustrated on the **Topography Plan**. The overall pattern of the topography beyond the Site falls away to the east towards Southwell which is situated at approximately 40-50m AOD and adjacent to the River Greet which is located at approximately 25m AOD. To the southeast of the Site, the landform slopes gently towards the River Trent, which flows on a northeast-southwest orientation towards Newark on Trent within a wide shallow valley at approximately 20m AOD.

2.3.11 Within the Site, small scale watercourses, such as brooks and dykes occasionally form field boundaries.

2.3.12 The susceptibility of the topography to the type of development proposed is considered to be medium, which when combined with a medium value, would result in an overall medium sensitivity.

2.3.13 Watercourses are considered to be of high susceptibility, value, and sensitivity.

Trees, Woodlands, and Hedgerows

2.3.14 Within close proximity to the Site, there are a number of small to medium scale blocks of woodland. Halloughton Wood located to the southwest of the Site is classified as Ancient Replanted Woodland. Belts of woodland are situated adjacent to sections of the Site boundary; lines of trees often line the routes of watercourses. Well established hedgerows, which are often reinforced by trees delineate field boundaries and also occur alongside roads.

2.3.15 The periphery of settlements in the local area, including Halloughton and Southwell, are often comprised of vegetation in the form of curtilage vegetation such as shrubbery and trees and well-established field boundary vegetation.

2.3.16 Trees and areas of woodland are considered to be of high value and high susceptibility due to the long time it takes to establish this type of landscape. The sensitivity of trees and woodlands is judged to be high.

2.3.17 Well established hedgerows reinforced by hedgerow trees are the typical form of enclosure across the local landscape and are considered to be of high value. The hedgerow resource is considered to be of medium susceptibility to change reflecting the time needed for this type of landscape element to establish and mature. Overall, the sensitivity of hedgerows as a landscape element is assessed as high.

Land Use and Land Cover

2.3.18 The term land use relates to how the land is used, land cover relates to the vegetation which covers the land. The predominant land use within and surrounding the Site is agricultural, defined by pastoral and arable fields. The pastoral fields are managed as grass swards.

2.3.19 The Site forms a mix of both arable and pastoral fields which are ubiquitous in the locality, and are therefore considered to be of medium value and medium susceptibility and medium sensitivity with regards to the Proposed Development.

Settlements, Built Form, and Infrastructure

2.3.20 The village of Halloughton that located to the south of the Site is the closest settlement to the Site and is linear in form. The largest settlement in the local vicinity of

the Site is Southwell, located to the northeast. Across the wider landscape, the settlement of Newark-on-Trent is located approximately 10km to the east of the Site.

2.3.21 Outside of the main settlement boundaries, there are a number of isolated individual properties and farmsteads scattered across the landscape.

2.3.22 The high voltage electricity lines mounted on pylons that cross the Site are part of a much larger network that crosses the vale landscape to the south of Southwell.

2.3.23 A number of isolated properties are located in close proximity to the Site boundary including; New Radley Farm and Stubbins Farm. Manor Farm, located on the northern edge of Halloughton and Halloughton Wood Farm located to the southwest approximately 120m and 610m from the Site respectively.

Public Highways

2.3.24 The settlement of Halloughton is located along a single road that passes through the length of the settlement, before terminating near Halloughton Wood Farm. The A612 Nottingham Road connects Halloughton to Southwell and continues towards Newark. Other roads that confluence in the Southwell include: the B6386 Oxton Road, Lower Kirklington Road and, Hockerton Road. The A617 bypasses Southwell and connects Mansfield and Newark. Beyond the main roads, smaller local roads provide a comprehensive network across the surrounding landscape.

Public Rights of Way

2.3.25 There are two Public Rights of Way (PRoW) within the Site. PRoW Byway 186/9/1 passes along the eastern edge of Halloughton Wood and travels in a westerly orientation towards Old Radley Farm on the B6386 Oxton Road. PRoW footpath 209/43/2 runs from the B6386 Oxton Road towards the northern edge of the Site, before connecting with PRoW footpath 209/42/1 which continues in a southerly direction before connecting to PRoW Byway 186/9/1 near Cotmoor plantation, and to PRoW footpath 209/43/1 which is located within the far northern extent of the Site and continues in an easterly direction towards Southwell. PRoW footpath 209/74/1 crosses the central portion of the Site, continues past Stubbins Farm towards Cundy Hill (road). The Robin Hood Way Long Distance Footpath travels alongside the River Greet before passing through Southwell and continuing to circle the landscape to the south of Southwell.

2.3.26 Beyond the settlement boundaries, a comprehensive network of PRoWs, which include footpaths, bridleways, and byways across the surrounding landscape.

2.3.27 PRoW within the Site are considered to be of high value, susceptibility, and sensitivity.

Landscape Character

2.3.28 There are a number of published Landscape Character Assessments that delineate boundaries for areas. In reality, there can be a degree of transition in character from one area to another in the vicinity of boundaries in some instances. A degree of caution needs to be applied to any strict interpretation regarding their boundaries as the character areas bleed into one another, and there is rarely a harsh definitive boundary on the ground. The landscape character is principally defined by physical elements but also includes perceptual elements.

National Character Areas of England

2.3.29 The National Character Area (NCA) profiles, produced by Natural England, provide a broad range of information including an outline of the key characteristics of a given area, a description of the ecosystem services provided and how these relate to people, wildlife and the economy, and an array of opportunities for positive environmental change.

2.3.30 The Site is within NCA 48: Trent and Belvoir Vales.

NCA 48 Trent and Belvoir Vales

2.3.31 Key characteristics considered relevant to this Site and appraisal include (NCA 48, page 7):

- **"A gently undulating and low-lying landform in the main, with low ridges dividing shallow, broad river valleys, vales and flood plains. The mature, powerful River Trent flows north through the full length of the area, meandering across its broad flood plain and continuing to influence the physical and human geography of the area as it has done for thousands of years.**

- **The bedrock geology of Triassic and Jurassic mudstones has given rise to fertile clayey soils across much of the area, while extensive deposits of alluvium and sand and gravel have given rise to a wider variety of soils, especially in the flood plains and over much of the eastern part of the NCA.**

- **Agriculture is the dominant land use, with most farmland being used for growing cereals, oilseeds, and other arable crops. While much pasture has been converted to arable use over the years, grazing is still significant in places, such as along the Trent and around settlements.**

- **A regular pattern of medium to large fields enclosed by hawthorn hedgerows, and ditches in low-lying areas, dominates the landscape.**

- **Very little semi-natural habitat remains across the area; however, areas of flood plain grazing marsh are still found in places along the Trent.**

- **Extraction of sand and gravel deposits continues within the Trent flood plain and the area to the west of Lincoln. Many former sites of extraction have been flooded, introducing new waterbodies and new wetland habitats to the landscape.**

- **Extensive use of red bricks and pantiles in the 19th century has contributed to the consistent character of traditional architecture within villages and farmsteads across the area. Stone hewn from harder courses within the mudstones, along with stone from neighbouring areas, also feature as building materials, especially in the churches.**

- **A predominantly rural and sparsely settled area with small villages and dispersed farms linked by quiet lanes, contrasting with the busy market towns of Newark and Grantham, the**

cities of Nottingham and Lincoln, the major roads connecting them and the cross-country dual carriageways of the A1 and A46.

- **Immense coal-fired power stations in the north exert a visual influence over a wide area, not just because of their structures but also the plumes that rise from them and the pylons and power lines that are linked to them. The same applies to the gas-fired power station and sugar beet factory near Newark, albeit on a slightly smaller scale."**

2.3.32 Relevant landscape opportunities for NCA 48 include (NCA 48, page 41):

- **"Restore and manage hedgerows, where they have been lost, to strengthen the historical field patterns, improve wildlife networks and enhance landscape character.**
- **Enhance tree cover throughout the NCA following the recommendations of the East Midlands Woodland Opportunity Mapping Guidance for each of the sub areas within the NCA through, for example, extensive planting of hedgerow trees. This is particularly important in view of the threat from ash dieback disease as ash is a characteristic species in the NCA. Protect and enhance the sinuous belts of trees and riparian habitats that demarcate watercourses, create new woodland on former sand and gravel extraction sites, and extend and link up existing ancient woodland sites. Plan for a landscape depleted of ash by planting replacement hedgerow tree species such as oak which is also characteristic of the are**"

2.3.33 This NCA covers an extensive geographical area averaging from Gainsborough in the north to Nottingham in the south, encompassing Newark-on-Trent and bordering Lincoln in the east. The Site displays some, but not all of the defining characteristics of NCA 48, such as a gently undulating and low-lying landform; a regular pattern of medium to large fields enclosed by hawthorn hedgerows, with agriculture being the main land use.

2.3.34 The overall value of the NCA as a whole is considered to be medium. A medium susceptibility has been assessed due to the NCA being comprised of an undesignated but perfectly pleasant rural landscape, resulting in a **medium** sensitivity.

East Midlands Regional Landscape Character Assessment

2.3.35 The East Midlands Regional Landscape Character Assessment was published in April 2010 which was commissioned by the East Midlands Landscape Partnership and prepared by LDA Design Consulting LLP. In the introduction, it recognises that this is a new tier in landscape character assessment hierarchy in England and the first regional assessment to not only provide a comprehensive and detailed examination of the region's landscape but also to address seascape characterisation. It goes on to note that the character assessment identifies 31 Regional Landscape Character Types (RLCTs), the purpose of which is to provide a strategic regionwide evidence base to help decision making on issues that will have implications for the landscape and wider environment.

2.3.36 The East Midlands Regional Landscape Character Assessment (EMRLCA), published in April 2010 identifies that the Site is located within Regional Landscape Character Type (RLCT) 5b: Wooded Village Farmlands. Key characteristics are listed as:

"Varied topography, ranging from gently undulating farmlands to rolling hills, becks and steep sided valleys, locally known as 'Dumbles';

Scattered farm woodlands, ancient woodlands on prominent hills and tree lined valleys contribute to a well wooded character;

Well maintained pattern of hedged fields enclosing pasture and arable fields, with evidence of decline close to urban areas;

…

Strong sense of landscape history."

2.3.37 The description of RLCT 5b: Wooded Village Farmlands includes a review of baseline conditions under three main themes and includes the physical (geology and soils, landform, hydrology, land use and land cover, woodland and trees), cultural (buildings and settlement, heritage features, boundaries, communications, infrastructure and recreation) and perceptual (tranquillity, remoteness) attributes of the landscape that combine to create its unique character.

2.3.38 Aesthetic and perceptual qualities of the RLCT are identified as:

"Where field patterns remain intact, and local villages have seen limited late 20th century growth and development, the landscape retains a strong historic character, with tangible evidence of land use and settlement stretching back into the medieval period. Of particular significance are the ancient woodlands, organic field patterns and winding rural lanes between long established villages and hamlets…

Undulating landform and woodlands generally combine to create visual containment and sense of enclosure. Despite this, some panoramic and extensive views are possible from elevated locations where views are uninterrupted by intervening vegetation.

The landscape has a strong agricultural character, with wide areas retaining a sense of rural tranquillity and intactness, notably where ancient hedgerow patterns, woodlands and winding rural lanes have seen little modernisation. In some areas, and notably on the fringes of towns, or where agricultural regimes are shifting towards intensive arable production, gappy hedgerows and peri-urban land uses creates a sense that landscape quality is declining."

2.3.39 With regard to the Wooded Villages Farmlands Landscape Character Type, the LCA notes that it is characterised by productive and well-wooded rolling farmlands and valleys. It goes on to note that the base-rich soils that can be easily improved are widely used for arable cropping but there is also improved pasture in the area. It goes on to note that the landscape, whilst not particularly tranquil, retains a quiet rural character that appears to have changed little over recent decades.

2.3.40 An aim considered relevant to the Site and the Proposed Development as identified within guidance for shaping the future landscape is to:

> **"…protect existing rural landscape features, whilst encouraging positive management of those features lost or under threat. The restoration of hedgerows should be given priority, along with an increase in pasture, creating a stronger and more mixed pattern of land use. This will be particularly beneficial along watercourses, enhancing their visibility and creating a more integrated habitat network."**

2.3.41 Under the heading 'Forces for Change', the LCA notes that there is marked evidence of agricultural intensification accompanied by a move towards arable production. It goes on to note that the loss of pasture is particularly evident along various rivers and streams which traverse the countryside. That is the change that can be observed across the Site and in its vicinity.

2.3.42 It also notes that energy crops such as miscanthus and short rotation coppice have been cultivated to meet renewable energy targets (seen adjacent to PRoW 209/74/1) and that these are fast-growing, and tall crops can radically change the appearance of the landscape. It goes on to note that restoration of hedgerows should be given priority, along with an increasing pasture creating a stronger and more mixed pattern of land use under the heading 'Shaping the Future Landscape'.

2.3.43 The RLCT as a whole is considered to have a medium value overall and medium susceptibility which results in a medium sensitivity.

Newark and Sherwood Landscape Character Assessment

2.3.44 The Newark and Sherwood Landscape Character Assessment (LCA) forms adopted Supplementary Planning Document and is a landscape character assessment based on a district-level assessment of landscape character which forms part of the wider assessment for the county. It notes that identifying specific Landscape Policy Zones (LPZs) and related actions across the LCA will play an important role in the planning framework and in making decisions for new development.

2.3.45 Other landscape publications have been prepared by the district which includes the Newark and Sherwood Green Infrastructure Strategy. The Site and the landscape surrounding it falls within the Mid Nottinghamshire Farmlands Landscape Character Area. At the finest level of study the Site as being located within Landscape Policy Zones (LPZ) 37, 38 and 39. Zone 38 is identified as an area for conservation, together with reinforcement whereas zones 37 and 39 are identified as areas to be conserved. Landscape actions for each policy zone are stated within the LCA document.

Mid Nottinghamshire Farmlands

2.3.46 The Mid Nottinghamshire Farmlands is addressed in chapter 3 of the LCA document and addresses a number of aspects relating to it including the physical and human influences with regard to the shape of the land and landscape history. It also considers the visual character of the landscape, noting in section 3.2, internal page 11, that the character of the Mid Nottinghamshire Farmlands is the strong sense of enclosure which exists over most of the area and is reiterated in the proceeding text noting that the landscape has a generally well wooded character. Internal page 3 of the document notes the characteristic features of the Mid Nottinghamshire Farmlands as follows.

- **"Varied undulating topography**
- **Ancient woodlands, often predominantly sited on hilltops**

- **Well defined pattern of hedged fields**
- **Streams defined by lines of trees and permanent pasture**
- **Traditional pattern of farms and small rural villages**
- **Red brick buildings with pantile roofs**
- **Quiet country lanes**
- **Small remnant orchards and permanent pastures around villages"**

2.3.47 The LCA notes at page 14, that the wooded farmlands are a remote rural area that has been relatively unaffected by urban and industrial development. However, it does go on to note that the Ollerton and Marnham Power Station Mineral Line and Butterley Brickworks near Kirton have a localised impact and goes onto note that probably more intrusive are the lines of pylons which dominate some areas. During the site visit, it was noted that the Site and the landscape surrounding Halloughton is crossed by large scale pylons.

2.3.48 The LCA goes onto note in section 3.3 with regard to landscape evolution and change, that agriculture has influenced the character of the area, noting that a large proportion of the farmland in the region is under arable rotation. Interestingly, it notes that the main change in agricultural practice since the Second World War has been the swing from a mixed agricultural economy to one dominated by arable farming with an associated increase in holding size. And goes on to state that the size of permanent pasture has vastly reduced since 1939 and that traditional cattle farming was widespread and in the 1930s, strong corridors of pasture flanked most of the Beck valleys. The Proposed Development (Refused and Alternative Scheme) would provide the opportunity to address this matter and reintroduce significant areas of pasture for a 40-year period.

2.3.49 The LCA goes on to address energy, specifically on internal page 27, noting that the power generating industry warrants separate consideration due to its enormous impact on the landscape of the region. It notes that there are two functioning coal-fired power stations located in the Trent washlands, Cottam and West Burton. That the power stations and associated web of high voltage powerlines constitute the most dominant and visually intrusive landscape features within the Mid Nottinghamshire Farmlands.

2.3.50 The Mid Nottinghamshire Farmlands Landscape Character Area as a whole is considered to have a medium susceptibility and value, resulting in a medium sensitivity.

MN37 Policy Zone

2.3.51 In terms of the summary concerning the character of this policy zone, it notes that the landscape is interrupted intermittently by pylons and powerlines running east-west to the south of the area. A predominantly arable agricultural landscape with medium to large-scale fields with irregular geometric patterns with smaller scale pastoral fields. It goes on to note that the boundaries of the fields tend to be composed of well-maintained hedgerows with some outgrown hedgerow tree species along the lines of the hedgerows. It identifies the characteristic visual features as follows:

- **"Very gently undulating and rounded topography**
- **Medium distance views to frequently wooded skylines although often enclosed by vegetation hedgerows, woodland etc**

- **Mixture of intensive arable fields with strongly trimmed hedges and some low intensity farming with permanent improved pasture"**

2.3.52 The landscape sensitivity is defined as "high", the description goes on to state that:

> **"The components of the landscape are characteristic to the Mid Nottinghamshire LCA. The time depth is historic (post 1600) giving a moderate sense of place overall.**
>
> **The landform is dominant with intermittent areas of woodland giving a generally high visibility value within the Policy Zone. Views are intermittent due to numerous blocks of woodland and hedgerows. A moderate sense of place and high visibility leads to a high landscape sensitivity overall."**

2.3.53 The landscape actions for the policy zone are identified as "conserve", and include to:

> **"Conserve hedgerows and prevent fragmentation (through lack of management and intensification of arable farming).**
>
> **Conserve historic field pattern by containing and limiting any new development within historic enclosed boundaries.**
>
> **Conserve the ecological diversity and setting of the designated SINCs.**
>
> **Conserve and enhance tree cover and landscape planting generally to improve visual unity and habitat across the Policy Zone."**

2.3.54 The LCA document assesses Policy Zone 37 as having a high sensitivity, which the document states is a result of a moderate sense of place and high visibility. It is worth noting that sensitivity is a combination of susceptibility and value combined, as per GLVIA3. The Site survey work reveals that the level of visibility is limited and moderate due to interactions between topography and vegetation across the Policy Zone which frequently limits or filters views. It is considered that Policy Zone 37 is therefore assessed as having a medium value, susceptibility, and sensitivity for the character zone in the vicinity of the Site.

MN38 Policy Zone

2.3.55 The policy for this area is to conserve and reinforce the landscape. In terms of the characteristic visual features, these are noted as:

- **"Very gently undulating and rounded topography Medium distance views to frequently wooded**
- **skylines although often enclosed by vegetation hedgerows, woodland etc**
- **Mixture of intensive arable fields with strongly trimmed hedges and some low intensity farming with permanent improved pasture**

- **Small commercial agriculture, mushroom farm, strawberry polytunnels**
- **Small industrial estate**
- **Leisure facilities surrounding Southwell golf course, horsiculture sports fields"**

2.3.56 The landscape sensitivity is defined as "moderate" the description goes on to state that:

> **"The components of the landscape are characteristic to the Mid Nottinghamshire LCA. The time depth is historic (post 1600) giving a moderate sense of place overall.**
>
> **The landform is apparent with intermittent areas of woodland giving a generally moderate visibility value within the Policy Zone. Views are intermittent due to numerous blocks of woodland and hedgerows. A moderate sense of place and moderate visibility leads to a moderate landscape sensitivity overall."**

2.3.57 The landscape actions for the policy zone are to listed as to "conserve and reinforce", and include to:

> **"Conserve and reinforce hedgerows where these are gappy and in poor condition, particularly internal hedgerows. Seek opportunities to restore the historic field pattern/boundaries where these have been lost and introduce more hedgerow trees. Reinforce with new planting to replace post and wire fencing.**
>
> **Conserve and reinforce the ecological diversity of Norwood Park and other designated SINCs where appropriate.**
>
> **Ensure that new planting takes into consideration the medium and longer views across the shallow ridgelines around Southwell which allow views across to the Minster and landscape beyond."**

2.3.58 The LCA document notes that Policy Zone 38 is assessed as having a medium value, susceptibility, and sensitivity for the character zone in the vicinity of the Site. The Site survey work draws the same conclusions as the document.

Policy Zone 39

2.3.59 The policy for this area is to conserve the landscape. In terms of the characteristic visual features, these are noted as:

- **"Very gently undulating and rounded topography.**
- **Medium distance views to frequently wooded skylines, although often enclosed by vegetation – hedgerows, woodland etc.**
- **Mixture of intensive arable fields with strongly trimmed hedges and some low intensity farming with permanent improved pasture.**
- **Numerous blocks of woodland and plantation, of varying scale.**

- **Predominantly vernacular settlements and dwellings.**
- **Good network of mainly intact and well maintained hedgerows."**

2.3.60 The landscape sensitivity is defined as "high" the description goes on to state that:

> **The components of the landscape are characteristic to the Mid-Nottinghamshire LCA. The time depth is historic (post 1600) giving a moderate sense of place overall.**
>
> **The landform is dominant with intermittent areas of woodland giving a generally high visibility value within the Policy Zone. Views are intermittent due to numerous blocks of woodland and hedgerows. A moderate sense of place and high visibility leads to a high landscape sensitivity overall.**

2.3.61 The landscape actions for the policy zone are to listed as to "conserve and reinforce", and include to:

> **"Conserve permanent pasture and seek opportunities to restore arable land to pastoral.**
>
> **Conserve hedgerow planting along roadsides, seek to reinforce and enhance as appropriate.**
>
> **Conserve the biodiversity and setting of the designated SINCs, seek to enhance where appropriate.**
>
> **Conserve and enhance woodland/plantation blocks, seek to reinforce green infrastructure as appropriate."**

2.3.62 Whilst it is noted that the LCA document assesses Policy Zone 39 as having a high sensitivity, which is a result of a moderate sense of place and high visibility. As established during the Site survey work the level of visibility is moderate due to interactions between topography and vegetation across the Policy Zone which frequently limits or filter views. It is considered that Policy Zone 39 is therefore assessed as having a medium value, susceptibility, and sensitivity for the character zone in the vicinity of the Site. Sensitivity is a combination of value and susceptibility as per GLVIA3.

Night Time Character

2.3.63 A qualitative visual assessment of sky glow, glare and light intrusion has been conducted with reference to Institution of Lighting Professionals (ILP) Guidance Notes for the Reduction of Obtrusive Light GN01 (2011) and Night Lights mapping published by the Campaign for Rural England (CPRE) website (https://nightblight.cpre.org.uk/maps/), to review existing light sources and their influence upon night time landscape character in terms of location and extent, type, and effects.

2.3.64 The assessment showed that dusk and night-time landscape character within the wider landscape between Halloughton and Southwell beyond the is influenced by existing sky glow at Southwell (CPRE night light radiance 8-16 NanoWatts/cm^2/sr), to a lesser degree by Halloughton (CPRE night light radiance 2-4 to 1-2 NanoWatts/cm^2/sr), arising from the highway and building lighting. The glow associated with the street lights along Nottingham Road (CPRE night light radiance 4-8 NanoWatts/cm^2/sr) spills out across

the adjacent landscape and influences the far eastern extent of the Site. The landscapes beyond settlements near the Site are characteristically darker. Overall, the areas outside the settlements and highway corridors, including the Site, are the darker night skies (CPRE night light radiance <0.5 to 1 NanoWatts/cm^2/sr).

2.3.65 There are no significant sources of light locally within the Site such as frequent street lighting that contributes to sky glow, but within Halloughton scattered street lights are present and domestic lighting occurs. Hedgerows and woodland blocks around and within the periphery of the Site provide a 'curtain' that would prevent direct effects of light trespass onto adjacent land and the wider countryside.

Landscape Designations

2.3.66 With reference to the Environmental Designations Plan at **Figure 1.2**, the Site is not subject to any statutory or non-statutory landscape or environmental designations.

Visual Receptors

2.3.67 The approximate visibility of the site as existing has been determined through the preparation of a SZTV plan and topographical analysis, and the actual extent of visibility checked in the field to identify and take account of the localised screening effect of buildings, walls, fences, trees, hedgerows, and banks. The SZTV plan is based upon the proposed development height (3m above ground level, AGL). The ZTV represents the so-called 'screened' ZTV whereby existing built form and substantial blocks of vegetation are assigned certain heights and used to model a more realistic representation of the theoretical visibility. It is worth reiterating that small building groups or isolated buildings, small areas of woodland, tree belts, isolated buildings, trees, and hedgerows are not accounted for and therefore such SZTVs still represent theoretical visibility as unmapped features can control or prevent views locally.

2.3.68 Representative viewpoints within the area surrounding the Site have been identified (**Figure 2.4: Screened Zone of Theoretical Visibility and 2.5 Viewpoint Location Plan**) and agreed in consultation Landscape Architect at Via East Midlands Ltd in August 2019 prior to conducting two site visits in August 2019 and December 2020 to assess the nature of the view, the potential extent of the site that is visible and to capture photographs from the viewpoints in favourable weather and light conditions.

2.3.69 The 18 agreed representative viewpoints (and three appendix heritage viewpoints) demonstrate the relative visibility of the site (and existing features or development on it) and its relationship with the surrounding landscape and built form (as illustrated at **Figure 2.6 Summer Photoviews** and **2.8 Winter Photoviews**). These Viewpoints are not intended to cover every possible view of the site, but rather they are representative of a range of receptor types at varying distances and orientations to the Site. The selection of the key viewpoints is based on the following criteria:

- The requirement to provide an even spread of representative viewpoints within the visual envelope;
- The requirement to provide representative viewpoints that consider a human's normal field of vision (i.e. panoramic views);
- From locations that represent a range of close (local views), middle, and long-distance views; and
- Whilst private views are relevant, public viewpoints, i.e. from roads and public rights of way and other areas of open public access, are selected since they tend to have a higher incidence of receptors affected. Private views are not generally protected by planning law and policy unless the impacts are so significant they interfere with the amenity of occupants.

2.3.70 The visibility of the Site is predominantly influenced by landform, the extent and type of vegetation cover, and built elements within the surrounding landscape. To refine and establish the approximate extent to which the Site is visible, fieldwork was undertaken from publicly accessible viewpoints within the Site and surrounding landscape, such as roads and PRoW.

2.3.71 The theoretical extent of where views may be gained from is shaded yellow on the SZTV, however, the actual extent of the visibility of the Proposed Development is likely to be smaller than this shaded area. Whilst the ZTV suggests that views may be gained toward the Site from all directions within 1km of the boundary, site visits have shown that intervening vegetation and landform restrict views to/from those directions. The SZTV also illustrated that longer-range views from the northwest and southeast could theoretically be experienced however the field survey showed that the views would be restricted by landform and well-established vegetation (see **Figure 2.4**).

2.3.72 The description of the 18 representative individual baseline views and sensitivity of associated visual receptors is discussed in detail at the Summary of Visual Effects table at **Appendix 2.3**. Four of the representative viewpoints have been selected for the preparation of photomontages. The following text provides a summary of visual amenity.

Residents/Local Community

2.3.73 In accordance with accepted best practice, this assessment does not assess visual amenity from individual properties, therefore views have been assessed from the nearest publicly accessible viewpoint.

2.3.74 There is very limited potential for residential properties to gain views of the Site due to a combination of the nature of the ribbon development within Halloughton, few isolated properties and farmsteads, landform, and intervening vegetation. No potential close, medium, or distant views were identified during desk studies and field surveys from residential properties at or in the following settlements:

- Southwell;
- Halloughton Wood Farm; and
- Thorney Abbey Farm;

2.3.75 Potential views were identified for a limited number of residential properties, including Stubbins Farm and Stubbins Barn (partially represented by **Viewpoint 4**) and New Radley Farm (although it should be noted that New Radley Farm is owned by the same landowner who owns the land which will accommodate the Proposed Development). Within Halloughton, views from within properties situated to the south of the road which passes through the village would be heavily restricted by intervening well-established vegetation within the curtilage of properties and built form. For properties situated to the north of the road within Halloughton, views of the Proposed Development are anticipated to be heavily filtered by boundary vegetation. It should also be noted that several of the properties are single storey, which would further restrict views of the Proposed Development and the associated construction and decommissioning activities. Visual analysis carried out during the field survey and subsequent investigations looking at aerial mapping identified that there are two two-storey properties within Halloughton where views of the Proposed Development could theoretically be possible from their upper floor windows.

PRoW Users

2.3.76 From locations on the PRoW bridleway 209/74/1 to the west of the Site (as illustrated by **Viewpoint 1**), the boundary to the Proposed Development would be situated beyond the hedgerow which includes hedgerow trees. Whilst it is important to note that

the field beyond the hedgerow is to remain free from development, except for an access track.

2.3.77 **Viewpoints 2,3,4** and **5** are a series of sequential views which are taken from along bridleway 209/74/1. As it passes through the Site and past Stubbins Farm to the east. **Viewpoints 2** and **3** are taken from just within the Site and just beyond an eastern boundary, in both of these aforementioned Viewpoints hedgerow vegetation in the foreground views heavily restrict views across the wider Site.

2.3.78 **Viewpoint 4** represents a transient and oblique view experience by PRoW users travelling along bridleway 209/74/1 near Stubbins Farm. Parts of the Site are visible in the mid-view, situated below the well-wooded horizon.

2.3.79 From locations further along bridleway 209/74/1 as you move away from the Site, as illustrated by **Viewpoint 5**. The existing intervening boundary vegetation along part of the northern boundary of the Site includes dense belts of trees and well established hedgerows.

2.3.80 **Viewpoint 6** is taken from the slightly elevated position to the northeast of the Site, from along the Robin Hood Way and looks in a south-westerly orientation across the gently undulating landscape towards the Site. The intervening landform in combination with existing vegetation which includes trees prevents views of the Proposed Development.

2.3.81 **Viewpoint 10** is taken from PRoW bridleway 186/3/1 to the southwest of Halloughton and looks in a northerly orientation across the gently undulating agricultural landscape towards the Site, which would be situated towards the horizon of the view. Existing field boundary vegetation, which includes belts of trees are expected to screen much of the Proposed Development, with only part of the southern extent of the Site is visible. From locations to the west further along the route, views are restricted by intervening landform and field boundary vegetation.

2.3.82 Views from the PRoW network to the southwest of the Site are represented by **Viewpoint 12**, which is taken on the southernmost extent of Cotmoor Lane Byway. The gently sloping grassland fields in the foreground of the view are not located within the Site. A hedgerow located in the mid-view marks part of the Sites western boundary. A well-established tree belt situated to the north of Halloughton restricts views across the southern extent of the Site.

2.3.83 Views from the local PRoW network covering the landscape to the north of the Site are represented by **Viewpoints 13, 14, 15** and **16**. Viewpoint 13 is taken from footpath 209/42/1 which passes to the west of the Sites western boundary. Views from this location would be heavily filtered by intervening vegetation.

2.3.84 The farmhouse at Radley Farm is situated within the northern extent of the Site, **Viewpoint 14** is taken at the point where footpath 209/42/1 crosses the access track to Radley Farm and looks in a southerly direction into the Site. The proposed development would be situated within the mid view, beyond the access track and existing hedgerow. Users of the footpath at this location have the opportunity to experience oblique, transient, and glimpsed views of the Proposed Development as they travel along the footpath.

2.3.85 PRoW users along footpath 209/43/1 travelling through the Site are represented by **Viewpoint 15** as footpath users travel along the route views to the east of the Site are represented by Viewpoint 16. The hedgerow in the foreground of the view marks the Site boundary and restricts views into the Site

2.3.86 **Viewpoint 17** is taken just off the B6386 from along footpath 209/43/2 and looks in a south-westerly orientation towards the Site. Layers of intervening vegetation, including trees, are expected to restrict and prevent views of the Site

2.3.87 There is a comprehensive network of PRoWs to the north of the Site to the west of Halam. **Viewpoint 18** is taken from along the Robin Hood Long Distance Footpath and looks in a south-easterly orientation across the undulating landscape towards the Site. The horizon of the view contains multiple belts and blocks of woodland. The intervening landform and vegetation would restrict views of the Site.

Road Users

2.3.88 A number of public highways were visited during the field survey. Local roads are frequently lined on both sides along much of their length by a mix of hedgerow vegetation and in places trees. The Proposed Development would have a limited to no influence upon the visual amenity experienced along much of the local road network.

2.3.89 **Viewpoint 7** is representative of road users travelling along the unnamed road which runs between the A617, travelling north towards Southwell. Dense roadside vegetation in conjunction with a woodland plantation, which wraps around the eastern extent of the Site, restricts views of the Site.

2.3.90 Road users entering Halloughton from the east near St James' Church (as illustrated by **Viewpoint 8**) have the opportunity to experience views of the proposed Site access point. The view experienced by road users would be oblique and transient, with the farm gate occupying a comparatively small section of the existing roadside hedgerow. The main elements of the Proposed Development such as the panels would be sent back from this location (by approximately 140m) and would screen from view.

Viewpoint 11 is taken on the western edge of Halloughton and looks in a northerly direction across the adjacent agricultural fields towards the Site. The Site is situated in the mid view, beyond the intervening vegetation, which also screens the vast majority of the Site from this location.

Views from within the churchyard of St James' Church

2.3.91 Views from within the churchyard (**Viewpoint 9**) towards the Site are filtered by both vegetation within the churchyard, which includes evergreen species, and field boundary vegetation.

Views requested by Conservation Officer and Case Officer at Newark and Sherwood

2.3.92 **Appendix Viewpoint A** is taken from Fiskerton Road near Brinkley Hall Farm. Dense, well-established roadside and field boundary vegetation restricts views across the adjacent landscape towards the Site.

2.3.93 **Appendix Viewpoint B** is taken from the Easthorpe end of the Southwell Conservation Area. The view looks across the gently sloping landscape to the south of Southwell towards the Site which is obscured from view by intervening landform.

2.3.94 Finally, **Appendix Viewpoint C** is taken from within the grounds of Southwell Minster, the boundary of which is formed of a mix of stone walls and vegetation including trees. Views towards the Site are curtailed and restricted by intervening built form and vegetation.

Sensitivity of Representative Visual Receptors

2.3.95 **Table 2.2** below lists the representative viewpoints assessed and provides information on their location, receptor type, and sensitivity.

Table 2.2 Summary of Visual Sensitivity

No.	Receptors	Sensitivity
1	PRoW User	High
2	PRoW User	High
3	PRoW User	High
4	PRoW User	High
5	PRoW User	High
6	PRoW User	High
7	Road user	Medium
8	Road User	Medium
9	Visitor to churchyard	Medium
10	PRoW User	High
11	Road user	Medium
12	PRoW User	High
13	PRoW User	High
14	PRoW User	High
15	PRoW User	High
16	PRoW User	High
17	PRoW User	High
18	PRoW User	High
A	PRoW User	High
B	PRoW User	High
C	Visitor to Southwell Minster	High

2.3.96 The Visual Assessment and representative Photo views are presented at **Figures 2.6 and 2.8** and **Appendix 2.3: Visual Effects Summary Table**. Photomontages have been prepared, see **Figures 2.7, 2.9-2.11**.

2.4 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

2.4.1 The following assessment of likely significant landscape and environmental effects is made with reference to **Chapter 1** of this ES which describes the Proposed Development.

2.4.2 In summary, the Proposed Development would be predominantly low-level, comprising dark-coloured non-reflective solar arrays set within metal frames where the panels would be a maximum of 3m above ground level (AGL). The solar arrays would be enclosed by deer mesh and timber post perimeter fencing 2m high. with CCTV cameras at 3m in height positioned inside and around the site in order to provide security. The substation and ancillary buildings would be situated adjacent to an existing pylon located towards the southeastern extent of the Site. Connection to the distribution network would be via the on-site existing pylon. Two temporary construction compounds are proposed. One is adjacent to the proposed substation location, and the second is to be located in the northern area of the Site, adjacent to existing vegetation. Ground-level work would include the construction of permeable access tracks, cabling trenches and shallow drainage swales. During operation, the Site would not have any fixed external lighting. Existing, healthy mature trees and established hedgerows within and along the boundaries of the Site will be protected and managed throughout the life of the Proposed Development, with only short sections of hedgerow removal required for access tracks. Access for construction and maintenance vehicles would be gained from Bridle Farm Road to the east of the church of St. James.

Construction

2.4.3 A description of the construction programme and construction activities is provided in **Chapter 1** of this ES. Construction activities with the potential to affect the landscape and visual amenity include Site clearance and preparation including the construction of access tracks, movement of vehicles, tall plant machinery used for driving the supports for the solar arrays/tables, crane(s) used for lifting the substation/components into position and high-level activities when connecting to the existing electricity infrastructure. Construction would take c.6 months (26 weeks) to complete and so the landscape and visual effects arising from construction activities would be short-term and may be direct, indirect, or secondary.

2.4.4 Construction activity potentially evident on the Site would include:

- Temporary construction compound(s), site office, cabins, and lighting;
- Removal of non-retained vegetation and protective fencing to retained vegetation;
- Excavation, groundworks, and cable runs (including access tracks);
- The temporary storage of materials, vehicles, and machinery;
- Vehicle and plant movements;
- Construction of solar arrays, substation etc.;
- Reinstatement of areas following completion of construction phase; and
- Hedge planting parallel to the western fence line.

2.4.5 Effects are summarised at **Appendix 2.2: Landscape Effects Summary Table** and **Appendix 2.3: Visual Effects Summary Table**.

Landscape Elements and Features

Topography

2.4.6 Due to the nature of construction of the Proposed Development (Refused and Alternative Scheme), there would be minimal amendments to topography, with activities limited to localised groundworks. Reversible interventions would occur to construct Proposed Development leading to negligible magnitude of change across the Site. With medium sensitivity and negligible magnitude of change, the significance of effect on topography would be negligible and not significant.

Land Use and Land Cover

2.4.7 Some parts of the Site would not accommodate energy infrastructure and would remain unchanged where pasture currently exists. Where arable is in place this would be changed to pastoral use, with the introduction of grass swards as land cover. Where invertors and the substation are proposed there would be a negligible loss of agricultural land. Where the solar panels are proposed to be located these would be superimposed over land retained for agriculture, grazing and managed as grassland.

2.4.8 The change during the construction phase would be temporary and short term. With a medium sensitivity and medium magnitude of change (given that the construction activities would temporarily disrupt the agricultural use of the Site), the significance of effect would be moderate, and not significant.

Public Rights of Way

2.4.9 A short section of PRoW 209/43/1 is located within the northern extent of the Site outside of the proposed security fencing and PRoW 209/74/1 crosses one of the proposed access tracks. Both routes would be retained on their existing alignments and would remain open throughout the construction works associated with the Refused and Alternative Scheme.

2.4.10 A security fence would be installed if required at the start of works to separate construction works from PRoW users. There would be no loss or diversion to the route which would remain open throughout the construction works, resulting in no change to PRoW routes. The significance of effect on PRoW 209/43/1 and 209/74/1 during construction of the Refused and Alternative Scheme would be No change and not significant.

Watercourses

2.4.11 The requirement for drainage works would be limited to the construction of shallow swales (ditches) and an attenuation basin as set out in the Flood Risk Assessment that accompanies the planning application. The attenuation basin and swales would provide temporary storage/attenuation and/or intercept potential surface water run-off and would be grass-seeded and maintained by mowing or grazing. The attenuation basin and swales would be established at the beginning of construction works. There would be no change to existing drainage features, which would be protected during the construction works associated with the Refused and Alternative Scheme. The magnitude of change during construction to existing infrastructure and drainage features and elements would be low. With high sensitivity and low magnitude of change, the significance of effect on watercourses during construction would be moderate beneficial and not significant.

Trees and Hedgerows

2.4.12 Established healthy trees and hedgerows within and along the boundaries of the Site would be retained, with the exception of new access points, and protected throughout the construction works associated with the Refused and Alternative Scheme. Whilst there would be some limited loss of hedgerows for access points, with a high sensitivity and

medium magnitude of change, the significance of effect on trees and hedgerows would be major net beneficial, and significant.

Landscape Character

2.4.13 The Site lies within NCA 48 Trent and Belvoir Vales, and at a local scale, it falls within RLCT 5b: Wooded Village Farmlands; LCA Mid Nottinghamshire; and Policy Zones 37, 38 and 39. The degree of direct change to NCA 48, RLCT 5b and Policy Zones 37, 38 and 39 arising from construction work would be limited to within the Site. With key characteristics of the local landscape character such as the landform, landscape structure and scale of field patterns, hedgerows and mature trees remaining unaffected by the construction activities. Temporary, short-term construction activities associated with the Refused and Alternative Scheme would locally affect the tranquillity, but this would be very localised and would have no more than a negligible magnitude of change upon the NCA, RLCT and Policy Zones as a whole. With medium sensitivity and a negligible magnitude of change, the significance of effect upon NCA 48, RLCT 5b and Policy Zones 37, 38 and 39a as a whole would be negligible, and not significant.

2.4.14 As noted above, within the Site the construction activities associated with the Refused and Alternative Scheme would affect the tranquillity and would increase activity/vehicle movements across the Site during short term construction period for an increased period than usual farming practices would occupy, resulting in a high magnitude of change, and major, short-term, significant effects.

Night Time Character

2.4.15 The night-time character is that of dark rural skies punctuated by lighting associated with isolated clusters of development and roads, partly influenced by sky glow associated with Southwell and Nottingham Road. Localised task lighting may be used for short periods during construction working hours in winter months (e.g., late afternoon/early evening only); no lighting would be used outside of working hours or during summer months. Effects would be temporary and indirect, leading to a negligible magnitude of change. With high sensitivity and negligible magnitude of change, the significance of effect on night-time character during construction would be negligible.

Visual Receptors

2.4.16 The visual assessment at the Summary of visual effects at **Appendix 2.3** considers the representative Viewpoints 1-18 and A-C and describes the existing (baseline) view, receptor sensitivity and predicted magnitude of change arising from the construction of the Proposed Development. An assessment has also been made of other visual receptors that occur in the vicinity of the Site.

Residents/Local Community

2.4.17 Site surveys confirmed that there is very limited potential for residential properties to gain views of the Site due to a combination of the nature of the ribbon development along Halloughton, few isolated properties and farmsteads, landform, and intervening vegetation. No potential close, medium, or distant views were identified during desk studies and field surveys from residential properties at or in the following settlements:

- Southwell;
- Halloughton Wood Farm; and
- Thorney Abbey Farm;

2.4.18 For these settlements and properties of high sensitivity, there would be a magnitude of negligible to no change, leading to a neutral significance of effect.

2.4.19 Potential views were identified for a limited number of residential properties, including Stubbins Farm and Stubbins Barn (partially represented by **Viewpoint 4**) and New Radley Farm (although it should be noted that New Radley Farm is owned by the same landowner who owns the land which will accommodate the Proposed Development). The construction phase would bring about a low magnitude of change for residents at New Radley Farm resulting in a moderate, not significant temporary effect. For residents at Stubbins Farm, the magnitude of effect during construction would be negligible which translates into negligible not significant effects.

2.4.20 Where possible views from within Halloughton have been identified, the construction phase would bring about a low magnitude of change and a moderate, not significant, and temporary effect upon these receptors within a limited number of properties.

PRoW

2.4.21 Recreational users of PRoW 209/74/1 that in pass through or locally to the Site would experience limited or partial views of the construction activities. For users at **Viewpoint 1**, the construction effects assessed based on Refused and Alternative Scheme would be negligible and not significant. At **Viewpoint 2** the construction effects assessed based on Refused and Alternative Scheme are assessed as moderate and not significant, based on the possibility of bridleway users experiencing views of construction traffic using the access track. PRoW users on the same route, beyond the Site to the east (**Viewpoint 3**) would experience temporary moderate, but not significant effects based on the construction effects associated with the Refused Scheme; and based on the Alternative Scheme, no change to their current view.

2.4.22 Further along PRoW 209/74/1 to the east (**Viewpoint 4**), partial views of the construction activities taking place within the southern extent of the Site could be experienced resulting in a medium magnitude of change and a major, short term, significant effect based on the Refused and Alternative Schemes. Existing vegetation present along the boundary of the Site is anticipated to restrict views of the construction activities at **Viewpoint 5** based on the Refused and Alternative Scheme, resulting in a negligible magnitude of change and a negligible, not significant, temporary effect.

2.4.23 The intervening landform in combination with existing vegetation which includes trees prevents views of the Proposed Development (Refused and Alternative Scheme) from the network of PRoW located beyond the Site to the northeast. **Viewpoint 6** is taken from a slightly elevated position on the Robin Hood Way and looks in a south-westerly orientation across the gently undulating landscape. Based on both the Refused and Alternative Scheme construction activities taking place across the Site would be screened from view, resulting in no change and not significant effects upon receptors at this location.

2.4.24 Localised views towards construction activity within the Site (based on the Refused Scheme) could be gained from parts of the slightly elevated sections of PRoW 186/3/1 (**Viewpoint 10**), resulting in moderate, temporary, not significant effects. Based on the Alternative Scheme, effects on users would be negligible and not significant, as a result of removing the built form (and subsequently the associated construction works) from the field to the west of the existing northwest-southeast orientated tree belt.

2.4.25 Users of Cotmoor Lane Byway (**Viewpoint 12**) based on the Refused Scheme would experience temporary major significant effects as a result of the construction phase. Effects assessed based on the Alternative Scheme are assessed as negligible and not significant. As a result of the removal of the built form (and subsequently the associated

construction works) from the field to the west of the existing northwest-southeast orientated tree belt.

2.4.26 Users travelling along much of the route of PRoW 209/42/1 where it passes in close proximity to the Site would have their views of the construction activities associated with the Refused and Alternative Scheme restricted (**Viewpoint 13**) resulting in a no change to their view, and not significant, temporary effects.

2.4.27 Users of PRoW 209/43/1 as it passes through or in close proximity to the Site (**Viewpoints 14 and 15**), would have the opportunity to experience views of construction activities local to the route. The operational fence would be erected at the start of construction works so that a safe corridor is maintained for the PRoW which would remain open and on their existing alignments throughout construction. With high sensitivity and a low term, temporary magnitude of change, the effect would be moderate and not significant for the short-term of the construction period associated with the Refused and Alternative Scheme at **Viewpoint 14**. At **Viewpoint 15**, a high, temporary magnitude of change, the effect would be major and significant for the short-term of the construction period associated with the Refused and Alternative Scheme.

2.4.28 Beyond the Site (**Viewpoint 16**) on PRoW 209/43/1 views of the construction activities associated with the Refused scheme would bring about a low magnitude of change and a moderate, not significant, temporary effect. Construction activities associated with the Alternative Scheme would bring about no change to the existing view. Similarly, the construction phase associated with the Refused and Alternative Scheme would bring about no change and not significant effects upon views from along PRoW 209/43/2 (**Viewpoint 17**) due to intervening vegetation.

2.4.29 In views from the elevated network of PRoW to the northwest of the Site (**Viewpoint 18**), views of the construction activities taking place across the Site associated with the Refused and Alternative Scheme are restricted by intervening landform and vegetation resulting in no change and not significant effects upon PRoW users at this location.

Road Users

2.4.30 The opportunity to gain views from roads within the vicinity of the Site are few due to intervening and roadside vegetation and landform, and in places, built form. For road users travelling along the unnamed road which runs between the A617, travelling north towards Southwell (**Viewpoint 7**), dense roadside vegetation in conjunction with a woodland plantation, which wraps around the eastern extent of the Site, would restrict views of the construction activities associated with the Proposed Development (Refused and Alternative Scheme). The effects arising, as a result, are assessed as no change and not significant.

2.4.31 For road users passing in close proximity to the proposed access point (**Viewpoint 8**). The construction activities associated with both schemes taking place across the wider Site would be screened from view. Road users would however have the opportunity to experience views of the construction traffic entering and leaving the Site resulting in moderate, temporary, and not significant effects.

2.4.32 From the minor road to the west of Halloughton serves Halloughton Wood Farm, based on the Refused Scheme, road users (**Viewpoint 11**) would have the opportunity to experience partial views of the construction activities taking place in the field to the west of the existing northwest-southeast orientated tree belt, resulting in minor not significant, temporary effects on road users at this location. Construction activities associated with the Alternative Scheme would be screened from view resulting in negligible, not significant effects.

Views from within the churchyard of St James' Church

2.4.33 Views from within the churchyard (**Viewpoint 9**) towards the Site are filtered by both vegetation within the churchyard, which includes evergreen species, and field boundary vegetation. The construction vehicles entering and leaving the Site along the access track at the entrance would bring about a minor and not significant effect upon visitors to the churchyard.

Views requested by Conservation Officer and Case Officer at Newark and Sherwood

2.4.34 For the additional viewpoints requested by the Case and Conservation, receptors at **Viewpoint A** would experience no change, not significant effects as a result of the construction phase associated with the Refused and Alternative Schemes. PRoW users at **Viewpoint B** would experience negligible, not significant effects as a result of the construction phase associated with the Refused and Alternative Scheme.

2.4.35 **Viewpoint C** is recorded from within the walled grounds of Southwell Minster and as result, effects associated with the construction phase associated with the Refused and Alternative Scheme are assessed as no change and not significant.

Operation

2.4.36 Operational effects upon the landscape and visual receptors would arise from the presence of the solar farm features including the solar arrays, substation/components, fencing and access tracks during the 40-year life of the Proposed Development.

Landscape Elements and Features

Topography

2.4.37 Due to the nature of the proposed solar farm development (Refused and Alternative Schemes), there would be negligible effects upon the topography of the Site as a result of the operational period. With medium sensitivity and a magnitude of negligible, the significance of effect upon topography would be negligible and not significant.

Land Use and Land Cover

2.4.38 Some parts of the Site would not accommodate energy infrastructure and would remain unchanged where pasture currently exists. Where arable is in place this would be changed to pastoral use, with the introduction of grass swards as land cover. Where invertors and the substation are proposed there would be a negligible loss of agricultural land. Where the solar panels are proposed to be located these would be superimposed over land retained for agriculture, grazing and managed as grassland.

2.4.39 A medium sensitivity and medium magnitude of change (given that the pastoral agriculture of the field could still take place under the solar panels), would result in a moderate, not significant effect.

2.4.40 Land use across the developed area of the Site would change from agricultural to solar farm during the operational lifespan of the Proposed Development (Refused and Alternative Scheme), however, this change would be reversed during decommissioning (see below). Therefore, the magnitude of change on land use would be temporary and reversible, but long-term (40-year period) of medium magnitude. With medium sensitivity and a medium magnitude of change, the significance of effect upon land use would be moderate, temporary but long-term and reversible.

Public Rights of Way

2.4.41 PRoW footpath 209/43/1 is located outside of the security fencing on both the Refused and Alternative Scheme within the Site and as such it is assumed that there would be no conflict between PRoW users on this route and maintenance vehicles accessing the Proposed Development (Refused and Alternative Scheme). Bridleway 209/74/1 would remain open during the operation phase of the Proposed Development. Footpath 209/43/1 would remain open and along its existing alignment flanked by a new hedgerow throughout the operational lifespan of the Proposed Development (Alternative Scheme). There would be no change to these landscape elements. With high sensitivity and a magnitude of effect of none, the significance of effect would be no change and not significant. Visual amenity is assessed below.

2.4.42 PRoW outside of the Site boundary would be unchanged during the operation of the Proposed Development.

Watercourses

2.4.43 The shallow swales and basin constructed during construction works would provide temporary storage/attenuation and/or intercept potential surface water run-off during the operational lifespan of the Proposed Development. With high sensitivity and a low magnitude of change, the significance of effect to drainage features and elements would be moderate beneficial and not significant.

Trees and Hedgerows

2.4.44 The trees, new lengths of hedgerow and hedgerow enhancement implemented at the construction phase would remain throughout the operational lifespan of the Proposed Development (Refused and Alternative Scheme); and would bring about major net beneficial, and significant effects upon the tree and hedgerow resource of the Site.

Landscape Character

2.4.45 With reference to the wider landscape, the degree of direct change to NCA 48 Trent and Belvoir Vales; RLCT 5b: Wooded Village Farmlands; LCA Mid Nottinghamshire; and Policy Zones 37, 38 and 39 arising from the operation of the Proposed Development (Refused and Alternative) would be limited due to the retention and maintenance of the landscape structure and scale of field patterns, hedgerows, and mature trees. With medium sensitivity and negligible magnitude of change, the significance of the effect upon these landscape character areas as a whole would be negligible and not significant.

2.4.46 Within the Site, the operational phase of the Refused and Alternative Scheme would introduce built form into agricultural fields, however, key character-defining landscape features including the well-defined pattern fields; hedgerows; and blocks of woodland plantation would be retained and enhanced. The perception of the gently undulating topography that defines the Site would also be retained with the layout of the panels following the contours. The magnitude of change is assessed as high, resulting in major adverse effects upon the landscape character of the Site at year 1.

2.4.47 By year 10 the existing trees and hedgerows across the Site will have continued to grow, and the proposed trees and hedgerows will have begun to mature and will have increased in stature. As a result, there would be a greater degree of visual and physical containment across the Site. The magnitude of change at year 10 will have reduced to moderate, resulting in moderate, not significant effects.

Night Time Character

2.4.48 During operation, permanent lighting within the Proposed Development would be limited to infrequent task lighting to the substation; the wider Site would not be lit. Effects would be temporary, indirect, and very localised. Overall, this would lead to negligible to no change magnitude of change to the night-time character. With high sensitivity and a negligible magnitude of change, the significance of effect on night-time character during operation at Years 1 and 10 would be negligible, and not significant.

Visual Receptors

Residents/Local Community

2.4.49 The following summarises the assessment and should be read in conjunction with **Appendix 2.3**.

2.4.50 No potential close, medium, or distant views were identified during desk studies and field surveys from residential properties at or in the following settlements:

- Southwell;
- Halloughton Wood Farm; and
- Thorney Abbey Farm;

2.4.51 For these settlements and properties of high sensitivity, there would be a magnitude of negligible to no change leading to a neutral significance of effect.

2.4.52 Potential views were identified for a limited number of residential properties, including Stubbins Farm and Stubbins Barn (partially represented by **Viewpoint 4**) and New Radley Farm (although it should be noted that New Radley Farm is owned by the same landowner who owns the land which will accommodate the Proposed Development). The Refused and Alternative Scheme during its operational phase would bring about a magnitude of change for residents at New Radley Farm resulting in moderate, not significant effects on residents with the opportunity to look out of top floor windows only. For residents, at Stubbins Farm, the magnitude of effect during the operational period of the Refused and Alternative Scheme would be negligible which translates into negligible not significant effects.

2.4.53 Where possible views from within Halloughton have been identified, the year 1 of the Refused and Alternative Scheme phase would bring about a low magnitude of change and moderate, not significant effects on residents looking out of their top floor windows only. By year 10 the effects associated with both the Refused and Alternative Scheme would bring about negligible and not significant effects.

PRoW

2.4.54 Recreational users of PRoW 209/74/1 that in pass through or locally to the Site would experience limited or partial views of the operational phase of the Proposed Development (refused and alternative Scheme). For users at **Viewpoints 1** and **2**, the effects assessed based on the Refused and Alternative Scheme would be negligible and not significant for years 1 and 10. PRoW users on the same route beyond the Site to the east (**Viewpoint 3**) would experience moderate, not significant effects based on the Refused Scheme. Based on the Alternative Scheme, PRoW users **Viewpoint 3** would experience no change to their current view at year 1. Users at **Viewpoint 3** by year 10 would experience negligible not significant effects based on the Refused Scheme and no change to their views based on the Alternative Scheme.

2.4.55 Further along PRoW 209/74/1 to the east (**Viewpoint 4**), partial views of the Proposed Development (Refused and Alternative) within the southern extent of the Site could be experienced resulting in a medium magnitude of change and a major, significant effect. As the proposed vegetation, which includes tree planting begins to mature the effects will reduce to moderate and not significant. Existing vegetation present along the boundary of the Site is anticipated to partially restrict views of the Proposed Development (Refused and Alternative) at **Viewpoint 5** based on the Refused and Alternative Scheme resulting in no change to the existing view at years 1 and 10.

2.4.56 The intervening landform in combination with existing vegetation which includes trees prevents views of the Proposed Development (Refused and Alternative Scheme) from the network of PRoW located beyond the Site to the northeast. **Viewpoint 6** is taken from a slightly elevated position on the Robin Hood Way and looks in a south-westerly orientation across the gently undulating landscape. Based on both the refused and Alternative Scheme built form within the Site would be screened from view, resulting in no change, not significant effects upon receptors at this location throughout the duration of the Proposed Development.

2.4.57 Localised views towards built form within the Site (based on the Refused Scheme) could be gained from parts of the slightly elevated sections of PRoW 186/3/1 (**Viewpoint 10**), resulting in moderate not significant effects at year 1, reducing to negligible and not significant by year 10. Based on the Alternative Scheme, effects on users would be negligible and not significant at year 1, reducing to no change by year 10, as a result of removing the built form from the field to the west of the existing northwest-southeast orientated tree belt.

2.4.58 Users of Cotmoor Lane Byway (**Viewpoint 12**) based on the Refused Scheme would experience moderate, not significant effects at years 1 and 10. As a result of the removal of built form from the field to the west of the existing northwest-southeast orientated tree belt. Effects assessed based on the Alternative Scheme are assessed as negligible and not significant at years 1 and 10.

2.4.59 Users travelling along much of the route of PRoW 209/42/1 where it passes in close proximity to the Site would have their views of the operational Proposed Development (Refused and Alternative) heavily restricted. At **Viewpoint 13**, the magnitude of change is assessed as no change which results in no change and not significant, effects at years 1 and 10.

2.4.60 Users of PRoW 209/43/1 as it passes in close proximity to the Site (**Viewpoint 14**), would have the opportunity to experience views of the Proposed Development (Refused and Alternative Scheme) local to the route. PRoW users would experience moderate, not significant effects at year 1, reducing to negligible and not significant by year 10.

2.4.61 Users of PRoW 209/43/1 as it passes through the Site (**Viewpoint 15**) would have the opportunity to experience views of the Proposed Development (Refused and Alternative Scheme) in the foreground of their view. Based on the Refused Scheme the effects would be major and significant for years 1 and 10. For the alternative Scheme, the effects upon users at **Viewpoint 15** are assessed as major and significant for year 1, prior to the establishment of the proposed planting, reducing to moderate and not significant by year 10.

2.4.62 Beyond the Site (**Viewpoint 16**) on PRoW 209/43/1 year 1 of the Refused scheme would bring about a low magnitude of change and a moderate, significant, effect at year 1, reducing to negligible at year 10. Effects associated with the Alternative Scheme would bring about no change to the existing view during years 1 and 10. Similarly, the operational phase of the Refused and Alternative Scheme would bring about no change

and not significant effects upon views from along PRoW 209/43/2 (**Viewpoint 17**) due to intervening vegetation.

2.4.63 In views from the elevated network of PRoW to the northwest of the Site (**Viewpoint 18**), views of the operational period of the Refused and Alternative Scheme are restricted by intervening landform and vegetation resulting in no change and not significant effects upon PRoW users at this location.

Road Users

2.4.64 The opportunity to gain views from roads within the vicinity of the Site are few due to intervening and roadside vegetation and landform, and in places, built form. For road users travelling along the unnamed road which runs between the A617, travelling north towards Southwell (**Viewpoint 7**), dense roadside vegetation in conjunction with a woodland plantation, which wraps around the eastern extent of the Site, restricts views of the operational phase of the Proposed Development (Refused and Alternative Scheme). The effects arising, as a result, are assessed as no change and not significant.

2.4.65 For road users passing in close proximity to the proposed access post-construction (**Viewpoint 8**), it is proposed that a traditional farm gate would be installed which would be in keeping with other farm gates in the vicinity of the Site. The security gate and security fencing would be set back from the road, obscured from view (Refused and Alternative Scheme). The view experienced by road users would be oblique and transient, with the farm gate occupying a comparatively small section of the existing roadside hedgerow. The main elements of the Proposed Development (Refused and Alternative Scheme) such as the panels would be sent back from this location (by approximately 140m) and would be screened from view. The effects on road users at this location at assessed as experiencing minor not significant effects at years 1 and 10.

2.4.66 From the minor road to the west of Halloughton serves Halloughton Wood Farm, based on the Refused Scheme, road users (**Viewpoint 11**) would have the opportunity to experience partial views of the proposed built form in the field to the west of the existing northwest-southeast orientated tree belt, resulting in minor not significant effects on road users at this location at year 1, reducing to negligible by year 10. Effects associated with the Alternative Scheme would be negligible and not significant at year 1, reducing to no change by year 10.

Views from within the churchyard of St James' Church

2.4.67 Views from within the churchyard (**Viewpoint 9**) towards the Site are filtered by both vegetation within the churchyard, which includes evergreen species, and field boundary vegetation. Years 1 and 10 of the Proposed Development (Refused and Alternative) would bring about a negligible and not significant effect upon visitors to the churchyard.

Views requested by Conservation Officer and Case Officer at Newark and Sherwood

2.4.68 For the additional viewpoints requested by the Case and Conservation, receptors at **Viewpoint A** would experience no change, not significant effects as a result of the associated with the operational phase of Refused and Alternative Schemes. PRoW users at **Viewpoint B** would experience negligible, not significant effects as a result of the operational phase associated with the Refused and Alternative Scheme.

2.4.69 **Viewpoint C** is recorded from within the walled grounds of Southwell Minster and as result, effects associated with the operational phase are assessed as no change and not significant.

Decommissioning

2.4.70 It is anticipated that decommissioning would be a reversal of the construction phase, comprising similar construction plant, traffic, and activities as the arrays, fencing etc. are dismantled. The substation would be retained, but all other materials and structures would be removed, and the Site would be 'made good' and returned to pre-development agricultural uses. All existing healthy mature trees and hedgerows would be retained and be managed to maintain these landscape features which positively contribute to the landscape character. The Site will be subject to hedgerow and tree planting as part of the Proposed Development. Over 40 years both hedgerows and trees will mature and will be in keeping with the character of the locality and will not be alien in character and appearance terms. As such they will reinforce local character and leave a beneficial legacy beyond the lifetime of the project. This vegetation would have a beneficial effect in landscape and visual terms. With regard to trees, there would be a medium magnitude of change and a high sensitivity would result in a major beneficial effect on the tree resource. Regarding hedgerows given the high sensitivity and a medium magnitude of change would result in a major beneficial degree of effect.

2.4.71 Regarding the substation, this would remain as part of the National Grid distribution network infrastructure. This forms a small area of infrastructure. In character terms, given the character areas are of medium sensitivity with a negligible magnitude of change and given its location and context would result in a negligible (not significant) degree of effect in landscape terms.

2.4.72 In visual amenity terms, the substation would form a very small element in local views. Given a high sensitivity for residential receptors and negligible magnitude of change, would result in a negligible (not significant) degree of visual effect.

2.5 MITIGATION AND ENHANCEMENT

Mitigation by Design

2.5.1 Mitigation embedded in the proposed development includes the use of the existing agricultural access track, selection of low-level solar arrays (3m AGL), deer fencing, and retention of existing hedgerows and trees around and within the boundary of the Site. with CCTV cameras at 3m in height positioned inside and around the Site to provide security, thus removing the need for, and mitigating potential visual and landscape effects of CCTV cameras mounted at a high level (>4m high) poles.

2.5.2 The proposed substation is to be sited adjacent to an existing pylon on the Site, using the established tree belts as a visual screen.

2.5.3 Further mitigation and enhancement are proposed, which would include:

- Hedgerow field boundaries internally and around the periphery of the Site would be retained, and where necessary infilled with native species to enhance and strengthen the local landscape character.
- Trees within the Site along field boundaries would be retained and protected to provide structure to the landscape and, to help in filtering views from publically accessible locations across the wider landscape.
- A new native hedgerow with trees is proposed along the part of the far western extent of the southern boundary of the Site, to help mitigate any potential views from locations to the south-southwest of the Site including residential properties, roads, and PRoW users in and around the village of Halloughton.
- The existing boundary vegetation situated adjacent to the route of PRoW 209/74/1 is to be retained and infilled.

- Internal access tracks have been designed to utilise existing gateways and farm tracks wherever possible to minimise the need for localised hedgerow removal.
- The battery units within the Site are located on the periphery of the fields to benefit from a level of screening provided by existing field boundary vegetation to minimise visual impact.
- Planting of additional areas of native hedgerows with trees within them will be planted along the northern boundary of the Site adjacent to the existing PRoW (209/43/1);
- Fencing and solar panels pulled back from the northernmost field, to facilitate the 're-wilding' of this area (adjacent to PRoW 209/43/1); and
- Reinforcement of existing hedgerows with a belt of trees on the south-westernmost corner of the Site.

2.5.4 Compared to other power generation technologies, solar development installations can be easily and economically decommissioned and removed from the Site at the end of their economic life. Consequently, the panels are ephemeral in nature and could be removed from the Site with negligible residual landscape or visual effects. The Site could therefore be returned to its original condition, with only the substation remaining on the Site. However, the landscape enhancement measures outlined above would remain, providing long-term benefits to the local landscape character of the area

2.6 SUMMARY

2.6.1 This assessment has considered the potential significant effects of the Proposed Development on the existing landscape character, landscape components and features, and visual amenity. The Proposed Development (Refused and Alternative Scheme) would be located on agricultural land and would introduce solar farm renewable energy infrastructure into the landscape. The Proposed Development would retail the scale and pattern of the existing landscape.

2.6.2 The Proposed Development (Refused and Alternative Scheme) has been sensitively sited and designed by locating the development in such a position where the number of potential visual receptors is limited where views of the full extent of the solar farm would not be possible from any single location; the proposed height of the development would be limited to 3m in the main; the Proposed Development would retain and enhance the existing hedgerows and hedgerow trees that screen the Site and maintain field patterns that contribute to local character. The grassland and introduced were previously arable and managed as a wildflower meadow. Managing existing and proposed hedgerows, trees, grassland and meadow to make a positive contribution to the overall green infrastructure and ecological networks of this part of the Nottinghamshire landscape.

2.6.3 The Proposed Development (Refused and Alternative Scheme) would not materially affect the sense of tranquillity or other perceptual elements associated with the local countryside in terms of noise and activity, throughout the operation phase. There will be some limited affect upon tranquillity during the construction and decommissioning phases but it would be limited and localised.

2.6.4 The Proposed Development (Refused and Alternative Scheme) also presents opportunities to deliver enhanced landscape interest by converting land used for arable farming to pasture and managing it in such a way as to promote biodiversity in line with the guidelines for the Wooded Village Farmlands RLCT.

2.6.5 With regards to landscape character as a whole at a national, regional, and local level, the Proposed Development (Refused and Alternative Scheme) would have a relatively localised and time-limited effect upon the landscape. There would be a negligible

effect upon the landscape character beyond the Site. Within the Site, the fieldscape character would continue to remain but would incorporate the solar farm.

2.6.6 In terms of visual amenity, there would be no one location where the totality of the Proposed Development can be appreciated. The Proposed Development can only be observed from a very limited number of viewpoint locations associated with the extensive Public Right of Way network. Where the Proposed Development is visible only small elements of the proposal would be evident and would generally form a small element in any view. The geographical extent of any visibility would be very limited and localised.

2.6.7 As a result of the amendments that have been made to the Proposed Development between the Refused and Alternative Scheme, there would be reduced visual effects upon receptors at several viewpoints including users of PRoW 209/74/1 at Viewpoint 3; users of PRoW 186/3/1 at Viewpoint 10; users of the local road to the west of Halloughton at Viewpoint 11; users of Cotmoor Lane Byway at Viewpoint 12 and; users of 209/43/1 at Viewpoints 15 and 16.